



**AMERICAN COOLAIR
CORPORATION**



COMMERCIAL, INDUSTRIAL & ILG INDUSTRIES DIGITAL CATALOG

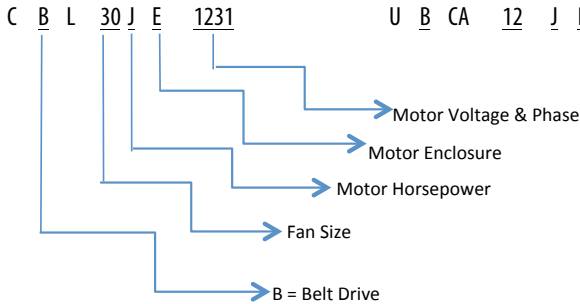
Propeller & Axial Products

Centrifugal Products

www.COOLAIR.com

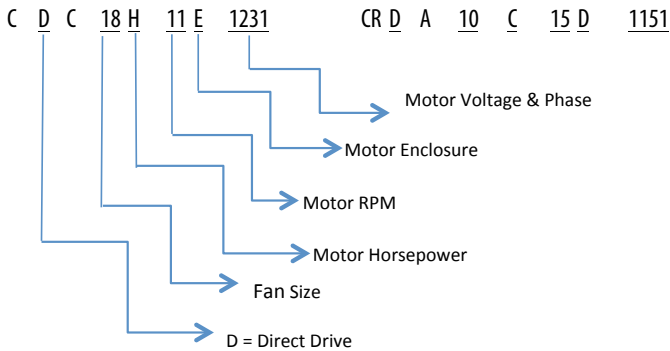
Model Nomenclature

AXIAL FANS



CENTRIFUGAL FANS

U B CA 12 J D 1231



MOTOR ENCLOSURES

D = ODP
E = TEFC OR TEAO
X = TEXP
\$ = ENERGY EFFICIENT
DD = DIRTY DUTY MOTOR
CP = CHEMICAL PROCESS

VOLTAGE SPECIFIC / WIRED DS

1151 = 120v 1ph
2081 = 208v 1ph
2083 = 208v 3ph
2301 = 230v 1ph
2303 = 230v 3ph
2771 = 277v 1ph
3803 = 380v 3ph
4603 = 380v 3ph
5753 = 575v 3ph

VOLTAGE CODES - MOTOR LESS DS

1231 = 115/230v 1ph MOTOR (MOST ARE GOOD FOR 208V)
1831 = 118/208/230v 1ph
8363 = 208/230/460V 3ph
2463 = 230/460v 3ph

GENERAL RULES

- 1/4Hp to 1.5Hp motors can be priced 1 or 3 phase. 2Hp are 3ph and above, single phase special quote
- Small horsepower motors in direct drive will generally be voltage specific & most of these motors are only available in 115v
- 380v & 277v motors will require special quotes

MOTOR HORSEPOWER

1/25	A
1/20	B
1/13	C
1/12	D
1/10 & 1/8	E
1/6 & 1/5	F
1/4	G
1/3	H
1/2	J
3/4	K
1	L
1 1/2	M
2	N
3	P
5	Q
7 1/2	R
10	S
15	T
20	U
25	V
30	W
40	X
50	Y

MOTOR NUMBER

1231 = Single phase no disconnect switch
1151 = Single phase disconnect switch wired for 115v
2081 = Single phase disconnect switch wired for 208v
2301 = Single phase disconnect switch wired for 230v
8363 = Three phase no disconnect switch
2083 = Three phase disconnect switch wired for 208v
2303 = Three phase disconnect switch wired for 230v
4603 = Three phase disconnect switch wired for 460v
5753 = Three phase disconnect switch wired for 575v

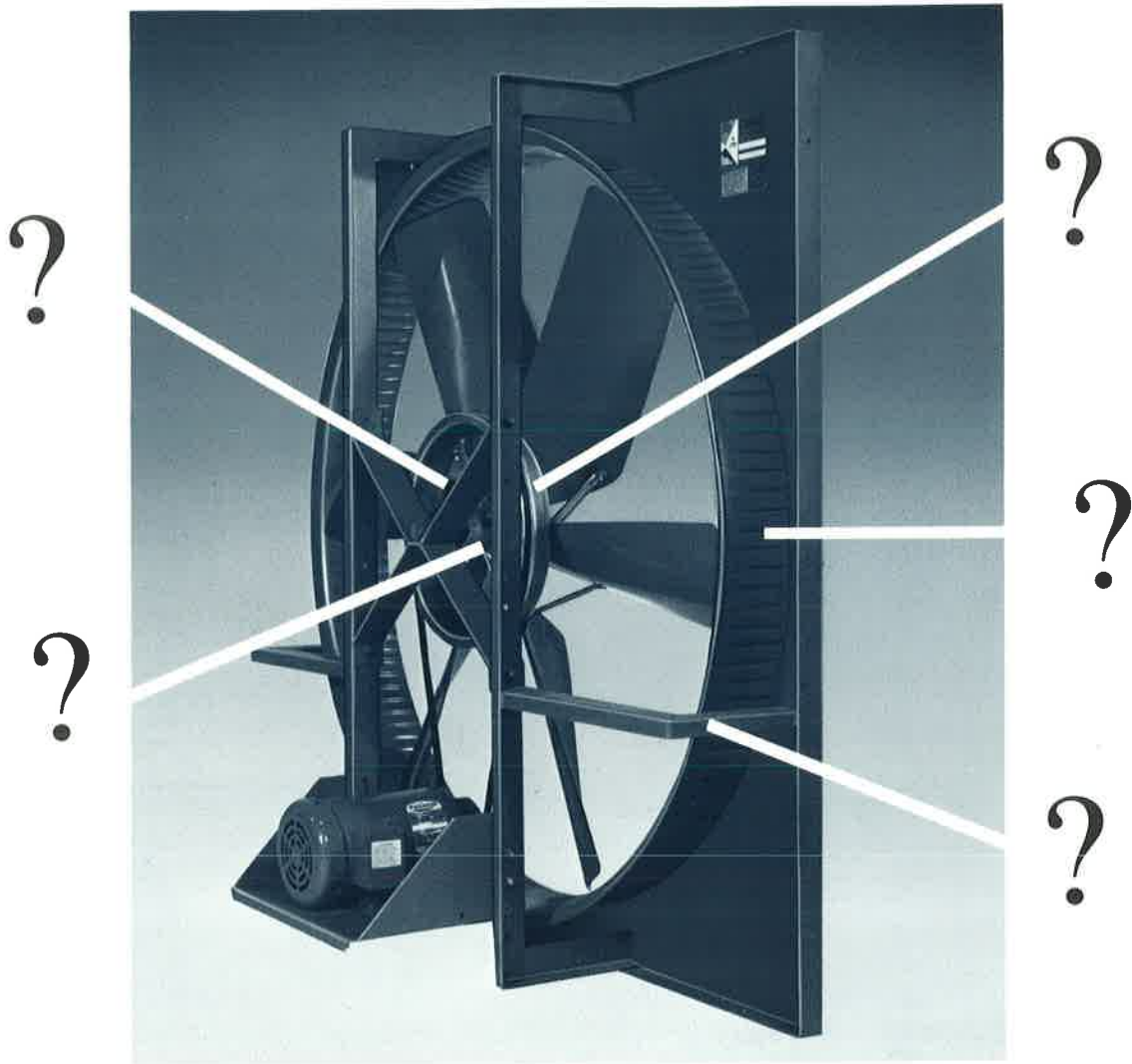
LETTER NUMBER

V1 = 115v 1 ph
V2 = 208v 1 ph
V3 = 230v 1 ph
V4 = 208v 3 ph
V5 = 230v 3 ph
V6 = 460v 3 ph
V7 = 600v 3ph
V8 = 380v 3 ph
V9 = 115/230v 1 ph
V10 = 208/230/460v 1ph
V11 = 115/208/230v 1 ph
V12 = 240/460v 3ph
V13 = 230/400v 50Hz



Ventilation engineers explain:

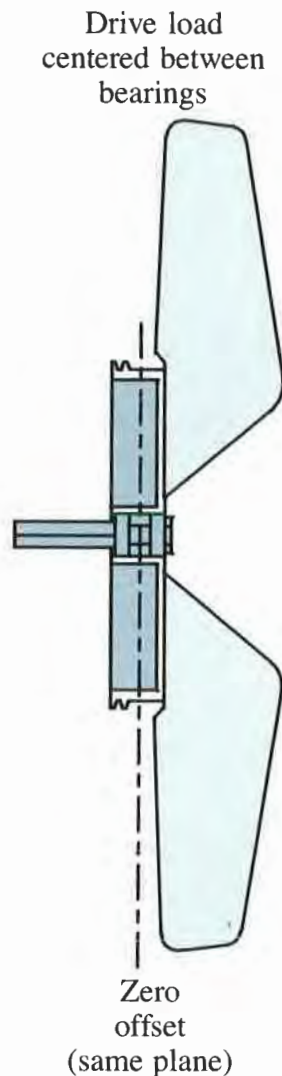
What to look for in a commercial or industrial fan



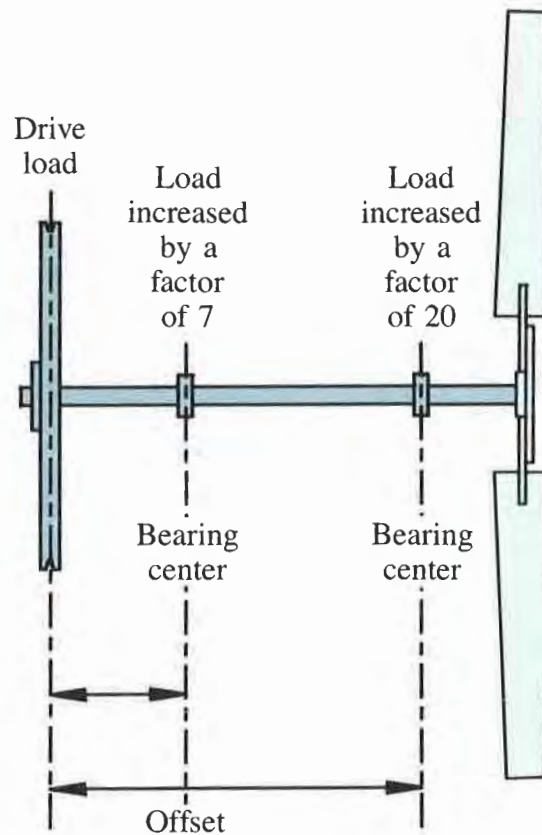
As you know, fans for a given application are similarly priced. Differences in value only become apparent after years of use. That is when poor design and cost cutting “tricks” begin to rob you of fan life.

How radial loading affects fan life

Radial bearing loading is the largest factor in fan life—especially in wall fans. This is because radial loading directly affects bearing life. Radial loading is *minimized* when the drive load is in the same plane as the bearings. Radial loading is *multiplied* dramatically as the load is offset from the bearings. This relationship is usually expressed as L_{10} hours life—a good indicator of the useful life of the bearing—a fan’s most critical component.



American Coolair design as used on Type CBL/CBH/CBHX fans



Typical arrangement found in most fans

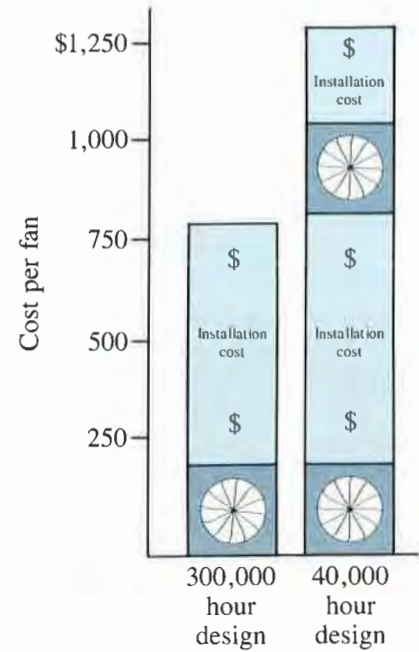
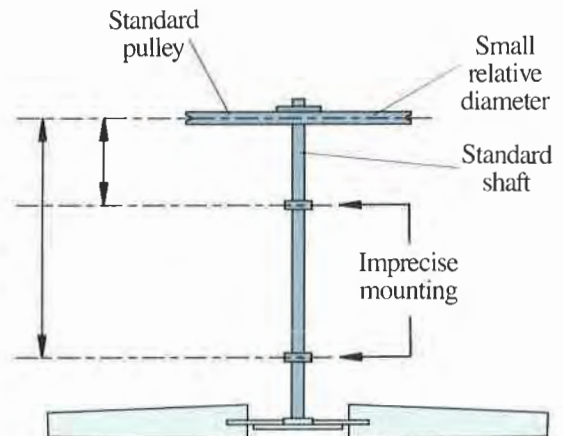
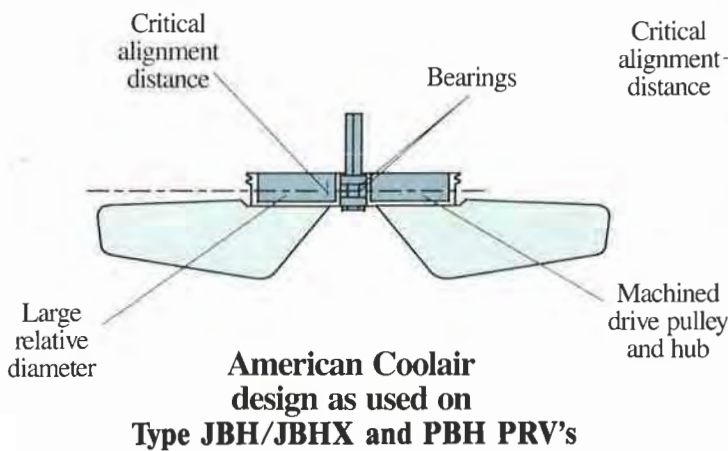
The American Coolair bearing/load arrangement will last at least 7½ times longer based on L_{10} life calculations.

A difference of 7½ times

As an example, the zero offset bearing/load arrangement on American Coolair CBL/CBH/CBHX wall fans has a minimum L_{10} life of 300,000 hours, 7½ times that found in most offset bearing/load arrangements. In this case the American Coolair fan would last 7½ times longer based on L_{10} life alone.

How drive design affects fan life

Drive design has a direct impact on fan life. A design that uses much larger drives or driven pulley diameters ensures longer belt life—typically twice that of designs using smaller drives or driven pulley diameters. Also the ability to align all components precisely is affected by the distance between bearings. The difficulty of proper alignment increases exponentially as the *distance between bearings* increases.



To obtain the same L_{10} life as you would get from an American Coolair designed fan (such as CBL/CBH or CBHX type fans) you would have to replace a comparable fan at least once under normal circumstances.

The difficulty of proper drive alignment increases exponentially as the distance between bearings increases.



Machined and fitted parts ensure precise alignment.

Machined components are a critical difference

Another factor affecting alignment is proper fit of component parts such as the shaft, bearings, bearing mounting, and pulley. Some fan manufacturers purchase and assemble these parts without providing for a machined fit. This can greatly increase bearing load due to imperfect alignment, or worse, components may shift and cause binding between parts. These problems can be avoided with *machined and fitted components*, as used in American Coolair Type JBH/ JBHX Upblast and Type PBH Hooded Power Roof Ventilators, as well as CBL/H/X wall fans.

How blade assembly design affects fan life

The blade assembly is one of the hardest-working parts of a fan or PRV. This assembly is subjected to conditions that encourage vibration and in turn can reduce fan life.

When blades are mounted on spider type arms, support is minimal and vibration problems can increase. For this reason, American Coolair hubs incorporate a *circular support* that increases blade assembly rigidity by a factor of at least two.

The difference is a factor of at least two

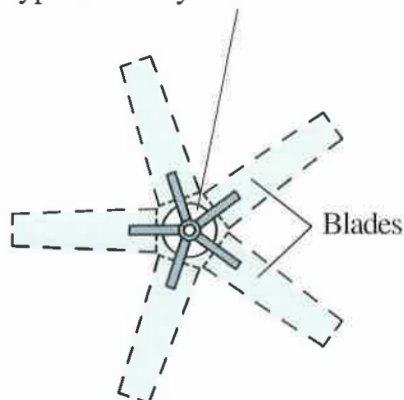
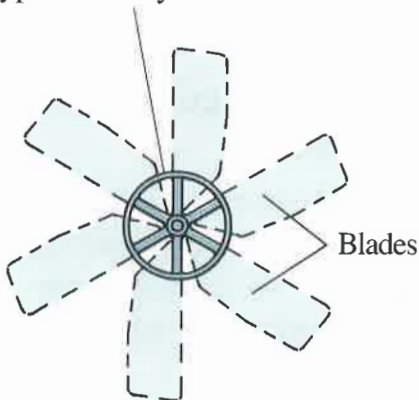
Blade alignment and blade rigidity also affect the potential for vibration. For this reason, *bolted blades of heavy gauge* are the most reliable. Welded blades are difficult to align properly, and riveted blades lack strength.

American Coolair blades are die formed and machined from fourteen gauge high strength steel rather than the lighter, more commonly used sixteen gauge material. Plus, American Coolair blades are bolted to hubs which have been cast from aluminum using permanent molds.

Based on these factors alone, the American Coolair blade assembly should provide twice the life of comparable assemblies.

Hub type assembly—bolted blades

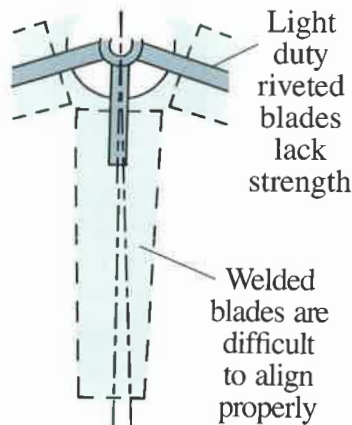
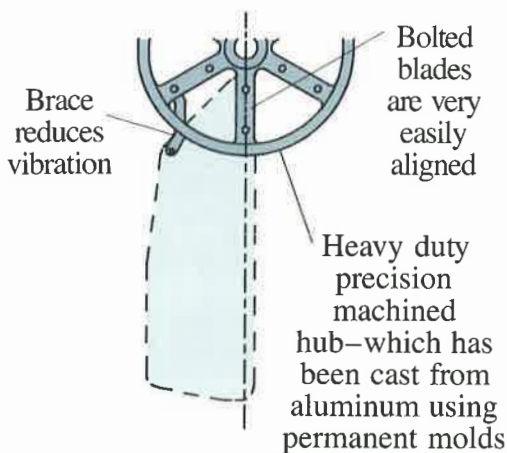
Spider type assembly—welded or riveted blades



American Coolair design hub

Spider design found on comparable fans

The American Coolair fan hub design has at least twice the rigidity as comparable spider type designs. Increased rigidity reduces vibration potential.



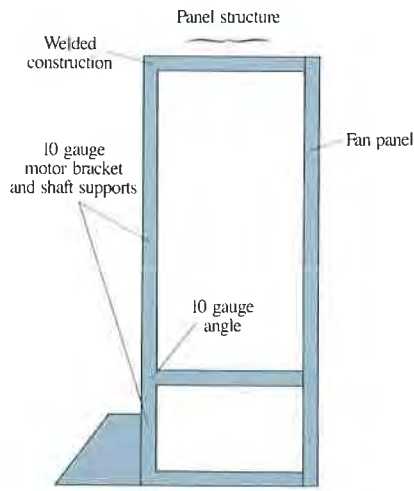
American Coolair Design

Typical design found on comparable fans

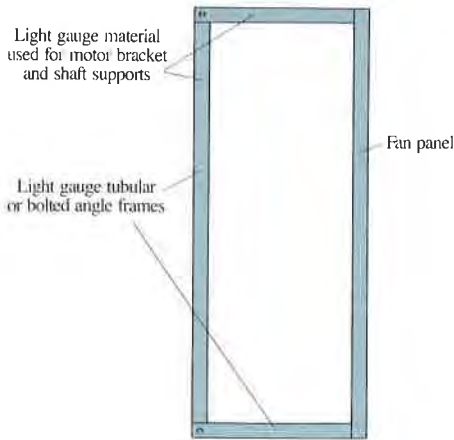
Fan blades are bolted to the rigid hub, creating a more reliable fitup.

How panel structure affects fan life

The panel structure of a wall fan or PRV directly impacts the overall rigidity of the unit. This in turn affects its propensity to vibrate. A rigid welded ten gauge angle frame with minimum ten gauge motor brackets and shaft supports provides greater rigidity and longer life than tubular frames or bolted angle frames.



American Coolair frame design



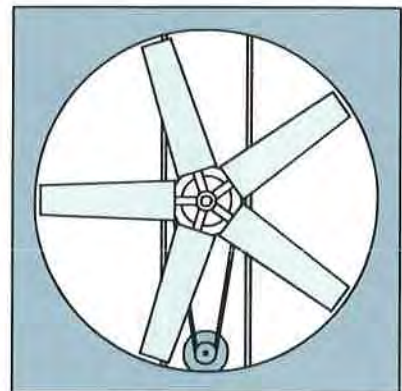
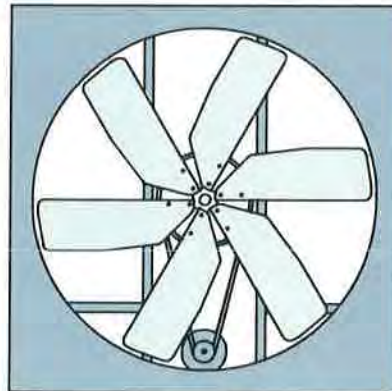
Typical frame design found on comparable fans

Welded heavy angle construction makes the difference

In addition, panel structure is often subjected to *corrosive environments* that quickly take their toll on lighter gauge material. This can lead to the early retirement of the unit.

American Coolair uses welded heavy angle construction for all panel elements.

A rigid welded ten gauge angle frame with ten gauge motor brackets and shaft supports provides greater rigidity and longer life than tubular frames or bolted angle frames.



**115 lbs.
American Coolair**

**80 lbs. or less
Comparable fan**

Simply weighing comparable fans will expose light gauge structural material.

How paint finish affects fan life

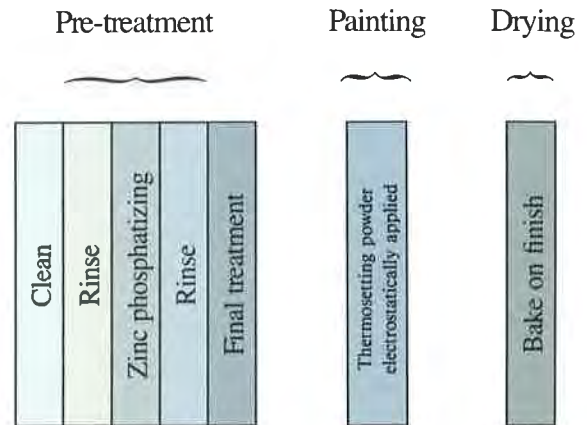
An effective paint finish begins with proper cleaning and pretreatment—any finish is limited by the bond it establishes at the surface of the fan. Then a continuous quality coating must be properly applied—experts agree that electrostatically applied thermosetting epoxy coatings are superior to conventional liquid painting. Finally the finish must be baked on rather than air dried if acceptable levels of finish hardness are to be achieved.

Independent salt spray tests prove the difference

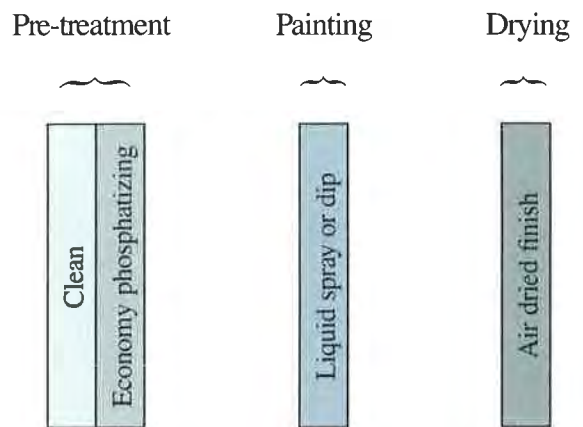
The cleaning and pretreatment stage is sometime minimized or omitted because it is an “invisible” cost-cutting trick—at least at first glance. This is unfortunate because it is perhaps the most critical step toward adequate corrosion protection.

American Coolair uses a five stage cleaning and zinc phosphatizing pretreatment. This step is followed with an electrostatically applied thermosetting epoxy coating which is then baked on rather than simply air dried.

When this process is compared with the short cut finishes offered on some fans, the difference in corrosion resistance is dramatic.



The American Coolair finish system



The “short-cuts” system like those used on some comparable fans

The cleaning and pretreatment stage is sometimes minimized or omitted because it is an “invisible” cost-cutting trick—at least at first glance.

**Fans cost about the same to buy
and install, but there's a big
difference in value**



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DIGITAL CATALOG INDEX
PROPELLER AND AXIAL PRODUCTS
EFFECTIVE MAY 2020

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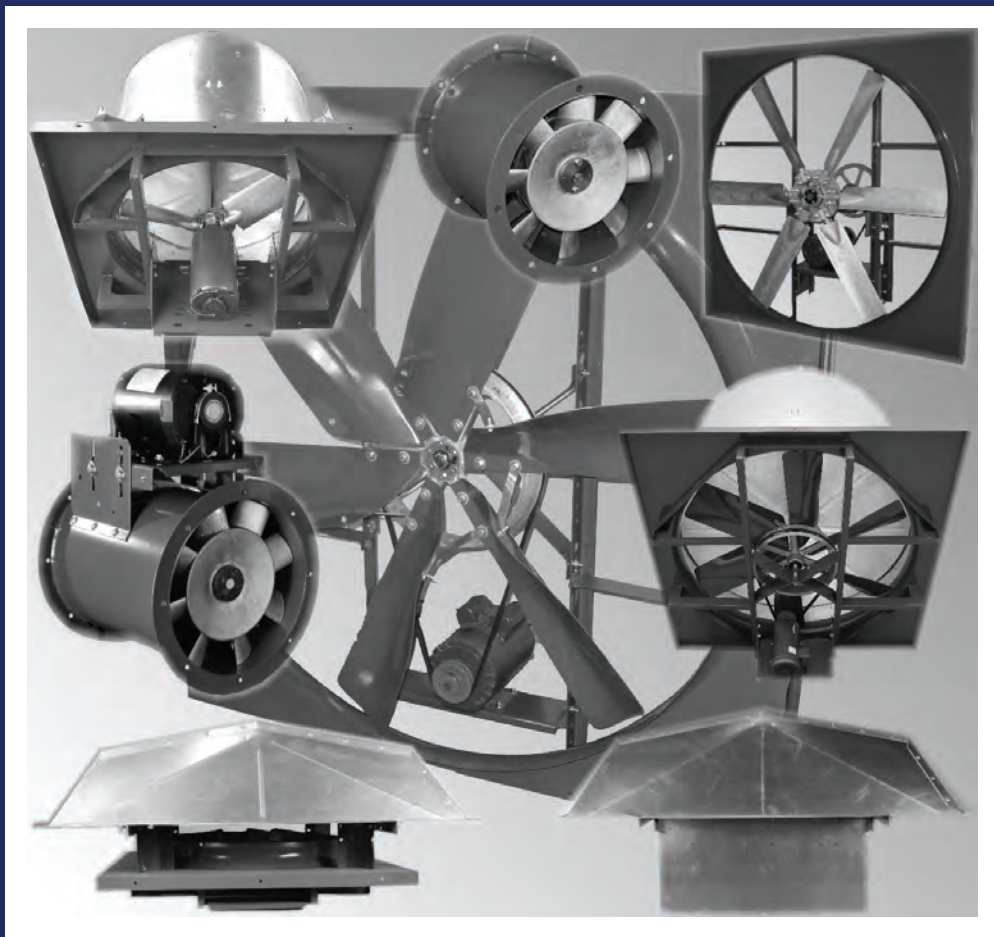
AXIAL ROOF VENTILATORS

760-15-2 SASD & SAED SPUN AXIAL VENTILATOR BROCHURE

SUBMITTALS, OPERATION & MAINTENANCE AND OTHER FAN AND PRV DATA CAN BE FOUND AT WWW.COOLAIR.COM

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Propeller Fans Axial Fans Roof Ventilators



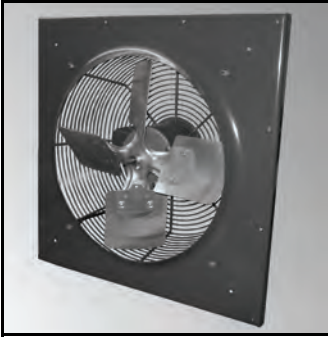
PROPELLER WALL FANS



CBA - CBL - CBH - CBHX

Belt Drive

Sizes: 18" to 60"
 CFM: 2,500 to 58,800
 Static: Through 3/4"
 AMCA licensed for Sound and Air



CDP - Direct Drive

Sizes: 7" to 18"
 CFM: 330 to 3,200
 Static: Through 1/4"
 AMCA licensed for Sound and Air

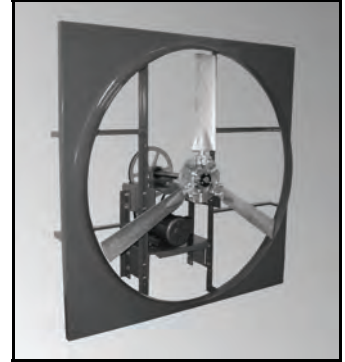


CDC - Direct Drive

Sizes: 18" to 60"
 CFM: 1,600 to 61,000
 Static: Through 3/4"
 AMCA licensed for Sound and Air

CBC - Belt Drive

Sizes: 24" TO 84"
 CFM: 4,400 TO 118,000
 Static: Through 3/4"
 AMCA licensed for Sound and Air



CDU - Direct Drive

Sizes: 12" TO 24"
 CFM: 900 TO 6,500
 Static: Through 1/2"
 AMCA licensed for Sound and Air



AXIAL DUCT FANS

Tube Axial



TBC - Belt Drive

Sizes: 18" to 84"
 CFM: 1,500 to 107,000
 Static: Through 2"
 AMCA licensed for Air

TEBC - Belt Drive

Sizes: 18" to 60"
 CFM: 2,600 to 52,000
 Static: Through 1-1/4"
 AMCA licensed for Sound and Air

TEBH - Belt Drive

TEDH - Direct Drive

Sizes: 12" to 24"
 CFM: 700 to 10,800
 Static: Through 1-1/4"

TDC - Direct Drive

Sizes: 18" to 60"
 CFM: 2,000 to 78,000
 Static: Through 2"
 AMCA licensed for Air

Vane Axial



VA - VAD

Direct Drive

Sizes: 6" to 18"
 CFM: 210 to 7,200
 Static: Through 2-1/2"
 AMCA licensed for Sound and Air



VAB

Belt Drive

Sizes: 12" to 18"
 CFM: 1,000 to 6,400
 Static: Through 2-1/2"
 AMCA licensed for Sound and Air

UPBLAST ROOF VENTILATORS



JBH - JBHX

Belt Drive

Sizes: 24" to 60"
 CFM: 5,600 to 57,000
 Static: Through 5/8"
 AMCA licensed for Sound and Air

JBC - Belt Drive

Sizes: 24" to 84"
 CFM: 5,600 to 118,000
 Static: Through 3/4"
 AMCA licensed for Sound and Air

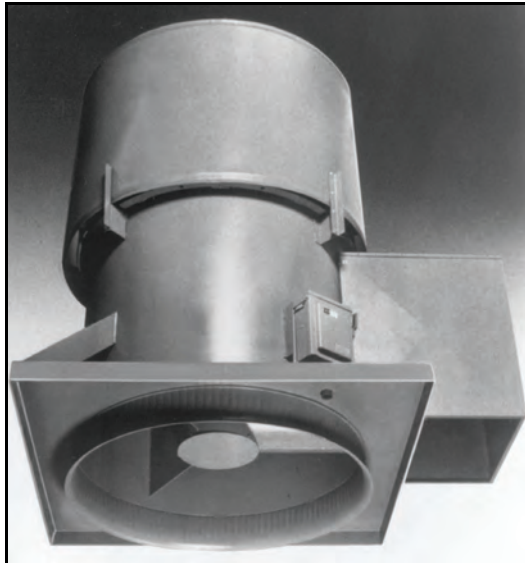


JDC - Direct Drive

Sizes: 18" to 60"
 CFM: 2,500 to 55,000
 Static: Through 3/4"
 AMCA licensed for Sound and Air

HS - Belt Drive
Heat & Smoke Ventilator
 Sizes: 18" to 84"
 CFM: 2,300 to 99,000
 Static: Through 5/8"
 AMCA licensed for Air
UL Listed for Smoke Control
(UL793)

HSE - Belt Drive
Heat & Smoke Ventilator
 Sizes: 18" to 60"
 CFM: 2,400 to 48,000
 Static: Through 5/8"
 AMCA licensed for Air and Sound
UL Listed for Smoke Control
(UL793)

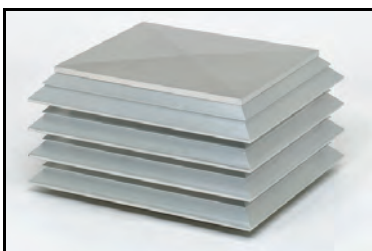


JTBC - Belt Drive
 Sizes: 18" to 84"
 CFM: 2,500 to 97,000
 Static: Through 1"
 AMCA licensed for Air

JTDC - Direct Drive
 Sizes: 18" to 60"
 CFM: 2,500 to 56,000
 Static: Through 1"
 AMCA licensed for Air

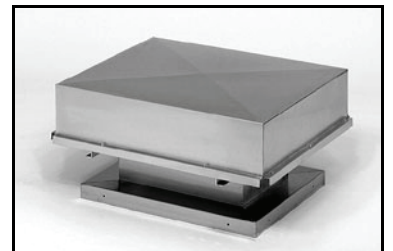
JTEBC - Belt Drive
 Sizes: 18" to 60"
 CFM: 2,500 to 51,000
 Static: Through 1"
 AMCA licensed for Sound and Air

GRAVITY ROOF VENTILATORS

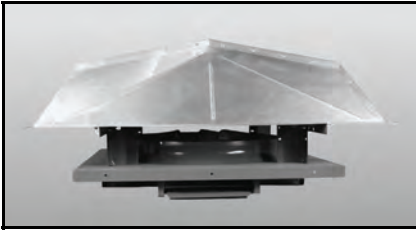


LVX - LVN
Louvered Penthouse
Exhaust/Intake
 CFM: 1,500 to 104,000

TEV/TIV
Trimline Vent
Exhaust/Intake
 CFM: 1,300 to 77,000



HOODED ROOF VENTILATORS



PBH - PBHX - PBC

Belt Drive Exhaust

Sizes: 24" to 84"
CFM: 3,500 to 85,000
Static: Through 3/4"
AMCA licensed for Sound and Air

PDC

Direct Drive Exhaust

Sizes: 24" to 60"
CFM: 2,900 to 39,000
Static: Through 3/4"
AMCA licensed for Sound and Air



PEBH - PEBHX - PEBC

Belt Drive Exhaust

PSBH - PSBHX - PSBC

Belt Drive Supply

Sizes: 24" to 84"
CFM: 3,000 to 106,000
Static: Through 3/4"
AMCA licensed for Sound and Air

PEDC - PEUD

Direct Drive Exhaust

PSDC - PSUD

Direct Drive Supply

Sizes: 10" to 60"
CFM: 470 to 47,000
Static: Through 3/4"
PEDC & PSDC are
AMCA licensed for Sound and Air



PSBHF - PSBHXF - PSBCF

Belt Drive Filtered Supply

Sizes: 24" to 72"
CFM: 3,000 to 49,000
Static: Through 3/4"

PSDCF - PSUDF

Direct Drive Filtered Supply

Sizes: 10" to 60"
CFM: 460 to 45,000
Static: Through 3/4"

Reversible Units



REBC - Belt Drive REDC - Direct Drive Recirculation/ Exhaust

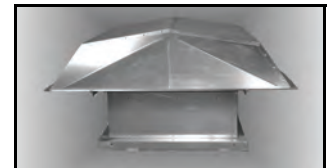
Sizes: 24" to 60"
CFM: 4,500 to 48,000
Static: Through 1/2"



RESBC Belt Drive RESDC Direct Drive Recirculation/ Exhaust/Supply

Sizes: 24" to 60"
CFM: 2,600 to 40,000
Static: Through 1/2"

**Filtered Units
Available**



RPBC - Belt Drive RPDC - Direct Drive Exhaust/Supply

Sizes: 24" to 60"
CFM: 2,500 to 40,000
Static: Through 3/4"

OTHER PRODUCTS AVAILABLE

Mancooler Fans - Power Tube Fans - Metal Building Fan Packages -
Shutters - Roof Curbs



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REPRESENTED BY:

Industrial & Commercial Ventilation Handbook



Foreword

This handbook IS NOT intended to be a textbook that covers the entire field of heating, ventilation and air conditioning. It is not designed to treat the many specialized uses for which ventilating equipment is needed in industrial and commercial buildings. It does not discuss fans or blowers specifically designed for use in the processing of materials and other production operations within a plant. It does not offer information on the design of high pressure, ducted air circulation systems common to modern office buildings and similar structures.

This handbook IS to serve a much more elementary field of ventilation. Its principle value will be to those responsible for the health and comfort of individuals located in a building without air conditioning, especially buildings with no satisfactory alternative system for the ventilation and cooling of its occupants.

Equipment and service

Illustrations of the basic equipment needed in an American Coolair Breeze Conditioning System are found in this handbook. Use of this American Coolair equipment is recommended for reliable performance and low maintenance service. American Coolair has a nationwide system of sales offices with factory-trained engineers ready to assist you in system design, equipment selection and installation. The location and telephone number of these American Coolair sales offices are found in the yellow pages of your local telephone directory. In addition, the American Coolair factory in Jacksonville, Florida is always ready to provide information or service you may need.

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The human environment

Humans are warm blooded animals whose normal body temperature is 98.6° Fahrenheit. However, we are most comfortable when the air temperature around us is in the 72°-to-78° range. If there is air motion around us, the effect of "wind chill", or evaporative cooling, enables us to feel comfortable in a much higher air temperature.

As the natural air temperature in most non-air conditioned buildings is much warmer than outside air temperatures, the problem of keeping humans comfortable is primarily a cooling problem. Of course, this is not the case in periods of very cold weather.

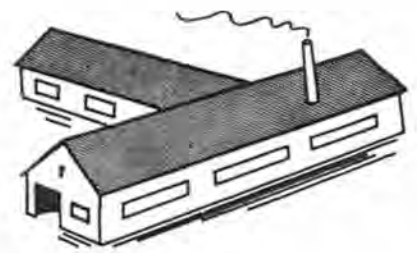
Our purpose is to discuss the environmental problems that frequently exist in periods of moderate to hot weather. An effective, economical solution of these problems is vital to the success of any business.

The problem of personnel discomfort

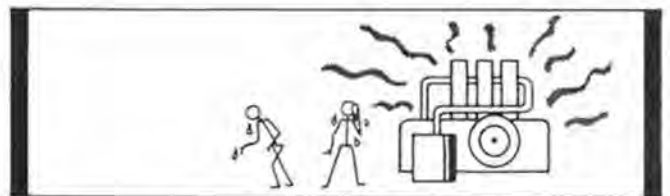
Almost any individual who finds himself in a situation or location that produces a feeling of discomfort quickly seeks relief from the problem. If there is no convenient solution to his discomfort, he may react in a number of ways. Invariably, the discomfort and his reaction to it has an adverse effect on his attitude, behavior and general efficiency in his job or responsibility.

In almost any building or room used for commercial and industrial operations, it is quite likely that there are recurrent conditions that cause personnel discomfort. This is particularly true unless an expensive system for the circulation of refrigerated air (air conditioning) has been provided. In mild to hot weather, the discomfort of individuals is generally due to the build-up of intense heat within the structure. This becomes a severe problem in summer because the sun load on the building is added to the normal sources of heat build-up within the building. Most buildings have sufficient ventilation to remove smoke and fumes detrimental to health. However, it is unlikely that that system contributes very much toward the comfort of the individuals who occupy the room or building.

If an individual is to produce maximum results, he must be allowed to function in an environment as nearly ideal as can be provided. In fact, the benefits in terms of efficiency and productivity can be substantial. Failure to provide a comfortable environment can be very expensive in terms of errors, work slow-down, complaints, absenteeism, etc. If the major factor is a hot, humid atmosphere, which may include smoke, dust, fumes or other irritants, a practical and effective approach to the problem is available.



Heat Source—Sun load on building



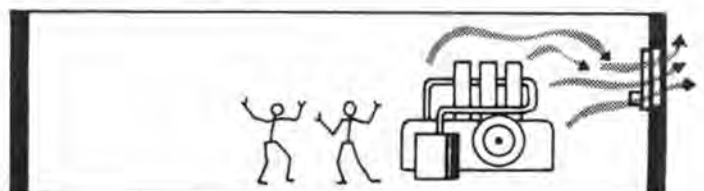
Heat Source—Production machinery and operations

A practical approach

To obtain a reasonable degree of personnel comfort in hot weather, there are three basic factors that should be provided for in the ventilation and cooling system of a commercial or industrial building.

Removal of excessively hot air

When the air temperature in the occupied area of a room or building exceeds 78° to 82°, most individuals begin to feel uncomfortably warm. The first step toward controlling the problem is to provide for the removal of excessively hot air from the building. This superheated air frequently mixes with the air in cooler areas of the building to produce an overall temperature increase. As superheated air is frequently localized around heat-producing machinery, it should be exhausted from the building near its source. This will prevent some undesirable air temperature increase in other areas.



Exhaust the superheated air

Supply cooler air

As a rule, outside air temperatures are considerably cooler than those inside a building. As superheated air is exhausted, provision should be made to replace it with fresh, cooler, outside air. Exhaust air in many areas of a building may have a temperature of 125° to 150°. This is usually the case where heat-producing machinery is in use. Similar air temperatures frequently occur near the roof or ceiling where rising warm air is trapped and further heated by the sun load on the roof.

When this high temperature air is replaced by outside air, a substantial improvement in the average air temperature of the building results. Even where outside air temperature may be in the 80s or 90s, invariably it is 15° to 20° cooler than the air it replaces. This is a very important improvement to the individuals affected.

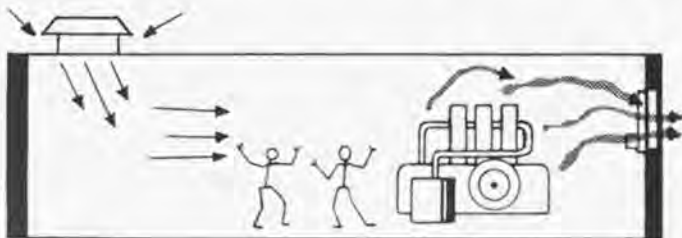


Supply cooler, fresh air

Breeze conditioning

A very effective way to overcome the discomfort of a hot, stuffy room is to create a breeze. Before refrigerated air systems were invented, mechanical fans of every description were used to provide air circulation.

The circulation of air over a person's body immediately causes a cooling effect on the skin. When air is passed over a moist surface, it will evaporate some of the moisture and thus lower the temperature of the surface. This is precisely what occurs when air circulates across the human body.



Create a breeze

By creating a gentle breeze throughout a room or area, a great deal of cooling comfort is provided for individuals who must work there. This pattern of air circulation is called "breeze conditioning" by American Coolair engineers. It is effective even when the air temperature may be 85° to 95°. When this air circulation is achieved in combination with the factors mentioned in the paragraphs above, a very effective and practical solution is provided for the problem of personnel discomfort in hot weather.

Benefits

A work stoppage or strike may occur if the problem of personnel discomfort is unresolved. The benefits from a solution to such a situation are enormous. In plants where there is a high density of employees and many manual operations involved, an improvement in the environment can produce substantial benefits in terms of increased production, reduced errors, and a decline in complaints and absenteeism among employees. In other circumstances, the attentiveness of an audience or student group may be a factor that spells success or failure for the project.

There is an American Coolair case history where a high ambient temperature had actually reduced the capacity of a big power turbine. To obtain rated performance by the machine, an improvement in the room ventilation and cooling system was necessary. When this was accomplished, the plant management was amazed to find an equivalent improvement in the efficiency of the employees who were required to work in this same environment with the machine.

Available cooling methods

The three basic considerations outlined in **A practical approach** should be used as yardsticks to evaluate the methods of cooling being considered to solve the personnel discomfort problem. Commonly available methods that should be considered are:

Exhaust fans or Power Roof Ventilators (PRVs)

Almost every building has some type of ventilators to vent hot or contaminated air from the structure. As a rule, this equipment is inadequate for anything more than safeguarding the health of the occupants. In some cases, it does an inadequate job of this.

To do a satisfactory job of eliminating excessively hot air, it is usually essential to have powered wall and/or roof exhausters. These fans should also help to control air pressure within the building whether it be negative or positive pressure.

The most effective way to incorporate wall or roof exhausters into a system will be discussed in the sections that follow.



Propeller Fan—Type C



Upblast PRV—Type J

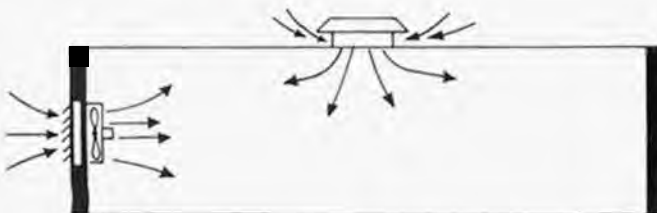
Supply fans or PRVs

A large number of buildings use exhaust fans and/or power roof ventilators to exhaust fumes, smoke, dust or other contaminants unavoidable in the operation of the business. As a result, these buildings are frequently under a severe negative pressure. This condition can create problems in many areas of operation. Examples are: (1) reduced efficiency of exhaust systems that are working against each other; (2) down drafts in flues, that may extinguish pilot lights and cause explosions and fire; (3) severe drafts around windows, doors and other locations where air seeks to enter the structure.

The solution to problems of this kind is usually found in the use of supply fans or "make-up" air ventilators. During the hot weather period, these fans become a valuable source of fresh, cooler, outside air to replace the superheated air being exhausted. If they are correctly sized and coordinated with the exhaust fans, an effective ventilation system may be achieved.



Supply Air PRV—Type PS



Air circulation

If the exhaust and supply air requirements of a building have been carefully engineered and installed, and there continues to be a high instance of worker discomfort, the problem usually relates to the matter of air circulation.

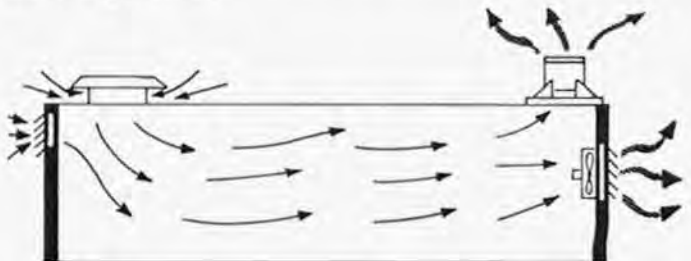
Typical examples of worker discomfort are found in areas where exhaust fans are roof mounted and air supply is through windows and wall openings. Air flow is generally from the window opening to the nearest roof exhauster. The cooling effect on the individuals in the area is negligible. To be effective, air flow must be at or near floor level. In this way, occupants obtain maximum benefit from the fresh, cooler air; they receive the added comfort of air circulation over their bodies and they are not adversely affected by the superheated air being exhausted from the building.



Mobile Air Circulator

The American Coolair Breeze Conditioning System

A carefully engineered ventilation and cooling system frequently combines several methods of air movement to accomplish the desired results. Exhaust fans, power roof ventilators, supply fans, make-up air units and air circulators may all be utilized. American Coolair sales engineers with experience and training in the selection and use of this equipment can be consulted for advice in the design of the system and installation of its components. System components, practical limitations and common consideration involved in the design of an American Coolair Breeze Conditioning System are discussed in the following sections.



Basic components for a system

Exhaust fans



Propeller Fan—Type CBH

One of the “work horses” of many ventilation and cooling systems is the wall-mounted exhaust fan. A mounting panel attaches the fan to the inside face of a wall opening. An automatic or motor-operated wall shutter is mounted on the outside face of the wall to provide weather protection when the fan is not in operation. These wall exhausters are available in a wide range of sizes and capacities. American Coolair has models with blade diameters from 7” to 84”. Capacity ranges from 250 cubic feet per minute (CFM) to approximately 100,000 CFM from a single fan.

Fans of this type are quite efficient, dependable and require relatively little maintenance. Minor disadvantages may relate to their wall location. This location may result in interference with operations of the building, may cause damage to the fan itself or it may be a possible disturbance to personnel working in the proximity of the fan.

Power Roof Ventilators (PRVs)

Power roof ventilators of the type manufactured by American Coolair are very similar in basic design to the wall fans. Size and capacity closely parallel the wall fans.

One of the most popular PRVs is the upblast exhauster. This unit utilizes air velocity to expel rain or snow that may try to penetrate into the structure. When the unit is not in service, butterfly dampers effectively seal the opening against the weather. Because of the straight-through air flow design, this is the most effective and efficient PRV available.



Upblast PRV—Type JTB

American Coolair’s hooded PRV design is similar to the upblast PRV. Instead of butterfly dampers, a stationary hood shields the unit from rain and snow. A backdraft damper prevents air infiltration when unit is not in use. The hood offers some resistance to air flow. For this reason, the upblast PRV is more efficient and economical.



Hooded PRV—Type PE

PRVs are specified by many design engineers because they are roof located and away from operations within the structure. Maintenance and service can be performed from a roof location. Cost per CFM may exceed by a small margin that of wall fans with equal capacity. However, the advantages may more than offset the slight disadvantage of unit cost.

Supply fans or "make-up air" units

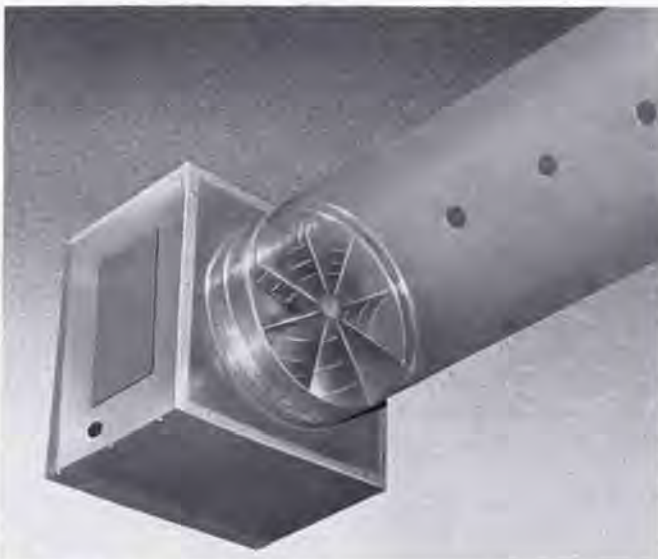
Supply fans may be either wall mounted or roof mounted. Most American Coolair fans and PRVs of the type described above are available for supply usage.



Filtered Supply PRV—Type PS-F

Additional modifications and special products are available from American Coolair to tailor their usage to individual installations. For example, filters may be added to supply PRVs when desirable. Also, American Coolair's uniquely designed Model PT Power Tube Fan can be used to supply make-up air, in summer and winter, without the need for the supplemental heating required by most other make-up air systems.

For more information on the application of this special product, refer to American Coolair Form No. 520-15.



Make-up air unit—Type PT

Intake louvers

Many breeze conditioning systems are designed without the use of supply fans or make-up air units of any

kind. The exhaust system creates a slight negative pressure in the building and outside air is induced through openings designed for this purpose. Intake louvers are usually mounted at the opposite end of the building from the exhaust fans in suitable wall locations. When the breeze conditioning system is in use, the louvers are opened manually or by damper motors; when not in use, the louvers are closed to provide weather protection. An alternative method for providing air intake openings is through the use of roof mounted hooded supply vents. American Coolair's Type PE PRV can be furnished without a fan for this purpose.

Air circulators and spot coolers



Mobile Air Circulator

Many buildings are much too large to rely on the circulation of air at the proper velocity and direction without the use of supplemental fans. In other cases, a system of exhaust and supply fans may be lacking in the building.

Air circulators or booster fans can usually solve the problem. American Coolair customers have used our Type UD propeller fans (7" to 24") and CABL/CABH propeller fans (24" to 54") to good advantage for this purpose. Pedestal fans have been used as air circulators in some cases. Spot coolers or "man coolers" are air circulators used for a specific purpose or problem area. Air circulators have the big advantage of being readily available, inexpensive and easy to install. They are not a satisfactory substitute for a complete ventilation and cooling system, however.

Baffles, deflectors and diffusers

In some sophisticated systems, elaborate duct work and diffusers are incorporated for distribution of air throughout a building. This type of system is expensive and most American Coolair Breeze Conditioning Systems avoid this degree of sophistication. Instead, simple, inexpensive baffles, deflectors and diffusers are used to good advantage. These items are usually fabricated and installed at the job. They are made from a variety of inexpensive materials including polyethylene, masonite, plywood and sheet metal. Specific applications of these items will be discussed in subsequent sections.

Calculation of air volume

The volume of air required to operate a ventilating and cooling system is a very fundamental requirement. Before air volume is estimated or calculated, careful consideration should be given to the following factors.

The objectives of the ventilation system

Be sure that the decision you make will accomplish the most important objectives or will overcome the most important problems. This should be the overriding consideration in the selection of a system of ventilation.

The budget

Availability of money to finance the system is a factor that must be considered early in the planning stage. The funds available will affect the objectives you set and will influence the system of ventilation selected to meet the objectives.

Alternate methods of calculating the required air volume

The method selected for calculating air volume will relate closely to the objectives to be accomplished by the system. Based on the objectives and funds available, you can now consider the alternatives and select the best method to use in calculating air volume requirements. A description of these methods follows.

Rate of air change method

This is a time-honored approach to a determination of air volume requirements. It is based on the theory that a complete change of air in a room or building should be made at a certain time frequency. The rate selected is frequently an arbitrary decision. It may be based on experience with similar installations or may be established by a health or safety code. Many fan manufacturers have published charts that show recommended rates of air change for typical installations.

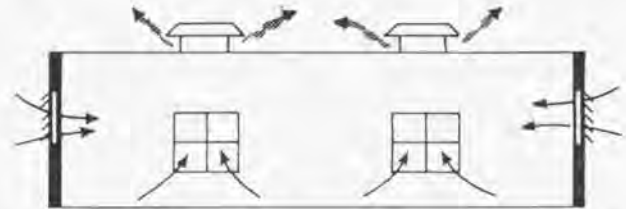
The formula for calculating the air volume in CFM by the rate of air change method is as follows:

$$\text{CFM} = \frac{\text{Area to be cooled (cubic feet)*}}{\text{Recommended rate of air change (minutes)}} \quad (\text{cu. ft./min.})$$

* Area to be cooled (cu. ft.) =
Length (ft.) × Width (ft.) × Average Ceiling Height (ft.)

Example: A laundry 100' long by 30' wide with a 15' ceiling height requires a complete air change each 1/2 minute. The necessary air volume (fan capacity) is determined from the above formula as follows:

$$\text{CFM} = \frac{100 \times 30 \times 15}{1/2} = 90,000 \text{ cu.ft./min.}$$



Typical layout of fans for rate of air change method

Although the rate of air change method of calculating air volume has been used for many years, American Coolair engineers have found it unsatisfactory except in relatively small buildings or rooms. For jobs that involve personnel comfort, this method is not recommended if the building is over 50,000 cubic feet in content or more than 100' in length.

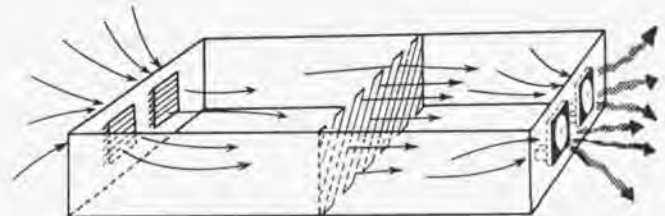
CFM per square foot of floor area method

This method of calculation is a modern adaptation of the rate of air change formula. Total air volume (cubic feet per minute) is determined by multiplying the total square feet of floor area by an arbitrary CFM per square foot figure. The figure selected may be as low as 2 CFM or as high as 12 CFM per square foot. Four CFM per square foot has been recommended as a minimum for summer ventilation of large assembly type operations.

This method of calculation, like the rate of air change method, is likely to produce unsatisfactory results in many cases. Failure to control air distribution and air velocity can be a major weakness in the whole concept. Selection of a CFM per square foot figure should be based on experience and a proven method of air distribution.

Rate of air velocity method

This method of calculating air volume needed for a system is highly recommended by American Coolair. A breeze conditioning system can be highly effective in providing personnel comfort in hot weather if the recommendations outlined below are observed. It has been determined from field experience that an average air velocity of 150 feet per minute (FPM) to 200 FPM is usually sufficient for personnel cooling under summertime conditions. The CFM required to do the job is calculated by multiplying the cross section of an area through which the air is to move by the desired velocity. This is expressed in the following formula.



Air velocity method of determining CFM

$$\text{CFM} = \text{Cross Sectional Area}^* \times \text{Desired Velocity}$$

(cu. ft./min) (sq. ft.) (ft./min.)

* Cross Sectional Area = Width (ft.) × Height (ft.)

Example: A laundry 100' × 30' × 15'. Based on pulling air through 100ft. length, the fan CFM required is determined as follows:

Cross Sectional Area = 15' × 30' = 450 sq. ft.

Desired Velocity = 150 ft./min.

$$\text{CFM} = 450 \times 150 = \mathbf{67,500 \text{ cu.ft./min.}}$$

Influence of building size on velocity selected

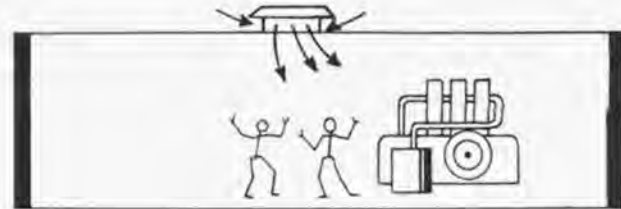
As building size increases, there are factors that will affect the average air velocity through the cross section of the building. The longer the building, the greater the amount of air leakage from windows, doors, elevator shafts, etc. To offset this air leakage, air velocity should be increased. This is done by relating the calculated velocity to the length of the building. The results will provide an effective velocity of approximately 150 ft./min. The table below gives the velocity recommendations in terms of the length of the building.

VELOCITY TABLE	
Length of Building	Velocity
Up to 100'	150 ft./min.
100' to 200'	200 ft./min.
200' to 300'	250 ft./min.
300' and longer	250 ft./min plus booster fans

Zone Cooling

In some buildings, it is not possible or practical to install a complete ventilation system. In such situations, zone cooling may be effectively used. The problem is similar to a spot cooling application, but usually involves a relatively larger area. Effective zone cooling may be accomplished by use of air circulators. See **Air circulation** below.

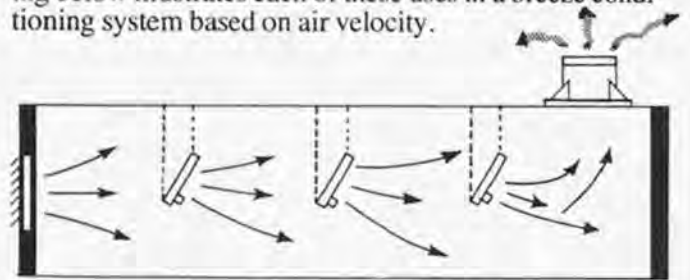
A very satisfactory zone cooling method is the use of supply-type PRVs to flood the problem area with fresh, cooler air. The adjacent drawing and zone cooling table illustrate the capacity of several American Coolair PRV models to effectively cool an area. The figures are based on discharge of air approximately 15 feet above floor level. It is recommended that an American Coolair sales engineer survey your problem area and recommend equipment to fit your specific needs.



ZONE COOLING TABLE			
Coolair Fan Model	Blade Diameter	Approximate Effective Area	Diameter of Cooled Area
PSBH24H	24''	175 sq. ft.	15'
PSBH30H	30''	300 sq. ft.	20'
PSBH36J	36''	500 sq. ft.	25'
PSBH42K	42''	700 sq. ft.	30'
PSBH48L	48''	1000 sq. ft.	35'

Air circulation

Air circulators may be effectively used to boost air velocity through large buildings that have a flow pattern difficult to control. Air circulators are also used to re-direct air into occupied areas near floor level. The drawing below illustrates each of these uses in a breeze conditioning system based on air velocity.



Air circulators are also effectively used in locations where adequate exhaust and supply air fans may be lacking. Air circulation alone may provide heat relief and cooling comfort to individuals in the area. American Coolair's Type CABL fan is ideally suited to this application. For many installations, fans like this may be positioned 8' to 10' above the floor and at approximately 50' intervals to obtain a continuously circulating column of air across a room or building. To broaden the column of air, fans should be located abreast of each other 15' to 20' apart. Fan locations and positions are easily adjusted to the requirements of the area.

Combination of methods

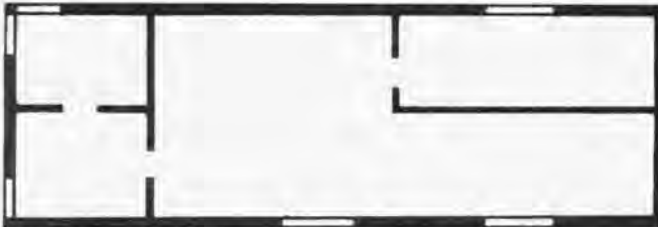
If a relatively straightforward breeze conditioning system is possible, the rate of air velocity method outlined above should be the basic method used. However, there may be rooms or areas within the building that will require special treatment. If so, one of the other methods, such as spot cooling or zone cooling, may be combined with the basic method to achieve the over-all objectives.

Practical limitations

Although an accurate, intelligent calculation of the required air volume for a breeze conditioning system has been made, there are practical limitations in most buildings that may seriously affect the final results. By giving these limitations proper consideration in the planning stage, the system can usually be modified to compensate for them. Some of the more common limitations are listed here.

Partitions within the building

It is obvious that interior partitions restrict and interrupt the flow of air through a structure. The effect of these partitions on the system must be analyzed and solutions found.



Plan View—Effect of partitions on designed air flow pattern

Large cross-sectional area

In buildings with very high ceilings, the cross-sectional area factor may become unrealistic in calculating the required air volume. In most instances, inexpensive baffles can be installed across the building width to reduce the effective cross-section to an area 10' or 12' above floor level.

Another limitation of the very high ceiling or roof is the difficulty of maintaining the air velocity near floor level. The baffle method just described is usually the best way to reconcentrate the air flow along the floor level where it will be effective in providing personnel comfort. In large buildings, baffles may be required at 100-foot intervals to keep air flow near the floor level.



Section View—Problem of large building cross section

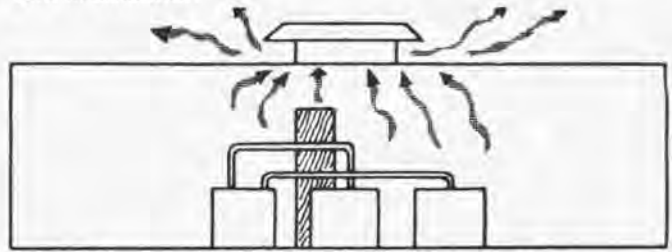
Machinery, raw materials and finished goods that obstruct air circulation

These obstacles, like interior partitions, must be considered and methods worked out to overcome the problems they create to the proper circulation of air through the structure.

Unfavorable location of heat-producing machinery

Frequently, the location of heat-producing machinery will seriously interfere with the preferred pattern of air

circulation. This situation can destroy the effectiveness of the system. An alternative plan to overcome the problem is essential.



Section View—Problem of unfavorably located heat source

“Short circuits”

Operations within the area frequently require wall openings or loading doors that will drastically interfere with the desired airflow pattern. In some cases, individuals may open windows that should remain closed to maintain effective air circulation. A remedy for each of these problems is required.

Restricted intake openings

For maximum efficiency and economy, a good layout will avoid the restricted intake opening. The type of exhaust equipment normally utilized is most economical and efficient if static pressure in the system is 1/8" or less. To obtain this condition, air velocity through intake openings should not exceed 1,000 feet per minute. A lower figure is usually desirable.

Common sense considerations

Location of exhaust fans

It is usually wise to locate the exhaust fans near the area where heat-producing machinery is found. This has the very practical advantage of exhausting this superheated air near its source and preventing a heat build-up in other areas.

Prevailing wind direction

If side wall locations are to be utilized for air intake or exhaust, it is desirable to consider the prevailing wind direction during the summer season. If the ventilation system can be oriented to take advantage of prevailing winds, the efficiency of the system may be increased considerably. Systems that incorporate roof exhausters are usually not affected by a prevailing wind.

Economy of the “long dimension”

Where air velocity is the critical factor in a breeze conditioning system, use of the “long dimension” of the building or room is highly desirable. By moving air through the long dimension, the cross-sectional area is reduced and less air volume is required to obtain the needed air velocity.

Use the cleanest, coolest air source

A vital element in the successful breeze conditioning system is a supply of clean, cooler, fresh air. While such an ideal air supply may not be available, common sense dictates that air being supplied into the building should be from the best available source. Avoid recirculating air that has just been exhausted from the building or another nearby structure.

The noise factor in the ventilation system

The noise level in most commercial and industrial buildings has become a highly critical matter. Although the ventilating equipment is only one item in the over-all total, its effect should be carefully considered. If the normal noise level in the building is low, the noise level of the ventilating equipment should be low; if the background noise level is high, the amount of noise added by the ventilation system may be insignificant. For more detailed sound information, refer to American Coolair Form No. 120-15.

Economies from good planning

The greatest economy that can result from good planning is a breeze conditioning system that achieves its basic purpose. If it does not do the job for which it was designed, then no economy has been achieved. Here are a number of other ways in which good planning can result in substantial savings.

A unified ventilation system

Frequently, exhaust fans are obtained and installed to serve a specific need. In many cases, no consideration is given to a method of coordinating this equipment. Process fans may be competing with general exhaust fans; loading doors or windows may be left open needlessly and "short circuit" an otherwise integrated system.

Use of "make-up air" fans

A common problem in the average plant is "air starvation". Exhaust systems throughout the structure may have been well designed for their intended purpose. However, no consideration may have been given to the replacement of exhaust air. As a result, the building may be under severe negative pressure. This situation reduces the efficiency of the exhaust fans and produces unhealthy and uncomfortable working conditions. Substantial economy and efficiency can be obtained by correcting this situation through the use of supply fans or "make-up air" units.

Controlled air circulation

Many buildings have adequate exhaust and supply fans to provide a comfortable environment for the occupants. Unfortunately, there may be little control over the distribution of the air to produce the desired results.

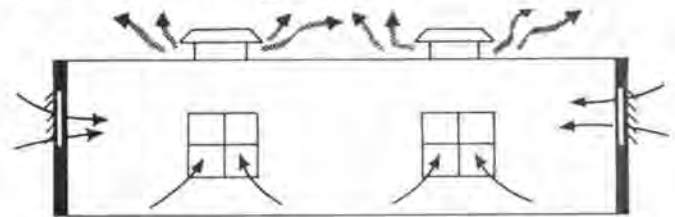
Good planning will recognize the necessity for proper air distribution and circulation through the occupied

areas of the building. Suitable deflectors and baffles can be incorporated where needed. "Booster fans" or air circulators can be positioned to take care of trouble spots and augment the direction and velocity of the air flow. Diffusers may be required to assist in air distribution. Drafts and dead spots can thus be eliminated. All of these are inexpensive aids that can ensure that a well planned system will achieve its important objectives.

Typical applications

The following layout of breeze conditioning systems will illustrate the basic principles outlined in this handbook. One or a combination of these plans may be adapted to the specific job under consideration. The advantages and limitations for each of these layouts are explained in the accompanying notes.

Rate of air change method



Rate of air change method

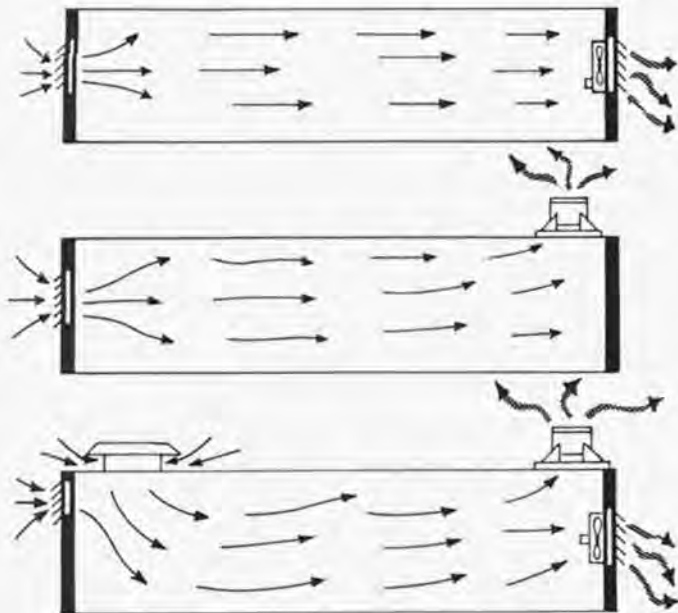
TYPICAL RECOMMENDED RATES OF AIR CHANGE		
Type of Facility	Cooling	Ventilation
Bakeries, Restaurants, Laundries & other hot spots	1/2 minute	3 minutes
Factories, Shops, Warehouses & Garages	3/4 minute	4 minutes
Residences, Schools, Offices & Churches	1 minute	5 minutes

- An adequate method for small buildings or a single room (50,000 cu. ft. or less).
- The rate selected is somewhat arbitrary, usually based on experience with similar facility or space.
- Velocity and direction are frequently uncontrolled; some degree of control is available by regulation of window or other intake openings.
- Not recommended where complicated air distribution problems exist.

Rate of air velocity method

- Illustrations show 3 variations of same basic system of air distribution. Rate and direction of air flow is identical in each case. Intake and exhaust arrangements are adjusted to meet conditions peculiar to each location.
- This basic system is recommended for its economy and efficiency for both large and small buildings.
- Use of wall fans and PRVs for exhaust requirements is illustrated.

- Supply air is obtained through intake louvers, windows or roof vents. Supply fans and PRVs may be substituted where job requirements make it necessary or advisable.
- Successful systems based on this method rely on correct velocity and controlled distribution of air flow. Refer to velocity table on page 9 for recommendations.



Use of deflectors, baffles and air circulators (with air velocity method)

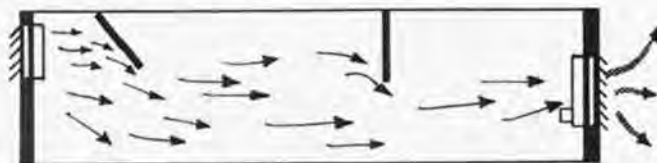


Figure 1: Deflector near air intake directs air into occupied area near floor level. Baffle near mid-point of building reconcentrates air flow into occupied area.

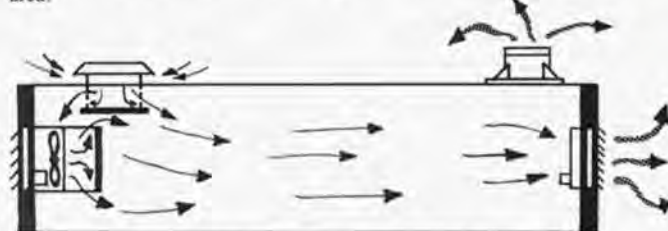


Figure 2: Deflectors under supply PRV and in front of supply fan diffuse intake air and prevent high velocity air currents from flowing directly over occupants located near intake area.

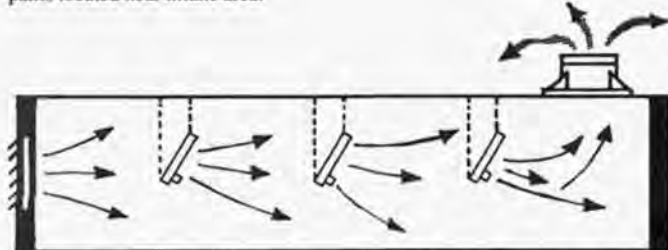


Figure 3: Air circulators are used to boost air velocity through big buildings that have a flow pattern difficult to control. Air circulators also re-direct air into occupied area near floor level.

Actual Example of American Coolair Breeze Conditioning System

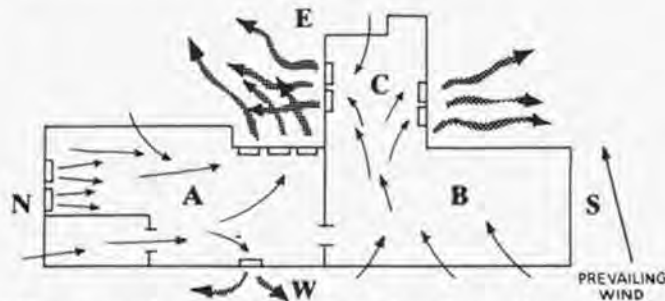


Illustration shows schematic floor plan of actual breeze conditioning system for corrugated paper board production plant.

- Areas A and C are critical problem areas. Personnel discomfort from hot, humid conditions was acute in these areas. Area B is largely for storage and very few employees are located there.
- Due to the size of the plant, both supply and exhaust fans were used to obtain these air velocities: 280 FPM in area A, 225 FPM in area C.
- With prevailing winds from the southwest, all exhaust fans were relocated on the east side of the building. One exhaust fan on the west wall was required by heat-producing machine at that location.
- East wall of area C was not available for exhaust fan location. This necessitated use of north and south walls as alternate locations.
- Total fan capacity for this plant was near 1,000,000 CFM.



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Represented By:

Type C Propeller Fans

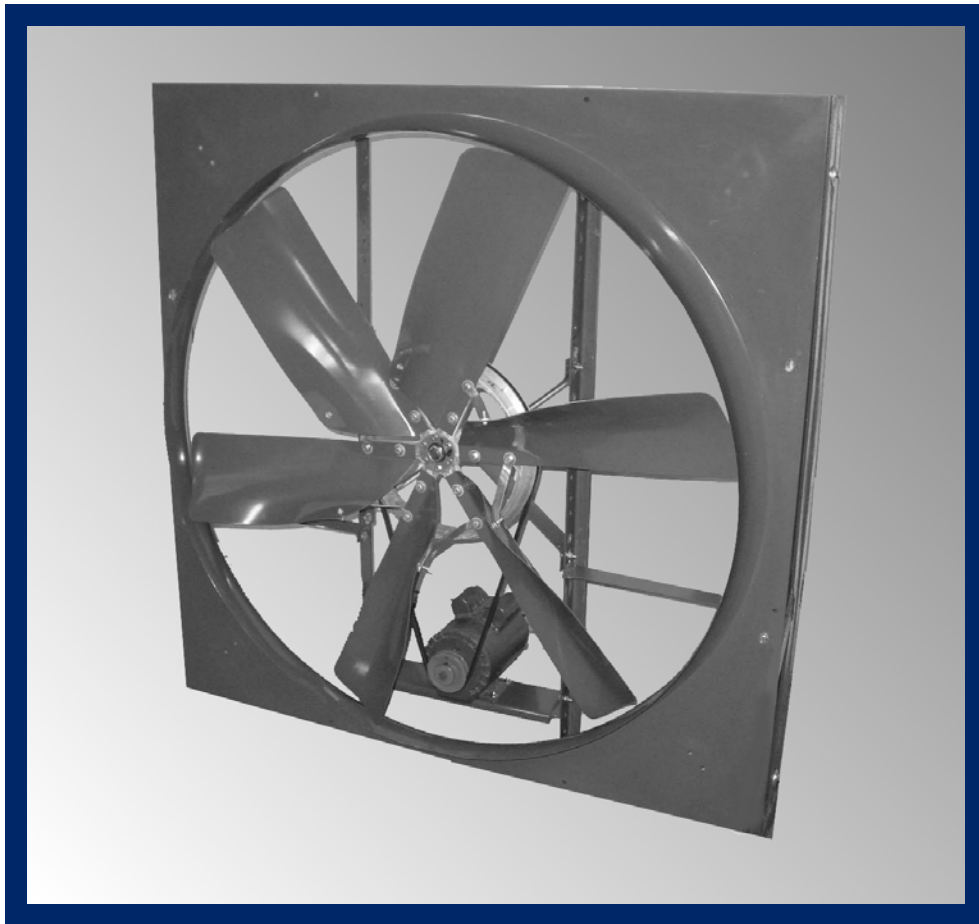


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Application

Type C wall propeller fans are used for general ventilation and are designed for efficiency and economy. Suggested uses include commercial installations such as warehouses, schools, hospitals, parking garages and industrial uses such as process plants, wastewater treatment plants, and manufacturing facilities.

These propeller fans are rugged and dependable and are available in a wide selection of sizes and performance. These fans can be arranged for supply, exhaust or a combination of both. (See application section for each fan type for proper selection.)

These fans are offered with a wide selection of accessories to complete a well-balanced and specifically engineered air moving system.

Construction

MATERIALS: The fan panel is fabricated of heavy-gauge steel and the uprights which support the motor and propeller are formed from heavy-gauge steel for maximum strength and rigidity. Aluminum construction is available on all CBA, CBH, CBC, and CDC models. See specific fan model for information on blade material.

Painted parts are coated with a thermosetting epoxy coating to provide a protective coating rated excellent for hardness, impact resistance, adhesion and chemical resistance. For protective coating options see the Accessories section.

METHODS: The entire panel assembly utilizes all-welded construction. It is specifically engineered to provide maximum efficient air movement and quiet operation. All blade assemblies are dynamically balanced.

Parts requiring painting are processed through the American Coolair five-stage pretreatment system prior to the application of any coatings to ensure maximum finish adhesion. These parts use a thermosetting epoxy powder paint with an average thickness of 3 mils and baked at 400°F to a smooth, hard, continuous finish.

Drive Mechanism

BELT DRIVE: Available in sizes from 18 inch to 84 inch, belt driven models are designed for quieter operation and lower initial cost. They use standardly available 1750 RPM motors.

DIRECT DRIVE: Available in sizes from 7 inch to 60 inch, direct driven models require less maintenance, offer longer operating life, increased efficiency and reduced operating cost.

VARIABLE PITCH PULLEYS: Most belt drive models are equipped with a variable pitch motor pulley which allows fan speed adjustment where desirable. The settings made at the factory allow the fan to operate within the maximum safe capabilities of the motor. The pulley may be opened to reduce fan speed and thus decrease air flow.

If an increase in fan speed is desired, contact your American Coolair representative for information on fan performance and motor load before making any adjustment.

Bearings

See specific fan style features for bearing information.

Motors

The American Coolair air-over-motor design provides extra capacity and economy because it serves to dissipate heat and thus increase horsepower capability. Totally enclosed motors are standard. Several alternatives, such as explosion proof motors, energy efficient motors and severe duty motors, are available to fit your specific needs.

Only nationally recognized brand motors with nationwide service facilities are used.

Listings



All Type C ventilators are listed by Underwriters Laboratory, Inc. to U.S. and Canadian safety standards.

UL705 – E39944 Certified ratings licensed by AMCA (Air Movement and Control Association International, Inc.), for both air and sound performance, are available for all Type C fans. These, along with dimensional drawings are included in this form.

Additional Information Available

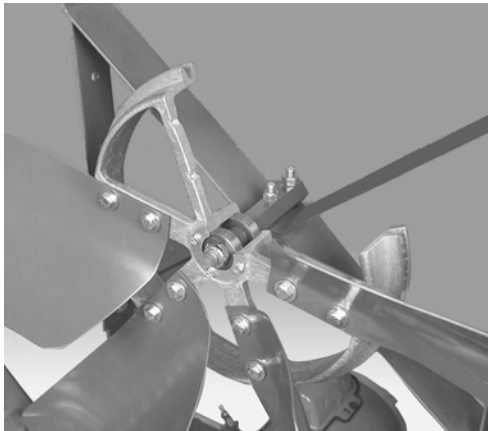
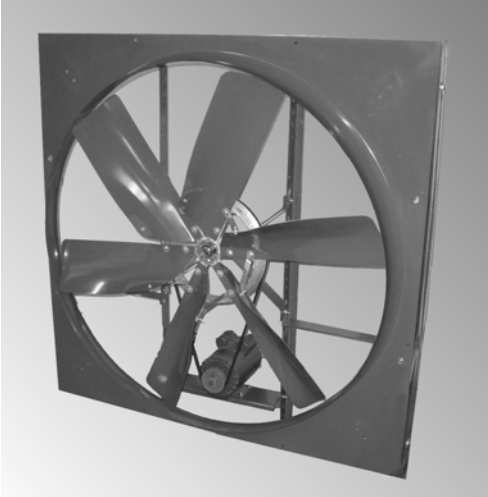
Octave band sound power levels are available for use by the acoustical engineer in predicting on-the-job sound levels.

American Coolair will provide installation instructions and maintenance information at your request as well as information on any air movement need you may have. For performance requirements not listed or alternate construction requirements contact your American Coolair representative.

American Coolair has over 70 years of experience in air moving systems and offers you the very best equipment and knowledgeable personnel.

Type CB (Models CBA-CBL-CBH- CBHX)

**BELT DRIVE — 2500 to 58,800 CFM
0" to 3/4" STATIC PRESSURE**



Application

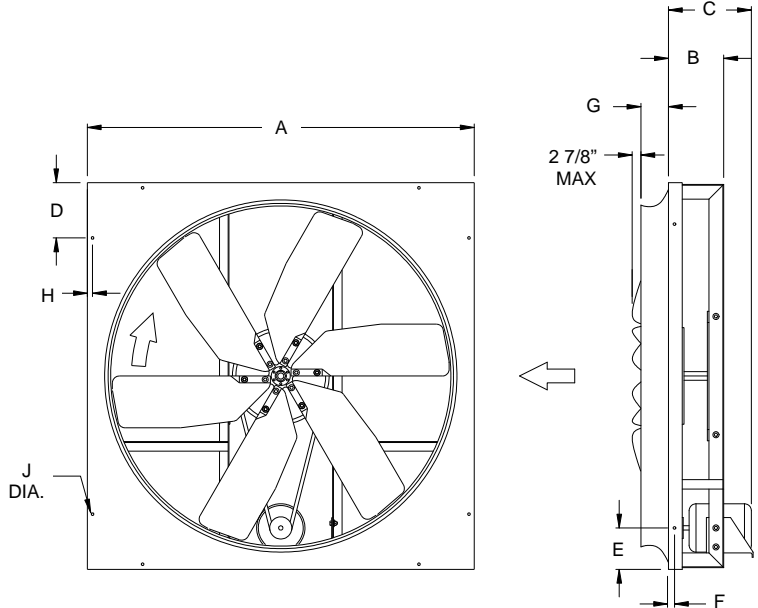
The CBA, CBL, CBH and CBHX fans are known for lower initial cost, proven reliability and quiet, efficient operation at both lower and higher pressures. These fans are generally used for exhaust, but with the addition of a wall housing, they can be turned around for use as a supply fan.

Features

These fans utilize a cross-frame to support American Coolair's unique bearing and shaft assembly. Power is applied directly to the fan/hub assembly in the same plane as the bearings. This reduces bearing load and dramatically increases fan bearing life. Bearings are permanently lubricated and sealed and have an L₁₀ life exceeding 300,000 hours.

The die-formed steel propeller blades are securely attached to the hub to form a strong, rigid propeller assembly.

The motor pulley can be opened to reduce fan speed and decrease air flow on most models. If an increase in fan speed is desired, contact your American Coolair representative for information on fan performance and motor load before making any adjustments.



Dimensions

Dimension A is the O.D. of the square fan panel.

Dimension B is the depth from the face of the fan panel to the back of the fan frame.

Dimension C is the maximum with constant speed, 3-phase TEFC motor of maximum horsepower for fan size and style indicated. This dimension will vary with the type and HP of the motor actually selected.

(1) Maximum blade protrusion beyond venturi.

Fan	Dimensions in Inches								
	A	B	C	D	E	F	G	H	J
CBA18	26	5 5/8	14 3/8	11/16	11/16	5/16	1 1/8	11/16	17/64
CBA20	26	5 5/8	14 3/8	11/16	11/16	5/16	1 1/8	11/16	17/64
CBL24	32	5 1/8	12 5/8	6	5	7/8	4	3/4	3/8
CBH24			13 1/4						
CBL30	38	5 1/8	12 5/8	6	5	7/8	4	3/4	3/8
CBH30			16 3/4						
CBL36	44	5 1/8	12 3/4	7	5	7/8	4	3/4	3/8
CBH36			17 1/4						
CBL42	50	5 1/8	12 3/4	7	4	7/8	4	3/4	3/8
CBH42			17 1/4						
CBL48	56	5 1/8	12 3/4	8	5	1	4	3/4	3/8
CBH48			17 1/4						
CBHX48			6 5/8						
CBH54	62	5 1/8	17 1/4	8	6	1	4	3/4	3/8
CBHX54			6 5/8						
CBHX60	68	6 5/8	20 1/2	8	6	1	4	3/4	3/8

Performance Ratings



American Coolair Corporation certifies that the Type CB fan models shown herein are licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

Typical Specifications

Belt driven propeller fans shall be American Coolair Type CBA, CBL, CBH, and CBHX as manufactured by American Coolair Corporation, Jacksonville, Florida; specific models shall be as shown in the fan schedule. Panels and structural angle supports shall be of welded steel construction with spun orifice to provide improved performance. Die formed steel blades shall be firmly attached to cast aluminum hub, which also serves as driven sheave. Fan hub shall rotate on fixed shaft using oversized sealed ball bearings. Belt load shall be applied to hub in the same plane as bearings, eliminating overhung load on bearings and increasing bearing life. Motor pulleys shall be variable pitch. Fans shall be licensed to bear the AMCA Certified Ratings Seal for sound and air performance. (Specify for each fan model in schedule the required CFM and static pressure; motor enclosure, phase and voltage; and accessories such as wall shutter, motor side or front guard, wall housing, etc.)

Item No.	Cubic Feet Per Minute (CFM) at Static Pressure ^{1,7}							Fan Model ²	Fan Size	Motor HP	Fan RPM	Sone Rating ³	Max BHP ^{4,7}	Approx. Ship Wt.	Shutter Model ⁵
	0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"								
1	3,190	3,002	2,797	2,536	---	---	---	CBA18H		1/3	1475	18.0	0.41	60	SU18-20
2	3,639	3,476	3,302	3,113	2,864	---	---	CBA18J	18	1/2	1683	23	0.61	66	SU18-20
3	4,165	4,023	3,875	3,719	3,549	3,341	---	CBA18K		3/4	1926	27	0.91	80	SU18-20
4	4,634	4,507	4,376	4,239	4,096	3,941	3,759	CBA18L		1	2143	32	1.25	85	SU18-20
5	3,279	3,002	---	---	---	---	---	CBA20G		1/4	1165	13.9	0.31	65	SU18-20
6	3,599	3,348	3,089	---	---	---	---	CBA20H	20	1/3	1279	16.5	0.40	65	SU18-20
7	4,117	3,898	3,676	3,433	---	---	---	CBA20J		1/2	1463	21	0.61	71	SU18-20
8	4,700	4,508	4,314	4,118	3,896	---	---	CBA20K		3/4	1670	26	0.91	85	SU18-20
9	5,223	5,051	4,877	4,702	4,522	4,317	---	CBA20L*		1	1856	30	1.25	90	SU18-20
10	5,792	5,636	5,480	5,323	5,164	5,000	4,817	CBA20M*		1 1/2	2058	36	1.70	112	SU18-20
11	5,216	4,460	3,341	---	---	---	---	CBL24G		1/4	678	11.8	0.30	70	S24
12	5,909	5,271	4,345	---	---	---	---	CBL24H	24	1/3	768	15.4	0.41	73	S24
13	6,601	6,046	5,327	4,404	---	---	---	CBL24J		1/2	858	19.1	0.60	79	S24
14	7,593	7,123	6,567	5,842	5,044	---	---	CBL24K		3/4	987	25	0.91	93	S24
15	8,143	7,705	7,248	6,726	5,879	5,119	---	CBH24L*		1	1065	28	1.28	98	S24
16	8,992	8,597	8,188	7,755	7,217	6,397	5,719	CBH24M*		1 1/2	1176	33	1.72	128	S24
17	7,469	5,985	---	---	---	---	---	CBL30G		1/4	509	10.5	0.30	77	S30
18	8,350	7,056	---	---	---	---	---	CBL30H	30	1/3	569	13.1	0.41	80	S30
19	9,304	8,160	6,766	---	---	---	---	CBL30J		1/2	634	16.2	0.60	86	S30
20	10,536	9,538	8,431	6,784	---	---	---	CBL30K		3/4	718	20	0.91	106	S30
21	11,945	11,072	10,139	9,073	---	---	---	CBH30L		1	814	25	1.25	111	S30
22	12,601	11,810	10,932	9,855	8,395	6,779	---	CBH30M		1 1/2	865	27	1.70	140	S30
23	13,956	13,247	12,481	11,619	10,528	9,167	7,737	CBH30N		2	958	34	2.30	143	S30
24	16,214	15,610	14,971	14,290	13,539	12,648	11,546	CBH30P*		3	1113	48	3.36	168	SR30
25	9,059	6,766	---	---	---	---	---	CBL36G		1/4	416	6.9	0.30	91	S36
26	10,257	8,453	---	---	---	---	---	CBL36H	36	1/3	471	8.5	0.41	94	S36
27	11,194	9,579	7,020	---	---	---	---	CBL36J		1/2	514	9.9	0.60	100	S36
28	13,197	11,847	10,174	---	---	---	---	CBL36K		3/4	606	13.4	0.91	114	S36
29	14,373	13,138	11,787	9,624	---	---	---	CBL36L		1	660	15.4	1.25	119	S36
30	15,902	14,845	13,330	11,742	---	---	---	CBH36M		1 1/2	698	21	1.70	156	S36
31	17,497	16,562	15,313	13,812	12,287	---	---	CBH36N		2	768	25	2.30	159	SR36
32	19,706	18,898	17,906	16,618	15,318	13,969	11,777	CBH36P		3	865	30	3.44	186	SR36
33	23,238	22,568	21,807	20,899	19,796	18,654	17,605	CBH36Q*		5	1020	43	5.28	186	SR36
34	12,557	9,045	---	---	---	---	---	CBL42H		1/3	334	8.8	0.41	104	S42
35	14,437	11,407	---	---	---	---	---	CBL42J	42	1/2	384	11.4	0.60	110	S42
36	16,129	13,576	10,304	---	---	---	---	CBL42K		3/4	429	14.1	0.91	124	S42
37	18,272	16,245	13,455	---	---	---	---	CBL42L		1	486	17.6	1.25	129	S42
38	19,656	17,706	15,431	12,496	---	---	---	CBH42M		1 1/2	530	23	1.69	166	S42
39	21,547	19,789	17,804	15,463	12,261	---	---	CBH42N		2	581	26	2.30	169	S42
40	24,774	23,266	21,621	19,795	17,699	15,052	---	CBH42P		3	668	32	3.43	199	S42
41	29,595	28,348	27,026	25,616	24,098	22,440	20,569	CBH42Q		5	798	44	5.63	227	S42

(chart continues next page)

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

Type CB Performance Ratings (cont'd)

Item No.	Cubic Feet Per Minute (CFM) at Static Pressure ^{1,7}							Fan Model ²	Fan Size	Motor HP	Fan RPM	Sone Rating ³	Max BHP ^{4,7}	Approx. Ship Wt.	Shutter Model ⁵
	0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"								
42	17,340	13,177	---	---	---	---	---	CBL48J		1/2	318	10.6	0.60	144	S48
43	19,958	16,510	---	---	---	---	---	CBL48K		3/4	366	14.1	0.90	149	S48
44	21,975	18,979	14,938	---	---	---	---	CBL48L		1	403	16.9	1.25	154	S48
45	24,163	21,204	18,055	---	---	---	---	CBH48M	48	1 1/2	432	19.7	1.69	211	S48
46	26,512	23,794	21,127	16,104	---	---	---	CBH48N		2	474	23	2.30	214	S48
47	30,316	27,912	25,634	23,110	17,991	---	---	CBH48P		3	542	29	3.44	259	S48
48	35,853	33,799	31,848	29,919	27,804	24,638	---	CBH48Q		5	641	38	5.62	287	S48
49	38,129	36,933	35,561	33,911	32,098	30,645	29,434	CBHX48R*		7 1/2	745	49	7.89	445	SR48
50	41,814	40,733	39,530	38,153	36,527	34,915	33,622	CBHX48S*		10	817	57	10.33	479	Note 6
51	18,733	13,770	---	---	---	---	---	CBH54J		1/2	293	11.2	0.60	197	S54
52	21,802	17,875	---	---	---	---	---	CBH54K		3/4	341	14.7	0.91	204	S54
53	24,359	21,018	---	---	---	---	---	CBH54L	54	1	381	17.7	1.24	211	S54
54	26,469	23,491	19,439	---	---	---	---	CBH54M		1 1/2	414	20	1.69	212	S54
55	29,602	27,026	23,705	---	---	---	---	CBH54N		2	463	24	2.29	215	S54
56	33,693	31,492	28,816	25,630	---	---	---	CBH54P		3	527	29	3.44	261	S54
57	40,129	38,154	35,880	33,210	30,151	25,250	---	CBHX54Q		5	547	33	5.58	402	SR54
58	46,952	45,293	43,469	41,419	39,117	36,592	33,602	CBHX54R		7 1/2	640	43	8.61	459	SR54
59	50,693	49,166	47,513	45,696	43,681	41,467	39,082	CBHX54S*		10	691	50	10.67	491	SR54
60	28,555	23,769	---	---	---	---	---	CBHX60L		1	302	13.0	1.24	348	S60
61	31,864	27,859	---	---	---	---	---	CBHX60M		1 1/2	337	15.8	1.69	360	S60
62	34,512	30,941	25,318	---	---	---	---	CBHX60N		2	365	18.3	2.30	360	S60
63	39,145	36,119	31,981	26,357	---	---	---	CBHX60P	60	3	414	22	3.43	382	S60
64	46,425	43,964	41,005	37,085	32,291	---	---	CBHX60Q		5	491	29	5.68	409	S60
65	53,422	51,324	48,945	46,130	42,560	38,342	---	CBHX60R		7 1/2	565	38	8.58	467	SR60
66	58,812	56,924	54,842	52,485	49,714	46,280	42,430	CBHX60S		10	622	45	11.43	500	SR60

- 1 — Performance shown is for Installation Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories).
- 2 — The first three or four letters of the model number identify **fan type, drive configuration** and **style**. The next two numbers indicate **fan size**, the next letter identifies motor **horsepower**. Example: Model CBL24K is Type "C", belt drive, Style "L", 24" size, 3/4 H.P.
- 3 — The sound ratings shown are loudness values in hemispherical sones at 1.5m (5 ft.) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for Installation Type A: free inlet hemispherical sone levels. The sound ratings shown are at 0" static pressure.
- 4 — Maximum brake horsepower (BHP) within the catalog performance range. Power rating (BHP) does not include transmission losses. Bearing losses are included. BHP at most static pressures listed is less than that shown, in some cases substantially less. For specific BHP values at individual static pressure points contact your American Coolair representative. Because of the cooling the motor receives from the moving air stream, motor loading beyond the nominal nameplate ratings on these American Coolair fans does not overheat the motor and is within NEMA recommended limits and motor service factor. It is not detrimental to the motor and is economically desirable.
- 5 — Shutter models shown are automatic (gravity) type. Add suffix "M" for manual operation; suffix "E" for motor operation.
- 6 — Consult factory for these shutter specifications.
- 7 — To convert air performance (CFM and SP) and power (BHP) to metric units, multiply CFM x .000472 to obtain cubic meters per second (m³/s). Multiply SP x 248.36 to obtain pascals (Pa). Multiply BHP x .7457 to obtain kilowatts (kW).

Example: 3904 CFM x .000472 = 1.8427 m³/s
0.125 SP x 248.36 = 31.05 Pa
0.886 BHP x .7457 = 0.661 kW

* These models have fixed pitch motor pulleys.

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

Type CBC

BELT DRIVE — 4,400 to 117,900 CFM

0" to 3/4" STATIC PRESSURE



Application

CBC fans are designed to move large volumes of air efficiently at both lower and higher pressures. The 3-bladed units provide efficiency economically, while the 6- and 8-bladed units provide maximum flow at lower speeds for lower sound ratings. These fans are generally used for exhaust, but with the addition of a wall housing, they can be turned around for use as a supply fan.

Features

American Coolair's Type C panel and rugged angle frame form the structure for CBC fans. The steel fan shaft is supported by two pillow-block ball bearings attached to this frame.

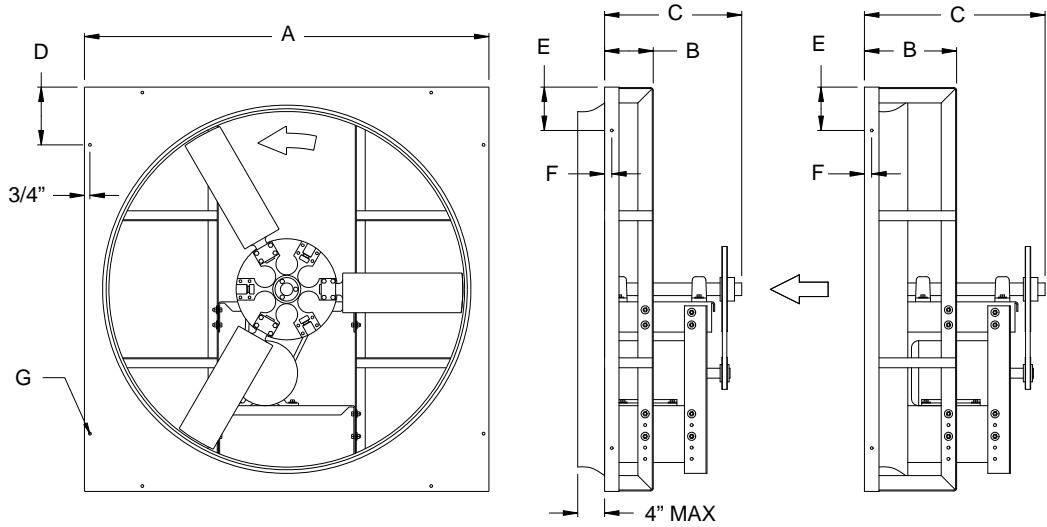
Cast aluminum adjustable pitch airfoil blades are securely attached to a heavy cast aluminum hub. Blade pitch is set for catalog performance.

The blade pitch should not be adjusted without first contacting your American Coolair representative.

CBC fans incorporate specifically engineered airfoil sections and hub sizes for optimum efficiency and physical strength.

The motor pulley on most models can be opened to reduce fan speed and thus decrease air flow.

Do not increase fan speed or adjust blade pitch without first contacting your American Coolair representative.



CBC24-60 Side View

CBC72-84 Side View

Dimensions

Dimension A is the O.D. of the square fan panel.

Dimension B is the depth from the face of the fan panel to the back of the fan frame.

Dimension C is the maximum width with constant speed, 3-phase TEFC motor of maximum horsepower for fan size and style indicated. This dimension will vary with the type and HP of the motor actually selected.

Dimension G is the diameter of the installation holes.

Drawings of belt, drive and blade assembly are schematic. Multiple belts are used on certain sizes and HPs.

Fan Size	Dimensions in Inches						
	A	B	C	D	E	F	G
24	32	5 1/8	18	6	5	7/8	3/8
30	38	5 1/8	18	6	5	7/8	3/8
36	44	5 1/8	19 1/2	7	5	7/8	3/8
42	50	5 1/8	19 1/2	7	4	7/8	3/8
48	56	6 5/8	19 1/2	8	5	1	3/8
54	62	6 5/8	19 1/2	8	6	1	3/8
60	68	6 5/8	19 1/2	11	9	1	1/2
72	80	17 7/8	34	13	11	1 1/8	1/2
84	92	17 7/8	34	15	13	1 5/8	1/2

Cast aluminum airfoil blades are standard.

Performance Ratings

Typical Specifications



American Coolair Corporation certifies that the Type CBC fan models shown herein are licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

Belt driven propeller fans shall be American Coolair Type CBC as manufactured by American Coolair Corporation, Jacksonville, Florida; specific models shall be as shown in the fan schedule. Panels and structural angle supports shall be of welded steel construction. Fan blades shall be airfoil shaped cast aluminum securely attached to heavy cast aluminum hub. Blade pitch shall be adjustable. Ball bearings shall be of heavy duty pillow block type. Motor pulleys shall be variable pitch. Fans shall be licensed to bear the AMCA Certified Ratings Seal for sound and air performance. (Specify for each fan model in schedule the required CFM and static pressure; motor enclosure, phase and voltage; and accessories such as wall shutter, motor side or front guard, wall housing, etc.)

Item No.	Cubic Feet Per Minute (CFM) at Static Pressure ^{1,7}							Fan Model ²	Fan Size	Motor HP	Fan RPM	Sone Rating ³	Max BHP ^{4,7}	Blade No.	Pitch	Approx. Ship Wt.	Shutter Model ⁵
	0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"										
1	5,764	4,715	---	---	---	---	---	CBC24G	1/4	897	10.8	0.30	3	25°	119	S24	
2	5,834	4,755	---	---	---	---	---	CBC246G	1/4	659	9.5	0.30	6	35°	128	S24	
3	6,387	5,454	4,394	---	---	---	---	CBC24H	1/3	994	12.8	0.41	3	25°	119	S24	
4	6,471	5,573	4,148	---	---	---	---	CBC246H	1/3	731	11.3	0.41	6	35°	128	S24	
5	7,248	6,438	5,544	4,540	---	---	---	CBC24J	1/2	1128	15.9	0.60	3	25°	125	S24	
6	7,356	6,615	5,419	4,139	---	---	---	CBC246J	1/2	831	14.0	0.60	6	35°	134	S24	
7	8,328	7,631	6,881	6,071	5,177	---	---	CBC24K	3/4	1296	19.7	0.91	3	25°	139	S24	
8	8,436	7,818	6,974	5,803	4,659	---	---	CBC246K	3/4	953	17.5	0.91	6	35°	148	S24	
9	9,253	8,630	7,969	7,267	6,519	5,697	---	CBC24L	24	1	1440	23	1.25	3	25°	144	S24
10	9,366	8,822	8,142	7,174	6,173	---	---	CBC246L		1	1058	21	1.25	6	35°	153	S24
11	10,256	9,696	9,110	8,494	7,847	7,165	6,428	CBC24M	1 1/2	1596	27	1.70	3	25°	159	SR24	
12	10,375	9,893	9,323	8,597	7,621	6,765	5,796	CBC246M	1 1/2	1172	24	1.70	6	35°	168	SR24	
13	11,342	10,838	10,315	9,770	9,203	8,613	7,996	CBC24N	2	1765	32	2.30	3	25°	174	SR24	
14	11,482	11,052	10,564	9,985	9,253	8,344	7,575	CBC246N	2	1297	28	2.30	6	35°	183	SR24	
15	12,968	12,529	12,077	11,612	11,133	10,638	10,128	CBC24P	3	2018	40	3.43	3	25°	198	SR24	
16	13,137	12,767	12,361	11,907	11,384	10,756	9,982	CBC246P	3	1484	35	3.43	6	35°	207	SR24	
17	15,384	15,015	14,639	14,256	13,864	13,464	13,054	CBC24Q	5	2394	53	5.70	3	25°	213	Note 6	
18	15,571	15,263	14,934	14,582	14,200	13,779	13,307	CBC246Q	5	1759	47	5.70	6	35°	222	Note 6	
19	8,817	7,159	---	---	---	---	---	CBC30H	1/3	731	12.7	0.41	3	25°	140	S30	
20	8,893	6,922	---	---	---	---	---	CBC306H	1/3	529	10.3	0.41	6	35°	149	S30	
21	9,999	8,591	6,653	---	---	---	---	CBC30J	1/2	829	15.6	0.60	3	25°	146	S30	
22	10,104	8,461	---	---	---	---	---	CBC306J	1/2	601	12.9	0.60	6	35°	155	S30	
23	11,495	10,284	8,799	7,072	---	---	---	CBC30K	3/4	953	19.7	0.91	3	25°	160	S30	
24	11,617	10,242	8,454	---	---	---	---	CBC306K	3/4	691	16.3	0.91	6	35°	169	S30	
25	12,773	11,685	10,510	8,892	7,405	---	---	CBC30L	1	1059	23	1.25	3	25°	165	S30	
26	12,878	11,663	10,187	8,292	---	---	---	CBC306L	30	1	766	19.4	1.24	6	35°	174	S30
27	14,149	13,167	12,158	10,877	9,419	8,062	---	CBC30M		1 1/2	1173	27	1.70	3	25°	180	S30
28	14,273	13,194	11,946	10,420	8,510	---	---	CBC306M	1 1/2	849	23	1.69	6	35°	189	S30	
29	15,644	14,757	13,861	12,872	11,557	10,285	9,069	CBC30N	2	1297	32	2.29	3	25°	195	SR30	
30	15,803	14,840	13,763	12,517	11,035	9,200	---	CBC306N	2	940	27	2.30	6	35°	204	SR30	
31	17,900	17,125	16,347	15,550	14,657	13,517	12,342	CBC30P	3	1484	40	3.43	3	25°	219	SR30	
32	18,073	17,240	16,339	15,345	14,223	12,937	11,493	CBC306P	3	1075	33	3.43	6	35°	228	SR30	
33	21,205	20,551	19,896	19,237	18,566	17,850	17,024	CBC30Q	5	1758	53	5.71	3	25°	234	SR30	
34	21,385	20,689	19,954	19,172	18,333	17,422	16,415	CBC306Q	5	1272	44	5.69	6	35°	243	SR30	
35	11,479	9,062	---	---	---	---	---	CBC36J	36	1/2	690	14.9	0.60	3	20°	173	S36
36	11,993	9,758	---	---	---	---	---	CBC366J		1/2	498	13.1	0.60	6	30°	182	S36
37	13,209	11,198	8,930	---	---	---	---	CBC36K	3/4	794	18.7	0.91	3	20°	187	S36	
38	13,702	11,873	---	---	---	---	---	CBC366K	3/4	569	16.2	0.91	6	30°	196	S36	
39	14,673	12,934	10,838	8,871	---	---	---	CBC36L	1	882	22	1.25	3	20°	192	S36	
40	15,220	13,622	11,282	---	---	---	---	CBC366L	1	632	19.2	1.25	6	30°	201	S36	
41	16,237	14,717	12,819	11,015	9,183	---	---	CBC36M	1 1/2	976	26	1.69	3	20°	207	S36	
42	16,881	15,471	13,695	10,863	---	---	---	CBC366M	1 1/2	701	22	1.70	6	30°	216	S36	
43	17,951	16,610	14,947	13,247	11,647	9,934	---	CBC36N	2	1079	31	2.29	3	20°	222	S36	
44	18,639	17,382	15,909	13,816	11,007	---	---	CBC366N	2	774	26	2.28	6	30°	231	S36	
45	20,529	19,386	18,033	16,504	15,042	13,643	12,224	CBC36P	3	1234	39	3.42	3	20°	246	SR36	
46	21,312	20,231	19,025	17,605	15,615	13,172	---	CBC366P	3	885	32	3.43	6	30°	255	SR36	
47	24,356	23,413	22,361	21,162	19,867	18,608	17,405	CBC36Q	5	1464	51	5.72	3	20°	261	Note 6	
48	25,262	24,362	23,395	22,342	21,151	19,668	17,735	CBC366Q	5	1049	42	5.71	6	30°	270	Note 6	
49	27,899	27,086	26,206	25,238	24,170	23,039	21,922	CBC36R	7 1/2	1677	65	8.59	3	20°	327	Note 6	
50	27,935	27,126	26,270	25,356	24,369	23,261	21,923	CBC366R	7 1/2	1160	50	7.72	6	30°	384	Note 6	

(chart continues next page)

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

Type CBC Performance Ratings (cont'd)

Item No.	Cubic Feet Per Minute (CFM) at Static Pressure ^{1,7}							Fan Model ²	Fan Size	Motor HP	Fan RPM	Sone Rating ³	Max BHP ^{4,7}	Blade		Approx. Ship Wt.	Shutter Model ⁵
	0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"							No.	Pitch		
51	16,463	13,354	---	---	---	---	---	CBC42K	3/4	631	18.9	0.91	3	20°	232	S42	
52	17,092	14,090	---	---	---	---	---	CBC426K	3/4	453	15.1	0.91	6	30°	241	S42	
53	18,420	15,623	12,748	---	---	---	---	CBC42L	1	706	23	1.25	3	20°	237	S42	
54	18,979	16,349	---	---	---	---	---	CBC426L	1	503	18.0	1.25	6	30°	246	S42	
55	20,246	17,676	15,158	12,111	---	---	---	CBC42M	1 1/2	776	26	1.70	3	20°	252	S42	
56	20,979	18,637	15,683	---	---	---	---	CBC426M	1 1/2	556	21	1.70	6	30°	261	S42	
57	22,542	20,201	18,001	15,589	12,453	---	---	CBC42N	42	2	864	32	2.29	3	20°	267	S42
58	23,205	21,111	18,708	15,393	---	---	---	CBC426N	42	2	615	25	2.30	6	30°	276	S42
59	25,673	23,584	21,666	19,672	17,506	14,802	---	CBC42P	3	984	40	3.43	3	20°	291	S42	
60	26,525	24,714	22,752	20,386	17,331	---	---	CBC426P	3	703	31	3.43	6	30°	300	S42	
61	30,396	28,600	26,945	25,331	23,648	21,867	19,938	CBC42Q	5	1165	55	5.71	3	20°	306	SR42	
62	31,393	29,877	28,284	26,573	24,585	22,140	---	CBC426Q	5	832	41	5.69	6	30°	315	SR42	
63	35,066	33,492	32,019	30,613	29,213	27,764	26,251	CBC42R	7 1/2	1344	72	8.57	3	20°	372	Note 6	
64	35,996	34,682	33,318	31,897	30,381	28,680	26,668	CBC426R	7 1/2	954	51	8.58	6	30°	429	Note 6	
65	22,286	18,518	---	---	---	---	---	CBC48L	1	575	23	1.25	3	20°	329	S48	
66	24,611	21,208	16,698	---	---	---	---	CBC48M	1 1/2	635	28	1.68	6	25°	334	S48	
67	27,131	24,062	20,721	15,365	---	---	---	CBC48N	2	700	33	2.26	3	20°	359	S48	
68	26,338	23,218	18,616	---	---	---	---	CBC486N	2	512	28	2.27	6	25°	369	S48	
69	30,968	28,293	25,550	21,826	16,995	---	---	CBC48P	3	799	41	3.39	3	20°	383	S48	
70	30,093	27,457	23,931	19,504	---	---	---	CBC486P	3	585	36	3.39	6	25°	393	S48	
71	28,891	27,036	24,646	22,110	17,286	---	---	CBC488P	3	504	28	3.41	8	30°	433	S48	
72	36,626	34,374	32,071	29,736	26,650	22,702	---	CBC48Q	48	5	945	54	5.61	3	20°	398	SR48
73	35,546	33,360	30,834	27,500	23,794	---	---	CBC486Q	48	5	691	48	5.58	6	25°	408	SR48
74	34,223	32,706	30,914	28,761	26,629	24,161	---	CBC488Q	5	597	37	5.62	8	30°	448	SR48	
75	41,820	39,851	37,852	35,819	33,764	31,175	27,612	CBC48R	7 1/2	1079	69	8.32	3	20°	455	SR48	
76	40,536	38,635	36,582	34,106	31,038	27,808	23,673	CBC486R	7 1/2	788	60	8.28	6	25°	465	SR48	
77	39,152	37,850	36,385	34,681	32,762	30,891	28,997	CBC488R	7 1/2	683	47	8.38	8	30°	505	SR48	
78	46,044	44,258	42,452	40,615	38,768	36,875	34,504	CBC48S	10	1188	83	11.09	3	20°	489	Note 6	
79	44,703	42,986	41,181	39,145	36,698	33,826	30,903	CBC486S	10	869	72	11.11	6	25°	499	Note 6	
80	42,993	41,819	40,530	39,080	37,430	35,664	33,969	CBC488S	10	750	57	11.10	8	30°	539	Note 6	
81	23,897	17,331	---	---	---	---	---	CBC54L	1	467	22	1.12	3	20°	367	S54	
82	24,545	18,118	---	---	---	---	---	CBC546L	1	354	22	1.16	6	25°	382	S54	
83	27,274	22,248	---	---	---	---	---	CBC54M	1 1/2	533	27	1.66	3	20°	379	S54	
84	27,735	22,627	---	---	---	---	---	CBC546M	1 1/2	400	27	1.67	6	25°	394	S54	
85	30,242	25,651	19,237	---	---	---	---	CBC54N	2	591	32	2.26	3	20°	380	S54	
86	30,716	26,393	19,489	---	---	---	---	CBC546N	2	443	31	2.27	6	25°	395	S54	
87	34,489	30,670	25,683	19,426	---	---	---	CBC54P	3	674	40	3.36	3	20°	402	S54	
88	35,015	31,385	26,047	---	---	---	---	CBC546P	3	505	39	3.37	6	25°	417	S54	
89	34,923	31,816	28,534	24,930	---	---	---	CBC548P	54	3	424	23	3.37	8	30°	462	S54
90	40,988	38,123	34,250	29,377	24,447	---	---	CBC54Q	5	801	55	5.64	3	20°	430	S54	
91	41,602	38,628	35,073	30,128	---	---	---	CBC546Q	5	600	53	5.65	6	25°	445	S54	
92	41,512	38,925	36,205	33,442	30,555	22,550	---	CBC548Q	5	504	32	5.65	8	30°	490	S54	
93	46,770	44,345	40,954	37,973	33,060	28,834	22,856	CBC54R	7 1/2	914	70	8.40	3	20°	487	SR54	
94	47,496	44,917	42,085	38,456	34,052	27,310	---	CBC546R	7 1/2	685	68	8.40	6	25°	502	SR54	
95	47,360	45,106	42,762	40,339	37,927	35,450	30,415	CBC548R	7 1/2	575	41	8.41	8	30°	547	SR54	
96	51,427	49,252	46,535	43,341	40,552	35,673	31,882	CBC54S	10	1005	85	11.16	3	20°	519	SR54	
97	52,141	49,803	47,318	44,426	40,599	36,761	30,266	CBC546S	10	752	81	11.11	6	25°	534	SR54	
98	52,054	50,011	47,901	45,720	43,506	41,325	39,066	CBC548S	10	632	47	11.15	8	30°	589	SR54	

(chart continues next page)

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

Type CBC Performance Ratings (cont'd)

Item No.	Cubic Feet Per Minute (CFM) at Static Pressure ^{1,7}							Fan Model ²	Fan Size	Motor HP	Fan RPM	Sone Rating ³	Max BHP ^{4,7}	Blade No.	Blade Pitch	Approx. Ship Wt.	Shutter Model ⁵
	0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"										
99	27,428	19,065	---	---	---	---	---	CBC60L	1	437	25	1.11	3	15°	381	S60	
100	28,128	17,778	---	---	---	---	---	CBC606L	1	304	21	1.16	6	25°	401	S60	
101	31,382	24,760	---	---	---	---	---	CBC60M	1 1/2	500	31	1.66	3	15°	393	S60	
102	31,829	24,731	---	---	---	---	---	CBC606M	1 1/2	344	25	1.68	6	25°	413	S60	
103	34,771	29,285	20,768	---	---	---	---	CBC60N	2	554	37	2.26	3	15°	393	S60	
104	35,253	29,369	---	---	---	---	---	CBC606N	2	381	30	2.28	6	25°	414	S60	
105	39,667	35,018	28,189	21,036	---	---	---	CBC60P	3	632	46	3.35	3	15°	415	S60	
106	39,879	35,008	25,314	---	---	---	---	CBC606P	3	413	38	3.30	6	25°	435	S60	
107	40,792	36,888	29,353	---	---	---	---	CBC608P	3	333	28	3.34	8	35°	485	S60	
108	47,135	43,239	38,812	32,500	26,273	---	---	CBC60Q	5	751	63	5.63	3	15°	442	S60	
109	47,559	43,691	38,535	28,873	---	---	---	CBC606Q	5	514	52	5.60	6	25°	462	S60	
110	48,632	45,237	42,170	33,641	---	---	---	CBC608Q	5	397	39	5.65	8	35°	512	S60	
111	53,788	50,368	46,894	42,068	36,622	30,983	---	CBC60R	7 1/2	857	81	8.36	3	15°	500	SR60	
112	54,313	50,997	47,035	41,603	---	---	---	CBC606R	7 1/2	587	67	8.34	6	25°	520	SR60	
113	55,492	52,444	49,790	46,804	37,802	---	---	CBC608R	7 1/2	453	49	8.40	8	35°	570	SR60	
114	59,123	56,008	52,907	49,337	44,191	39,475	34,242	CBC60S	10	942	97	11.10	3	15°	533	SR60	
115	59,865	56,883	53,520	49,330	43,084	---	---	CBC606S	10	647	81	11.16	6	25°	553	SR60	
116	61,126	58,317	55,858	53,424	50,051	40,852	---	CBC608S	10	499	59	11.23	8	35°	603	SR60	
117	44,303	35,814	---	---	---	---	---	CBC72N	2	281	24	2.19	8	20°	732	S72	
118	51,083	44,599	35,032	---	---	---	---	CBC72P	3	324	31	3.35	8	20°	754	S72	
119	60,700	55,262	47,784	40,066	---	---	---	CBC72Q	5	385	41	5.62	8	20°	768	S72	
120	69,371	64,532	59,668	51,733	45,056	32,768	---	CBC72R	72 7 1/2	440	52	8.40	8	20°	826	S72	
121	76,466	72,029	67,882	61,637	55,122	48,437	38,049	CBC72S	10	485	63	11.24	8	20°	857	SR72	
122	87,187	83,258	79,601	75,745	69,544	63,744	58,787	CBC72T*	15	553	80	16.67	8	20°	928	SR72	
123	96,332	92,758	89,377	86,112	82,174	76,074	70,901	CBC72U*	20	611	98	22.48	8	20°	962	Note 6	
124	54,338	40,521	---	---	---	---	---	CBC84N	2	218	21	2.19	8	20°	1044	S84	
125	62,564	52,069	35,886	---	---	---	---	CBC84P	3	251	26	3.34	8	20°	1067	S84	
126	74,528	66,415	54,355	39,643	---	---	---	CBC84Q	5	299	36	5.65	8	20°	1092	S84	
127	84,997	77,824	68,687	58,350	43,030	---	---	CBC84R	84 7 1/2	341	45	8.38	8	20°	1149	S84	
128	93,721	87,139	80,433	69,678	60,413	---	---	CBC84S	10	376	54	11.24	8	20°	1180	SR84	
129	106,931	101,088	95,624	88,192	78,813	71,136	59,347	CBC84T	15	429	69	16.69	8	20°	1253	SR84	
130	117,899	112,565	107,578	102,269	93,763	86,019	79,119	CBC84U*	20	473	83	22.38	8	20°	1287	SR84	

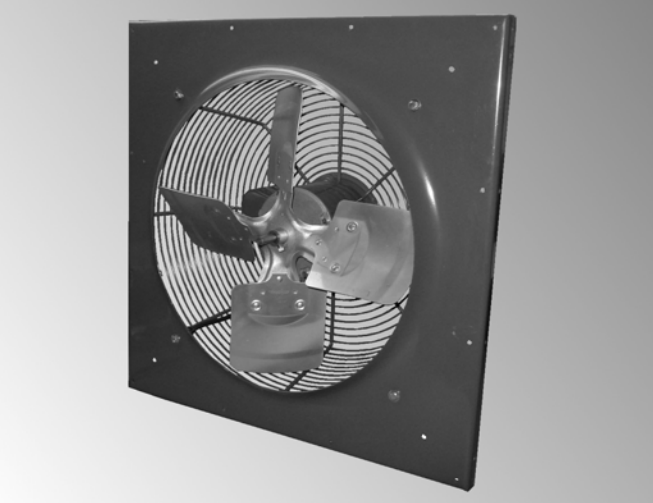
- 1 — Performance shown is for Installation Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories).
- 2 — The first three letters of the model number identify **fan type**, **drive configuration** and **style**. The next two numbers indicate **fan size**, the next letter identifies motor **horsepower**. For example: Model CBC48N is Type "C", belt drive, Style "C", 48" size, 2 H.P.
- 3 — The sound ratings shown are loudness values in hemispherical sones at 1.5m (5 ft.) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for Installation Type A: free inlet hemispherical sone levels. The sound ratings shown are at 0" static pressure.
- 4 — Maximum brake horsepower (BHP) within the catalog performance range. Power rating (BHP) does not include transmission losses. Bearing losses are included. BHP at most static pressures listed is less than that shown, in some cases substantially less. For specific BHP values at individual static pressure points contact your American Coolair representative. Because of the cooling the motor receives from the moving air stream, motor loading beyond the nominal nameplate ratings on these American Coolair fans does not overheat the motor and is within NEMA recommended limits and motor service factor. It is not detrimental to the motor and is economically desirable.
- 5 — Shutter models shown are automatic (gravity) type. Add suffix "M" for manual operation; suffix "E" for motor operation.
- 6 — Consult factory for these shutter specifications.
- 7 — To convert air performance (CFM and SP) and power (BHP) to metric units, multiply CFM x .000472 to obtain cubic meters per second (m³/s). Multiply SP x 248.36 to obtain pascals (Pa). Multiply BHP x .7457 to obtain kilowatts (kW).

Example: 3904 CFM x .000472 = 1.8427 m³/s
0.125 SP x 248.36 = 31.05 Pa
0.886 BHP x .7457 = 0.661 kW

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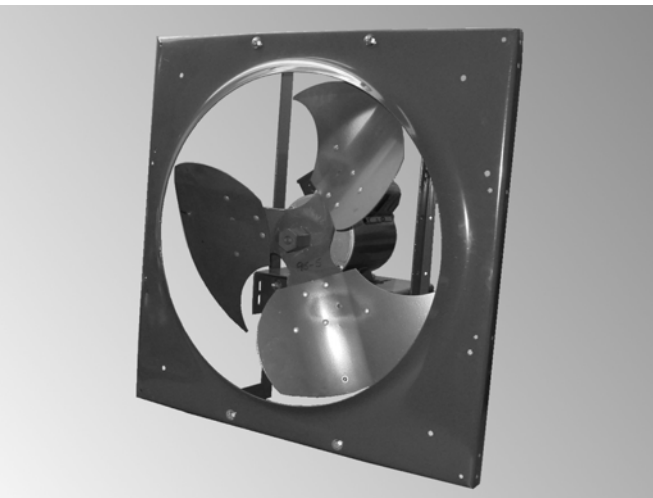
Type CD (Models CDP-CDU-CDC)

**DIRECT DRIVE — 330 to 61,400 CFM
0" to $\frac{3}{4}$ " STATIC PRESSURE**



CDP

CDP fans provide an efficient and economical means to move relatively low volumes of air. Each CDP features 3, 4, or 5 aluminum blades. The available speed controller accessory allows the CDP's motor speed to be varied with an to achieve performances from 50% to 100% of catalog ratings. A welded steel wire inlet guard is standard on all CDP models.



CDU

CDU fans are ideal for quietly moving low to medium volumes of air. The CDU features 3 formed steel "tear-drop" blades specifically engineered for ultra-quiet operation. A PVC coated steel wire inlet guard is standard on all CDU models, and a motor speed controller is available on some models (see the performance table).

Application

CD fans are designed for minimal maintenance requirements and efficient, economical operation.

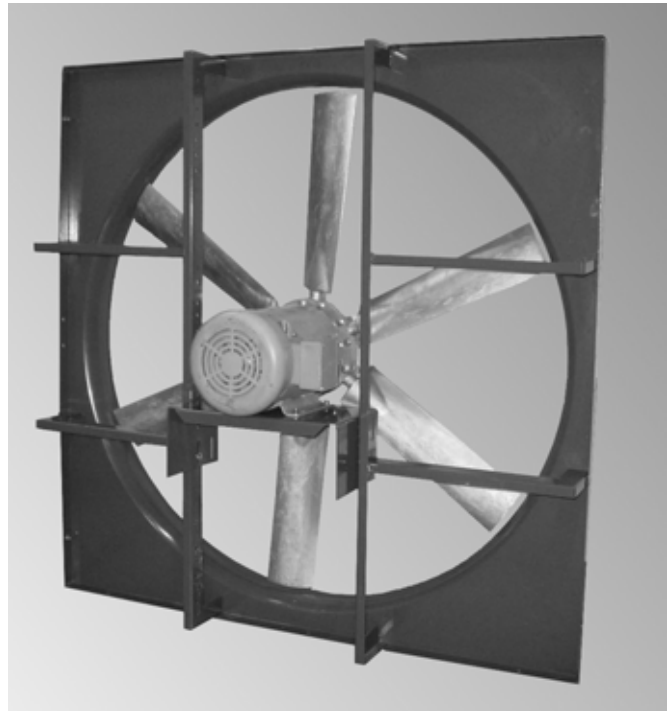
These fans are suggested for use in situations where the installed fan will be difficult to reach for periodic maintenance.

These fans can be used for either air supply or exhaust by specifying the arrangement desired.

Features

American Coolair's Type C panel and rugged angle frame form the structure for CD fans.

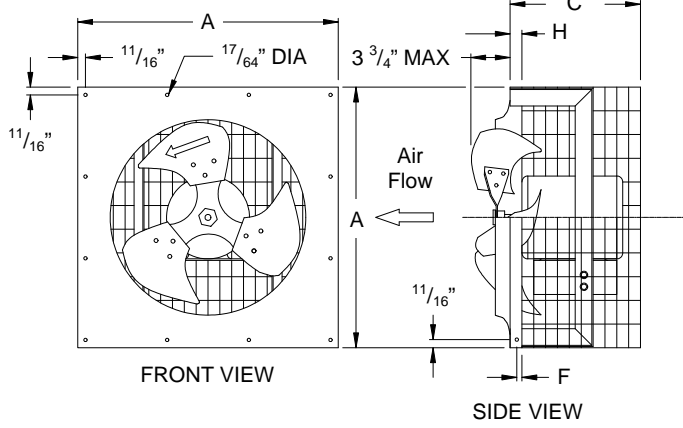
The propeller assembly is connected directly to the motor shaft. There are no bearings or belts to require maintenance. Many motors are permanently lubricated.



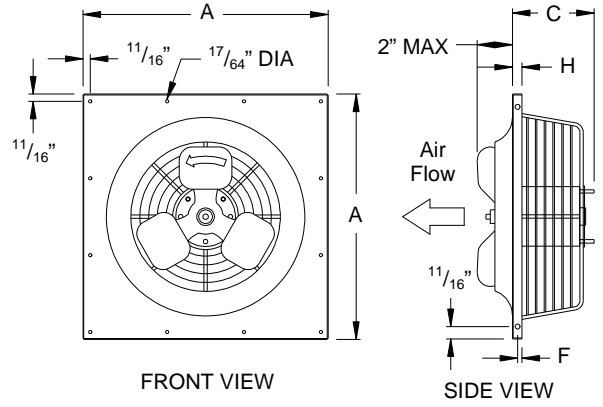
CDC

For moving medium to high air volumes, the CDC is the answer. CDC fans incorporate specifically engineered airfoil sections and hub sizes for optimum efficiency and physical strength. Three, four or six cast aluminum adjustable pitch airfoil blades are securely attached to a heavy cast aluminum hub. Blade pitch is set for catalog performance. NOTE: The blade pitch should not be adjusted without first contacting your American Coolair representative.

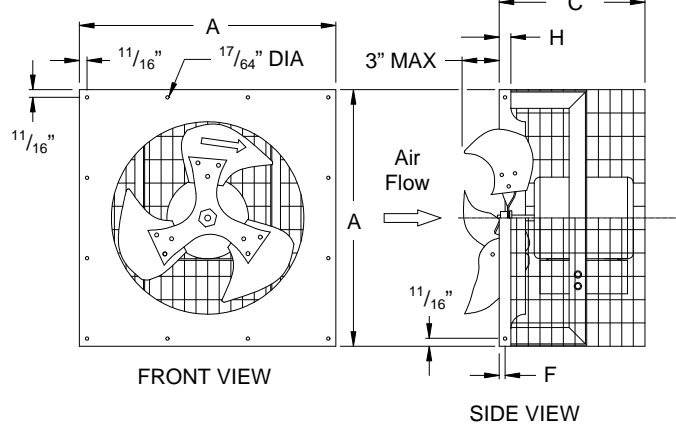
Type CDU fans



Type CDP fans



Supply



TYPE CDP AND CDU FANS

Fan	Dimensions in Inches			
	A	C	F	H
CDP7	14	5	1/4	1/2
CDP8	14	5	1/4	1/2
CDP10	18	5	1/4	1/2
CDU12	18	11	1/4	1/2
CDP14	22	5	1/2	1
CDU14	22	12	1/2	1
CDP16	22	7 1/2	1/2	1
CDU16	22	12	1/2	1
CDP18	26	7 1/2	1/2	1
CDU18	26	14	1/2	1
CDU20	26	14	1/2	1
CDU24	32	14	1/2	1

Dimensions

Dimension A is the O.D. of the square fan panel.

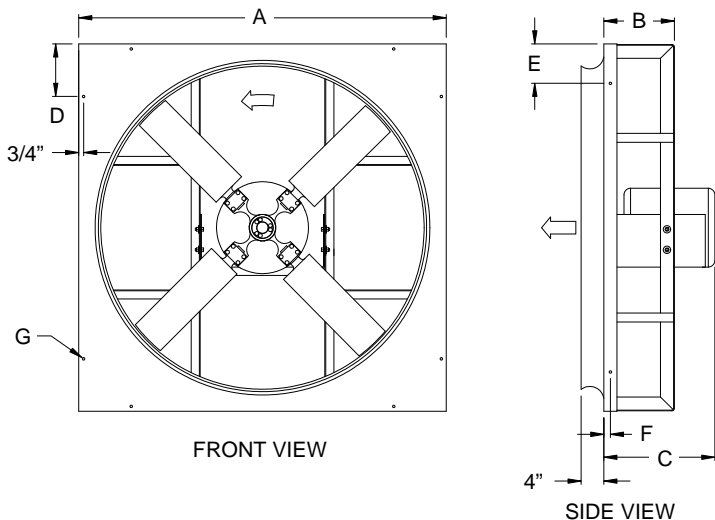
Dimension B is the depth from the face of the fan panel to the back of the fan frame.

Dimension C is the maximum width with constant speed, 3-phase TEFC motor of maximum horsepower for fan size and style indicated. This dimension will vary with the type and HP of the motor actually selected.

Dimension G is the diameter of the installation holes.

TYPE CDC FANS

Type CDC fans



Fan Size	Dimensions in Inches						
	A	B	C	D	E	F	G
18	26	5 5/8	13 3/8	11/16	11/16	9/16	17/64
24	32	5 1/8	12 1/2	6	5	7/8	3/8
30	38	5 1/8	13 7/8	6	5	7/8	3/8
36	44	5 1/8	15 3/8	7	5	7/8	3/8
42	50	5 1/8	15 3/8	7	4	7/8	3/8
48	56	6 5/8	17 3/8	8	5	1	3/8
54	62	6 5/8	17 3/8	8	6	1	3/8
60	68	6 5/8	17 3/8	11	9	1	1/2

Performance Ratings



American Coolair Corporation certifies that the Type CD fan models shown herein are licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

Typical Specifications

Direct driven propeller fans shall be American Coolair Type CD as manufactured by American Coolair Corporation, Jacksonville, Florida; specific models shall be as shown in the fan schedule. Panels and structural angle supports shall be of welded steel construction. Fan blades shall be formed aluminum (CDP), formed steel (CDU), or cast aluminum (CDC) securely attached to heavy cast aluminum hub. Blade pitch shall be adjustable (CDC). Entire blade assembly shall be mounted directly to the motor shaft. Fans shall be licensed to bear the AMCA Certified Ratings Seal for air and sound performance. (Specify for each fan model in schedule the required CFM and static pressure; motor enclosure, phase and voltage; and accessories such as wall shutter, motor side or front guard, wall housing, etc.)

Item No.	Cubic Feet Per Minute (CFM) at Static Pressure ^{1,8}							Fan Model ²	Fan Size	Motor HP	Fan RPM	Sone Rating ³	Max BHP ^{4,8}	Blade Descr.		Approx. Ship Wt.	Shutter Model ⁵
	0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"							No.	Pitch		
1	333	—	—	—	—	—	—	CDP7B17 ⁷	7	1/20	1725	5.1	0.01	5	30°	12	SU7-8
2	530	450	—	—	—	—	—	CDP8B17 ⁷	8	1/20	1675	7.1	0.03	5	32°	12	SU7-8
3	793	687	—	—	—	—	—	CDP10B15 ⁷	10	1/20	1560	9.2	0.05	5	37°	13	SU10-12
4	1,165	900	—	—	—	—	—	CDU12H11 ⁷		1/3	1160	4.4	0.07	3	41°	34	SU10-12
5	1,500	1,380	1,210	—	—	—	—	CDU12F17 ⁷	12	1/6	1750	7.6	0.16	3	33°	34	SU10-12
6	1,760	1,630	1,430	—	—	—	—	CDU12H17		1/3	1750	9.8	0.23	3	41°	37	SU10-12
7	1,144	1,001	—	—	—	—	—	CDP14B15 ⁷		1/20	1450	11.9	0.06	3	18°	22	SU14-16
8	1,750	1,555	—	—	—	—	—	CDU14H11 ⁷		1/3	1160	6.7	0.16	3	41°	37	SU14-16
9	2,035	1,920	1,795	—	—	—	—	CDU14F17 ⁷	14	1/6	1750	9.2	0.23	3	29°	38	SU14-16
10	2,635	2,520	2,395	2,200	—	—	—	CDU14H17		1/3	1750	13.8	0.38	3	41°	40	SU14-16
11	2,388	2,198	—	—	—	—	—	CDP16G11 ⁷		1/4	1140	6.7	0.17	4	32°	33	SU14-16
12	2,480	2,235	1,935	—	—	—	—	CDU16H11 ⁷	16	1/3	1160	9.7	0.23	3	41°	37	SU14-16
13	2,970	2,845	2,690	2,515	2,285	—	—	CDU16H17		1/3	1750	16.6	0.39	3	32°	44	SU14-16
14	3,281	2,842	2,225	—	—	—	—	CDP18G10 ⁷		1/4	1060	9.8	0.32	4	40°	38	SU18-20
15	2,905	2,700	2,435	—	—	—	—	CDU18H11 ⁷		1/3	1160	8.9	0.30	3	32°	41	SU18-20
16	3,265	3,130	2,960	—	—	—	—	CDU18H17		1/3	1750	14.7	0.40	3	21°	44	SU18-20
17	3,760	3,660	3,510	3,355	3,150	—	—	CDU18J17		1/2	1750	16.2	0.58	3	25°	50	SU18-20
18	4,385	4,230	4,110	3,960	3,780	—	—	CDU18K17		3/4	1750	17.5	0.76	3	32°	57	SU18-20
19	2,890	2,526	2,032	—	—	—	—	CDC18F11		1/6	1160	9.5	0.18	4	23.5°	60	SU18-20
20	3,328	3,035	2,632	—	—	—	—	CDC18G11	18	1/4	1160	11.5	0.29	6	28°	62	SU18-20
21	3,856	3,543	3,059	—	—	—	—	CDC18H11		1/3	1160	12.4	0.38	6	33.5°	58	SU18-20
22	2,642	2,299	1,967	1,595	—	—	—	CDC18F17		1/6	1750	15.4	0.19	3	10.5°	51	SU18-20
23	3,659	3,373	3,068	2,706	2,235	—	—	CDC18H17		1/3	1750	16.8	0.38	3	19°	55	SU18-20
24	4,050	3,820	3,587	3,320	2,993	2,610	2,194	CDC18J17		1/2	1750	18.7	0.57	4	21°	63	SU18-20
25	5,065	4,851	4,569	4,272	3,942	3,456	2,894	CDC18K17		3/4	1750	23	0.85	4	29.5°	70	SU18-20
26	5,435	5,214	4,980	4,770	4,546	4,258	3,909	CDC18L17		1	1750	22	1.20	6	31°	74	SU18-20
27	3,920	3,680	3,405	3,055	—	—	—	CDU20H11 ⁷		1/3	1160	11.5	0.39	3	31°	42	SU18-20
28	3,235	2,870	—	—	—	—	—	CDU20H17	20	1/3	1750	22	0.39	3	13°	45	SU18-20
29	4,940	4,815	4,670	4,520	4,340	—	—	CDU20K17		3/4	1750	24	0.89	3	24°	58	SU18-20
30	4,670	4,175	3,180	—	—	—	—	CDU24G8		1/4	830	8.9	0.28	3	28°	63	SU24
31	4,800	4,345	—	—	—	—	—	CDU24H11 ⁷		1/3	1160	14.1	0.39	3	20°	53	SU24
32	6,525	6,220	5,815	—	—	—	—	CDU24J11 ⁷		1/2	1160	16.2	0.69	3	28°	63	SU24
33	5,890	4,869	3,546	—	—	—	—	CDC24G8		1/4	870	12.1	0.29	3	28°	95	S24
34	6,923	6,304	5,478	3,998	—	—	—	CDC24J8		1/2	870	15.4	0.57	6	30.5°	119	S24
35	5,659	4,996	4,300	3,262	—	—	—	CDC24H11		1/3	1160	17.7	0.37	3	15.5°	100	S24
36	7,197	6,519	5,714	4,812	—	—	—	CDC24J11	24	1/2	1160	19.1	0.59	3	23.5°	95	S24
37	8,567	7,747	6,728	5,837	4,308	—	—	CDC24K11		3/4	1160	22	0.85	3	33°	104	S24
38	9,318	8,574	7,813	6,957	5,707	—	—	CDC24L11		1	1160	25	1.14	4	33.5°	122	S24
39	8,229	7,753	7,358	6,983	6,460	5,854	5,210	CDC24L17		1	1750	34	1.18	3	14.5°	100	S24
40	9,810	9,382	8,942	8,470	7,916	7,374	6,807	CDC24M17		1 1/2	1750	36	1.70	3	19.5°	122	SR24
41	11,646	11,235	10,739	10,221	9,651	9,052	8,445	CDC24N17		2	1750	39	2.31	3	27°	117	SR24
42	13,449	12,948	12,461	12,005	11,563	11,089	10,517	CDC24P17		3	1750	56	3.47	4	31°	143	SR24

(chart continues next page)

Type CDC Performance Ratings (cont'd)

Item No.	Cubic Feet Per Minute (CFM) at Static Pressure ^{1,8}							Fan Model ²	Fan Size	Motor HP	Fan RPM	Sone Rating ³	Max BHP ^{4,8}	Blade No.	Blade Descr. Pitch	Approx. Ship Wt.	Shutter Model ⁵
	0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"										
43	6,959	5,680	3,716	—	—	—	—	CDC30G8		1/4	870	15.3	0.29	3	12.5°	108	S30
44	9,727	8,287	6,678	—	—	—	—	CDC30J8		1/2	870	16.5	0.58	3	22.5°	116	S30
45	11,088	9,857	8,475	6,852	—	—	—	CDC30K8		3/4	870	21	0.85	4	25°	121	S30
46	10,211	9,439	8,380	7,253	5,364	—	—	CDC30K11		3/4	1160	26	0.87	3	15°	131	S30
47	11,971	11,026	9,884	8,785	7,265	—	—	CDC30L11	30	1	1160	27	1.14	3	19.5°	136	S30
48	13,453	12,657	11,661	10,742	9,675	8,208	—	CDC30M11		1 1/2	1160	31	1.70	4	22°	162	S30
49	15,421	14,507	13,519	12,375	11,277	10,049	—	CDC30N11	2	1160	34	2.27	4	27°	175	SR30	
50	13,716	13,156	12,517	11,835	11,161	10,457	9,695	CDC30N17	2	1750	47	2.24	3	12°	131	S30	
51	16,883	16,339	15,746	14,907	14,287	13,592	12,818	CDC30P17	3	1750	52	3.46	3	17.5°	157	SR30	
52	20,296	19,791	19,262	18,500	17,905	17,332	16,731	CDC30Q17	5	1750	65	5.73	4	22°	175	SR30	
53	15,166	13,428	11,504	8,275	—	—	—	CDC36L6		1	680	24	1.13	6	23.5°	195	S36
54	17,616	16,111	13,671	10,232	—	—	—	CDC36M6		1 1/2	680	26	1.67	6	30°	247	S36
55	9,928	8,214	6,126	—	—	—	—	CDC36J8		1/2	870	24	0.56	3	8.5°	139	S36
56	13,266	11,226	9,218	—	—	—	—	CDC36K8		3/4	870	26	0.85	3	15.5°	150	S36
57	15,110	13,215	10,748	8,133	—	—	—	CDC36L8		1	870	27	1.14	3	20°	178	S36
58	17,697	15,810	13,253	10,129	—	—	—	CDC36M8		1 1/2	870	28	1.72	3	27.5°	185	S36
59	19,152	17,634	15,906	13,468	—	—	—	CDC36N8		2	870	33	2.30	4	28.5°	239	SR36
60	22,314	21,202	19,777	17,836	15,385	12,578	—	CDC36P8	36	3	870	39	3.41	6	29.5°	270	SR36
61	15,810	14,417	12,949	11,604	10,038	—	—	CDC36M11		1 1/2	1160	40	1.70	3	12.5°	185	S36
62	18,781	17,324	15,688	13,922	12,336	10,551	—	CDC36N11	2	1160	42	2.31	3	17.5°	194	SR36	
63	22,145	20,931	19,114	17,409	15,401	13,202	—	CDC36P11	3	1160	44	3.44	3	24°	240	SR36	
64	25,938	24,835	23,680	22,432	20,951	19,063	16,909	CDC36Q11	5	1160	54	5.71	4	29.5°	289	Note 6	
65	22,279	21,361	20,488	19,630	18,799	17,981	17,159	CDC36Q17	5	1750	79	5.73	3	11°	196	SR36	
66	27,585	26,651	25,669	24,602	23,646	22,722	21,819	CDC36R17	7 1/2	1750	83	8.47	3	16.5°	240	Note 6	
67	31,604	30,726	29,804	28,832	27,791	26,684	25,542	CDC36S17	10	1750	78	11.19	3	20.5°	267	Note 6	
68	18,329	15,148	11,428	—	—	—	—	CDC42L6		1	680	28	1.16	3	18.5°	237	S42
69	20,660	17,624	14,584	11,783	—	—	—	CDC42M6		1 1/2	680	31	1.71	4	21.5°	293	S42
70	22,048	19,876	17,980	16,050	—	—	—	CDC42N6		2	680	36	2.31	6	22°	319	S42
71	16,053	13,871	11,574	8,770	—	—	—	CDC42L8		1	870	33	1.14	3	8°	229	S42
72	19,684	17,398	14,856	12,241	—	—	—	CDC42M8		1 1/2	870	37	1.70	3	13°	238	S42
73	22,803	20,405	17,788	14,905	—	—	—	CDC42N8	42	2	870	41	2.27	3	17.5°	286	S42
74	23,247	21,939	20,679	19,429	18,052	16,304	13,495	CDC42P8		3	870	49	3.31	6	15°	351	S42
75	19,570	17,975	16,339	14,624	12,881	10,654	—	CDC42N11	2	1160	51	2.29	3	6°	189	S42	
76	23,738	21,937	20,306	18,759	17,055	14,854	12,235	CDC42P11	3	1160	58	3.31	3	10.5°	225	S42	
77	31,267	29,640	27,673	25,656	23,586	21,408	19,055	CDC42Q11	5	1160	70	5.78	3	18.5°	240	SR42	
78	30,907	29,798	28,711	27,672	26,655	25,554	24,398	CDC42R17	7 1/2	1750	114	8.45	3	7°	225	SR42	
79	35,812	34,607	33,414	32,280	31,206	30,175	29,155	CDC42S17	10	1750	128	11.27	3	10.5°	245	Note 6	
80	19,158	15,792	12,004	—	—	—	—	CDC48L6		1	680	29	1.16	3	9°	270	S48
81	23,063	19,348	15,364	—	—	—	—	CDC48M6		1 1/2	680	31	1.70	3	14°	308	S48
82	24,888	21,994	18,685	15,530	—	—	—	CDC48N6		2	680	37	2.33	4	15.5°	331	S48
83	23,584	21,044	18,143	15,270	11,815	—	—	CDC48N8		2	870	41	2.26	3	8°	302	S48
84	28,999	26,364	23,143	20,083	16,624	—	—	CDC48P8		3	870	47	3.45	3	13.5°	319	S48
85	35,919	32,759	29,209	25,467	20,568	—	—	CDC48Q8	48	5	870	49	5.64	3	21.5°	378	SR48
86	39,162	37,352	35,207	32,664	30,448	—	—	CDC48R8		7 1/2	870	68	8.50	6	20°	428	SR48
87	32,064	30,247	28,224	26,105	23,829	21,625	19,483	CDC48Q11	5	1160	70	5.60	3	8.5°	319	S48	
88	39,344	37,422	35,328	32,792	30,462	28,136	25,773	CDC48R11	7 1/2	1160	80	8.47	3	14°	359	SR48	
89	44,737	42,565	40,131	37,704	35,346	32,752	29,347	CDC48S11	10	1160	81	11.33	3	18.5°	395	Note 6	
90	45,574	44,428	43,220	41,852	40,456	39,127	37,690	CDC48T17	15	1750	142	16.76	3	7°	359	Note 6	
91	49,629	48,619	47,609	46,599	45,581	44,500	43,422	CDC48U17	20	1750	161	22.17	4	7.5°	395	Note 6	

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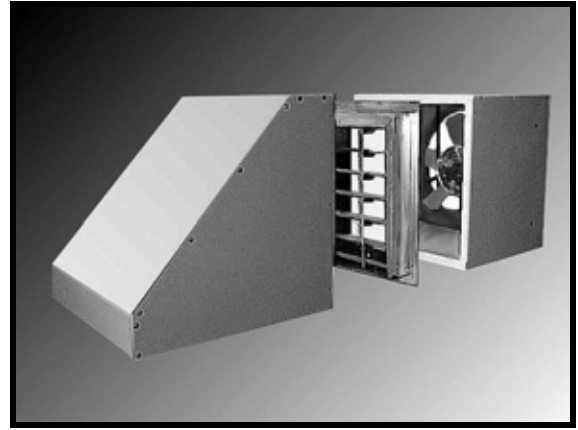
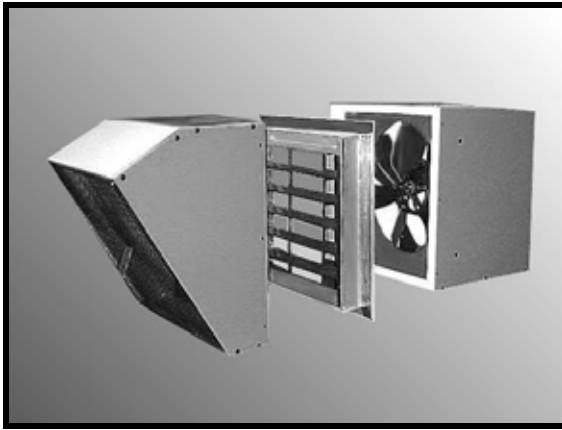
Type CDC Performance Ratings (cont'd)

Item No.	Cubic Feet Per Minute (CFM) at Static Pressure ^{1,8}							Fan Model ²	Fan Size	Motor HP	Fan RPM	Sone Rating ³	Max BHP ^{4,8}	Blade Descr.		Approx. Ship Wt.	Shutter Model ⁵
	0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"							No.	Pitch		
92	26,200	22,089	17,992	—	—	—	—	CDC54M6	1 1/2	680	37	1.73	3	8.5°	375	S54	
93	29,639	25,602	20,796	14,890	—	—	—	CDC54N6	2	680	39	2.27	3	12°	397	S54	
94	32,293	29,264	26,144	22,614	18,652	—	—	CDC54P8	3	870	54	3.33	3	7.5°	393	S54	
95	41,756	37,845	35,237	30,261	26,772	23,053	—	CDC54Q8	54	5	870	61	5.82	3	15°	443	SR54
96	48,304	45,458	42,027	35,213	30,889	26,860	—	CDC54R8		7 1/2	870	67	8.61	3	22°	473	SR54
97	43,875	41,864	39,351	36,781	34,602	32,118	29,100	CDC54R11	7 1/2	1160	94	8.28	3	8°	439	SR54	
98	50,560	48,007	45,916	43,404	39,866	37,179	35,111	CDC54S11	10	1160	103	11.36	3	12°	473	SR54	
99	58,018	56,403	54,597	52,499	49,742	47,262	45,173	CDC54T11	15	1160	128	17.41	4	14.5°	500	Note 6	
100	31,795	26,932	21,425	16,194	—	—	—	CDC60N6	2	680	40	2.29	3	6°	412	S60	
101	37,877	32,608	27,882	21,251	—	—	—	CDC60P6	3	680	48	3.44	3	11°	492	S60	
102	43,820	39,639	36,142	32,648	27,552	23,321	—	CDC60Q8	60	5	870	66	5.78	3	8°	452	S60
103	52,955	49,203	44,663	40,761	35,890	28,254	—	CDC60R8		7 1/2	870	80	8.71	3	14°	484	SR60
104	54,238	51,001	48,093	45,745	43,499	40,386	35,960	CDC60S11	10	1160	104	11.38	3	6°	480	SR60	
105	61,427	59,014	56,886	55,040	52,871	49,802	46,550	CDC60T11	15	1160	123	16.81	4	7.5°	510	SR60	

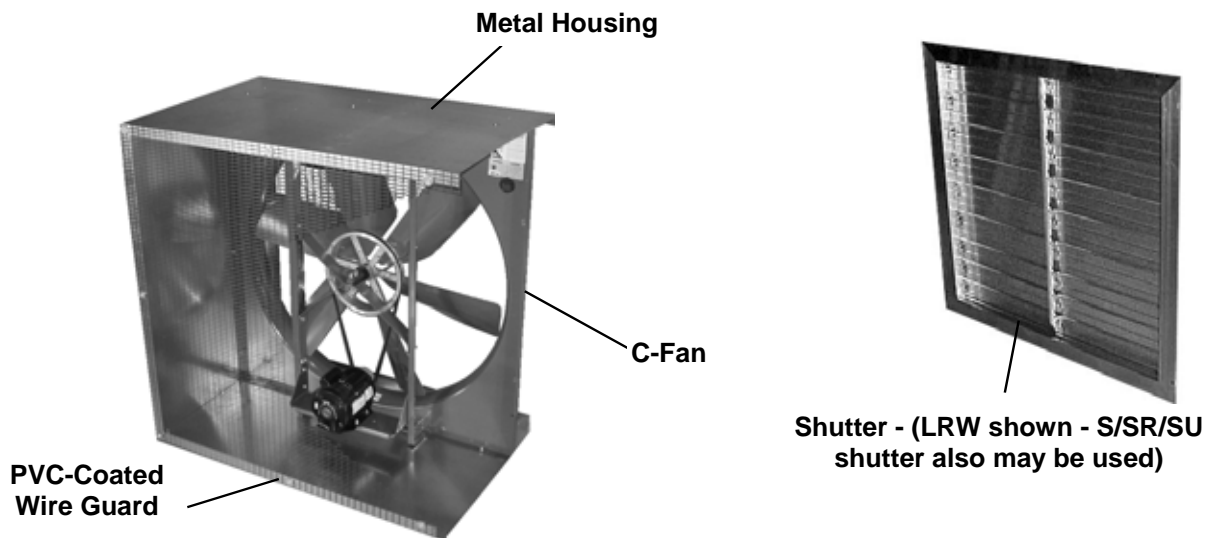
- 1 — Performance shown is for Installation Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories).
- 2 — The first three letters of the model number identify **fan type**, **drive configuration** and **style**. The next two numbers indicate **fan size**, the next letter identifies motor **horsepower**, the last number (or numbers) indicates **RPM** in hundreds. For example: Model CDC24G8 is Type "C", direct drive, Style "C", 24" size, 1/4 H.P., 870 RPM.
- 3 — The sound ratings shown are loudness values in hemispherical sones at 1.5m (5 ft.) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for Installation Type A: free inlet hemispherical sone levels. The sound ratings shown are at 0" static pressure.
- 4 — Maximum brake horsepower (BHP) within the catalog performance range. Power rating (BHP) does not include transmission losses. Bearing losses are included. BHP at most static pressures listed is less than that shown, in some cases substantially less. For specific BHP values at individual static pressure points contact your American Coolair representative. Because of the cooling the motor receives from the moving air stream, motor loading beyond the nominal nameplate ratings on these American Coolair fans does not overheat the motor and is within NEMA recommended limits and motor service factor. It is not detrimental to the motor and is economically desirable.
- 5 — Shutter models shown are automatic (gravity) type. Add suffix "M" for manual operation; suffix "E" for motor operation.
- 6 — Consult factory for these shutter specifications.
- 7 — Manually adjustable variable speed controller is available as an option on these models, exhaust and supply. Control provides infinite variation of motor speed from full speed, which is RPM shown, to 50% of full speed. It is available only with single-phase, 115V or 230V motors. Specify "variable speed control" when this accessory is desired.
- 8 — To convert air performance (CFM and SP) and power (BHP) to metric units, multiply CFM x .000472 to obtain cubic meters per second (m³/s). Multiply SP x 248.36 to obtain pascals (Pa). Multiply BHP x .7457 to obtain kilowatts (kW).

Example: 3904 CFM x .000472 = 1.8427 m³/s
 0.125 SP x 248.36 = 31.05 Pa
 0.886 BHP x .7457 = 0.661 kW

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE



OPTIONAL FAN PACKAGE COMPONENTS



ACCESSORIES FOR FAN PACKAGES



INLET HOOD OPTION

- Specifically designed for supply applications
- Designed to prevent entrainment of moisture into the airstream
- Hardware kit included for ease of assembly
- PVC-coated wire guard available
- Wide range of sizes to fit every need

DISCHARGE HOOD OPTION

- Specifically designed for exhaust applications
- Designed for all-weather performance with minimal pressure losses
- Hardware kit included for ease of assembly
- PVC-coated wire guard available
- Wide range of sizes to fit every need

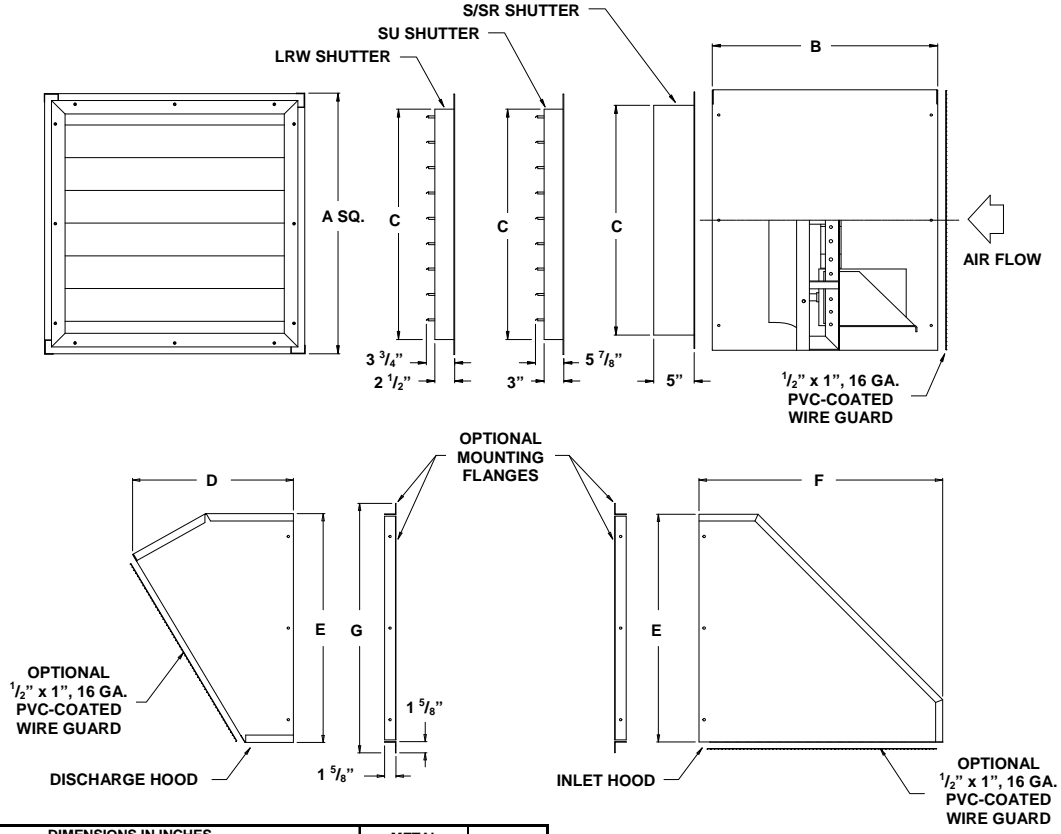


MOUNTING FLANGE OPTION

- For mounting inlet hood or discharge hood to the wall
- For mounting metal housing to the wall
- Hardware kit included for attaching to hood or fan housing

Accessory Dimensions

Dimension A is the OD of the square metal housing, excluding hardware.
 Dimension B is the length of the metal housing.
 Dimension C is the OD of the shutter frame.



STYLE	UNIT SIZE	DIMENSIONS IN INCHES								METAL GAUGES		WALL OPENING
		A SQ.	B	C		D	E	F	G	HSG	HOOD	
				LRW	S/SR/SU							
MH	7-8	14 1/4	16 1/8	-----	10 1/2	13	14 1/2	15 1/2	17 1/2	20	22	15 SQ.
MH	10-12	18 1/4	21 1/8	-----	14 1/2	15	18 1/2	19 1/2	21 1/2	20	22	19 SQ.
MH	14-16	22 1/4	25 3/8	-----	18 1/2	17	22 1/2	23 1/2	25 1/2	20	22	23 SQ.
MH	18-20	26 1/4	25 3/8	-----	22 1/2	19	26 1/2	27 1/2	29 1/2	20	22	27 SQ.
MH	24	32 1/4	26 1/8	27	28 3/8	22	32 1/2	33 1/2	35 3/8	20	20	33 SQ.
MH	30	38 1/4	26 1/8	33	34 3/8	24 3/8	38 1/2	39 1/2	41 3/8	20	20	39 SQ.
MH	36	44 1/4	32 3/8	39	40 3/8	27 5/8	44 1/2	45 1/2	47 3/8	18	18	45 SQ.
MH	42	50 1/4	32 3/8	45	46 3/8	30 1/4	50 1/2	51 1/2	53 3/8	18	18	51 SQ.
MH	48	56 1/4	32 3/8	51	52 3/8	32 7/8	56 1/2	57 1/2	59 3/8	18	18	57 SQ.
MHH		56 3/8							59 1/2	16		57 1/8 SQ.
MHX		56 5/8							59 3/4	12		57 3/8 SQ.
MHH	54	62 3/8	32 3/8	57	58 3/8	35 3/4	62 1/2	63 1/2	65 5/8	14	18	63 1/8 SQ.
MHX		62 1/2							65 1/8	12		63 3/8 SQ.
MHH	60	68 3/8	32 3/8	-----	64 3/8	35 3/4	68 1/2	69 1/2	71 5/8	14	18	69 1/8 SQ.
MHX		68 5/8							71 7/8	12		69 3/8 SQ.
MHH		68 7/8							71 1/2	12		69 1/2 SQ.
MHX	72	80 3/4	45 1/4	-----	80 3/4	-----	-----	-----	84	10	-----	81 1/2 SQ.
MHX	84	92 3/4	45 1/4	-----	92 3/4	-----	-----	-----	96	10	-----	93 1/2 SQ.

Accessory Dimensions

Dimension D is the overall length of the discharge hood.
 Dimension E is the overall height of the discharge and inlet hoods.
 Dimension F is the overall length of the inlet hood.
 Dimension G is the overall height of the mounting flanges.

WARNING

CAUTION

DO NOT INSTALL FAN WITH MOVING PARTS WITHIN 8 FEET OF FLOOR OR GRADE LEVEL WITHOUT A GUARD THAT COMPLIES WITH OSHA REGULATIONS. **DO NOT** USE UNLESS ELECTRICAL WIRING COMPLIES WITH ALL APPLICABLE CODES. **DO NOT** WIRE WITHOUT PROVIDING FOR A POWER SOURCE DISCONNECT AT THE FAN ITSELF. **DO NOT** SERVICE EXCEPT BY A QUALIFIED MAINTENANCE TECHNICIAN AND ONLY AFTER DISCONNECTING THE POWER SOURCE. FAILURE TO OBSERVE THESE PRECAUTIONS CAN RESULT IN SERIOUS INJURY OR DEATH.

REPRESENTED BY:



AMERICAN COOLAIR CORPORATION
 P.O. BOX 2300 ~ Jacksonville, Florida 32203
 Phone: (904) 389-3646
 Fax: (904) 387-3449 or (904) 381-7560
 E-mail: fans@coolair.com

Limited Warranty

In the sale of its products, American Coolair Corporation agrees to correct, by repairs or replacement, any defects in workmanship or material that may develop under proper and normal use during the period of one year from the date of shipment from the factory. Any product or part proving, upon American Coolair's examination, to be defective during limited warranty period will be repaired or replaced, at American Coolair's option, f.o.b. factory, without charge.

Deterioration or wear caused by chemicals, abrasive action or excessive heat shall not constitute defects.

Motors are guaranteed only to the extent of the manufacturer's warranty.

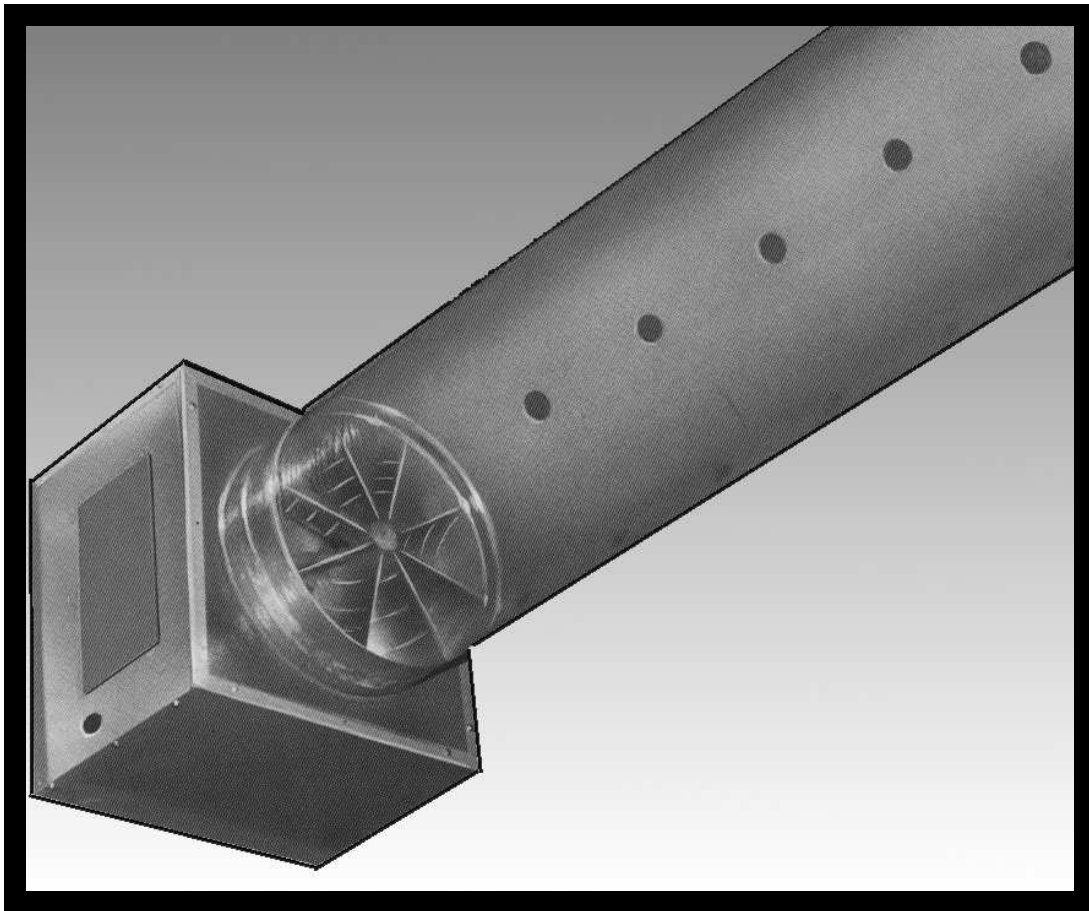
American Coolair's limited warranty does not apply to any of its products or parts that have been subject to accidental damage, misuse by the user, unauthorized modifications, improper installation or electrical wiring, or lack of proper lubrication or other service requirements as established by American Coolair.

Repairs or replacements provided under the above terms shall constitute fulfillment of all American Coolair's obligations with respect to limited warranty.

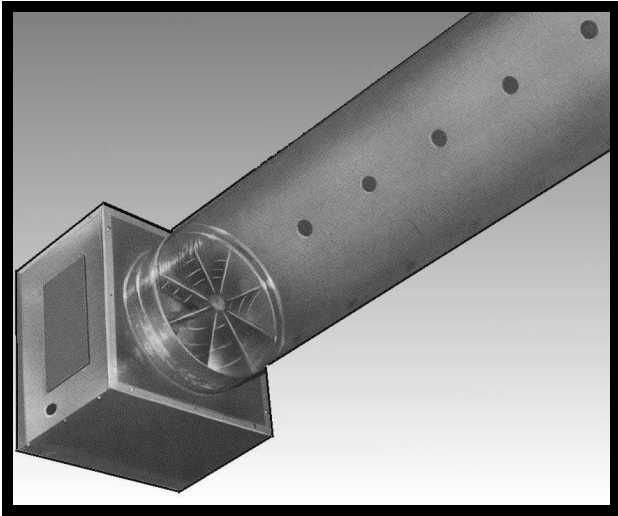
THE LIMITED WARRANTY STATED HEREIN IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, STATUTORY OR IMPLIED, INCLUDING WITHOUT LIMITATION THAT OF MERCHANTABILITY AND FITNESS.

NO LIABILITY FOR REINSTALLATION COST OR FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OF ANY NATURE IS ASSUMED OR SHALL BE IMPOSED UPON AMERICAN COOLAIR.

Type PT– Power TubeFan Make-Up Air System



Type PT-Power Tube Fan Make-Up Air System



Saves money by reclaiming wasted building heat

All make-up air systems use outside air to “make-up” for the exhausted air that creates the negative air pressure problem. In the winter, conventional make-up air systems have to heat the cold outside air prior to introduction into the building. This is an expensive process in both equipment and continuing energy cost.

But the American Coolair Power Tube Fan Make-Up Air System is different. It is a simpler system that utilizes wasted building heat and basic aerodynamic principles for supplying, tempering and distributing make-up air.

And that makes it less expensive than conventional make-up air systems to purchase, to install and to operate.

Type PT Fans

- Application..... 2
- Type PT Fans-General Information..... 2
- PT Dimensional Data..... 3
- PT Performance..... Back cover
- Accessories Back cover
- Warranty and Caution..... Back cover

Here’s how it works

The American Coolair Power Tube Fan Make-Up Air System uses a special propeller fan with air straightening vanes and fan housing mounted to an opening in a building sidewall near the ceiling (an optional roof mounting model is available). A motor operated wall shutter is attached to the outside wall opening under a protective weather hood. A long specially constructed reinforced polyethylene tube is connected to the fan discharge orifice to carry fresh outside air throughout the building and temper it by mixing cold outside air with warm inside air near the plant ceiling before it reaches floor level.

Specially sized and spaced discharge holes in the polyethylene tube produce relatively high velocity turbulent jets of air. This turbulent jet flow swirls and mixes surrounding air particles resulting in the entrainment of the warm ceiling air and the complete tempering of very cold outside air within a relatively short distance.

The result is heated make-up air at the price of unheated make-up air.

Solves problems by providing make-up air

When exhaust fans are used to provide ventilation, both for industrial and process exhaust and personnel comfort, a negative air pressure is created within the building.

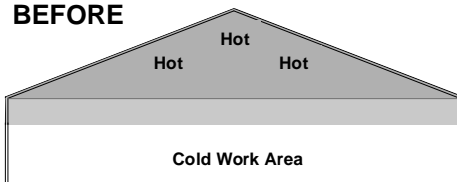
This negative pressure causes several problems.

Process exhaust systems are less efficient and may not work properly.

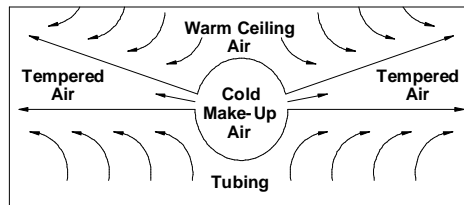
Down flow can occur through gravity vents and result in the back venting of products of combustion from flues and stacks of heaters and process equipment.

Drafts are created that are a discomfort to employees. Safe opening of outside doors may even be impaired. The American Coolair Power Tube Fan Make-Up Air System solves all of these problems economically, even on the coldest winter day.

BEFORE

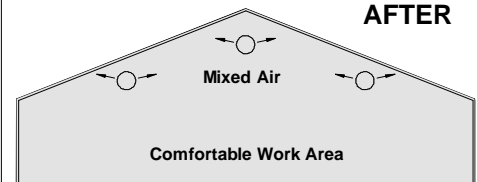


Unused heat is naturally trapped in the upper regions of buildings. The Coolair system tempers cold make-up air by mixing it with the warm overhead air that is normally wasted.



Turbulent jet flow results in completely mixed air within a short distance from the tube.

AFTER



Consider the cost of heating make-up air

The following formula can be used to estimate the yearly heating requirements and the yearly cost of heating make-up air.

It is based on typical heating equipment (either gas- or oil-fired) with an efficiency of 80%, and an eight hour work (heating) shift.

$$YHR = 10.85 \times HD \times Q \times \Delta T \times WS$$

Where YHR = Yearly heating requirement during heating season in BTU per year.
 HD = Heating days per year.
 Q = CFM of heated air required.
 ΔT = Temperature rise of outside air to design inside air temperature requirement (inside air temperature design minus outside average temperature).
 WS = Number of eight hour shifts worked per day.

With the yearly heating requirement and the local fuel rate know, a yearly heating cost can be estimated using the following formula.

$$YHC = YHR \div HV \times FR$$

Where YHC = Yearly heating cost during heating season.
 YHR = Yearly heating requirement (BTU/YR).
 HV = Heating value of fuel being used.
 Typical HV of two common fuels are:
 1. Natural Gas = 1025 BTU/FT³
 2. Heating Oil = 140,000 BTU/GAL
 FR = Local fuel rate for space heating equipment.

EXAMPLE: A plant operation in Milwaukee, Wisconsin, has a requirement for 27,500 CFM of heated make-up air to a design inside air temperature of 70°F, and the work shift is two eight-hour shifts per day. Use 33°F average winter temperature, 174 heating days per year. The fuel cost is \$1.25 per gallon of heating oil.

Calculations:

$$YHR = 10.85 \times HD \times Q \times \Delta T \times WS$$

$$= 10.85 \times 174 \times 27,500 \times 37 \times 2$$

$$= 3,841,876,500 \text{ BTU/YR}$$

With heating oil:
 $YHC = YHR \div HV \times FR$

$$YHC = \frac{3,841,876,500}{140,000} \times \$1.25$$

$$YHC = \$34,302$$

Consider the dramatic ROI of an American Coolair System

The American Coolair Power Tube Fan System eliminates the cost of heating make-up air. Depending on your location, the savings in fuel alone can be substantial.

Plus the American Coolair Power Tube Fan System costs less to purchase and install initially.

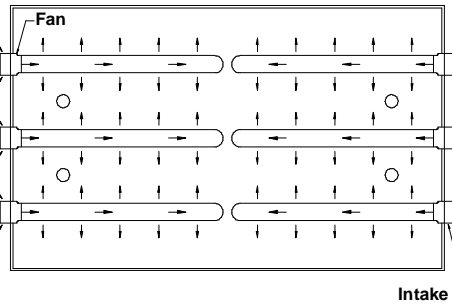
For example, one of our customers, Mr. R. P. Johnson, Manager, Plant Engineering, Fairbanks Weighing Division of Colt Industries in St. Johnsbury, Vermont, realized a \$60,000 savings in just seven months.

“Our 210,000 square foot plant was heated by thirteen Wing Steam heated, wall mounted make-up air units. Each unit supplied 9,700 CFM.

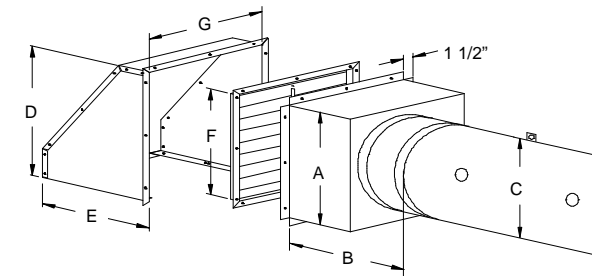
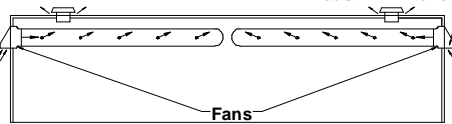
We replaced five of these units with five American Coolair Model No. PT30L make-up air supply fans of 10,200 CFM with 100 feet to 250 feet of tubing.

The use of these fans to replace the steam heated make-up fans has saved us, this heating season (October thru April), 70,131 gallons of No. 6 fuel oil (\$60,097) despite an increase of over 1,000 degree days.”

Sidewall Mount Plan View



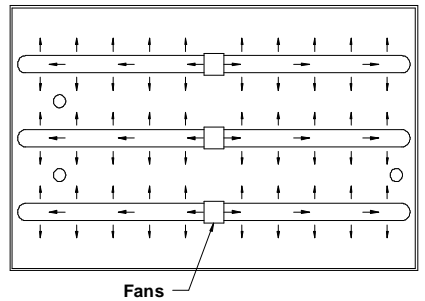
Sidewall Mount Elevation



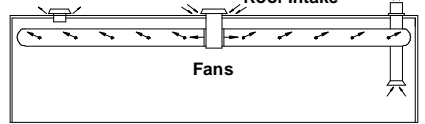
Dimensions - Wall Fan

- Dimension A is the O.D. of the housing.
- Dimension B is the length of the housing and orifice.
- Dimension C is the O.D. of the tube.
- Dimension D is the height of the hood, excluding 1-1/2" flange.
- Dimension E is the distance the hood extends from the wall.
- Dimension F is the wall opening size.
- Dimension G is the width of the hood, excluding 1-1/2" flanges.

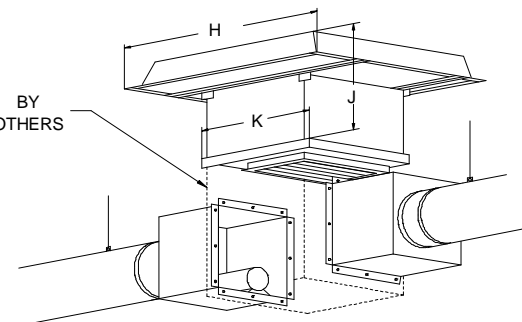
Roof Installation Plan View



Roof Installation Elevation



Fan	Dimensions in Inches						
	A (sq)	B	C	D	E	F (sq)	G
PT18	24 1/8	24 1/4	19	26 1/2	27 1/2	22 5/8	26 1/2
PT24	32 1/4	36 1/8	25	32 1/2	33 1/2	28 7/8	32 1/2
PT30	38 1/4	37 3/4	30	38 1/2	39 1/2	34 7/8	38 1/2



Dimensions - Roof Intake

- Dimension H is the O.D. of the square hood.
- Dimension J is the overall height above the curb.
- Dimension K is the I.D. of the curb cap flange.

Roof Intake Model	Dimensions in Inches			Approx. Ship Wt.
	H	J	K	
PE24GV	57	33 3/4	38	250
PE30GV	67	38 1/2	44	340
PE36GV	78	41 3/4	50	400
PE42GV	88	43 7/8	56	550

See selection section for appropriate roof intake model.

Performance Ratings

Item No.	System CFM	Fan Model ¹	Fan Size	Drive	Motor HP	Fan RPM	Sone Rating ²	MAX BHP ³	Approx. Ship Wt. ⁴	Max Tube Length (Ft.)
1	3,650	PT18H	18	Direct	1/3	1625	12	.39	130	210
2	4,850	PTB24H	24	Belt	1/3	784	21	.46	230	300
3	6,300	PTB24K			3/4	1019	32	.96	250	380
4	7,600	PTB30J	30	Belt	1/2	643	18	.64	280	350
5	10,650	PTB30L			1	847	27	1.30	305	420

- 1 — The first two or three letters of model identify **fan type**. The next two numbers indicate **fan size**, the next letter identifies motor **horsepower**. For example: Model PT18H is Type "PT", 18" size, 1/3 H.P.
- 2 — The sound ratings shown are loudness values in fan sones at 5 ft. (1.5m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for Installation Type A: free inlet fan sones levels. The sound ratings shown are at system CFM.
- 3 — Maximum brake horsepower (BHP) at system CFM. BHP includes belt drive losses. Because of the cooling the motor receives from the moving air stream, motor loading beyond the nominal nameplate ratings on these American Coolair fans does not overheat the motor and is within NEMA recommended limits and motor service factor. It is not detrimental to the motor and is economically desirable.
- 4 — Approximate shipping weight includes Type PT fan and housing, motorized shutter and weather hood.

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

Typical Specifications

Power Tube Fans shall be American Coolair Type PT as manufactured by American Coolair Corporation, Jacksonville, Florida; specific models shall be as shown in fan schedule. (Specify for each fan in schedule: tube color and length, phase and voltage; and accessories such as bird guard and face and by-pass dampers.)

Features

The American Coolair Power Tube Fan Make-Up Air System features a special propeller fan with air straightening vanes.

A panel in the fan housing for access to the fan and shutter is standard. A knockout for ease in wiring is provided.

The tube is constructed of thick woven high-density polyethylene fiber (8 x 10) laminated with poly coating to a thickness of 8 mils. It is 3.8 oz. per square yard material. Burst strength is 118 lbs. per square inch. The material is flame-retardant and complies with NFPA Standard 701. Tubes are available in two colors: blue and white.

One end of the tube is factory sealed.

Roof Intake Selection

Recommended Roof Intake Model		
Fan Model	For One Fan	For Two Fans
PT18H	PE24GV	PE24GV
PTB24H	PE24GV	PE30GV
PTB24K	PE24GV	PE30GV
PTB30J	PE24GV	PE36GV
PTB30L	PE30GV	PE42GV

SELECTION: Sufficient make-up air should be provided to balance exhaust from general ventilation and process ventilation. Usually several Power Tube Fans will be required, located to distribute air throughout the plant. If additional tempering of make-up air in specific plant areas becomes necessary, unit heaters can be added.

Tube specifications vary for different lengths to be used, so tube length must be stated for each fan.

SOUND: Sound ratings may also be a factor in fan selection. These are provided in Sones. If additional information is needed, contact your nearest American Coolair representative.

Accessories

BIRD GUARD: Guard is made of PVC coated steel wire with 1/2" x 1" spacing. Protects shutter from damage by birds or vandalism. Attaches flat against shutter face giving an unusually attractive appearance. (Model PT24 and PT30 only.)

FACE AND BY-PASS DAMPERS: Install between fan and wall opening, allowing mixing of inside plant air with outside air for tempering or 100% recirculation of inside plant air. Complete with modulating damper motor attached. Requires framing and housing by others. Eliminates need for wall shutter.

SPARK RESISTANT CONSTRUCTION: For hazardous locations, any Type PT fan can be ordered with a non-ferrous blade assembly (where not normally supplied) and explosion-proof motors. Motors only qualify for Class I Group D and Class II Groups F & G hazards.

ELECTRICAL CONTROLS: Normally the needed electrical controls are provided by those involved with the fan installation.

Limited Warranty

In the sale of its products, American Coolair Corporation agrees to correct, by repairs or replacement, any defects in workmanship or material that may develop under proper and normal use during the period of one year from the date of shipment from the factory. Any product or part proving, upon American Coolair's examination, to be defective during limited warranty period will be repaired or replaced, at American Coolair's option, f.o.b. factory, without charge.

Deterioration or wear caused by chemicals, abrasive action or excessive heat shall not constitute defects.

Motors are guaranteed only to the extent of the manufacturer's warranty.

American Coolair's limited warranty does not apply to any of its products or parts that have been subject to accidental damage, misuse by the user, unauthorized modifications, improper installation or electrical wiring, or lack of proper lubrication or other service requirements as established by American Coolair.

Repairs or replacements provided under the above terms shall constitute fulfillment of all American Coolair's obligations with respect to limited warranty.

THE LIMITED WARRANTY STATED HEREIN IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, STATUTORY OR IMPLIED, INCLUDING WITHOUT LIMITATION THAT OF MERCHANTABILITY AND FITNESS.

NO LIABILITY FOR REINSTALLATION COST OR FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OF ANY NATURE IS ASSUMED OR SHALL BE IMPOSED UPON AMERICAN COOLAIR.

WARNING



DO NOT INSTALL FAN WITH MOVING PARTS WITHIN 8 FEET OF FLOOR OR GRADE LEVEL WITHOUT A GUARD THAT COMPLIES WITH OSHA REGULATIONS. **DO NOT** USE UNLESS ELECTRICAL WIRING COMPLIES WITH ALL APPLICABLE CODES. **DO NOT** WIRE WITHOUT PROVIDING FOR A POWER SOURCE DISCONNECT AT THE FAN ITSELF. **DO NOT** SERVICE EXCEPT BY A QUALIFIED MAINTENANCE TECHNICIAN AND ONLY AFTER DISCONNECTING THE POWER SOURCE. FAILURE TO OBSERVE THESE PRECAUTIONS CAN RESULT IN SERIOUS INJURY OR DEATH.

CAUTION



REPRESENTED BY:

AMERICAN COOLAIR CORPORATION

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E-mail: info@coolair.com

Form No. 520-15-8 (April, 2005)

Type MB Wall Fan Packages



Type MB Fan Packages

Application: *Versatile*

Type MB fan packages have been specifically designed for use with C-fans ranging in size from 24 to 60 inches. The design allows for more versatility of use in all applications where a complete fan package is desired. These complete packages greatly simplify the specification and use of ventilation equipment in commercial and industrial metal buildings.

Fan packages are shipped completely assembled and each package includes fan, shutter, guard, and housing as standard.

By expanding upon the original design to allow for flexible usage, American Coolair MB fan packages are now more practical and efficient for use in *supply* or *exhaust* applications.

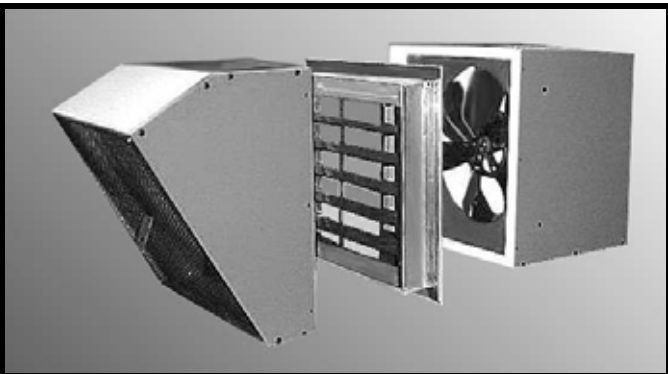
Drive Mechanism: *Unique*

Type MB Belt drive models are designed for quiet operation and low initial cost, using a variety of available motors. Each model incorporates a unique American Coolair fan bearing and shaft assembly whereby a shaft is mounted on a cross-frame member and the power is applied directly to a cast aluminum hub. Drive belt power is applied to the fan/hub assembly in the same plane as the bearings. This reduces bearing load and dramatically increases fan life. Bearings are permanently lubricated and sealed.

Most models are equipped with a variable pitch motor pulley which allows fan speed adjustment where desirable.

The setting made at the factory operates the fan at the maximum safe load of the motor. The pulley may be opened to reduce fan speed and thus decrease air flow and sound levels.

If an increase in fan speed is desired, contact your American Coolair representative for information on fan performance and motor load before making any adjustment.



MB fan package for exhaust with optional discharge hood

Construction: *Rigid, Long-Lasting*

The wall housing is fabricated of galvanized steel for rigidity, long life and years of protection against rust and corrosion. An exterior finish coat of epoxy can be specified.

Type MB fan packages feature aluminum shutters with reinforced interlocking blades.

The fan panel is fabricated of heavy-gauge steel, and the uprights which support the motor and propeller are formed from heavy-gauge steel angle for maximum strength and rigidity.

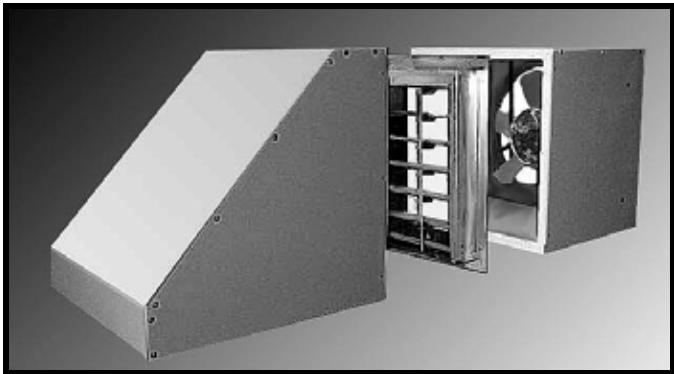
- The fan panel assembly, mounted in the wall housing, utilizes all-welded construction.
- The deep spun venturi orifice is specifically engineered to provide maximum efficient air movement and quiet operation.
- The shutter is counterbalanced for automatic (gravity) operation.
- All propeller blade assemblies are dynamically balanced.
- Parts requiring painting are processed through the advanced American Coolair multi-stage pretreatment system prior to the application of any coatings to ensure maximum finish adhesion. For additional protective coating options, see the **Accessories** section on Page 6.

Motors: *Efficient, Economical*

American Coolair's air-over-motor design provides extra capacity and economy because air velocity over motor is used to dissipate heat and thus increase horsepower capability.

Totally-enclosed motors are standard for MB fan packages. Several motor alternatives are available to fit your specific needs such as explosion-proof, energy-efficient, and severe-duty.

Only nationally recognized brand motors with nationwide service facilities are used.



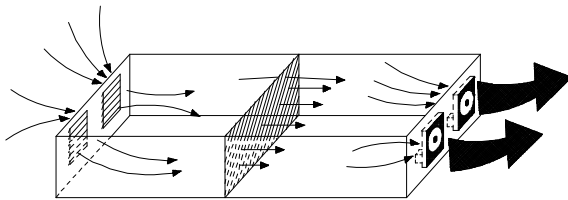
MB fan package for supply with optional inlet hood (for better all-weather protection in supply configuration, a motorized SR or SU inlet shutter is recommended)

Selection

The following are some of the basic considerations in determining which model and how many fan packages are needed for a specific building. A more thorough discussion of the fan selection is available in American Coolair's "Industrial and Commercial Ventilation Handbook". Factory-trained representatives are also available locally to aid you. Simply consult a business directory or visit us at *coolair.com* to find an American Coolair representative in your area.

Fan Package Location

Fans should all be at one end of the building. They may be in the end wall or in a sidewall near the end. They should be located so that equipment or stacks of material in the building will not block airflow into the fans. If large doors are going to be kept open in warm weather, fans should be at the opposite end of the building from the doors.



Calculation of Air Volume:

Rate of Air Velocity Method.

This is the method recommended by American Coolair and will provide adequate air movement to produce personnel comfort, not just minimum ventilation.

$$CFM = H \times W \times V$$

Where: **CFM** is air volume in cubic feet per minute
H is the height of the building (ft.)
W is the width of the building (ft.)
V is the desired velocity (see table) (ft./min.)

VELOCITY TABLE

Length of Building	Velocity
Up to 100'	150 ft./min.
100' to 200'	200 ft./min.
200' to 300'	250 ft./min.
300' and longer	250 ft./min plus booster fans

Example: Laundry 100' long by 30' wide by 15' high. Air is to be pulled through the 100' length.

$$CFM = 15' \times 30' \times 150 \text{ ft./min.} = 67,500 \text{ cubic ft./minute}$$

Rate of Air Change Method.

This is the most common method of specifying air volume for small buildings (50,000 cubic feet or less). Rate can be specified for ventilation or personnel comfort.

$$CFM = \frac{H \times W \times L}{R}$$

Where:

CFM is air movement in cubic feet per minute
H is the height of the building (ft.)
W is the width of the building (ft.)
L is the length of the building (ft.)
R is the rate of air change in minutes (see table)

TYPICAL RECOMMENDED AIR CHANGE RATES

Type of Facility	Personnel Comfort	Ventilation
Bakeries, Restaurants, Laundries & other hot spots	1/2 minute	3 minutes
Factories, Shops, Warehouses & Garages	3/4 minute	4 minutes
Residences, Schools, Offices & Churches	1 minute	5 minutes

Example: Laundry 100' long by 30' wide by 15' high — air is to be change to provide personnel comfort:

$$CFM = \frac{15' \times 30' \times 100'}{1/2 \text{ minute}} = 90,000 \text{ cubic ft./minute.}$$

Air Intakes

Provision must be made for air to enter the building. Air intakes should be at the opposite end of the building from the fans so that air movement will occur throughout the building. Wall louvers or roof mounted intakes can be used. Your local American Coolair representative can help you determine what is needed and provide the proper intakes for you.

Sound

Sound ratings may also be a factor in fan selection. These are provided in sones. If additional information is needed, contact your American Coolair representative.

Performance Ratings

Type MB fan ratings shown herein are net performance of complete fan package, including the effects of the shutter, wall housing, and guard. The air and sound performance ratings are based on American Coolair's Type CB fans, which are licensed to bear the AMCA Certified Ratings Seal. BHP does not include drive losses.

Typical Specifications

Belt driven propeller wall fan packages shall be American Coolair Type MBA, MBL, MBH, and MBHX as manufactured by American Coolair Corporation, Jacksonville, Florida; specific models shall be as shown in the fan schedule. Fan packages shall include fan unit, wall housing, (automatic gravity) shutter, and 1 X 1/2" PVC coated inlet guard. Panels and structural angle supports shall be of welded steel construction with spun orifice to provide improved performance (MBL, MBH, & MBHX). Die formed steel blades shall be firmly attached to cast aluminum hub, which also serves as driven sheave. Fan hub shall rotate on fixed shaft using oversized sealed ball bearings. Belt load shall be applied to hub in the same plane as bearings, eliminating overhung load on bearings and increasing bearing life. Motor pulleys shall be variable pitch (except where noted below). (Specify for each fan model in schedule the required CFM and static pressure; motor enclosure, phase and voltage; and accessories such as wall shutter, motor side or front guard, wall housing, etc.)

Item No.	Cubic Feet Per Minute (CFM) at Static Pressure					Fan Model ¹	Fan Size	Motor HP	Fan RPM	Sone Rating ²	Max BHP ³	Approx. Ship Wt.	Shutter Model
	0"	1/8"	1/4"	3/8"	1/2"								
1	2,998	2,822	2,629	2,384	---	MBA18H	18	1/3	1,475	18.0	0.41	110	SU
2	3,421	3,268	3,104	2,926	2,692	MBA18J		1/2	1,683	23.0	0.61	116	SU
3	3,915	3,782	3,642	3,496	3,336	MBA18K		3/4	1,926	27	0.91	130	SU
4	4,356	4,237	4,113	3,985	3,850	MBA18L		1	2,143	32	1.25	135	SU
5	3,082	2,822	2,537	---	---	MBA20G	20	1/4	1,165	13.9	0.31	115	SU
6	3,383	3,147	2,903	---	---	MBA20H		1/3	1,279	16.5	0.40	115	SU
7	3,870	3,664	3,455	3,227	---	MBA20J		1/2	1,463	21.0	0.61	121	SU
8	4,418	4,238	4,055	3,871	3,663	MBA20K		3/4	1,670	26	0.91	135	SU
9	4,910	4,748	4,584	4,420	4,251	MBA20L*		1	1,856	30	1.25	140	SU
10	5,444	5,298	5,151	5,003	4,854	MBA20M*		1 1/2	2,058	36	1.70	162	SU
11	5,010	4,266	---	---	---	MBL24G	24	1/4	702	12.7	0.30	216	LRW
12	5,588	4,950	---	---	---	MBL24H		1/3	783	16.0	0.41	216	LRW
13	6,244	5,691	4,972	---	---	MBL24J		1/2	875	19.8	0.60	219	LRW
14	7,222	6,757	6,199	---	---	MBL24K		3/4	1,012	26	0.90	223	S
15	7,557	7,163	6,697	6,024	5,365	MBH24L*		1	1,065	28	1.25	246	S
16	8,345	7,990	7,599	7,078	6,439	MBH24M*		1 1/2	1,176	33	1.56	248	S
17	6,755	5,346	---	---	---	MBL30G	30	1/4	505	10.4	0.30	276	LRW
18	7,531	6,327	---	---	---	MBL30H		1/3	563	13.0	0.41	276	LRW
19	8,334	7,273	5,696	---	---	MBL30J		1/2	623	16.1	0.60	279	LRW
20	9,725	8,836	7,788	---	---	MBL30K		3/4	727	20	0.90	282	LRW
21	10,713	9,895	8,878	---	---	MBH30L		1	807	25	1.25	290	S
22	11,761	11,027	10,165	9,088	---	MBH30M		1 1/2	886	28	1.70	309	S
23	12,836	12,170	11,420	10,512	9,463	MBH30N		2	967	34	2.25	316	S
24	14,775	14,203	13,584	12,888	12,077	MBH30P*		3	1,113	48	3.31	334	SR
25	8,191	5,894	---	---	---	MBL36G	36	1/4	411	6.8	0.30	349	LRW
26	9,168	7,218	---	---	---	MBL36H		1/3	460	8.3	0.41	349	LRW
27	10,583	9,087	---	---	---	MBL36J		1/2	531	10.1	0.60	352	LRW
28	11,799	10,542	8,631	---	---	MBL36K		3/4	592	13.2	0.90	355	LRW
29	13,314	12,240	10,681	---	---	MBL36L		1	668	15.5	1.25	361	LRW
30	14,197	12,893	11,604	9,702	---	MBH36M		1 1/2	680	20	1.65	385	LRW
31	15,659	14,489	13,310	11,963	10,127	MBH36N		2	750	24	2.25	393	S
32	18,185	17,200	16,144	15,156	13,965	MBH36P		3	871	30	3.35	411	SR
33	21,296	20,474	19,567	18,467	17,847	MBH36Q*		5	1,020	43	5.25	438	SR
34	10,973	7,612	---	---	---	MBL42H		42	1/3	329	8.7	0.41	330
35	12,640	9,957	---	---	---	MBL42J	1/2		379	11.3	0.60	333	LRW
36	14,074	11,694	7,975	---	---	MBL42K	3/4		422	14.0	0.90	336	LRW
37	15,909	13,788	11,384	---	---	MBL42L	1		477	17.4	1.25	343	LRW
38	16,991	15,161	12,957	9,865	---	MBH42M	1 1/2		517	22	1.65	365	LRW
39	18,765	17,132	15,255	12,959	9,429	MBH42N	2		571	25	2.25	373	LRW
40	21,789	20,403	18,883	17,164	15,147	MBH42P	3		663	32	3.34	390	S
41	26,160	25,021	23,812	22,514	21,099	MBH42Q	5		796	44	5.53	417	SR

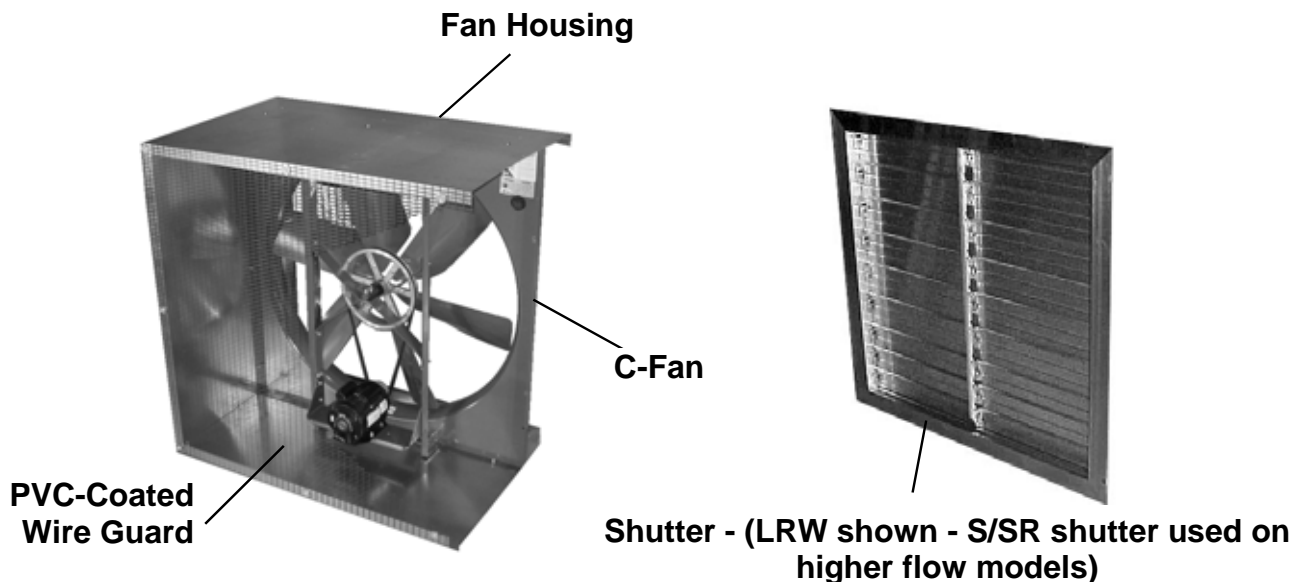
Item No.	Cubic Feet Per Minute (CFM) at Static Pressure					Fan Model ¹	Fan Size	Motor HP	Fan RPM	Sone Rating ²	Max BHP ³	Approx. Ship Wt.	Shutter Model
	0"	1/8"	1/4"	3/8"	1/2"								
42	15,084	11,079	---	---	---	MBL48J		1/2	315	10.6	0.60	393	LRW
43	17,382	14,225	---	---	---	MBL48K		3/4	363	14.1	0.90	396	LRW
44	19,441	16,686	---	---	---	MBL48L		1	406	16.9	1.25	403	LRW
45	20,722	18,318	14,065	---	---	MBH48M		1 1/2	425	19.6	1.66	431	LRW
46	23,014	20,899	17,851	---	---	MBH48N	48	2	472	23	2.25	438	LRW
47	26,183	24,351	22,184	18,520	---	MBH48P		3	537	29	3.34	455	LRW
48	30,912	29,374	27,734	25,701	22,536	MBH48Q		5	634	37	5.49	482	S
49	34,223	32,795	31,532	30,380	29,241	MBHX48R*		7 1/2	745	49	7.92	780	SR
50	37,531	36,214	35,030	33,944	32,914	MBHX48S*		10	817	57	10.39	812	SR
51	16,433	10,224	---	---	---	MBH54J		1/2	287	11.1	0.60	432	LRW
52	19,239	15,312	---	---	---	MBH54K		3/4	336	14.6	0.91	439	LRW
53	21,529	18,183	---	---	---	MBH54L		1	376	17.6	1.25	446	LRW
54	23,132	20,063	14,165	---	---	MBH54M		1 1/2	404	19.5	1.68	450	LRW
55	25,880	23,172	19,756	---	---	MBH54N	54	2	452	23	2.26	457	LRW
56	29,201	26,824	24,208	19,549	---	MBH54P		3	510	28	3.35	484	LRW
57	35,736	33,713	31,531	28,908	---	MBHX54Q		5	547	33	5.37	775	S
58	41,485	39,756	37,943	35,982	33,671	MBHX54R		7 1/2	635	43	8.39	832	SR
59	45,143	43,560	41,915	40,181	38,269	MBHX54S*		10	691	50	10.71	864	SR
60	25,107	19,853	---	---	---	MBHX60L		1	297	13.0	1.25	759	S
61	27,728	23,068	---	---	---	MBHX60M		1 1/2	328	15.7	1.66	771	S
62	30,264	26,137	21,017	---	---	MBHX60N		2	358	18.2	2.25	775	S
63	34,237	30,775	26,496	---	---	MBHX60P	60	3	405	21	3.19	793	S
64	40,746	37,992	34,490	30,948	---	MBHX60Q		5	482	28	5.40	820	S
65	47,171	44,861	42,092	38,908	35,891	MBHX60R		7 1/2	558	37	8.38	878	S
66	51,989	49,923	47,546	44,758	41,888	MBHX60S		10	615	45	11.04	911	SR

- 1 - The first three or four letters of model number identify **fan type, drive configuration** and **style**. The next two numbers indicate **fan size**; the next letter identifies the motor horsepower. Example; Model MBL24G is Type M, belt drive, Style L, 24" size 1/4 HP.
 - 2 - The sound ratings shown are loudness values in sones at 5 ft. (1.5m) in a hemispherical free field calculated per AMCA standard 301. Values shown are for installation Type A: free inlet fan sone levels. The ratings shown are at 0" static pressure.
 - 3 - Maximum brake horsepower (BHP) within the catalog performance range. BHP does not include belt drive losses. Bearing losses are included. BHP at most static pressures listed is less than shown, in some cases, substantially less. For specific BHP values at individual static pressure points, contact your American Coolair representative. Because of the cooling the motor receives from the moving airstream, motor loading beyond the nominal nameplate rating on these American Coolair fans does not overheat the motor and is within NEMA recommended limits and motor service factor. It is not detrimental to the motor and is economically desirable.
- * - These models use fixed pitch motor pulleys.

To convert air performance (CFM and SP) and power (BHP) to metric units, multiply CFM x .000472 to obtain cubic meters per second (CMS). Multiply SP x 248.36 to obtain Pascals (Pa). Multiply BHP x .7457 to obtain Kilowatts (kW).

Example: 3904 CFM x .000472 = 1.8427 CMS
0.125 SP x 248.36 = 31.05 Pa
0.886 BHP x .7457 = 0.661 kW

Standard MB Fan Package



Accessories for MB Fan Packages



INLET HOOD OPTION

- Specifically designed for supply applications
- Designed to prevent entrainment of moisture into the airstream
- Hardware kit included for ease of assembly
- PVC-coated wire guard available
- Wide range of sizes to fit every need

DISCHARGE HOOD OPTION

- Specifically designed for exhaust applications
- Designed for all-weather performance with minimal pressure losses
- Hardware kit included for ease of assembly
- PVC-coated wire guard available
- Wide range of sizes to fit every need



Spark-Resistant Construction

For hazardous locations, MBL and MBH fan packages can be ordered with a non-ferrous blade assembly and explosion proof motor. **Motors only** qualify for Class I Group D and Class II Groups F & G hazards.

Protective Coatings

For most applications, the American Coolair thermosetting epoxy powder coating system will provide the necessary surface protection for painted parts. For applications that require more specialized surface protection, American Coolair offers alternatives such as 6 mil epoxy coating or hot dip galvanizing. For more information about special protective coatings, contact your American Coolair representative.

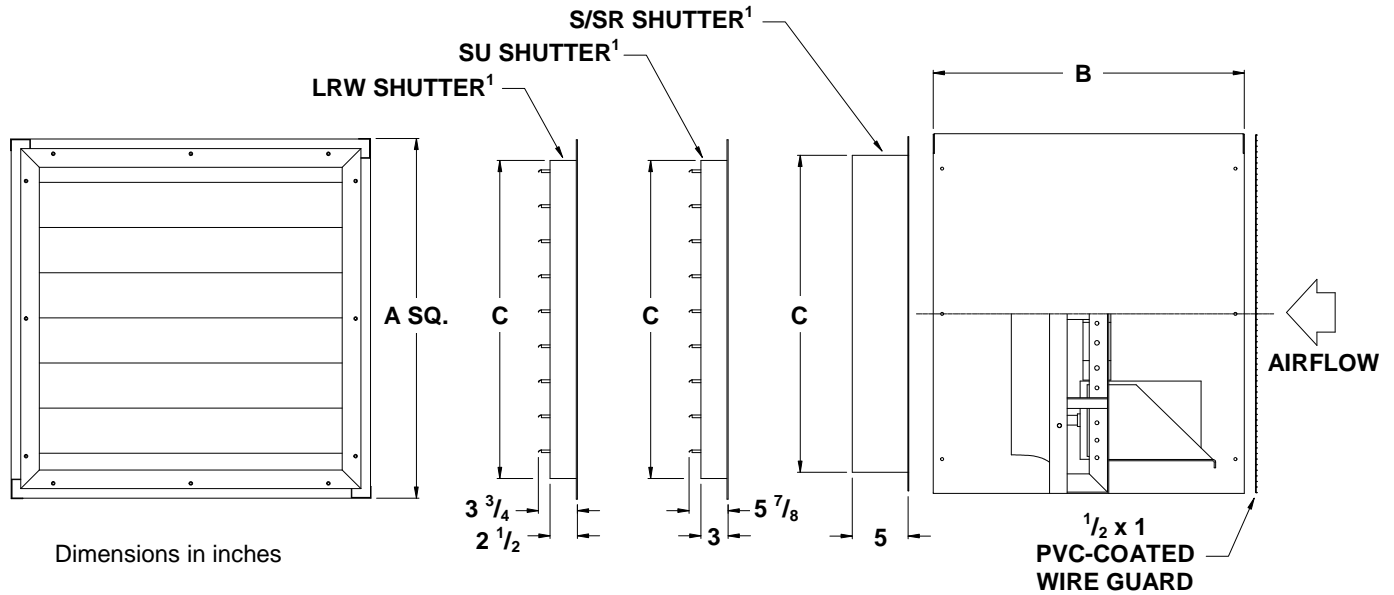
Shutter Bird Guard

Guard made of PVC-coated steel wire with $\frac{1}{2}$ " x 1" spacing protects shutter from damage by birds or vandalism. Attaches flat against shutter face giving an attractive appearance (requires Type S or SR shutter).

Mounting Flanges

Galvanized steel mounting flanges can be used for mounting an inlet hood or a discharge hood to the wall. They can also be used to mount the fan housing to the wall if the fan housing is extending through the wall. A hardware kit for installation is included.

Type MB Fan Package and Accessory Dimensions



Fan Size	Dimensions in Inches									
	A	B	C ¹		D	E	F	G	Square Wall Opening	
			LRW	S/SR/SU					Shutter ² Clearance	Housing ³ Clearance
18, 20	26 1/4	25 3/8	—	22 1/4	19	26 1/2	27 1/2	29 1/2	22 3/4	27
24	32 1/4	26 7/8	27	28 3/8	22	32 1/2	33 1/2	35 3/8	28 7/8	33
30	38 1/4	26 7/8	33	34 3/8	24 5/8	38 1/2	39 1/2	41 3/8	34 7/8	39
36	44 1/4	32 5/8	39	40 3/8	27 5/8	44 1/2	45 1/2	47 3/8	40 7/8	45
42	50 1/4	32 5/8	45	46 3/8	30 1/4	50 1/2	51 1/2	53 3/8	46 7/8	51
48	56 3/8	32 5/8	51	52 3/8	32 7/8	56 1/2	57 1/2	59 1/2	52 7/8	57 1/8
54	62 3/8	32 5/8	57	58 3/8	35 3/4	62 1/2	63 1/2	65 5/8	58 7/8	63 1/8
60	68 3/8	32 5/8	—	64 3/8	35 3/4	68 1/2	69 1/2	71 5/8	64 7/8	69 1/8

Dimension A is the OD of the square wall housing, including hardware.

Dimension B is the length of the wall housing.

Dimension C is the OD of the shutter frame.

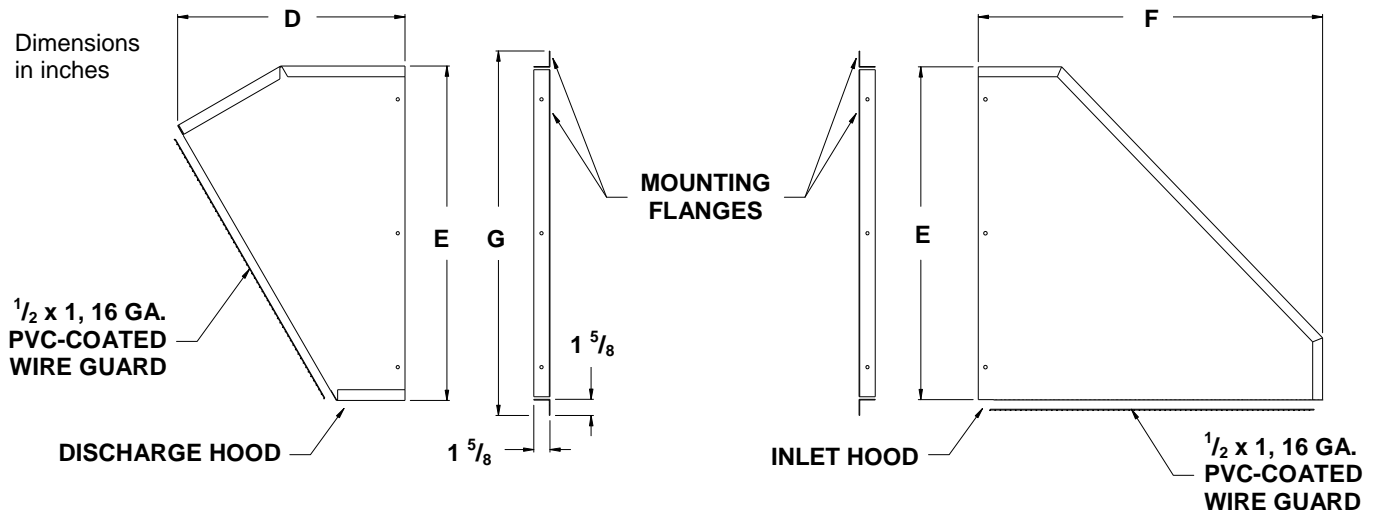
Dimension D is the overall length of the discharge hood.

Dimension E is the overall height of both the discharge and inlet hood.

Dimension F is the overall length of the inlet hood.

Dimension G is the overall height of the mounting flanges.

- 1 - LRW shutter used on most models. S/SR shutter used on higher flow models. SU shutter used on all MBA models. See Pages 4 & 5 for shutter usage by fan model.
- 2 - "Shutter Clearance" Wall Opening Dimension is for metal building installations only. Opening allows for shutter frame only to protrude to the outside.
- 3 - "Housing Clearance" Wall Opening Dimension is for installations where the MB package is to be recessed into a wall.



Installation and Maintenance

Installation: Type MB fan packages are shipped completely assembled with shutter, housing, fan and guard for quick, easy installation. Installation and maintenance instructions are included.

- Place the fan package on a supporting girt, on the inside of the building, and push the fan package against the outside skin.
- Cut an opening in the building panel slightly larger than the shutter frame and smaller than the fan housing (See dimensions on Page 7).
- Push the shutter through the opening.
- Attach two pieces of angle (supplied by others), one on either side of the fan housing, from the support girt to the girt above (See Figure 1).
- Fasten the fan housing to the angle with 6 self-drilling, sheet metal screws (3 per side).
- Attach the building panel to the fan housing above the shutter.
- Flash and caulk around the shutter opening to suit the building panel.
- All electrical connections should be made by a licensed electrician.

Maintenance: Type MB fan packages should be cleaned as necessary to remove accumulated dust, dirt and other foreign matter which may collect on blades or other fan package parts.

Fan belt should be inspected and tension adjusted after the first 8-10 hours of fan operation and periodically thereafter. Check belt for proper alignment.

Fan bearings are permanently lubricated. For lubrication of electric motor, see instructions supplied by the motor manufacturer.

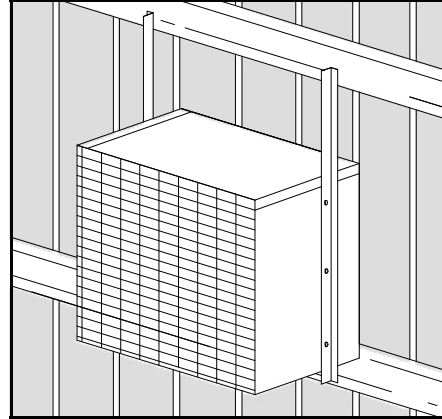


Fig. 1

Limited Warranty

In the sale of its products, American Coolair Corporation agrees to correct, by repairs or replacement, any defects in workmanship or material that may develop under proper and normal use during the period of one year from the date of shipment from the factory. Any product or part proving, upon American Coolair's examination, to be defective during limited warranty period will be repaired or replaced, at American Coolair's option, f.o.b. factory, without charge.

Deterioration or wear caused by chemicals, abrasive action or excessive heat shall not constitute defects.

Motors are guaranteed only to the extent of the manufacturer's warranty.

American Coolair's limited warranty does not apply to any of its products or parts that have been subject to accidental damage, misuse by the user, unauthorized alterations, improper installation or electrical wiring, or lack of proper lubrication or other service requirements as established by American Coolair.

Repairs or replacements provided under the above terms shall constitute fulfillment of all American Coolair's obligations with respect to limited warranty.

THE LIMITED WARRANTY STATED HEREIN IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, STATUTORY OR IMPLIED, INCLUDING WITHOUT LIMITATION THAT OF MERCHANTABILITY AND FITNESS.

NO LIABILITY FOR REINSTALLATION COST OR FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OF ANY NATURE IS ASSUMED OR SHALL BE IMPOSED UPON AMERICAN COOLAIR.

WARNING

CAUTION



DO NOT INSTALL FAN WITH MOVING PARTS WITHIN 8 FEET OF FLOOR OR GRADE LEVEL WITHOUT A GUARD THAT COMPLIES WITH OSHA REGULATIONS. **DO NOT** USE UNLESS ELECTRICAL WIRING COMPLIES WITH ALL APPLICABLE CODES. **DO NOT** WIRE WITHOUT PROVIDING FOR A POWER SOURCE DISCONNECT AT THE FAN ITSELF. **DO NOT** SERVICE EXCEPT BY A QUALIFIED MAINTENANCE TECHNICIAN AND ONLY AFTER DISCONNECTING THE POWER SOURCE. FAILURE TO OBSERVE THESE PRECAUTIONS CAN RESULT IN SERIOUS INJURY OR DEATH.



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Upblast Power Roof Ventilators

Types J, JTE, JT,
HSE, & HS



Upblast PRVs

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APPLICATION

American Coolair upblast power roof ventilators are designed for long life, low maintenance and all-weather performance. The proven upblast design is the most cost effective roof exhauster built today and offers the best value of all PRV types.

Type J PRVs

Types J, JTE, & JT PRVs are general ventilation power roof ventilators designed for efficiency and economy.

Type J PRVs are suggested for use in commercial and industrial applications including factories, warehouses, commercial buildings, machine rooms or any areas requiring the movement of air.

Types JTE & JT PRVs are suggested for use in industrial applications where it is necessary for the fan assembly to be located above the roof. Models JTEBC & JTBC PRVs are suggested where the motor, belts and bearings must be isolated from the airstream. The JTEBC provides an economical solution for most of these applications, while the JTBC is suggested where a heavier duty unit or greater performance capabilities are required.



UL705 – E39944

All Type J ventilators are listed by Underwriters Laboratory, Inc. to U.S. and Canadian safety standards.

Certified ratings licensed by AMCA (Air Movement and Control Association, Inc.), for both air and sound performance are available for all Type J and JTE PRVs. Certified ratings licensed by AMCA for air performance only are available for all Type JT PRVs. These, along with dimensional drawings are included in this form.

Type H PRVs

The Type HSE and HS upblast power roof ventilators are designed and built to meet the increasing need for power venting the combustion by-products of a fire.

These units are designed to be installed in the roof systems of shopping centers, wholesale warehouses, hotel atriums and any other place where building codes require the removal of smoke and heat by power roof ventilators.

Type HSE models provide an economical solution for most heat & smoke removal applications. Type HS models are suggested where a heavier duty unit or greater performance capabilities are required.

Both HSE and HS models have been designed to exceed the high temperature capability requirements of UL's "Power Ventilators for Smoke Control Systems" (UL793), the IRI requirement to operate at 500°F for 2 hours minimum, and the SBCCI requirement to operate at 1,000° F for 15 minutes.



UL793 – MH18299

Type HSE & HS ventilators are listed by Underwriters Laboratory, Inc. to U.S. and Canadian safety standards

Certified ratings licensed by AMCA (Air Movement and Control Association, Inc.), for both air and sound performance are available for Type HSE PRVs. Certified ratings licensed by AMCA for air performance only are available for Type HS PRVs. These, along with dimensional drawings are included in this form.

All-Weather Performance

American Coolair upblast power roof ventilators are designed to discharge vertically so that air velocity seals the opening against rain and snow while the unit is in operation. When the fan is switched off, counterbalanced dampers close by gravity to provide a weather-resistant closure. The fiberglass dampers close quietly and serve as a skylight when unit is not in operation. Motor covers are standard for the Type JT, JTE, HS, and HSE belt driven models.

Construction

MATERIALS: The PRV assembly and curb cap are fabricated of heavy gauge steel and the dampers are constructed of durable fiberglass for years of quiet, maintenance-free operation. The wind shroud is made of galvanized steel; an exterior finish coat of epoxy can be specified. See individual fan types for information on blade material.

Painted parts are coated with a thermosetting epoxy to provide a protective coating rated excellent for hardness, impact resistance, adhesion and chemical resistance. For protective coating options see the Accessories section.

All blade assemblies are dynamically balanced.

Parts requiring painting are processed through the American Coolair five-stage pretreatment system prior to the application of any coatings to ensure maximum finish adhesion. These parts use a thermosetting epoxy powder paint with an average thickness of 3 mils and baked at 400°F to a smooth, hard, continuous finish.

Drive Mechanism

BELT DRIVE: Available in sizes from 18 inch to 84 inch. Belt driven models are designed for quieter operation and lower initial cost. They use standardly available 1750 RPM motors. The motor, belt(s) and bearings are out of the airstream on type JTEBC, JTBC, HSE, and HS units.

DIRECT DRIVE: Available in sizes from 18 inch to 60 inch. Direct driven models require less maintenance, offer longer operating life, increased efficiency and reduced operating cost.

VARIABLE PITCH PULLEYS: Nearly all belt drive models are equipped with a variable pitch motor pulley which allows fan speed adjustment where desirable. Caution should be exercised in making a speed adjustment. If pulley is opened to reduce propeller speed, air velocity may be reduced below minimum essential for all-weather usage. A speed increase may overload the motor. Contact your American Coolair representative for information on fan performance and motor load before making any adjustment.

Motors

All Type J and direct driven Type JT models feature American Coolair's air-over-motor design, which provides extra capacity and economy as it serves to dissipate heat and thus increase horsepower capability. Totally enclosed motors are standard. Several alternatives, such as explosion-proof motors, energy efficient motors and severe duty motors, are available to fit your specific needs.

Only nationally recognized brand motors with nationwide service facilities are used.

Installation, Selection and Maintenance

INSTALLATION: Coolair Upblast PRVs are shipped either fully assembled (sizes 24 and below) or in two packages for quick assembly and installation on the roof curb. Mounting, installation and maintenance instructions are included. The base section containing curb cap, fan and motor should be securely attached to the roof curb. The wind shroud/damper assembly is then easily attached to the base. Although motor and fan bearings are suitable for all-angle usage, satisfactory operation of dampers requires unit to be mounted to a level horizontal curb.

Before connecting motor to power source, check motor nameplate to be sure of correct phase and voltage. Make sure propeller turns freely without striking fan frame or any foreign object which may interfere with its operation. Note direction arrow on orifice to make sure propeller rotation is correct when power is connected.

Models JTEBC, JTBC, HSE, and HS feature a conduit through the curb cap for convenience in connecting power supply. If a safety disconnect switch accessory is specified, it is mounted above curb cap and attached to the conduit for a rain-resistant connection and switch enclosure.

SOUND: When sound is a critical problem, ventilator selection should be made from accurate sound data. The only completely accurate sound ratings are octave band sound power levels. Your American Coolair representative can furnish these for each PRV model on request. With this data, the acoustical engineer can accurately predict on-the-job sound levels.

Published sound ratings are in Sones. Your American Coolair representative can also provide sound ratings in dBA. Both Sones and dBA are sound ratings which have been calculated from the octave band sound power ratings. They may be used as a guide in fan selection where sound is **NOT** a critical factor. Both Sones and dBA ratings reflect inlet sound levels.

MAINTENANCE: American Coolair's power roof ventilators are factory lubricated for extended service without re-lubrication. Fan bearings on Model JBH and JBHX units are permanently lubricated. Models JBC, JTEBC, JTBC, HSE, and HS use pillow-block ball bearings and should be lubricated annually or more frequently, depending upon conditions and operating cycle. Refer to maintenance instructions shipped with fan. External re-lubrication fan bearing fittings are standard on JTBC and HS models, and an optional accessory for JTEBC and HSE models. Instructions for motor lubrication are supplied by motor manufacturer. On belt drive units, re-check belt tension as part of maintenance routine to ensure maximum efficiency and belt life.

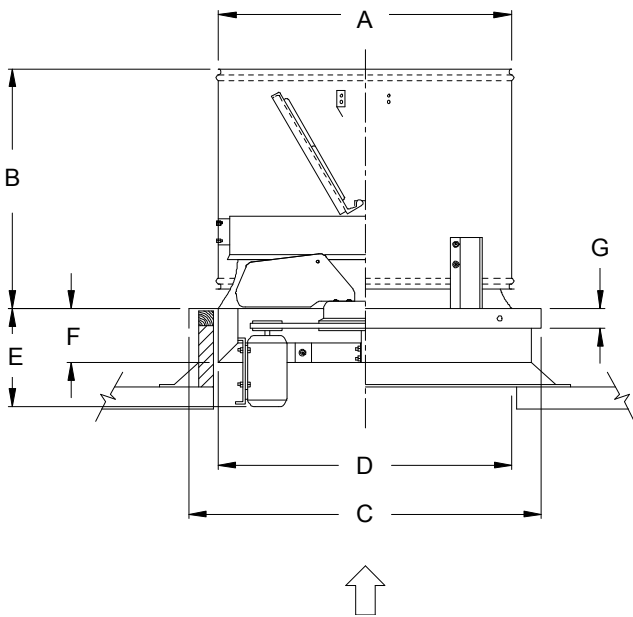
Additional Information Available

American Coolair can provide installation instructions and maintenance information at your request, as well as information on any air movement need you may have. This information may also be found at www.coolair.com on the internet. For performance requirements not listed or alternate construction requirements, contact your American Coolair representative.

American Coolair has over 80 years of experience in air moving systems and offers you the very best equipment and knowledgeable personnel.

Type JB (Models JBH, JBHX)

**BELT DRIVE — 5,600 to 57,000 CFM
0" to 5/8" STATIC PRESSURE**



Dimensions

Dimension A is the diameter of the circular wind shroud.

Dimension B is the overall height above the curb.

Dimension C is the I.D. of the curb cap flange.

Dimension D is the inside curb minimum.

Dimension E is the maximum projection of the motor below top of curb for constant speed, 3-phase TEFC motor of maximum frame size for PRV size and style indicated. This dimension will vary with the type and HP of the motor actually selected.

Dimension F is the depth of the fan angle structure.

NOTE: All JBH models use a single-groove belt drive.

All JBHX models use a dual-groove belt drive.

Application

Type JBH and JBHX low profile upblast PRVs are noted for lower initial cost, proven reliability and efficient operation for commercial and industrial applications. They are designed for use in situations where it is practical for the motor and drive components to be recessed into the roof curb.

Features

Both the JBH and JBHX PRVs utilize a cross-frame to support American Coolair's unique bearing and shaft assembly. This stationary shaft mounts on the cross-frame member and the power is applied directly to the cast aluminum hub. Drive belt power is applied to the fan/hub assembly in the same plane as the bearings. This reduces bearing load and dramatically increases fan bearing life. Bearings are permanently lubricated and sealed.

The six die-formed steel propeller blades are securely attached at three points on the hub to form a strong, rigid propeller assembly.

Most models are equipped with a variable pitch motor pulley that allows PRV speed adjustment where desirable. Caution should be exercised in making a speed adjustment. If pulley is opened to reduce propeller speed, air velocity may be reduced below minimum essential for all-weather usage. A speed increase may overload the motor. Contact your American Coolair representative for information on fan performance and motor load before making any adjustment.



Fan Size	Dimensions in Inches						
	A	B	C	D	E	F	G
24	32	28 3/4	38	32	11 7/8	5 1/8	2
30	38	33 5/8	44	38	16 3/4	5 1/8	2
36	44	33 5/8	50	44	17	5 1/8	2
42	50	38 1/2	56	50	17	5 1/8	2
H48	56	39 1/2	62	56	17	5 1/8	2
HX48					20 1/4	6 5/8	
H54	62	43 7/8	68	62	17	5 1/8	2
HX54					20 1/4	6 5/8	
60	68	46 7/8	77	69	21 1/4	7 5/8	3

Performance Ratings Typical Specifications



American Coolair Corporation certifies that the Type JB PRVs shown herein are licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

Upblast power roof ventilators shall be American Coolair Type JBH or JBHX as manufactured by American Coolair Corporation, Jacksonville, Florida; specific models shall be as shown in the fan schedule. Curb cap and structural angle supports shall be of welded steel construction, wind shroud shall be of galvanized steel. Dampers shall be of fiberglass for durability and quiet, maintenance-free operation. Die formed steel blades shall be firmly attached to cast aluminum hub, which also serves as driven sheave. Fan hub shall rotate on fixed shaft using oversized sealed ball bearings. Belt load shall be applied to hub in the same plane as bearings, eliminating overhung load on the bearings and increasing bearing life. Motor pulleys shall be variable pitch. PRVs shall be licensed to bear the AMCA Certified Ratings Seal for air performance and sound. (Specify for each PRV model in schedule the required CFM and static pressure; motor enclosure, phase and voltage; and accessories such as safety disconnect switch, magnetic latches, prefabricated curb and special protective coating, etc.)

Item No.	Cubic Feet Per Minute (CFM) at Static Pressure ^{1,5}						Fan Model ²	Fan Size	Motor HP	Fan RPM	Sone Rating ³	Max BHP ^{4,5}	Approx. Ship Wt.
	0"	1/8"	1/4"	3/8"	1/2"	5/8"							
1	7,423	6,822	6,185	5,569	—	—	JBH24K		3/4	980	25	0.91	240
2	8,226	7,687	7,117	6,546	5,998	—	JBH24L*	24	1	1086	29	1.26	242
3	9,074	8,588	8,078	7,555	7,047	6,551	JBH24M*		1 1/2	1198	34	1.70	282
4	11,495	10,430	9,389	—	—	—	JBH30L		1	804	23	1.26	315
5	12,610	11,631	10,704	9,626	—	—	JBH30M	30	1 1/2	882	28	1.70	335
6	13,768	12,866	12,016	11,118	10,054	—	JBH30N		2	963	33	2.25	340
7	15,699	14,901	14,143	13,401	12,589	11,649	JBH30P*		3	1098	44	3.31	362
8	14,280	12,929	11,578	—	—	—	JBH36L		1	665	22	1.26	367
9	15,590	14,349	13,129	11,781	—	—	JBH36M		1 1/2	726	26	1.70	385
10	16,964	15,821	14,703	13,538	12,184	—	JBH36N	36	2	790	30	2.25	390
11	19,455	18,455	17,475	16,499	15,466	14,303	JBH36P		3	906	38	3.35	412
12	23,320	22,484	21,659	20,844	20,032	19,197	JBH36Q*		5	1086	53	5.58	427
13	19,926	18,033	15,959	—	—	—	JBH42M		1 1/2	554	21	1.70	470
14	21,616	19,879	18,028	15,862	—	—	JBH42N	42	2	601	23	2.25	475
15	24,673	23,161	21,585	19,884	17,913	—	JBH42P		3	686	29	3.35	500
16	29,313	28,047	26,745	25,401	23,976	22,398	JBH42Q		5	815	38	5.52	515
17	26,534	23,561	20,165	—	—	—	JBH48N		2	477	23	2.25	620
18	30,206	27,570	24,944	21,519	—	—	JBH48P		3	543	28	3.36	640
19	35,713	33,461	31,306	28,972	25,993	23,445	JBH48Q	48	5	642	38	5.61	655
20	38,598	37,102	35,472	33,667	31,639	29,382	JBHX48R*		7 1/2	745	52	7.99	810
21	42,328	40,973	39,521	37,948	36,224	34,322	JBHX48S*		10	817	62	10.35	850
22	29,979	26,628	22,550	—	—	—	JBH54N		2	460	28	2.25	785
23	34,084	31,091	28,153	23,909	—	—	JBH54P		3	523	34	3.36	805
24	40,706	37,473	34,758	31,981	28,671	—	JBHX54Q	54	5	544	35	5.54	847
25	47,066	44,190	41,739	39,437	37,006	34,231	JBHX54R		7 1/2	629	45	8.52	912
26	51,706	49,047	46,741	44,624	42,514	40,246	JBHX54S*		10	691	54	11.14	947
27	38,305	34,128	28,670	—	—	—	JBHX60P		3	413	24	3.35	982
28	45,075	41,590	37,705	32,431	—	—	JBHX60Q	60	5	486	33	5.51	992
29	52,217	49,241	46,056	42,450	37,691	—	JBHX60R		7 1/2	563	41	8.57	1067
30	57,040	54,328	51,467	48,386	44,673	40,236	JBHX60S		10	615	47	11.19	1097

- 1 — Performance certified is for Installation Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories).
- 2 — The first three letters of the model number identify **fan type, drive configuration and style**. The next two numbers indicate **fan size**, the next letter identifies **motor horsepower**. Example: Model JBH24K is Type "J", belt drive, Style "H", 24" size, 3/4 H.P.
- 3 — The sound ratings shown are loudness values in hemispherical sones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for Installation Type A: free inlet hemispherical sone levels. The sound ratings shown are at 0" static pressure.
- 4 — Maximum brake horsepower (BHP) within the catalog performance range. Power rating (BHP) does not include transmission losses. Bearing losses are included. BHP at most static pressures listed is less than that shown, in some cases substantially less. For specific BHP values at individual static pressure points contact your American Coolair representative. Because of the cooling the motor receives from moving air stream, motor loading beyond the nominal nameplate ratings on these American Coolair fans does not overheat the motor and is within NEMA recommended limits and motor service factor. It is not detrimental to the motor and is economically desirable.
- 5 — To convert air performance (CFM and SP) and power (BHP) to metric units, multiply CFM x .000472 to obtain cubic meters per second (m³/s). Multiply SP x 248.36 to obtain pascals (Pa). Multiply BHP x .7457 to obtain kilowatts (kW).

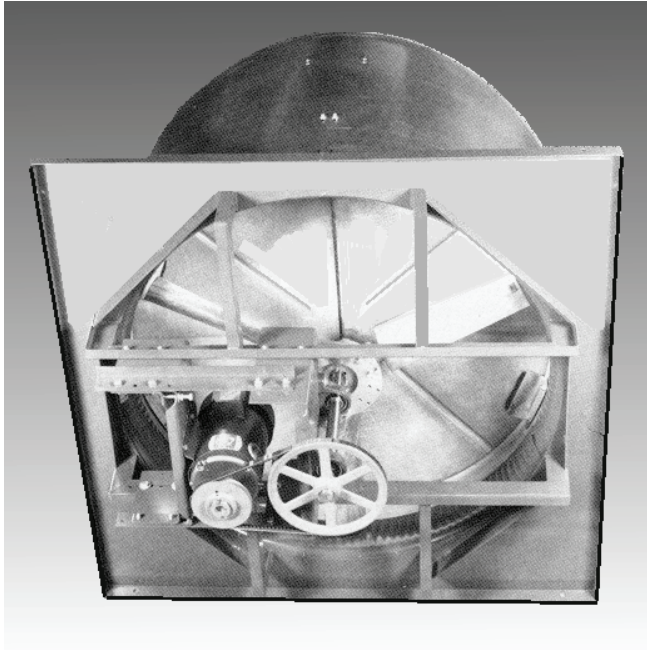
Example: 3904 CFM x .000472 = 1.8427 m³/s
 0.125 SP x 248.36 = 31.05 Pa
 0.886 BHP x .7457 = 0.661 kW

*These models have fixed pitch motor pulleys.

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

Type JBC

**BELT DRIVE — 20,000 to 119,000 CFM
0" to 3/4" STATIC PRESSURE**



Application

The JBC low profile upblast PRVs are noted for lower initial cost, proven reliability and efficient operation for commercial and industrial applications. They are designed for use in situations where it is practical for the motor and drive components to be recessed into the roof curb.

Features

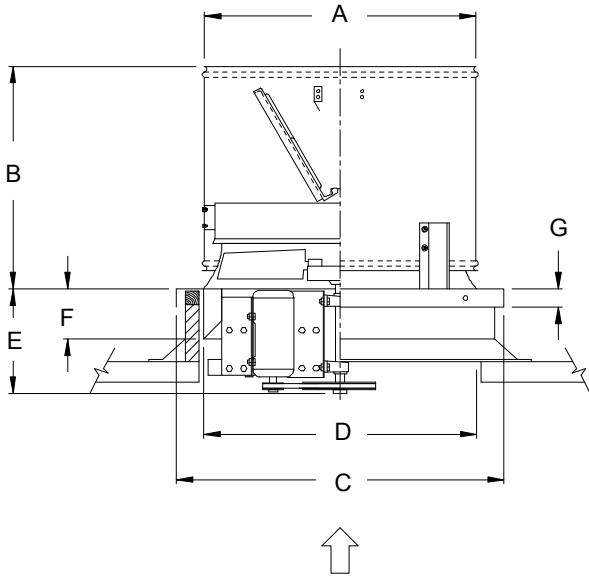
The JBC PRVs incorporate an all-welded curb cap and rugged angle frame design. The steel fan shaft is supported by two pillow-block ball bearings attached to this frame.

JBC PRVs have cast aluminum adjustable pitch airfoil blades that are securely attached to a heavy cast aluminum hub. Blade pitch is set for catalog performance.

The blade pitch should not be adjusted without first contacting your American Coolair representative.

JBC PRVs incorporate specifically engineered airfoil sections and hub sizes for optimum efficiency and strength.

Most models are equipped with a variable pitch motor pulley that allows PRV speed adjustment where desirable. Caution should be exercised in making a speed adjustment. If pulley is opened to reduce propeller speed, air velocity may be reduced below minimum essential for all-weather usage. A speed increase may overload the motor. Contact your American Coolair representative for information on fan performance and motor load before making any adjustment.



Dimensions

Dimension A is the diameter of the circular wind shroud.

Dimension B is the overall height above the curb.

Dimension C is the I.D. of the curb cap flange.

Dimension D is the inside curb minimum.

Dimension E is the maximum projection of the motor below top of curb for constant speed, 3-phase TEFC motor of maximum frame size for PRV size and style indicated. This dimension will vary with the type and HP of the motor actually selected.

Dimension F is the depth of the fan angle structure.

Dimension G is the curb cap flange.

Fan Size	Dimensions in Inches						
	A	B	C	D	E	F	G
24	32	28 3/4	38	32	18 1/4	5 1/8	2
30	38	33 5/8	44	38	18 1/4	5 1/8	2
36	44	33 5/8	50	44	19 1/2	5 1/8	2
42	50	38 1/2	56	50	19 1/2	5 1/8	2
48	56	38 1/2	62	56	19 1/2	6 5/8	2
54	62	43 7/8	68	62	19 1/2	6 5/8	2
60	68	46 7/8	77	69	20 1/2	7 5/8	3
72	80	49 7/8	89	81	25 1/2	12 3/8	3
84	92	49 7/8	101	93	25 1/2	12 3/8	3

Performance Ratings

Typical Specifications



American Coolair Corporation certifies that the Type JBC PRVs shown herein are licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

Upblast power roof ventilators shall be American Coolair Type JBC as manufactured by American Coolair Corporation, Jacksonville, Florida; specific models shall be as shown in the fan schedule. Curb cap and structural angle supports shall be of welded steel construction, wind shroud shall be of galvanized steel. Dampers shall be of fiberglass for durability and quiet, maintenance-free operation. Fan blades shall be of high strength cast aluminum airfoil design securely attached to a heavy cast aluminum hub. Blade pitch shall be adjustable. Ball bearings shall be of the heavy duty pillow block type. Motor pulleys shall be variable pitch. PRVs shall be licensed to bear the AMCA Certified Ratings Seal for air performance and sound. (Specify for each PRV model in schedule the required CFM and static pressure; motor enclosure, phase and voltage; and accessories such as safety disconnect switch, magnetic latches, prefabricated curb and special protective coating, etc.)

Item No.	Cubic Feet Per Minute (CFM) at Static Pressure ^{1,5}							Fan Model ²	Fan Size	Motor HP	Fan RPM	Sone Rating ³	Max BHP ^{4,5}	Approx. Ship Wt.
	0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"							
1	7,317	6,489	5,611	—	—	—	—	JBC24J		1/2	1140	17.9	0.60	251
2	8,388	7,675	6,915	6,139	—	—	—	JBC24K		3/4	1307	23	0.91	256
3	9,306	8,668	7,991	7,300	6,578	—	—	JBC24L		1	1450	26	1.24	261
4	10,340	9,768	9,168	8,548	7,925	7,264	—	JBC24M	24	1 1/2	1611	30	1.70	267
5	11,315	10,795	10,254	9,692	9,122	8,552	7,941	JBC24N		2	1763	35	2.23	280
6	12,965	12,513	12,047	11,566	11,074	10,577	10,082	JBC24P		3	2020	45	3.35	298
7	15,448	15,071	14,685	14,291	13,888	13,478	13,062	JBC24Q		5	2407	65	5.65	310
8	11,413	9,895	8,382	—	—	—	—	JBC30K		3/4	964	19.0	0.91	308
9	12,679	11,316	9,956	8,445	—	—	—	JBC30L		1	1071	22	1.25	311
10	14,041	12,812	11,573	10,348	8,812	—	—	JBC30M	30	1 1/2	1186	26	1.70	318
11	15,414	14,296	13,165	12,055	10,885	9,410	—	JBC30N		2	1302	30	2.25	324
12	17,604	16,627	15,639	14,651	13,684	12,674	11,434	JBC30P		3	1487	38	3.35	348
13	20,931	20,110	19,283	18,450	17,619	16,799	15,987	JBC30Q		5	1768	51	5.63	361
14	14,978	12,871	10,777	—	—	—	—	JBC36L		1	868	23	1.26	400
15	16,514	14,587	12,729	10,690	—	—	—	JBC36M		1 1/2	957	27	1.69	406
16	18,153	16,387	14,709	12,947	10,983	—	—	JBC36N	36	2	1052	32	2.25	412
17	20,707	19,145	17,664	16,182	14,612	12,902	10,966	JBC36P		3	1200	39	3.34	444
18	24,624	23,299	22,029	20,794	19,551	18,260	16,900	JBC36Q		5	1427	52	5.62	456
19	28,421	27,266	26,148	25,064	23,996	22,923	21,822	JBC36R		7 1/2	1647	68	8.60	513
20	21,270	18,255	14,978	—	—	—	—	JBC42M		1 1/2	797	27	1.70	534
21	23,325	20,659	17,587	14,494	—	—	—	JBC42N		2	874	32	2.25	520
22	26,607	24,352	21,617	19,069	16,230	—	—	JBC42P	42	3	997	40	3.34	551
23	31,651	29,815	27,669	25,330	23,202	20,984	18,371	JBC42Q		5	1186	54	5.63	565
24	36,508	34,943	33,198	31,224	29,200	27,346	25,506	JBC42R		7 1/2	1368	70	8.61	622
25	39,871	38,449	36,897	35,173	33,305	31,487	29,804	JBC42S		10	1494	83	11.22	633
26	27,189	23,021	18,788	—	—	—	—	JBC48N		2	682	34	2.25	717
27	31,017	27,290	23,767	19,645	—	—	—	JBC48P		3	778	43	3.35	725
28	36,718	33,485	30,577	27,508	24,084	19,103	—	JBC48Q	48	5	921	58	5.55	740
29	41,940	39,062	36,468	33,912	31,180	28,230	24,467	JBC48R		7 1/2	1052	77	8.27	820
30	46,126	43,483	41,073	38,774	36,396	33,876	31,187	JBC48S		10	1157	92	11.01	860

(chart continues next page)

Type JBC Performance Ratings (cont'd)

Item No.	Cubic Feet Per Minute (CFM) at Static Pressure ^{1,5}							Fan Model ²	Fan Size	Motor HP	Fan RPM	Sone Rating ³	Max BHP ^{4,5}	Approx. Ship Wt.
	0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"							
31	35,856	30,903	25,556	—	—	—	—	JBC54P		3	665	37	3.40	840
32	42,650	38,520	34,180	29,699	23,670	—	—	JBC54Q	54	5	791	51	5.76	875
33	48,527	44,914	41,188	37,156	33,362	28,244	—	JBC54R		7 1/2	900	65	8.52	940
34	53,164	49,874	46,500	43,004	39,225	35,848	30,950	JBC54S		10	986	76	11.20	975
35	49,547	44,999	38,811	32,840	25,776	—	—	JBC60Q			5	749	48	5.62
36	56,559	52,717	47,801	42,037	37,086	31,091	—	JBC60R	60	7 1/2	855	61	8.36	1100
37	62,182	58,754	54,585	49,509	44,375	40,102	34,498	JBC60S		10	940	72	11.12	1130
38	51,821	45,695	38,302	—	—	—	—	JBC72P		3	358	26	3.45	1424
39	61,374	56,274	50,728	44,054	37,382	—	—	JBC72Q		5	424	34	5.73	1439
40	70,204	65,780	61,116	55,927	49,971	44,475	—	JBC72R	72	7 1/2	485	42	8.57	1478
41	77,441	73,447	69,286	64,873	59,817	54,461	49,532	JBC72S*		10	535	50	11.49	1505
42	88,587	85,108	81,530	77,821	73,907	69,539	64,743	JBC72T*		15	612	64	17.19	1633
43	96,838	93,661	90,414	87,073	83,619	79,960	75,907	JBC72U*		20	669	76	22.44	1657
44	75,290	67,574	58,702	48,956	—	—	—	JBC84Q		5	329	30	5.74	1716
45	86,274	79,607	72,437	63,858	55,576	—	—	JBC84R		7 1/2	377	38	8.60	1755
46	94,741	88,702	82,329	75,211	67,096	56,517	—	JBC84S	84	10	414	45	11.42	1782
47	108,701	103,465	98,031	92,316	85,944	78,778	72,342	JBC84T		15	475	56	17.23	1910
48	118,770	113,990	109,069	103,961	98,546	92,452	85,882	JBC84U*		20	519	65	22.45	1934

- 1 — Performance certified is for Installation Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories).
- 2 — The first three letters of the model number identify **fan type, drive configuration and style**. The next two numbers indicate **fan size**, the next letter identifies **motor horsepower**. Example: Model JBC48Q is Type "J", belt drive, Style "C", 48" size, 5 H.P.
- 3 — The sound ratings shown are loudness values in hemispherical sones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for Installation Type A: free inlet hemispherical sone levels. The sound ratings shown are at 0" static pressure.
- 4 — Maximum brake horsepower (BHP) within the catalog performance range. Power rating (BHP) do not include transmission losses. Bearing losses are included. BHP at most static pressures listed is less than that shown, in some cases substantially less. For specific BHP values at individual static pressure points contact your American Coolair representative. Because of the cooling the motor receives from moving air stream, motor loading beyond the nominal nameplate ratings on these American Coolair fans does not overheat the motor and is within NEMA recommended limits and motor service factor. It is not detrimental to the motor and is economically desirable.
- 5 — To convert air performance (CFM and SP) and power (BHP) to metric units, multiply CFM x .000472 to obtain cubic meters per second (m³/s). Multiply SP x 248.36 to obtain pascals (Pa). Multiply BHP x .7457 to obtain kilowatts (kW).

Example: 3904 CFM x .000472 = 1.8427 m³/s
 0.125 SP x 248.36 = 31.05 Pa
 0.886 BHP x .7457 = 0.661 kW

*These models have fixed pitch motor pulleys.

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

Type JDC

**DIRECT DRIVE — 2,300 to 55,600 CFM
0" to 3/4" STATIC PRESSURE**



Application

The JDC low profile upblast PRVs are designed for minimal maintenance requirements and efficient, economical operation.

These fans are suggested for use in situations where the installed fan will be difficult to reach for periodic maintenance.

Features

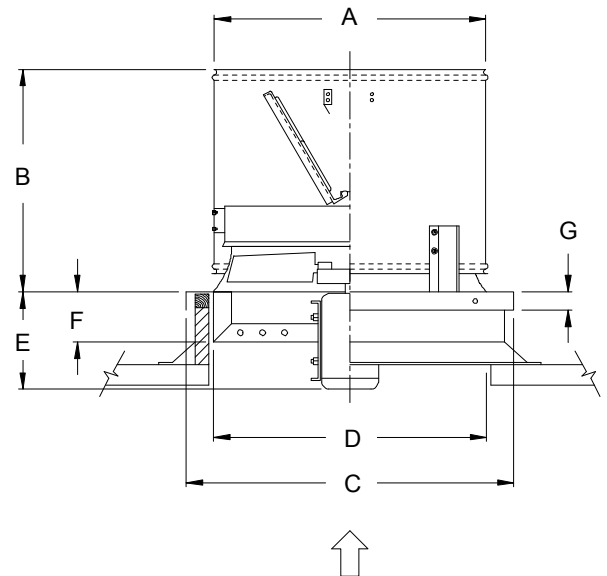
The JDC PRVs incorporate an all-welded curb cap and rugged angle frame design.

The propeller assembly is connected directly to the motor shaft. There are no bearings or belts to require maintenance. Many motors are permanently lubricated.

From 3 to 6 cast aluminum adjustable pitch airfoil blades are securely attached to a heavy cast aluminum hub. Blade pitch is set for catalog performance.

The blade pitch should not be adjusted without first contacting your American Coolair representative.

JDC PRVs incorporate specifically engineered airfoil sections and hub sizes for optimum efficiency and strength.



Dimensions

Dimension A is the diameter of the circular wind shroud.

Dimension B is the overall height above the curb.

Dimension C is the I.D. of the curb cap flange.

Dimension D is the inside curb minimum.

Dimension E is the maximum projection of the motor below top of curb for constant speed, 3-phase TEFC motor of maximum frame size for PRV size and style indicated. This dimension will vary with the type and HP of the motor actually selected.

Dimension F is the depth of the fan angle structure.

Dimension G is the curb cap flange.

Fan Size	Dimensions in Inches						
	A	B	C	D	E	F	G
18	24 5/8	25 1/8	32	24	10 3/4	4 3/4	2
24	32	28 3/4	38	32	12 3/8	5 1/8	2
30	38	33 5/8	44	38	13 3/4	5 1/8	2
36	44	33 5/8	50	44	15 1/4	5 1/8	2
42	50	38 1/2	56	50	15 1/4	5 1/8	2
48	56	39 1/2	62	56	19 3/8	6 5/8	2
54	62	43 7/8	68	62	19 3/4	6 5/8	2
60	68	46 7/8	77	69	20 3/4	7 5/8	3

Performance Ratings

Typical Specifications



American Coolair Corporation certifies that the Type JDC PRVs shown herein are licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

Upblast power roof ventilators shall be American Coolair Type JDC as manufactured by American Coolair Corporation, Jacksonville, Florida; specific models shall be as shown in the fan schedule. Curb cap and structural angle supports shall be of welded steel construction, wind shroud shall be of galvanized steel. Dampers shall be of fiberglass for durability and quiet, maintenance-free operation. Fan blades shall be of high strength cast aluminum airfoil design securely attached to a heavy cast aluminum hub. Blade pitch shall be adjustable. Entire blade assembly shall be mounted directly to the motor shaft. PRVs shall be licensed to bear the AMCA Certified Ratings Seal for air performance and sound. (Specify for each PRV model in schedule the required CFM and static pressure; motor enclosure, phase and voltage; and accessories such as safety disconnect switch, magnetic latches, prefabricated curb and special protective coating, etc.)

Item No.	Cubic Feet Per Minute (CFM) at Static Pressure ^{1,7}							Fan Model ²	Fan Size	Motor HP	Fan RPM ³	Sone Rating ⁴	Max BHP ^{5,7}	Blade Descr ⁶		Approx. Ship Wt.
	0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"							No.	Pitch	
1	3,164	2,845	2,491	—	—	—	—	JDC18G11		1/4	1160	10.5	0.28	6	25.5°	130
2	3,651	3,302	2,877	—	—	—	—	JDC18H11		1/3	1160	11.8	0.37	6	32°	131
3	3,274	2,978	2,653	—	—	—	—	JDC18G17		1/4	1750	16.4	0.30	3	14.5°	112
4	3,658	3,347	3,006	—	—	—	—	JDC18H17	18	1/3	1750	17.1	0.37	3	18°	115
5	4,408	4,061	3,718	3,273	—	—	—	JDC18J17		1/2	1750	20	0.58	3	25.5°	118
6	4,912	4,631	4,309	3,959	3,588	3,240	—	JDC18K17		3/4	1750	23	0.86	4	29°	127
7	5,225	5,048	4,813	4,537	4,289	4,003	—	JDC18L17		1	1750	22	1.15	6	29.5°	136
8	6,118	5,475	—	—	—	—	—	JDC24J8		1/2	870	15.0	0.57	6	30.5°	280
9	6,411	5,781	5,109	—	—	—	—	JDC24J11		1/2	1160	23	0.61	3	24.5°	265
10	7,025	6,461	5,858	5,115	—	—	—	JDC24K11		3/4	1160	25	0.85	4	27°	280
11	7,533	7,106	6,602	6,024	5,215	—	—	JDC24L11		1	1160	23	1.13	6	27°	291
12	6,677	6,238	5,775	5,321	—	—	—	JDC24K17	24	3/4	1750	39	0.88	3	11.5°	265
13	7,425	7,108	6,749	6,261	5,784	5,264	—	JDC24L17		1	1750	39	1.18	3	14.5°	265
14	8,817	8,431	8,019	7,583	7,132	6,658	6,114	JDC24M17		1 1/2	1750	38	1.76	3	20°	291
15	10,021	9,601	9,166	8,722	8,268	7,790	7,259	JDC24N17		2	1750	46	2.31	3	27°	291
16	11,339	10,981	10,577	10,131	9,667	9,194	8,705	JDC24P17		3	1750	49	3.38	4	30.5°	318
17	9,980	8,842	7,702	—	—	—	—	JDC30K8		3/4	870	19.9	0.85	4	25°	380
18	10,693	9,913	9,057	7,900	—	—	—	JDC30L8		1	870	21	1.11	6	23°	407
19	10,920	9,979	9,071	7,998	—	—	—	JDC30L11		1	1160	26	1.14	3	19.5°	380
20	12,207	11,478	10,693	9,810	8,734	—	—	JDC30M11	30	1 1/2	1160	30	1.70	4	22°	407
21	13,787	12,920	12,010	11,127	10,133	8,726	—	JDC30N11		2	1160	32	2.27	4	27°	418
22	12,859	12,245	11,669	11,074	10,455	9,793	9,007	JDC30N17		2	1750	47	2.25	3	12°	380
23	15,292	14,693	14,157	13,565	12,920	12,250	11,535	JDC30P17		3	1750	49	3.39	3	17°	407
24	18,180	17,717	17,235	16,732	16,204	15,651	15,071	JDC30Q17		5	1750	60	5.64	4	21.5°	418
25	13,890	12,025	9,772	—	—	—	—	JDC36L8		1	870	24	1.15	3	20°	460
26	15,882	13,866	11,792	—	—	—	—	JDC36M8		1 1/2	870	26	1.64	3	27°	471
27	17,457	16,225	14,986	13,674	11,952	—	—	JDC36N8		2	870	29	2.27	6	22.5°	513
28	20,531	19,209	17,577	15,675	13,656	—	—	JDC36P8		3	870	35	3.41	6	29.5°	533
29	14,710	13,417	12,240	10,955	9,424	—	—	JDC36M11		1 1/2	1160	34	1.70	3	12.5°	460
30	17,206	15,838	14,419	12,900	11,617	9,570	—	JDC36N11	36	2	1160	36	2.30	3	17.5°	471
31	20,144	18,660	17,281	15,668	13,872	11,713	—	JDC36P11		3	1160	39	3.41	3	24°	513
32	23,661	22,636	21,494	20,126	18,584	16,846	12,359	JDC36Q11		5	1160	48	5.64	4	29.5°	533
33	16,092	15,342	14,585	13,805	12,982	12,122	11,267	JDC36P17		3	1750	78	3.34	3	5°	460
34	20,866	20,095	19,340	18,598	17,860	17,144	16,349	JDC36Q17		5	1750	81	5.77	3	11°	471
35	25,306	24,454	23,636	22,834	22,044	21,261	20,481	JDC36R17		7 1/2	1750	82	8.50	3	16.5°	513

(chart continues next page)

Type JDC Performance Ratings (cont'd)

Item No.	Cubic Feet Per Minute (CFM) at Static Pressure ^{1,7}							Fan Model ²	Fan Size	Motor HP	Fan RPM ³	Sone Rating ⁴	Max BHP ^{5,7}	Blade No.	Desc. ⁶ Pitch	Approx. Ship Wt.
	0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"									
36	19,086	16,404	13,841	—	—	—	—	JDC42M6	1 1/2	680	26	1.69	4	21.5°	572	
37	20,482	18,717	17,059	15,159	—	—	—	JDC42N6	2	680	29	2.27	6	21.5°	598	
38	18,560	16,365	14,163	—	—	—	—	JDC42M8	1 1/2	870	29	1.68	3	13°	532	
39	21,343	19,071	16,684	14,029	—	—	—	JDC42N8	2	870	32	2.29	3	17.5°	576	
40	24,963	22,724	20,030	16,880	—	—	—	JDC42P8	42	3	870	35	3.46	3	25°	596
41	18,747	17,292	15,735	14,137	—	—	—	JDC42N11		2	1160	44	2.28	3	6°	532
42	22,902	21,302	19,822	18,340	16,669	14,536	—	JDC42P11	3	1160	45	3.43	3	11°	574	
43	28,864	27,122	25,399	23,616	21,740	19,738	17,553	JDC42Q11	5	1160	52	5.61	3	18°	596	
44	29,506	28,522	27,584	26,642	25,625	24,563	23,452	JDC42R17	7 1/2	1750	91	8.50	3	7°	574	
45	33,847	32,800	31,798	30,836	29,895	28,955	27,994	JDC42S17	10	1750	93	11.33	3	10.5°	596	
46	24,930	22,159	18,788	—	—	—	—	JDC48N6	2	680	34	2.24	4	15°	730	
47	24,015	21,452	18,476	—	—	—	—	JDC48N8	2	870	41	2.27	3	8°	708	
48	29,693	27,015	23,678	20,494	16,972	—	—	JDC48P8	3	870	45	3.45	3	13.5°	725	
49	37,210	33,927	30,279	26,307	21,262	—	—	JDC48Q8	5	870	53	5.66	3	21.5°	768	
50	42,383	39,285	35,673	32,247	29,001	24,103	20,744	JDC48R8	48	7 1/2	870	61	8.44	4	24.5°	797
51	32,665	30,812	28,769	26,581	24,259	21,944	19,762	JDC48Q11		5	1160	72	5.61	3	8.5°	728
52	40,304	38,335	36,226	33,681	31,174	28,738	26,300	JDC48R11	7 1/2	1160	79	8.47	3	14°	766	
53	46,174	43,908	41,538	38,815	36,331	33,738	30,423	JDC48S11	10	1160	88	11.34	3	18.5°	795	
54	28,628	25,561	21,740	—	—	—	—	JDC54N6	2	680	39	2.22	4	8.5°	970	
55	33,199	30,361	26,814	23,286	—	—	—	JDC54P8	3	870	57	3.34	3	7.5°	962	
56	44,593	38,831	35,694	31,671	26,990	23,415	—	JDC54Q8	54	5	870	57	5.66	3	14.5°	1007
57	50,284	47,605	44,294	39,224	32,001	28,111	—	JDC54R8		7 1/2	870	63	8.62	3	22°	1037
58	45,984	43,942	41,683	38,661	36,209	33,910	31,077	JDC54R11	7 1/2	1160	97	8.66	3	8.5°	1003	
59	53,417	50,142	47,357	45,114	41,881	38,264	35,935	JDC54S11	10	1160	97	11.36	3	12°	1033	
60	32,589	27,259	—	—	—	—	—	JDC60N6	2	680	39	2.29	3	6°	1270	
61	38,850	33,201	28,385	—	—	—	—	JDC60P6	3	680	39	3.43	3	11°	1270	
62	44,157	39,513	35,878	32,398	27,063	—	—	JDC60Q8	60	5	870	62	5.55	3	7.5°	1311
63	53,423	49,485	44,863	40,800	36,029	28,551	—	JDC60R8		7 1/2	870	62	8.47	3	13.5°	1346
64	55,593	51,668	48,830	46,295	44,025	41,196	36,458	JDC60S11	10	1160	102	11.46	3	6°	1341	

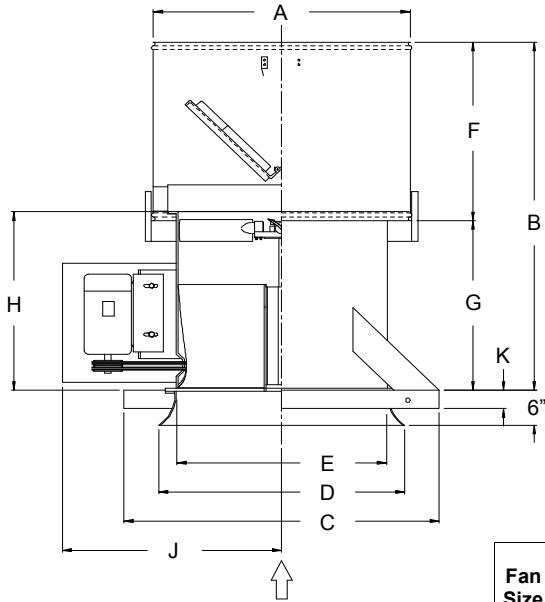
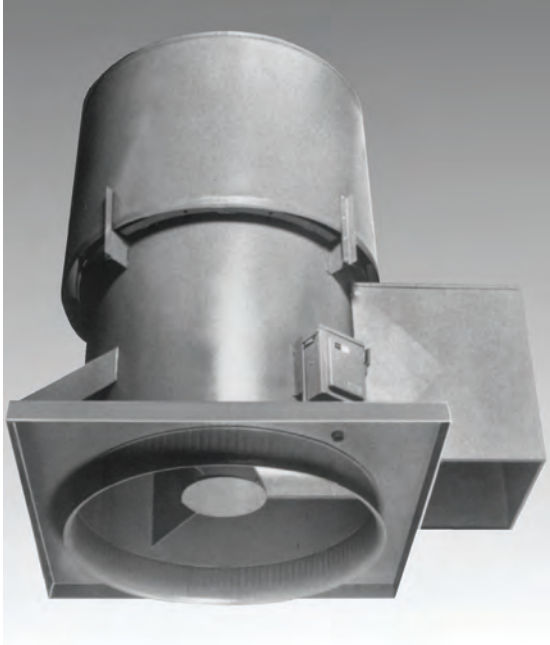
- 1 — Performance certified is for Installation Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories).
- 2 — The first three letters of the model number identify **fan type, drive configuration and style**. The next two numbers indicate **fan size**, the next letter identifies **motor horsepower**, the last number (or numbers) indicates **RPM** in hundreds. Example: Model JDC24J8 is Type "J", direct drive, Style "C", 24" size, 1/2 H.P., 870 RPM.
- 3 — Fan RPM is identical to motor speed.
- 4 — The sound ratings shown are loudness values in hemispherical sones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for Installation Type A: free inlet hemispherical sone levels. The sound ratings shown are at 0" static pressure.
- 5 — Maximum brake horsepower (BHP) within the catalog performance range. BHP at most static pressures listed is less than that shown, in some cases substantially less. For specific BHP values at individual static pressure points contact your American Coolair representative. Because of the cooling the motor receives from moving air stream, motor loading beyond the nominal nameplate ratings on these American Coolair fans does not overheat the motor and is within NEMA recommended limits and motor service factor. It is not detrimental to the motor and is economically desirable.
- 6 — An adjustable pitch propeller with cast aluminum airfoil blades is standard. The number of blades and pitch angle for each model is indicated.
- 7 — To convert air performance (CFM and SP) and power (BHP) to metric units, multiply CFM x .000472 to obtain cubic meters per second (m³/s). Multiply SP x 248.36 to obtain pascals (Pa). Multiply BHP x .7457 to obtain kilowatts (kW).

Example: 3904 CFM x .000472 = 1.8427 m³/s
0.125 SP x 248.36 = 31.05 Pa
0.886 BHP x .7457 = 0.661 kW

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

Type JTEBC

BELT DRIVE — 2,200 to 50,900 CFM
0" to 1" STATIC PRESSURE



Dimensions

Dimension A is the diameter of the circular wind shroud.
 Dimension B is the overall height above the curb.
 Dimension C is the I.D. of the curb cap flange.
 Dimension D is the inside curb minimum. (Inlet orifice is not furnished with 18" size.)
 Dimension E is the inside diameter of the fan housing.
 Dimension F is the height of the wind shroud.
 Dimension G is the height of the unit from the curb to the wind shroud.
 Dimension H is the height of the unit above the curb less the wind shroud and damper assembly.
 Dimension J is the distance from the center of the PRV to the outside edge of the motor cover.
 Dimension K is the curb cap flange.

Application

JTEBC upblast PRV's are built of heavy gauge steel for rugged industrial service where the fan assembly must be located above the roof.

JTEBC PRV's are designed to operate reliably in environments where elevated temperature or contaminated air is present. The motor, belt(s), and bearings are isolated from the air stream.

Features

The JTEBC PRV's are constructed of heavy gauge steel, up to 1/4" plate. All ferrous materials are painted with thermosetting epoxy paint for corrosion protection.

The wind shroud is made of galvanized steel and the damper doors are made of fiberglass with ultraviolet inhibitors.

The steel fan shaft is supported by two pillow-block ball bearings that are mounted in an enclosed housing to provide years of service under harsh conditions. (Suitable for operation to 250°F. See Type HSE for higher temperatures.)

JTEBC PRV's use 4 or 6 high-strength, cast aluminum airfoil blades that are securely attached to a heavy cast aluminum hub. Blade pitch is set for catalog performance. The blade pitch should not be adjusted without first contacting your American Coolair representative.

The JTEBC PRV fan blades have specifically engineered airfoil sections and hub sizes for optimum efficiency and physical strength.

Most models are equipped with a variable pitch motor pulley that allow PRV speed adjustment where desirable. Caution should be exercised in making a speed adjustment. If the motor pulley is opened to reduce propeller speed, air velocity may be reduced below minimum essential for all-weather usage. A speed increase may overload the motor. Contact your American Coolair representative for recommendation before making any speed adjustment.

The motor is located out of the airstream. Standard TEFC motors are used on most models. A motor cover is standard with all models.

Fan Size	Dimensions in Inches									
	A	B	C	D	E	F	G	H	J	K
18	24 5/8	47 7/16	32	24	18	27 5/8	19 13/16	21 1/8	23 1/4	2 1/2
24	32	47 7/16	38	30 1/4	25 1/2	27 5/8	19 13/16	21 1/8	28	3
30	38	52 5/16	44	36 1/4	31 1/4	32 1/2	19 13/16	21 1/8	31 1/4	3
36	44	62 5/16	50	42 1/4	37 1/4	32 1/2	29 13/16	31 1/8	37 3/4	3
42	50	67 3/16	56	48 1/2	43 1/4	37 3/8	29 13/16	31 1/8	41	3
48	56	67 3/16	62	54 5/8	49 1/4	37 3/8	29 13/16	31 1/8	44 1/4	3
54	62	71 11/16	68	59 1/2	55 1/4	41 13/16	29 13/16	31 1/8	52	3
60	68	74 11/16	77	65 5/8	61 3/8	44 13/16	29 13/16	31 1/8	55 1/8	3

Performance Ratings

Typical Specifications



American Coolair Corporation certifies that the Type JTEBC PRVs shown herein are licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

Uplast power roof ventilators shall be American Coolair Type JTEBC as manufactured by American Coolair Corporation, Jacksonville, Florida; specific models shall be as shown in the fan schedule. PRV base and curb cap shall be of welded steel construction, wind shroud and motor cover shall be of galvanized steel. Dampers shall be of fiberglass for durability and quiet, maintenance-free operation. Motors shall be located outside airstream. Ball bearings shall be of the heavy duty pillow-block type. Fan blades shall be of high strength cast aluminum airfoil design securely attached to a heavy cast aluminum hub. Blade pitch shall be adjustable. PRV's shall be licensed to bear the AMCA Certified Ratings Seal for air and sound performance. (Specify for each PRV model in schedule the required CFM and static pressure; motor enclosure, phase and volts; and accessories such as safety disconnect switch, magnetic latches, pre-fabricated curb, and special protective coating.)

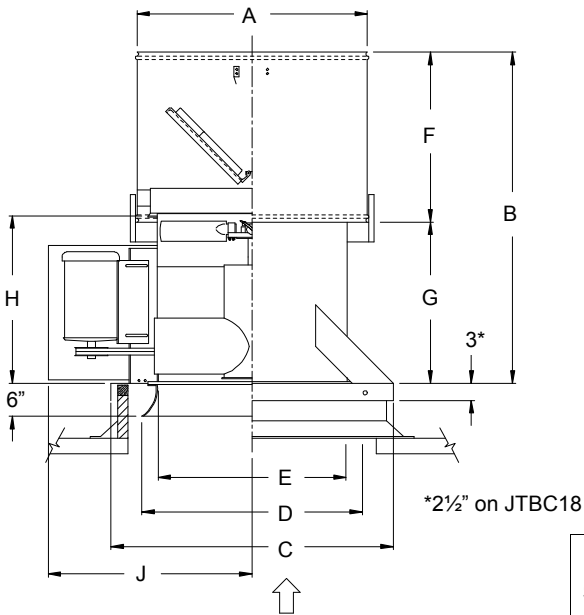
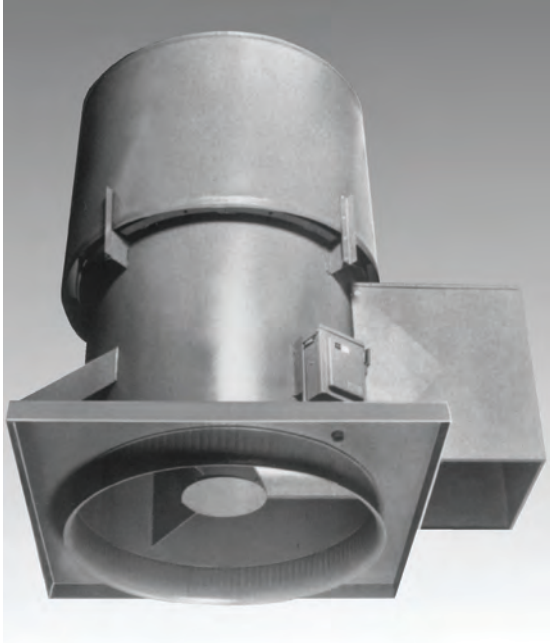
Item No.	Cubic Feet Per Minute (CFM) at Static Pressure ¹								Fan Model ²	Fan Size	Motor HP	Fan RPM	Sone Rating ³	Max BHP ⁴	Blade No.	Desc. Pitch	Approx. Ship Wt.
	0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"	1"									
1	2,833	2,587	—	—	—	—	—	—	JTEBC18J	1/2	1400	17.7	0.463	4	30°	195	
2	3,363	3,178	2,926	2,654	—	—	—	—	JTEBC18K	3/4	1662	24	0.733	4	30°	200	
3	3,719	3,561	3,332	3,123	2,839	2,527	—	—	JTEBC18L	1	1838	29	0.964	4	30°	205	
4	4,338	4,211	4,033	3,833	3,658	3,421	3,186	—	JTEBC18M	1 1/2	2144	38	1.478	4	30°	210	
5	7,009	6,411	5,762	5,093	—	—	—	—	JTEBC24L	1	1178	27	0.933	4	25°	325	
6	8,210	7,703	7,169	6,609	6,040	5,242	—	—	JTEBC24M	24	1 1/2	1380	36	1.475	4	25°	325
7	9,008	8,546	8,071	7,559	7,056	6,519	5,771	—	JTEBC24N	2	1514	43	1.930	4	25°	335	
8	10,210	9,802	9,391	8,957	8,502	8,059	7,601	6,219	JTEBC24P	3	1716	56	2.784	4	25°	350	
9	11,200	10,440	9,653	8,544	7,403	—	—	—	JTEBC30M	1 1/2	1156	29	1.449	4	18°	395	
10	12,411	11,758	11,033	10,105	9,190	8,087	—	—	JTEBC30N	30	2	1281	35	1.965	4	18°	400
11	14,233	13,698	13,012	12,430	11,537	10,740	9,889	—	JTEBC30P	3	1469	44	2.936	4	18°	415	
12	16,655	16,221	15,655	15,095	14,603	13,905	13,121	11,748	JTEBC30Q	5	1719	58	4.668	4	18°	430	
13	15,265	14,327	13,258	11,888	10,340	—	—	—	JTEBC36N	2	1060	41	1.969	4	15°	575	
14	17,396	16,583	15,698	14,665	13,412	12,065	10,466	—	JTEBC36P	36	3	1208	53	2.898	4	15°	590
15	20,593	19,913	19,195	18,426	17,556	16,540	15,439	12,993	JTEBC36Q	5	1430	76	4.779	4	15°	605	
16	21,107	19,679	18,206	16,812	15,185	—	—	—	JTEBC42P	3	801	31	2.794	6	15°	750	
17	25,007	23,812	22,565	21,342	20,172	18,898	17,345	—	JTEBC42Q	42	5	949	42	4.629	6	15°	765
18	28,933	27,907	26,845	25,759	24,709	23,701	22,656	20,117	JTEBC42R	7 1/2	1098	56	7.131	6	15°	805	
19	31,885	30,956	30,001	29,020	28,039	27,098	26,185	24,233	JTEBC42S	10	1210	64	9.528	6	15°	820	
20	24,946	23,028	21,052	18,897	—	—	—	—	JTEBC48P	3	734	36	2.764	6	10°	850	
21	29,738	28,136	26,501	24,830	23,055	20,698	17,781	—	JTEBC48Q	48	5	875	49	4.687	6	10°	865
22	34,156	32,765	31,352	29,917	28,457	26,934	25,141	20,215	JTEBC48R	7 1/2	1005	64	7.047	6	10°	905	
23	37,962	36,712	35,447	34,166	32,868	31,550	30,188	26,751	JTEBC48S	10	1117	77	9.678	6	10°	915	
24	29,868	26,963	23,947	20,627	—	—	—	—	JTEBC54P	3	657	38	2.839	6	10°	980	
25	35,142	32,675	30,186	27,546	24,719	21,606	—	—	JTEBC54Q	54	5	773	51	4.621	6	10°	1005
26	40,461	38,319	36,170	33,980	31,660	29,223	26,641	20,274	JTEBC54R	7 1/2	980	67	7.028	6	10°	1040	
27	42,217	40,742	39,177	37,484	35,583	33,637	31,823	27,921	JTEBC54S	10	1059	92	9.359	6	5°	1050	
28	36,122	31,942	26,938	—	—	—	—	—	JTEBC60P	3	533	36	2.832	6	10°	1135	
29	41,815	38,061	34,384	29,973	25,644	—	—	—	JTEBC60Q	60	5	617	45	4.397	6	10°	1160
30	48,592	45,245	42,441	38,533	34,997	31,475	26,812	—	JTEBC60R	7 1/2	717	62	6.878	6	10°	1200	
31	50,897	48,847	46,825	44,676	42,143	39,251	36,223	29,798	JTEBC60S	10	914	82	9.591	6	5°	1210	

- 1 — Performance certified is for Installation Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories).
- 2 — The first five letters of the model number identify **fan type, drive configuration and style**. The next two numbers indicate **fan size**, the next letter identifies **motor horsepower**. For example: Model JTEBC18H is Type "JTE", belt drive, Style "C", 18" size, 1/3 H.P.
- 3 — The sound ratings shown are loudness values in hemispherical sones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for Installation Type A: free inlet hemispherical sone levels. The sound ratings shown are at 0" static pressure.
- 4 — Maximum brake horsepower (BHP) within the catalog performance range. Power rating (BHP) does not include transmission losses. Bearing losses are included. BHP at most static pressures listed is less than that shown, in some cases substantially less. For specific BHP values at individual static pressure points contact your American Coolair representative

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

Type JTBC

**BELT DRIVE — 2,100 to 97,300 CFM
0" to 1" STATIC PRESSURE**



Dimensions

Dimension A is the diameter of the circular wind shroud.

Dimension B is the overall height above the curb.

Dimension C is the I.D. of the curb cap flange.

Dimension D is the inside curb minimum. (Inlet orifice is not furnished with 18" size.)

Dimension E is the inside diameter of the fan housing.

Dimension F is the height of the wind shroud.

Dimension G is the height of the unit from the curb to the wind shroud.

Dimension H is the height of the unit above the curb less the wind shroud and damper assembly.

Dimension J is the distance from the center of the PRV to the outside edge of the motor cover.

Application

The JTBC upblast PRVs are built of heavy gauge steel for rugged industrial service where the fan assembly must be located above the roof.

They are designed to operate reliably in hostile environments where high temperatures or contaminated air are present. The motor, belts and bearings are isolated from the air stream.

These PRVs can be easily connected to duct work when exhausting from a ducted system. Simply specify the optional duct connector accessory.

Features

The JTBC PRVs are constructed of extra heavy gauge steel, up to 1/4" plate.

The steel fan shaft is supported by two pillow-block ball bearings that are mounted in an enclosed tube to provide years of service under harsh conditions. (Suitable for operation to 250°F. See Type HS for higher temperatures.)

JTBC PRVs use from 3 to 8 cast aluminum adjustable pitch airfoil blades that are securely attached to a heavy cast aluminum hub. Blade pitch is set for catalog performance. The blade pitch should not be adjusted without first contacting your American Coolair representative.

JTBC PRVs incorporate specifically engineered airfoil sections and hub sizes for optimum efficiency and strength.

Most models are equipped with a variable pitch motor pulley that allows PRV speed adjustment where desirable. Caution should be exercised in making a speed adjustment. If pulley is opened to reduce propeller speed, air velocity may be reduced below minimum essential for all-weather usage. A speed increase may overload the motor. Contact your American Coolair representative for information on fan performance and motor load before making any adjustment.

External re-lubrication fan bearing fittings and motor cover are standard with all belt driven models.

Fan Size	Dimensions in Inches								
	A	B	C	D	E	F	G	H	J
18	24 5/8	45 1/4	32	—	18 1/8	27 5/8	17 5/8	20	23 3/4
24	32	53 1/4	38	30 1/4	25 1/2	27 5/8	25 5/8	28	30 5/8
30	38	58 1/8	44	36 1/4	31 1/4	32 1/2	25 5/8	28	34 1/2
36	44	66 1/8	50	42 1/4	37 1/4	32 1/2	33 5/8	36	41 5/8
42	50	71	56	48 1/2	43 1/4	37 3/8	33 5/8	36	45 5/8
48	56	71	62	54 5/8	49 1/4	37 3/8	33 5/8	36	49
54	62	75 7/16	68	59 1/2	55 1/4	41 13/16	33 5/8	36	52 3/8
60	68	78 7/16	77	65 5/8	61 3/8	44 13/16	33 5/8	36	55 7/8
72	80	93 7/16	89	77 5/8	73 3/8	47 13/16	45 5/8	48	62 1/8
84	92	93 7/16	101	89 5/8	85 3/8	47 13/16	45 5/8	48	68 1/2

Performance Ratings Typical Specifications



American Coolair Corporation certifies that the Type JTBC PRVs shown herein are licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and comply with the requirements of the AMCA Certified Ratings Program.

Upblast power roof ventilators shall be American Coolair Type JTBC as manufactured by American Coolair Corporation, Jacksonville, Florida; specific models shall be as shown in the fan schedule. PRV base and curb cap shall be of welded steel construction, wind shroud and motor cover shall be of galvanized steel. Dampers shall be of fiberglass for durability and quiet, maintenance-free operation. Motors shall be located outside airstream. Ball bearings shall be of the heavy duty pillow-block type with external lubrication fittings. Fan blades shall be of high strength cast aluminum airfoil design securely attached to a heavy cast aluminum hub. Blade pitch shall be adjustable. PRVs shall be licensed to bear the AMCA Certified Ratings Seal for air performance. (Specify for each PRV model in schedule the required CFM and static pressure; motor enclosure, phase and voltage; and accessories such as safety disconnect switch, magnetic latches, prefabricated curb and special protective coating, etc.)

Item No.	Cubic Feet Per Minute (CFM) at Static Pressure ^{1,6}								Fan Model ²	Fan Size	Motor HP	Fan RPM	Sone Rating ³	Max BHP ^{4,6}	Blade No.	Desc. ⁵ Pitch	Approx. Ship Wt.
	0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"	1"									
1	2,929	2,589	—	—	—	—	—	—	JTBC18H11	18	1/3	1160	11.5	0.31	6	32.5°	320
2	3,142	2,960	2,747	2,490	—	—	—	—	JTBC18J17	18	1/2	1750	19.3	0.47	4	20.5°	325
3	3,768	3,537	3,278	2,990	—	—	—	—	JTBC18K17	18	3/4	1750	22	0.70	4	28°	332
4	4,204	3,936	3,646	3,332	—	—	—	—	JTBC18L17	18	1	1750	24	0.94	4	34.5°	344
5	6,667	6,025	5,310	—	—	—	—	—	JTBC24K11	24	3/4	1160	22	0.71	3	26.5°	493
6	7,216	6,629	5,980	—	—	—	—	—	JTBC24L11	24	1	1160	25	0.94	4	28°	499
7	8,263	7,804	7,256	—	—	—	—	—	JTBC24M11	24	1 1/2	1160	22	1.41	6	29.5°	510
8	8,001	7,617	7,203	6,750	6,268	5,729	—	—	JTBC24M17	24	1 1/2	1750	36	1.37	3	17°	510
9	9,148	8,744	8,320	7,880	7,420	6,894	6,176	—	JTBC24N17	24	2	1750	38	1.89	3	22°	510
10	9,961	9,725	9,475	9,207	8,917	8,596	8,230	7,222	JTBC24P17	24	3	1750	39	2.89	6	20.5°	543
11	12,315	12,012	11,710	11,382	11,018	10,618	10,190	—	JTBC24Q17	24	5	1750	42	4.69	6	29°	556
12	10,491	9,358	8,065	—	—	—	—	—	JTBC30L8	30	1	870	19.0	0.92	4	26°	540
13	11,887	11,027	10,008	—	—	—	—	—	JTBC30M8	30	1 1/2	870	22	1.40	6	28°	589
14	13,166	12,350	11,519	10,613	9,514	—	—	—	JTBC30N11	30	2	1160	28	1.87	4	23°	589
15	14,791	14,223	13,595	12,909	12,061	11,113	—	—	JTBC30P11	30	3	1160	36	2.79	6	24.5°	620
16	17,363	16,848	16,358	15,846	15,300	14,722	14,118	12,855	JTBC30Q17	30	5	1750	53	4.69	4	17.5°	633
17	19,832	19,490	19,136	18,769	18,389	17,991	17,575	16,668	JTBC30R17	30	7 1/2	1750	60	7.37	6	20°	681
18	13,780	12,589	11,085	—	—	—	—	—	JTBC36M8	36	1 1/2	870	27	1.41	4	18°	965
19	15,106	14,127	13,018	11,656	9,190	—	—	—	JTBC36N8	36	2	870	27	1.88	6	18°	965
20	17,585	16,580	15,350	13,740	11,019	—	—	—	JTBC36P8	36	3	870	29	2.79	6	25.5°	965
21	20,427	19,721	18,959	18,119	17,204	16,180	14,886	—	JTBC36Q11	36	5	1160	47	4.60	6	18.5°	1010
22	23,921	23,116	22,232	21,255	20,188	19,024	17,691	—	JTBC36R11	36	7 1/2	1160	57	6.97	6	27°	1053
23	18,124	17,441	16,712	15,970	15,220	14,442	13,619	11,740	JTBC36Q17	36	5	1750	75	4.76	3	8°	1011
24	21,493	20,947	20,374	19,772	19,150	18,523	17,904	16,660	JTBC36R17	36	7 1/2	1750	89	7.44	4	10.5°	1053
25	22,832	22,372	21,944	21,507	21,064	20,614	20,158	19,219	JTBC36S17	36	10	1750	91	9.78	6	11°	1073
26	17,991	15,638	—	—	—	—	—	—	JTBC42M6	42	1 1/2	680	22	1.40	3	22.5°	1089
27	19,546	17,604	15,181	—	—	—	—	—	JTBC42N6	42	2	680	25	1.82	4	22.5°	1089
28	22,805	21,336	19,473	—	—	—	—	—	JTBC42P6	42	3	680	28	2.81	6	25°	1120
29	22,118	20,625	19,074	17,229	14,966	—	—	—	JTBC42P8	42	3	870	36	2.79	4	17°	1120
30	26,324	25,194	24,006	22,721	21,262	—	—	—	JTBC42Q8	42	5	870	41	4.72	6	20.5°	1132
31	25,529	24,466	23,338	22,168	20,926	19,537	17,931	—	JTBC42Q11	42	5	1160	51	4.79	4	12°	1120
32	28,566	27,765	26,926	26,015	25,090	24,095	23,043	20,758	JTBC42R11	42	7 1/2	1160	60	7.48	6	13.5°	1170
33	32,829	31,967	31,096	30,206	29,280	28,311	27,274	24,786	JTBC42S11	42	10	1160	67	9.71	6	18°	1230

(chart continues next page)

Type JTBC Performance Ratings (cont'd)

Item No.	Cubic Feet Per Minute (CFM) at Static Pressure ^{1,6}								Fan Model ²	Fan Size	Motor HP	Fan RPM	Sone Rating ³	Max BHP ^{4,6}	Blade Desc. ⁵		Approx. Ship Wt.
	0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"	1"							No.	Pitch	
34	22,696	19,631	—	—	—	—	—	—	JTBC48N6	2	680	29	1.76	3	16°	1286	
35	26,871	24,140	21,320	18,087	—	—	—	—	JTBC48P6	3	680	34	2.80	4	20°	1317	
36	25,892	23,807	21,532	18,882	—	—	—	—	JTBC48P8	3	870	41	2.77	3	11.5°	1317	
37	31,117	29,435	27,694	25,688	23,285	20,386	—	—	JTBC48Q8	48	5	870	49	4.68	4	16°	1329
38	36,076	34,094	32,194	30,292	28,217	—	—	—	JTBC48R8		7 1/2	870	57	7.11	4	24°	1378
39	29,961	28,338	26,662	24,947	23,061	20,885	18,300	—	JTBC48Q11	5	1160	64	4.67	3	7°	1329	
40	35,411	33,773	32,168	30,512	28,686	26,658	24,510	—	JTBC48R11	7 1/2	1160	72	7.00	3	12.5°	1378	
41	39,286	37,593	35,862	34,116	32,327	30,392	28,195	—	JTBC48S11	10	1160	78	9.27	3	17°	1392	
42	27,271	25,238	22,836	—	—	—	—	—	JTBC54P6	3	680	42	2.69	6	7°	1634	
43	34,784	32,958	30,708	28,018	24,936	—	—	—	JTBC54Q6	5	680	50	4.65	6	14.5°	1347	
44	40,347	37,952	35,446	32,840	—	—	—	—	JTBC54R6	54	7 1/2	680	49	7.05	6	22°	1695
45	37,748	36,209	34,581	32,872	30,932	28,636	26,032	—	JTBC54R8		7 1/2	870	68	6.77	6	9°	1695
46	43,926	42,515	40,905	39,093	37,103	34,994	32,684	25,120	JTBC54S8	10	870	80	9.45	6	14°	1718	
47	34,772	30,365	26,165	—	—	—	—	—	JTBC60P6	3	680	37	2.75	3	10°	1792	
48	40,197	37,149	34,453	30,885	25,733	—	—	—	JTBC60Q6	5	680	56	4.64	6	9°	1810	
49	47,043	44,274	41,748	38,559	32,372	27,533	—	—	JTBC60R6	60	7 1/2	680	56	6.93	6	14.5°	1858
50	53,245	50,332	46,769	43,024	38,881	29,665	—	—	JTBC60S6		10	680	58	9.37	6	19.5°	1881
51	52,790	50,130	47,168	43,941	40,286	36,343	28,592	—	JTBC60S8	10	870	74	9.43	4	13°	1881	
52	50,173	46,016	40,720	—	—	—	—	—	JTBC72Q	5	395	31	4.76	8	15°	2078	
53	57,413	53,844	49,736	44,264	36,935	—	—	—	JTBC72R	7 1/2	452	38	7.13	8	15°	2117	
54	63,128	59,910	56,354	52,073	46,349	39,274	—	—	JTBC72S*	72	10	497	44	9.47	8	15°	2144
55	72,968	69,247	65,098	60,174	53,431	42,433	—	—	JTBC72T*		15	500	55	14.21	8	22.5°	2272
56	79,321	76,935	74,452	71,847	69,095	66,173	63,054	56,000	JTBC72U*	20	697	95	19.15	8	10°	2296	
57	61,448	55,063	45,813	—	—	—	—	—	JTBC84Q	5	306	27	4.75	8	15°	2460	
58	70,284	64,846	58,127	48,249	—	—	—	—	JTBC84R	7 1/2	350	33	7.08	8	15°	2499	
59	78,125	72,599	66,254	57,587	—	—	—	—	JTBC84S	84	10	370	40	9.56	8	17.5°	2526
60	85,468	81,264	77,396	73,165	68,477	63,203	57,203	—	JTBC84T*		15	519	67	14.16	8	7.5°	2654
61	97,302	93,571	89,574	85,204	80,320	74,876	68,861	51,729	JTBC84U*	20	517	69	18.97	8	12°	2678	

- 1 — Performance certified is for Installation Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories).
- 2 — The first four letters of the model number identify **fan type**, **drive configuration** and **style**. The next two numbers indicate **fan size**, the next letter identifies **motor horsepower**, the last number (or numbers) indicates **RPM** in hundreds. Example: Model JTBC18H11 is Type "JT", belt drive, Style "C", 18" size, 1/3 H.P., 1160 RPM.
- 3 — The sound ratings shown are loudness values in hemispherical sones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for Installation Type A: free inlet hemispherical sone levels. The sound ratings shown are at 0" static pressure.
- 4 — Maximum brake horsepower (BHP) within the catalog performance range. Power rating (BHP) do not include transmission losses. Bearing losses are included. BHP at most static pressures listed is less than that shown, in some cases substantially less. For specific BHP values at individual static pressure points contact your American Coolair representative. Because of the cooling the motor receives from moving air stream, motor loading beyond the nominal nameplate ratings on these American Coolair fans does not overheat the motor and is within NEMA recommended limits and motor service factor. It is not detrimental to the motor and is economically desirable.
- 5 — An adjustable pitch propeller with cast aluminum airfoil blades is standard. The number of blades and pitch angle for each model is indicated.
- 6 — To convert air performance (CFM and SP) and power (BHP) to metric units, multiply CFM x .000472 to obtain cubic meters per second (m³/s). Multiply SP x 248.36 to obtain pascals (Pa). Multiply BHP x .7457 to obtain kilowatts (kW).

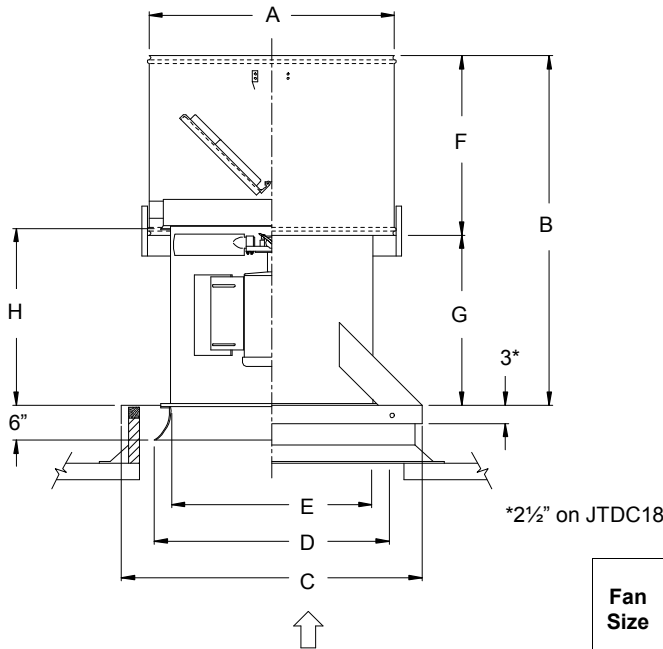
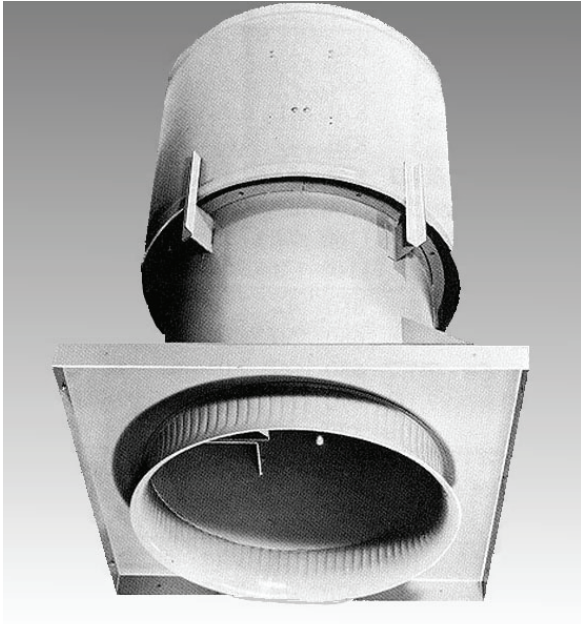
Example: 3904 CFM x .000472 = 1.8427 m³/s
 0.125 SP x 248.36 = 31.05 Pa
 0.886 BHP x .7457 = 0.661 kW

*These models have fixed pitch motor pulleys.

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

Type JTDC

**DIRECT DRIVE — 2,500 to 55,800 CFM
0" to 1" STATIC PRESSURE**



Dimensions

Dimension A is the diameter of the circular wind shroud.

Dimension B is the overall height above the curb.

Dimension C is the I.D. of the curb cap flange.

Dimension D is the inside curb minimum. (Inlet orifice is not furnished with 18" size.)

Dimension E is the inside diameter of the fan housing.

Dimension F is the height of the wind shroud.

Dimension G is the height of the unit from the curb to the wind shroud.

Dimension H is the height of the unit above the curb less the wind shroud and damper assembly.

Application

The JTDC upblast PRVs are designed for minimal maintenance requirements and efficient, economical operation for your specialized ventilation needs. They are constructed for rugged industrial service where the fan assembly must be located above the roof.

JTDC upblast PRVs can accommodate larger motors and thus provide higher air capacity and static pressure capability than direct driven Type J PRVs.

These PRVs can be easily connected to duct work when exhausting from a ducted system. Simply specify the optional duct connector accessory.

Features

JTDC PRVs are constructed of extra heavy gauge steel, up to 1/4" plate.

The propeller assembly is connected directly to the motor shaft. There are no fan bearings or belts to require maintenance. Many motors are permanently lubricated.

JTDC PRVs use from 3 to 6 cast aluminum adjustable pitch airfoil blades that are securely attached to a heavy cast aluminum hub. Blade pitch is set for catalog performance. The blade pitch should not be adjusted without first contacting your American Coolair representative.

JTDC PRVs incorporate specifically engineered airfoil sections and hub sizes for optimum efficiency and strength.

Fan Size	Dimensions in Inches							
	A	B	C	D	E	F	G	H
18	24 5/8	45 1/4	32	—	18 1/8	27 5/8	17 5/8	20
24	32	53 1/4	38	30 1/4	25 1/2	27 5/8	25 5/8	28
30	38	58 1/8	44	36 1/4	31 1/4	32 1/2	25 5/8	28
36	44	66 1/8	50	42 1/4	37 1/4	32 1/2	33 5/8	36
42	50	71	56	48 1/2	43 1/4	37 3/8	33 5/8	36
48	56	71	62	54 5/8	49 1/4	37 3/8	33 5/8	36
54	62	75 7/16	68	59 1/2	55 1/4	41 13/16	33 5/8	36
60	68	78 7/16	77	65 5/8	61 3/8	44 13/16	33 5/8	36

Performance Ratings

Typical Specifications



American Coolair Corporation certifies that the Type JTDC PRVs shown herein are licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and comply with the requirements of the AMCA Certified Ratings Program.

Upblast power roof ventilators shall be American Coolair Type JTDC as manufactured by American Coolair Corporation, Jacksonville, Florida; specific models shall be as shown in the fan schedule. PRV base and curb cap shall be of welded steel construction, wind shroud shall be of galvanized steel. Dampers shall be of fiberglass for durability and quiet, maintenance-free operation. Fan blades shall be airfoil shaped cast aluminum securely attached to a heavy cast aluminum hub. Blade pitch shall be adjustable. Entire blade assembly shall be mounted directly to the motor shaft. PRV's shall be licensed to bear the AMCA Certified Ratings Seal for air performance. (Specify for each PRV model in schedule the required CFM and static pressure; motor enclosure, phase and voltage; and accessories such as safety disconnect switch, magnetic latches, prefabricated curb and special protective coating, etc.)

Item No.	Cubic Feet Per Minute (CFM) at Static Pressure ^{1,7}								Fan Model ²	Fan Size	Motor HP	Fan RPM ³	Sone Rating ⁴	Max BHP ^{5,7}	Blade Desc. ⁶		Approx. Ship Wt.	
	0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"	1"							No.	Pitch		
1	3,298	2,927	—	—	—	—	—	—	JTDC18H11		1/3	1160	12.1	0.35	6	35°	264	
2	3,646	3,438	3,192	2,902	2,553	—	—	—	JTDC18J17	18	1/2	1750	22	0.57	4	24°	253	
3	4,333	4,091	3,802	3,462	—	—	—	—	JTDC18K17		3/4	1750	23	0.84	4	32°	260	
4	4,817	4,587	4,351	4,077	—	—	—	—	JTDC18L17		1	1750	22	1.12	6	33.5°	272	
5	6,488	5,810	5,069	—	—	—	—	—	JTDC24J11		1/2	1160	20	0.56	3	22.5°	320	
6	7,553	6,865	6,128	—	—	—	—	—	JTDC24K11	24	3/4	1160	23	0.85	3	30°	331	
7	7,789	7,385	6,926	6,348	—	—	—	—	JTDC24L11		1	1160	21	1.12	6	25°	342	
8	9,317	8,897	8,449	7,981	7,503	6,973	6,261	—	JTDC24M17		1 1/2	1750	37	1.73	3	20.5°	342	
9	10,496	10,061	9,596	9,108	8,608	8,082	—	—	JTDC24N17		2	1750	41	2.28	3	25.5°	342	
10	11,850	11,422	11,005	10,561	10,084	9,584	9,076	—	JTDC24P17		3	1750	46	3.41	4	29°	369	
11	11,446	10,505	9,390	8,212	—	—	—	—	JTDC30L11		30	1	1160	24	1.11	3	18.5°	470
12	13,152	12,347	11,526	10,610	9,467	—	—	—	JTDC30M11	1 1/2		1160	28	1.73	4	21.5°	501	
13	13,601	13,066	12,483	11,839	11,112	10,258	—	—	JTDC30N11	2		1160	30	2.27	6	20.5°	514	
14	16,552	15,898	15,205	14,464	13,604	—	—	—	JTDC30P11	3		1160	41	3.39	6	28.5°	562	
15	16,315	15,702	15,081	14,426	13,741	13,021	12,251	10,450	JTDC30P17	3		1750	46	3.39	3	16.5°	501	
16	18,063	17,739	17,341	16,906	16,543	16,159	15,751	14,844	JTDC30Q17	5		1750	59	5.93	6	16.5°	514	
17	13,143	11,606	9,670	—	—	—	—	—	JTDC36L8	36		1	870	22	1.12	3	18.5°	740
18	15,365	14,109	12,588	9,871	—	—	—	—	JTDC36M8		1 1/2	870	28	1.73	4	22°	750	
19	16,775	15,805	14,708	13,226	11,012	—	—	—	JTDC36N8		2	870	28	2.30	6	21.5°	800	
20	19,434	18,318	16,678	14,870	13,106	—	—	—	JTDC36P8		3	870	34	3.38	6	30°	820	
21	14,579	13,436	12,188	11,072	9,113	—	—	—	JTDC36M11		1 1/2	1160	32	1.72	3	11°	750	
22	16,484	15,436	14,300	12,898	11,085	—	—	—	JTDC36N11		2	1160	33	2.28	3	15.5°	760	
23	18,876	17,969	17,022	15,962	14,648	12,729	—	—	JTDC36P11		3	1160	42	3.37	4	18°	800	
24	22,583	21,862	21,104	20,286	19,360	18,237	16,865	—	JTDC36Q11		5	1160	50	5.61	6	22°	820	
25	20,284	19,574	18,852	18,117	17,371	16,608	15,814	14,033	JTDC36Q17		5	1750	76	5.62	3	10°	761	
26	25,226	24,548	23,857	23,150	22,424	21,673	20,893	19,200	JTDC36R17		7 1/2	1750	77	8.74	3	16.5°	803	
27	25,204	24,786	24,366	23,942	23,493	22,953	22,393	21,320	JTDC36S17		10	1750	92	12.14	6	13°	823	
28	17,326	14,800	—	—	—	—	—	—	JTDC42L6		42	1	680	21	1.14	3	19°	860
29	19,488	17,512	15,052	—	—	—	—	—	JTDC42M6			1 1/2	680	25	1.68	4	21°	908
30	15,705	13,815	—	—	—	—	—	—	JTDC42L8			1	870	26	1.06	3	7.5°	848
31	18,996	17,188	15,145	—	—	—	—	—	JTDC42M8	1 1/2		870	27	1.65	3	13°	840	
32	21,602	19,697	17,740	15,349	—	—	—	—	JTDC42N8	2		870	30	2.27	3	18°	908	
33	24,724	23,228	21,553	19,625	17,247	—	—	—	JTDC42P8	3		870	38	3.44	4	20.5°	932	
34	29,458	28,307	27,076	25,663	23,834	—	—	—	JTDC42Q8	5		870	42	5.73	6	24.5°	979	
35	19,667	18,254	16,827	15,284	—	—	—	—	JTDC42N11	2		1160	41	2.29	3	6°	860	
36	23,439	22,107	20,748	19,238	17,500	15,707	—	—	JTDC42P11	3		1160	41	3.38	3	10.5°	908	
37	29,556	28,070	26,590	25,112	23,562	21,786	19,773	—	JTDC42Q11	5		1160	50	5.68	3	19°	932	
38	33,530	32,431	31,277	30,052	28,739	27,301	25,680	—	JTDC42R11	7 1/2		1160	61	8.61	4	21.5°	979	
39	30,307	29,406	28,452	27,489	26,525	25,557	24,564	22,391	JTDC42R17	7 1/2		1750	84	8.43	3	6.5°	908	

(chart continues next page)

Type JTDC Performance Ratings (cont'd)

Item No.	Cubic Feet Per Minute (CFM) at Static Pressure ^{1,7}								Fan Model ²	Fan Size	Motor HP	Fan RPM ³	Sone Rating ⁴	Max BHP ^{5,7}	Blade No.	Descr. ⁶ Pitch	Approx. Ship Wt.
	0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"	1"									
40	23,036	19,687	—	—	—	—	—	—	JTDC48M6	1 1/2	680	28	1.65	3	15°	1005	
41	24,930	22,657	20,112	—	—	—	—	—	JTDC48N6	2	680	32	2.24	4	16°	1028	
42	28,420	26,690	24,703	22,374	19,073	—	—	—	JTDC48P6	3	680	36	3.44	6	17.5°	1075	
43	21,631	19,409	16,971	—	—	—	—	—	JTDC48M8	1 1/2	870	37	1.67	3	5.5°	957	
44	24,254	22,105	19,672	16,950	—	—	—	—	JTDC48N8	48	2	870	39	2.23	3	8.5°	1005
45	27,847	26,061	24,269	22,217	19,845	—	—	—	JTDC48P8		3	870	47	3.44	4	11°	1028
46	35,009	32,843	30,604	28,377	25,972	23,261	—	—	JTDC48Q8	5	870	51	5.69	4	19.5°	1075	
47	38,875	37,533	36,216	34,833	33,223	31,107	28,402	—	JTDC48R8	7 1/2	870	59	8.45	6	20.5°	1005	
48	33,507	31,941	30,324	28,559	26,657	24,668	22,397	—	JTDC48Q11	5	1160	69	5.73	3	9.5°	1028	
49	39,587	37,764	35,769	33,831	31,988	30,045	27,794	—	JTDC48R11	7 1/2	1160	75	8.50	3	15.5°	1075	
50	27,939	24,201	—	—	—	—	—	—	JTDC54N6	2	680	34	2.26	3	12°	1352	
51	32,076	29,234	25,798	22,759	—	—	—	—	JTDC54P6	3	680	39	3.40	4	14.5°	1400	
52	37,817	35,656	33,466	30,983	27,907	—	—	—	JTDC54Q6	5	680	50	5.66	6	17.5°	1433	
53	31,156	28,635	25,952	22,575	—	—	—	—	JTDC54P8	3	870	54	3.39	3	7.5°	1352	
54	37,596	35,351	33,072	30,866	28,463	25,342	—	—	JTDC54Q8	54	5	870	63	5.65	4	11°	1400
55	43,342	41,291	39,095	36,546	33,738	30,798	26,503	—	JTDC54R8		7 1/2	870	63	8.52	4	17.5°	1433
56	47,279	45,720	44,159	42,518	40,688	38,586	36,190	—	JTDC54S8	10	870	82	11.14	6	16.5°	1493	
57	42,345	40,359	38,467	36,531	34,356	31,806	29,199	22,046	JTDC54R11	7 1/2	1160	89	8.39	3	8°	1400	
58	47,660	45,547	43,294	41,091	38,957	36,747	34,307	28,257	JTDC54S11	10	1160	89	11.22	3	12°	1433	
59	37,686	33,465	28,171	20,221	—	—	—	—	JTDC60P6	3	680	37	3.35	3	12.5°	1620	
60	44,205	41,437	38,179	34,650	30,360	23,048	—	—	JTDC60Q6	5	680	57	5.62	6	11.5°	1655	
61	51,944	48,824	45,302	42,086	38,012	29,584	—	—	JTDC60R6	7 1/2	680	57	8.29	6	17.5°	1715	
62	56,982	54,186	50,759	46,646	42,041	30,670	—	—	JTDC60S6	60	10	680	60	11.18	6	22.5°	1765
63	44,856	41,020	37,736	34,415	28,524	—	—	—	JTDC60Q8		5	870	59	5.53	3	9.5°	1620
64	51,426	48,768	45,843	42,277	38,587	35,265	28,399	—	JTDC60R8	7 1/2	870	70	8.46	4	11.5°	1655	
65	55,819	53,627	51,207	48,642	46,120	43,500	40,368	29,657	JTDC60S8	10	870	91	11.35	6	11°	1715	
66	55,301	52,853	50,566	48,258	45,634	42,352	38,634	29,968	JTDC60S11	10	1160	95	10.99	3	7.5°	1655	

- 1 — Performance certified is for Installation Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories).
- 2 — The first four letters of the model number identify **fan type, drive configuration and style**. The next two numbers indicate **fan size**, the next letter identifies **motor horsepower**, the last number (or numbers) indicates **RPM** in hundreds. Example: Model JTDC18H11 is Type "JT", direct drive, Style "C", 18" size, 1/3 H.P., 1160 RPM.
- 3 — Fan RPM is identical to motor speed.
- 4 — The sound ratings shown are loudness values in hemispherical sones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for Installation Type A: free inlet hemispherical sone levels. The sound ratings shown are at 0" static pressure.
- 5 — Maximum brake horsepower (BHP) within the catalog performance range. BHP at most static pressures listed is less than that shown, in some cases substantially less. For specific BHP values at individual static pressure points contact your American Coolair representative. Because of the cooling the motor receives from moving air stream, motor loading beyond the nominal nameplate ratings on these American Coolair fans does not overheat the motor and is within NEMA recommended limits and motor service factor. It is not detrimental to the motor and is economically desirable.
- 6 — An adjustable pitch propeller with cast aluminum airfoil blades is standard. The number of blades and pitch angle for each model is indicated.
- 7 — To convert air performance (CFM and SP) and power (BHP) to metric units, multiply CFM x .000472 to obtain cubic meters per second (m³/s). Multiply SP x 248.36 to obtain pascals (Pa). Multiply BHP x .7457 to obtain kilowatts (kW).

Example: 3904 CFM x .000472 = 1.8427 m³/s
0.125 SP x 248.36 = 31.05 Pa
0.886 BHP x .7457 = 0.661 kW

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

Type HSE

BELT DRIVE — 1,760 to 48,300 CFM
0" to 5/8" STATIC PRESSURE



High-Temperature Endurance

American Coolair's HSE fans were tested under the auspices of Underwriters Laboratory Inc., and met the following time vs. temperature limits:

- 270 minutes at 500° F (260° C)**
- 90 minutes at 700° F (371° C)**
- 30 minutes at 1,000° F (538° C)**

This high temperature capability exceeds the UL requirements of "Power Ventilators for Smoke Control Systems" (UL793), the IRI requirement to operate at 500° F for 2 hours minimum, and the SBCCI requirement to operate at 1000° F for 15 minutes.

Fan Size	Dimensions in Inches									
	A	B	C	D	E	F	G	H	J	K
18	23	47 7/16	32	—	18 1/8	27 5/8	19 13/16	21 1/16	23 1/4	2 1/2
24	32	47 7/16	38	30 1/4	25 1/2	27 5/8	19 13/16	21 1/16	28	3
30	38	52 5/16	44	36 1/4	31 1/4	32 1/2	19 13/16	21 1/16	31 1/4	3
36	44	62 3/8	50	42 1/4	37 1/4	32 1/2	29 7/8	31 1/8	37 3/4	3
42	50	67 1/4	56	48 1/2	43 1/4	37 3/8	29 7/8	31 1/8	41	3
48	56	67 1/4	62	54 5/8	49 1/4	37 3/8	29 7/8	31 1/8	44 1/4	3
54	62	71 11/16	68	59 1/2	55 1/4	41 13/16	29 7/8	31 1/8	52	3
60	68	74 11/16	77	65 5/8	61 3/8	44 13/16	29 7/8	31 1/8	55 1/8	3

Dimensions

- Dimension A is the diameter of the circular wind shroud.
- Dimension B is the overall height above the curb.
- Dimension C is the I.D. of the curb cap flange.
- Dimension D is the inside curb minimum. (Inlet orifice is not furnished with 18" size.)
- Dimension E is the inside diameter of the fan housing.
- Dimension F is the height of the wind shroud.
- Dimension G is the height of the unit from the curb to the wind shroud.
- Dimension H is the height of the unit above the curb less the wind shroud and damper assembly.
- Dimension J is the distance from the center of the PRV to the outside edge of the motor cover.

Application

The HSE upblast power roof ventilators are designed and built to meet the increasing need for power venting the combustion by-products of a fire.

These units are designed to be installed in the roof systems of shopping centers, wholesale warehouses, hotel atriums and any other place where building codes require the removal of smoke and heat by power roof ventilators.

Construction

All critical components required for the continuous and safe operation of the unit and exposed to the air stream are ferrous construction to withstand high temperature conditions. These heavy gauge materials prevent warping of the fan parts and malfunction at elevated temperatures. All ferrous materials are painted with thermosetting epoxy paint for corrosion protection.

The wind shroud is made of galvanized steel and the damper doors are made of fiberglass with ultraviolet inhibitors.

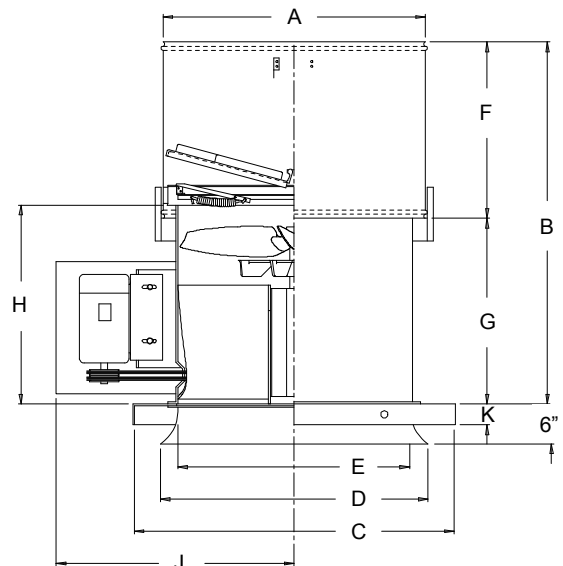
The belts and bearings are protected from the airstream, enclosed in a ventilated tube. A heat slinger/impeller mounted on the same shaft as the PRV's axial impeller isolates the fan bearings from the damaging heat and draws cooler outside air through the motor compartment and over the belts and bearings.

A spring loaded, fusible link activated device automatically opens the damper doors when the temperature at the doors exceeds 165° F. This enables the HSE fan to also function as a gravity ventilator prior to powered operation or in the event of a motor or electrical failure. The PRV's are designed for all weather operation. The steel wheel assemblies are statically and dynamically balanced for smooth operation. Each PRV features an inlet guard constructed of 1" x 1", galvanized wire mesh.

The belt driven units are available from 18" to 60" in diameter and most models come with variable pitch pulleys allowing for final system balance adjustment.

The steel fan shaft is supported by two (2) heavy-duty pillow-block bearings that are mounted in an enclosed tube to provide reliable and continuous service under harsh conditions.

The motor is located out of the airstream and is thus protected from the high temperatures of the airstream. Standard TEFC motors are used on most models to reduce cost and provide additional cooling and ensure prompt repair or replacement if required.



Performance Ratings

Typical Specifications



American Coolair Corporation certifies that the Type HSE PRVs shown herein are licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

Heat and smoke removal power roof ventilators shall be American Coolair Type HSE as manufactured by American Coolair Corporation, Jacksonville, Florida; specific models shall be as shown in the fan schedule. PRVs shall be designed and tested to operate at 500° F for 270 minutes, 700° F for 90 minutes, and 1,000° F for 30 minutes. PRV shall be UL Listed as a "Power Ventilator for Smoke Control Systems." Motor shall be out of the airstream, with the belts and bearings enclosed in tubes to protect them from the high temperature airstream. Positive ventilation of the motor compartment and the belt and bearing tubes shall be provided. Optional features such as external lubrication lines, safety disconnect switch, roof curbs, etc. shall be as listed in the fan schedule or specification.

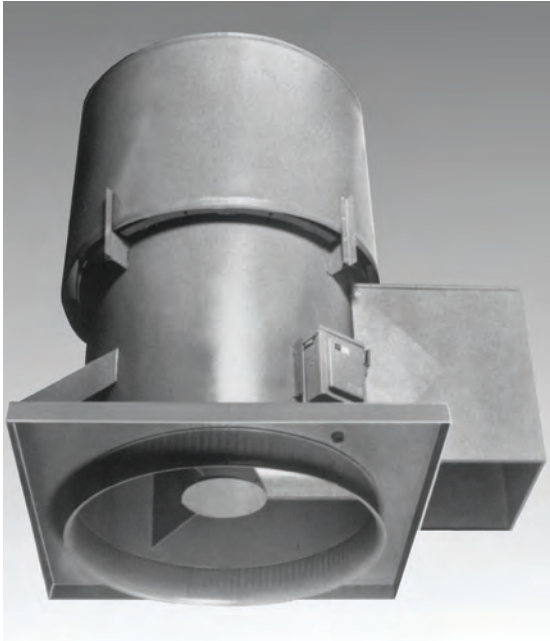
Item No.	Cubic Feet Per Minute (CFM) at Static Pressure ¹						Fan Model ²	Fan Size	Motor HP	Fan RPM	Sone Rating ³	Max BHP ⁴	Approx. Ship Wt.
	0"	1/8"	1/4"	3/8"	1/2"	5/8"							
1	2,830	2,653	2,384	—	—	—	HSE18K		3/4	1612	28	0.75	200
2	3,097	2,967	2,684	2,437	—	—	HSE18L		1	1764	32	1.00	205
3	3,544	3,447	3,191	3,010	2,762	—	HSE18M		1 1/2	2019	38	1.50	210
4	6,172	5,531	6,810	—	—	—	HSE24K		3/4	1062	23	0.75	325
5	6,678	6,092	5,450	—	—	—	HSE24L		1	1149	27	1.00	330
6	7,532	7,019	6,459	5,869	5,144	—	HSE24M	24	1 1/2	1296	33	1.50	330
7	8,287	7,825	7,325	6,807	6,237	5,529	HSE24N		2	1426	40	2.00	335
8	9,554	9,155	8,737	8,292	7,841	7,357	HSE24P		3	1644	49	3.00	350
9	9,523	8,519	7,420	—	—	—	HSE30L		1	815	25	1.00	390
10	10,785	9,908	8,974	7,892	—	—	HSE30M		1 1/2	923	32	1.50	395
11	11,778	10,979	10,135	9,235	8,042	5,429	HSE30N	30	2	1008	38	2.00	400
12	13,519	12,827	12,106	11,358	10,560	9,576	HSE30P		3	1157	51	3.00	415
13	16,417	15,850	15,270	14,670	14,057	13,427	HSE30Q		5	1405	70	5.00	430
14	12,940	11,582	9,808	—	—	—	HSE36M		1 1/2	829	24	1.50	575
15	14,345	13,179	11,613	9,316	—	—	HSE36N	36	2	919	29	2.00	580
16	16,343	15,359	14,053	12,674	10,193	—	HSE36P		3	1047	36	3.00	595
17	19,308	18,496	17,538	16,351	15,199	13,734	HSE36Q		5	1237	49	5.00	610
18	18,404	16,634	14,770	—	—	—	HSE42N		2	784	30	2.00	755
19	20,822	19,191	17,670	15,994	13,645	—	HSE42P	42	3	887	37	3.00	770
20	24,602	23,193	22,000	20,546	19,166	17,473	HSE42Q		5	1048	50	5.00	785
21	28,522	27,317	26,161	25,189	23,861	22,663	HSE42R		7 1/2	1215	65	7.50	825
22	24,776	22,472	19,938	17,002	—	—	HSE48P		3	689	26	3.00	850
23	29,415	27,494	25,451	23,266	20,848	16,367	HSE48Q	48	5	818	35	5.00	865
24	33,730	32,062	30,333	28,493	26,570	24,503	HSE48R		7 1/2	938	44	7.50	905
25	37,361	35,859	34,320	32,705	31,015	29,266	HSE48S		10	1039	54	10.00	915
26	26,708	23,811	20,507	—	—	—	HSE54P		3	562	32	3.00	980
27	31,698	28,969	27,123	23,649	18,847	—	HSE54Q	54	5	667	43	5.00	1005
28	36,213	33,623	32,042	30,002	26,730	22,680	HSE54R		7 1/2	762	54	7.50	1040
29	39,730	37,257	35,708	34,259	31,773	28,738	HSE54S		10	836	64	10.00	1050
30	32,239	27,705	22,119	—	—	—	HSE60P		3	467	28	3.00	1136
31	38,452	34,635	30,962	24,962	17,294	—	HSE60Q	60	5	557	38	5.00	1160
32	44,113	40,851	37,515	34,181	28,183	21,130	HSE60R		7 1/2	639	48	7.50	1200
33	48,324	45,390	42,240	39,387	35,825	29,255	HSE60S		10	700	58	10.00	1210

- 1 — Performance certified is for Installation Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories).
- 2 — The first five letters of the model number identify **fan type, drive configuration and style**. The next two numbers indicate **fan size**, the next letter identifies **motor horsepower**. For example: Model HSE18J is Type "HSE", 18" size, 1/2 H.P.
- 3 — The sound ratings shown are loudness values in hemispherical sones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for Installation Type A: free inlet hemispherical sone levels. The sound ratings shown are at 0" static pressure.
- 4 — Maximum brake horsepower (BHP) within the catalog performance range. Power rating (BHP) does not include transmission losses. Bearing losses are included. BHP at most static pressures listed is less than that shown, in some cases substantially less. For specific BHP values at individual static pressure points contact your American Coolair representative

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

Type HS

BELT DRIVE — 2,230 to 98,650 CFM
0" to 5/8" STATIC PRESSURE

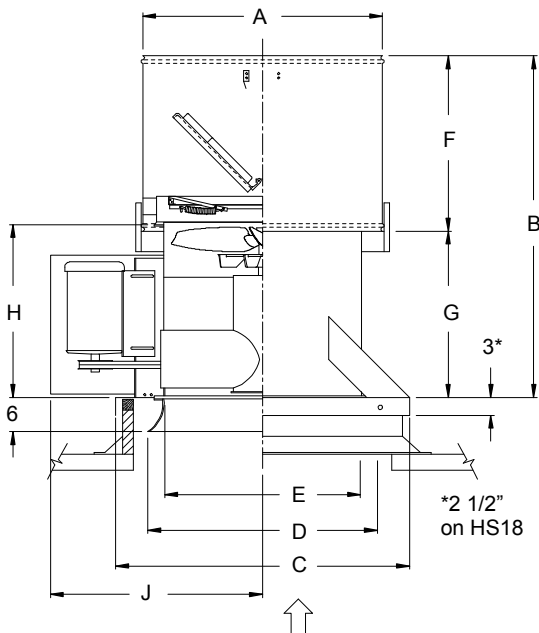


High-Temperature Endurance

American Coolair's HSE fans were tested under the auspices of Underwriters Laboratory Inc., and met the following time vs. temperature limits:

- 270 minutes at 500° F (260° C)**
- 90 minutes at 700° F (371° C)**
- 30 minutes at 1,000° F (538° C)**

This high temperature capability exceeds the UL requirements of "Power Ventilators for Smoke Control Systems" (UL793), the IRI requirement to operate at 500° F for 2 hours minimum, and the SBCCI requirement to operate at 1000° F for 15 minutes.



Application

The HS upblast power roof ventilators are designed and built to meet the increasing need for power venting the combustion by-products of a fire.

These units are designed to be installed in the roof systems of shopping centers, wholesale warehouses, hotel atriums and any other place where building codes require the removal of smoke and heat by power roof ventilators.

Construction

All critical components required for the continuous and safe operation of the unit and exposed to the airstream are ferrous construction to withstand high temperature conditions. These heavy gauge materials prevent warping of the fan parts and malfunction at elevated temperatures. All ferrous materials are painted with thermosetting epoxy paint for corrosion protection.

The wind shroud is made of galvanized steel and the damper doors are made of fiberglass with ultraviolet inhibitors.

The belts and bearings are protected from the airstream, enclosed in a ventilated tube. A heat slinger/impeller mounted on the same shaft as the PRV's axial impeller, isolates the fan bearings from the damaging heat and draws cooler outside air through the motor compartment and over the belts and bearings. This is a vital factor for the successful operation of the HS unit.

A spring loaded, fusible link activated device automatically opens the damper doors when the temperature at the doors exceeds 165° F. This enables the HS fan to also function as a gravity ventilator prior to powered operation or in the event of a motor or electrical failure. The PRV's are designed for all weather operation. The steel wheel assemblies are statically and dynamically balanced for smooth operation.

The belt driven units are available from 18" to 84" in diameter, and most models come with variable pitch pulleys allowing for final system balance adjustment.

The steel fan shaft is supported by two (2) heavy-duty pillow-block bearings that are mounted in an enclosed tube to provide reliable and continuous service under harsh conditions.

The motor is located out of the airstream and is thus protected from the high temperatures of the airstream. Standard TEFC motors are used on most models to reduce cost and provide additional cooling and ensure prompt repair or replacement if required.

A safety disconnect switch is mounted to the PRV housing. This feature protects maintenance personnel from an accidental fan start when the unit is being serviced. Each PRV features an inlet guard constructed of 1" x 1", galvanized wire mesh.

Fan Size	Dimensions in Inches								
	A	B	C	D	E	F	G	H	J
18	23	45 1/4	32	24	18 1/8	27 5/8	17 5/8	20	23 3/4
24	32	53 1/4	38	30 1/4	25 1/2	27 5/8	25 5/8	28	30 5/8
30	38	58 1/8	44	36 1/4	31 1/4	32 1/2	25 5/8	28	34 1/2
36	44	66 1/8	50	42 1/4	37 1/4	32 1/2	33 5/8	36	41 5/8
42	50	71	56	48 1/2	43 1/4	37 3/8	33 5/8	36	45 5/8
48	56	71	62	54 5/8	49 1/4	37 3/8	33 5/8	36	49
54	62	75 7/16	68	59 1/2	55 1/4	41 13/16	33 5/8	36	52 3/8
60	68	78 7/16	77	65 5/8	61 3/8	44 13/16	33 5/8	36	55 7/8
72	80	93 7/16	89	77 5/8	73 3/8	47 13/16	45 5/8	48	62 1/8
84	92	93 7/16	101	89 5/8	85 3/8	47 13/16	45 5/8	48	68 1/2

Performance Ratings Typical Specifications



American Coolair Corporation certifies that the Type HS PRVs shown herein are licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and comply with the requirements of the AMCA Certified Ratings Program.

Heat and smoke removal power roof ventilators shall be American Coolair Type HS as manufactured by American Coolair Corporation, Jacksonville, Florida; specific models shall be as shown in the fan schedule. PRVs shall be designed and tested to operate at 500° F for 270 minutes, 700° F for 90 minutes, and 1,000° F for 30 minutes. PRV shall be UL Listed as a "Power Ventilator for Smoke Control Systems." Motor shall be out of the airstream, with the belts and bearings enclosed in tubes to protect them from the high temperature airstream. Positive ventilation of the motor compartment and the belt and bearing tubes shall be provided. PRV shall be equipped with fan bearing external grease fittings and lubrication lines isolated from the airstream. A safety disconnect switch mounted to the PRV housing and readily accessible from the roof top shall be furnished. Optional features such as emergency ventilation control center, roof curbs, etc. shall be as listed in the fan schedule or specification.

Item No.	Cubic Feet Per Minute (CFM) at Static Pressure ¹						Fan Model ²	Fan Size	Motor HP	Fan RPM ³	Sone Rating ⁴	Max BHP ⁵	Approx. Ship Wt.
	0"	1/8"	1/4"	3/8"	1/2"	5/8"							
1	2,750	2,310	—	—	—	—	HS18J	18	1/2	1553	13.5	0.50	337
2	3,250	2,860	2,590	—	—	—	HS18K		1/4	1840	17.5	0.75	344
3	6,000	5,410	4,790	—	—	—	HS24K	24	3/4	1062	24	0.75	500
4	6,650	6,110	5,570	4,970	—	—	HS24L		1	1178	28	1.00	502
5	7,740	7,280	6,810	6,330	5,810	—	HS24M		1 1/2	1369	36	1.50	506
6	9,700	8,660	7,590	—	—	—	HS30L	30	1	821	24	1.00	615
7	11,180	10,290	9,360	8,440	—	—	HS30M		1 1/2	947	29	1.50	625
8	12,730	11,210	—	—	—	—	HS36M	36	1 1/2	808	29	1.50	985
9	14,110	12,770	11,360	—	—	—	HS36N		2	896	33	2.00	985
10	16,440	15,350	14,080	12,870	—	—	HS36P		3	1044	43	3.00	1010
11	20,160	19,300	18,290	17,270	—	—	HS36Q		5	1280	62	5.00	1025
12	17,930	16,170	14,310	—	—	—	HS42N	42	2	766	32	2.00	1110
13	20,490	18,970	17,320	15,710	—	—	HS42P		3	875	40	3.00	1140
14	24,980	23,750	22,440	21,090	—	—	HS42Q		5	1067	59	5.00	1155
15	28,240	27,150	26,020	24,830	23,640	22,480	HS42R		7 1/2	1206	74	7.50	1194
16	24,270	21,760	19,250	—	—	—	HS48P	48	3	685	30	3.00	1315
17	29,340	27,230	25,200	—	—	—	HS48Q		5	828	41	5.00	1330
18	33,520	31,660	29,880	28,080	—	—	HS48R		7 1/2	946	52	7.50	1385
19	37,170	35,483	33,870	32,260	—	—	HS48S		10	1049	63	10.00	1412
20	27,990	25,220	21,980	—	—	—	HS54P	54	3	556	26	3.00	1715
21	33,580	31,320	28,830	25,950	—	—	HS54Q		5	667	33	5.00	1730
22	39,220	37,300	35,260	33,060	—	—	HS54R		7 1/2	779	42	7.50	1785
23	43,600	41,880	40,090	38,160	—	—	HS54S		10	866	50	10.00	1812
24	33,100	28,000	21,000	—	—	—	HS60P	60	3	477	27	3.00	1880
25	39,500	35,450	29,900	24,100	—	—	HS60Q		5	569	36	5.00	1895
26	45,400	41,950	37,800	32,250	—	—	HS60R		7 1/2	654	45	7.50	1950
27	49,700	46,550	43,050	38,500	—	—	HS60S		10	716	52	10.00	1990
28	49,900	44,500	38,500	—	—	—	HS72Q	72	5	340	42	5.00	2078
29	56,500	51,800	46,700	40,500	—	—	HS72R		7 1/2	385	52	7.50	2117
30	62,375	58,000	53,200	48,600	41,500	—	HS72S		10	425	63	10.00	2144
31	71,900	68,100	64,400	60,400	56,000	51,000	HS72T		15	490	83	15.00	2272
32	79,225	75,800	72,200	68,600	65,000	61,300	HS72U		20	540	101	20.00	2296
33	61,600	53,300	—	—	—	—	HS84Q	84	5	270	38	5.00	2460
34	70,725	63,100	55,900	—	—	—	HS84R		7 1/2	310	49	7.50	2499
35	78,000	71,300	64,500	57,000	—	—	HS84S		10	340	57	10.00	2526
36	89,500	83,600	77,600	72,200	64,300	52,000	HS84T		15	390	74	15.00	2654
37	98,650	92,700	87,100	81,500	76,400	69,000	HS84U		20	430	89	20.00	2678

- 1 — Performance certified is for Installation Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories).
- 2 — The first two letters of the model number identify **fan type**. The next two numbers indicate **fan size**; the next letter identifies **motor horsepower**. Example: Model HS18J is Type "HS", 18" size, 1/2 H.P.
- 3 — The sound ratings shown are loudness values in hemispherical sones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for Installation Type A: free inlet hemispherical sone levels. The sound ratings shown are at 0" static pressure. The AMCA Certified Ratings Seal applies to air performance ratings only.
- 4 — Maximum brake horsepower (BHP) within the catalog performance range. Power ratings (BHP) include transmission losses. BHP at most static pressures listed is less than that shown, in some cases substantially less. For specific BHP values at individual static pressure points contact your American Coolair representative.

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

ACCESSORIES

SAFETY DISCONNECT SWITCH: (Standard for HS units) Prevents accidental starting of PRV and is protected in a NEMA 3R enclosure. Mounting bracket and coupling for wiring through curb cap are provided with switch. (Type JT and HSE) Pre-wiring of switch to motor may also be specified.

PRE-FABRICATED ROOF CURB: You may specify surface mount or bulb T style 8-inch standard height curbs. Curbs are welded galvanized steel, insulated, with wood nailer. Construction to accommodate single or double pitch roof slope is also available.

MAGNETIC LATCHES: The addition of magnetic latches can minimize "damper flap" and accidental venting when unit is not in use.

GALVANIZED DAMPER DOORS: Damper doors made of heavy gauge galvanized steel are available in place of the standard fiberglass doors.

AUTOMATIC HEAT AND SMOKE VENTING: Spring operated arms open dampers when activated by excessive heat melting 165°F., U.L.-Listed fusible link. PRV thus becomes a gravity heat and smoke vent. (Standard on HS and HSE units.)

SPARK RESISTANT CONSTRUCTION: For hazardous locations, any PRV (except JBHX) can be ordered with a non-ferrous blade assembly (where not normally supplied) and explosion-proof motors. Motors only qualify for Class I Group D and Class II Groups F & G hazards.

PROTECTIVE COATINGS: The fan assembly and curb cap are heavy gauge steel using all welded construction throughout. The standard finish is epoxy, however, additional corrosion protection is available by specifying hot dip galvanizing.

The wind shroud on all units is fabricated of galvanized steel. A finish coat of epoxy can be specified on all galvanized components, if desirable.

For applications that require more specialized surface protection, American Coolair offers alternatives: 6 mil epoxy or hot dip galvanizing, and others. For more information about special protective coatings, contact your American Coolair representative.

INLET AND OUTLET GUARD: Inlet and outlet guards are constructed of 1" x 1", galvanized wire mesh. The outlet guard mounts on the top edge of wind shroud. The inlet guard is available only for JT and JTE units, and comes standard on HS and HSE units. These guards prevent entry of foreign objects that might damage units.

DUCT CONNECTOR: For applications that require attachment of duct to Type JT, JTE, HSE, or HS PRVs, a flanged duct connector can be provided on the underside of curb cap.

SAFETY CHAIN: As an added safety factor, a steel chain may be specified for securing direct drive motor to fan housing (Type JTDC only).

Limited Warranty

In the sale of its products, American Coolair Corporation agrees to correct, by repairs or replacement, any defects in workmanship or material that may develop under proper and normal use during the period of one year from the date of shipment from the factory. Any product or part proving, upon American Coolair's examination, to be defective during limited warranty period will be repaired or replaced, at American Coolair's option, f.o.b. factory, without charge.

Deterioration or wear caused by chemicals, abrasive action or excessive heat shall not constitute defects.

Motors are guaranteed only to the extent of the manufacturer's warranty.

American Coolair's limited warranty does not apply to any of its products or parts that have been subject to accidental damage, misuse by the user, unauthorized modifications, improper installation or electrical wiring, or lack of proper lubrication or other service requirements as established by American Coolair.

Repairs or replacements provided under the above terms shall constitute fulfillment of all American Coolair's obligations with respect to limited warranty.

THE LIMITED WARRANTY STATED HEREIN IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, STATUTORY OR IMPLIED, INCLUDING WITHOUT LIMITATION THAT OF MERCHANTABILITY AND FITNESS.

NO LIABILITY FOR REINSTALLATION COST OR FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OF ANY NATURE IS ASSUMED OR SHALL BE IMPOSED UPON AMERICAN COOLAIR.

WARNING



DO NOT INSTALL FAN WITH MOVING PARTS WITHIN 8 FEET OF FLOOR OR GRADE LEVEL WITHOUT A GUARD THAT COMPLIES WITH OSHA REGULATIONS. **DO NOT** USE UNLESS ELECTRICAL WIRING COMPLIES WITH ALL APPLICABLE CODES. **DO NOT** WIRE WITHOUT PROVIDING FOR A POWER SOURCE DISCONNECT AT THE FAN ITSELF. **DO NOT** SERVICE EXCEPT BY A QUALIFIED MAINTENANCE TECHNICIAN AND ONLY AFTER DISCONNECTING THE POWER SOURCE. FAILURE TO OBSERVE THESE PRECAUTIONS CAN RESULT IN SERIOUS INJURY OR DEATH.

CAUTION



AMERICAN COOLAIR CORPORATION

P.O. BOX 2300 ~ Jacksonville, Florida 32203

Phone: (904) 389-3646

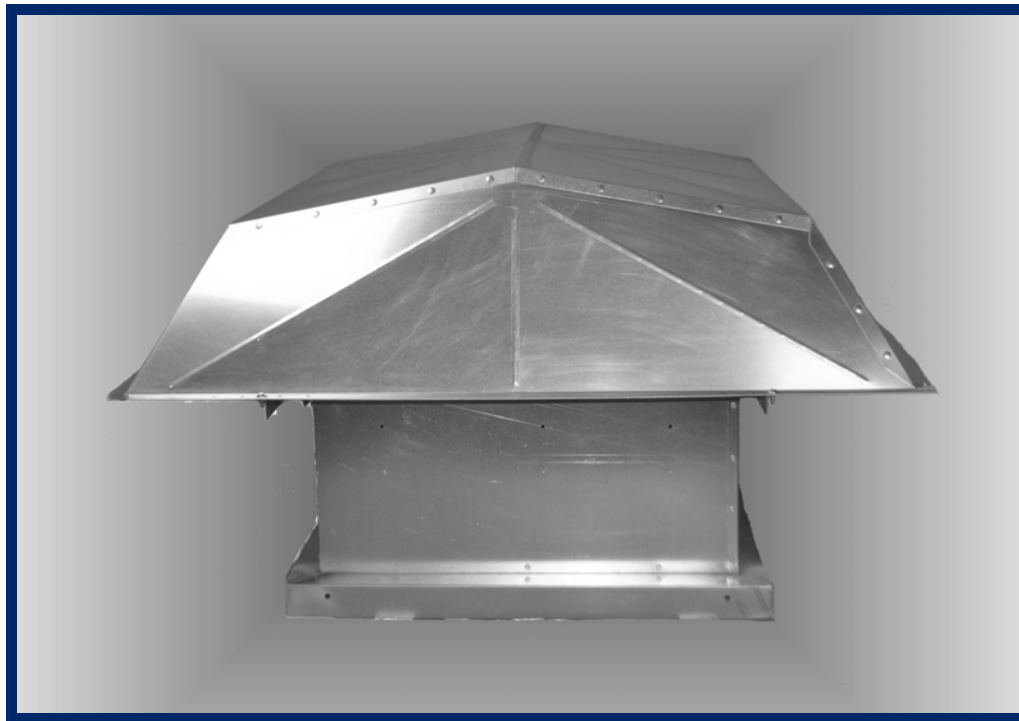
Fax: (904) 387-3449 or (904) 381-7560

E-mail: info@coolair.com

Web: www.coolair.com

REPRESENTED BY:

Type P- Hooded Power Roof Ventilators



Type P PRVs

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Application

General ventilation power roof ventilators designed to move large volumes of air quietly, efficiently and dependably.

They are suggested for use in commercial and industrial applications including factories, warehouses and large commercial buildings.

These rugged PRVs are available in a broad range of CFMs and a variety of configurations.

There are types offering belt and direct driven propellers, exhaust, supply or reversible air movement, and filtered supply air.

Most hooded PRVs can be supplied less fan component for use as a gravity ventilator or as an air intake.

At a later date this unit can be converted to a power roof ventilator by simply installing the proper style American Coolair Type C fan.

Combinations of these various types can be used and still maintain a uniform and attractive rooftop appearance.

Use of the proper combination of hooded power roof ventilators assures an effective ventilation system at exceptionally low cost.

Hooded PRVs

Construction

Years of experience have gone into the design and construction of American Coolair power roof ventilators.

MATERIALS: The hood and PE, PS base are made of galvanized steel for rigidity, long life and years of protection against corrosion. A finish coat of epoxy can be specified.

The curb cap and support system is of heavy gauge steel for strength and rigidity.

Fan unit materials are described in the Fan Components section.

Painted parts are coated with epoxy to provide a protective coating rated excellent for hardness, impact resistance, adhesion and chemical resistance. For protective coating options see Accessories section.

METHODS: Fan unit construction methods are described in the Fan Components section.

The hood can be pivoted for rooftop access to the fan components.

All units except Types PB and PD have a large removable panel for access to the fan and backdraft damper.

Parts requiring painting are processed through the advanced American Coolair multi-stage pretreatment system prior to the application of any coatings to ensure maximum finish adhesion. These parts use a thermosetting epoxy powder paint with an average thickness of 3 mils and baked at 400°F to a smooth, hard, continuous finish.

Drive Mechanism

BELT DRIVE: Available in sizes from 24 inch to 84 inch. Belt driven models are designed for quieter operation and lower initial cost. They use standardly available 1750 RPM motors.

DIRECT DRIVE: Available in sizes from 10 inch to 60 inch. Direct driven models require less maintenance, offer longer operating life, increased efficiency and reduced operating cost.

VARIABLE PITCH PULLEYS: Nearly all belt driven models are equipped with a variable pitch motor pulley which allows fan speed adjustment where desirable. The settings made at the factory allow the fan to operate within the maximum safe capabilities of the motor. The pulley may be opened to reduce fan speed and thus decrease air flow.

If an increase in fan speed is desired, contact your American Coolair representative for information on fan performance and motor load before making any adjustment.

Bearings

See fan component section for bearing information.

Motors

The American Coolair air-over-motor design provides extra capacity and economy because it serves to dissipate heat and thus increase horsepower capability. Totally enclosed motors are standard. Several alternatives, such as explosion proof motors, energy efficient motors and severe duty motors, are available to fit your specific needs.

Only nationally recognized brand motors with nationwide service facilities are used.

Listings



Type P, PE, PS, RP, PEUD and PSUD ventilators are listed by Underwriters Laboratory, Inc. to U.S. and Canadian safety standards.

UL705 – E39944

Certified ratings licensed by AMCA (Air Movement and Control Association International, Inc.), for both air and sound performance, are available for Type P, PE and PS fans. These, along with dimensional drawings are included in this form.

Additional Information Available

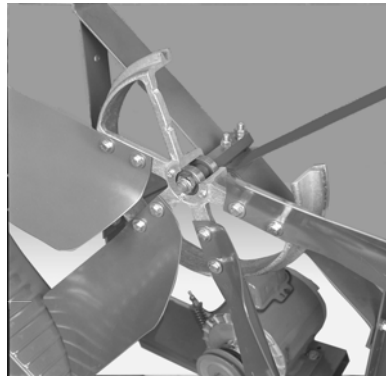
Octave band sound power levels are available for use by the acoustical engineer in predicting on-the-job sound levels.

American Coolair will provide installation instructions and maintenance information at your request, as well as information on any air movement need you may have. Simply contact your American Coolair representative.

American Coolair wishes to provide you with every assistance in determining your air movement requirements.

Fan Components

All hooded PRVs incorporate American Coolair fan components. These fans are available in a large selection of CFMs and pressures. They are rugged and dependable. All blade assemblies are dynamically balanced.



Style 'H' (belt drive)

These fan components utilize an additional cross-frame to support American Coolair's unique bearing and shaft assembly. (See assembly cutaway above.) Power is applied directly to the fan/hub assembly in the same plane as the bearings. This reduces bearing load and dramatically increases fan life. Bearings are permanently lubricated and sealed.

The six die-formed steel propeller blades are securely attached to the hub to form a strong, rigid propeller assembly.

The motor pulley can be opened to reduce fan speed and thus decrease air flow on most models. If an increase in fan speed is desired, contact your American Coolair representative for information on fan performance and motor load before making any adjustment.



Style 'H'

Style 'HX' (belt drive)

Similar to the Style 'H' components, the Style 'HX' fan utilizes a cross-frame to support American Coolair's unique bearing and shaft assembly. This stationary shaft mounts on the cross-frame member and the power is applied directly to the heavy-duty cast aluminum hub through a dual belt configuration. (See assembly cutaway below.)

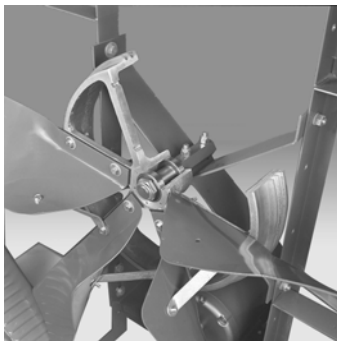
Bearings are permanently lubricated and sealed.

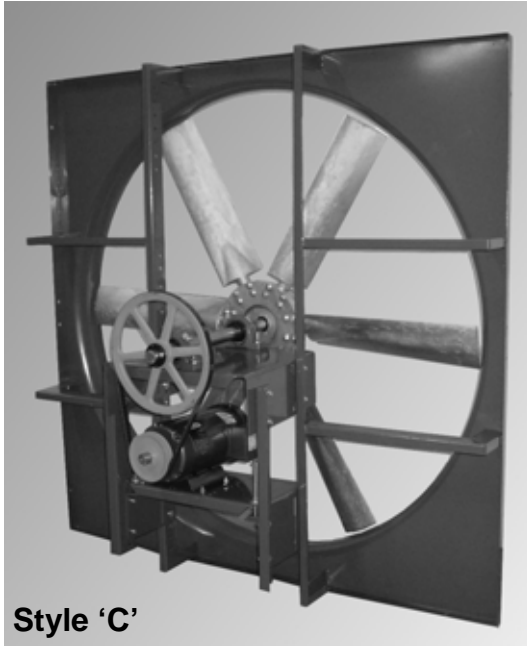
The six die-formed steel propeller blades are securely attached to the hub to form a strong, rigid propeller assembly.

If an increase in fan speed is desired, contact your American Coolair representative for information on fan performance and motor load before making any adjustments.



Style 'HX'





Style 'C'

Style C (belt drive)

The structure for Style 'C' fan components is formed by American Coolair's Type 'C' panel and rugged angle frame. The steel shaft is supported by two pillow-block ball bearings attached to this frame.

Cast aluminum adjustable pitch airfoil blades are securely attached to a heavy cast aluminum hub. Blade pitch is set for catalog performance.

The blade pitch should not be adjusted without first contacting your American Coolair representative.

Style 'C' fan components incorporate specifically engineered airfoil sections and hub sizes for optimum efficiency and physical strength.

The motor pulley can be opened to reduce fan speed and thus decrease air flow on all models. If an increase in fan speed is desired, contact your American Coolair representative for information on fan performance and motor load before making any adjustment.

Style C (direct drive)

The structure for Style 'C' fan components is formed by American Coolair's Type 'C' panel and rugged angle frame.

The propeller assembly is connected directly to the motor shaft. There are no bearings or belts to require maintenance.

From 3 to 6 cast aluminum adjustable pitch airfoil blades are securely attached to a heavy cast aluminum hub. Blade pitch is set for catalog performance.

Style 'C' fan components incorporate specifically engineered airfoil sections and hub size for optimum efficiency and physical strength.

The blade pitch should not be adjusted without first contacting your American Coolair representative.



Style 'C'



Style 'U'

Style U (direct drive)

The structure for Style 'U' fan components is formed by American Coolair's Type 'UD' steel panel and rigid angle steel upright supports.

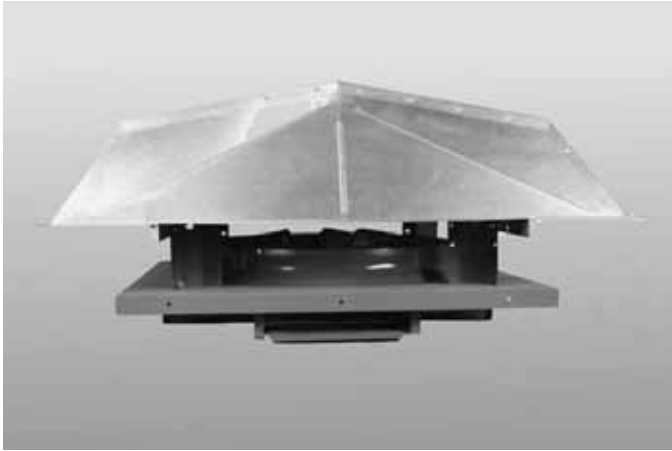
A formed orifice fan panel and unique blade design provide a super-quiet, efficient propeller fan.

The Type 'U' propeller assembly utilizes three formed steel blades for optimum efficient operation. Blades are statically and dynamically balanced.

The steel propeller assembly is connected directly to the motor shaft. There are no bearings or belts to require maintenance. Most motors are permanently lubricated.

Type PB

**EXHAUST — BELT DRIVE — 2,900 to 85,500 CFM
0" to 3/4" STATIC PRESSURE**

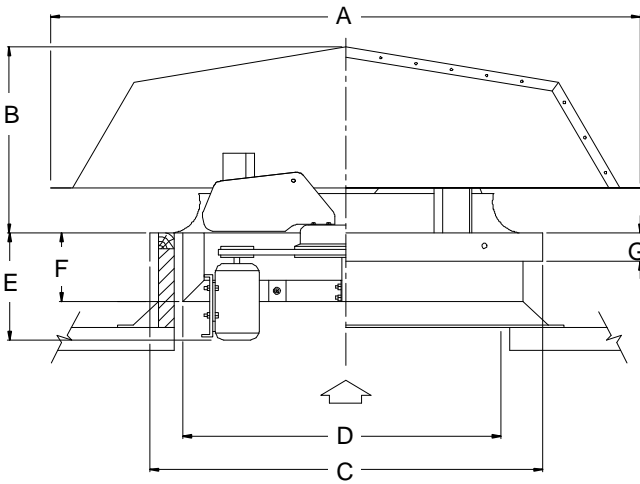


Application and Features

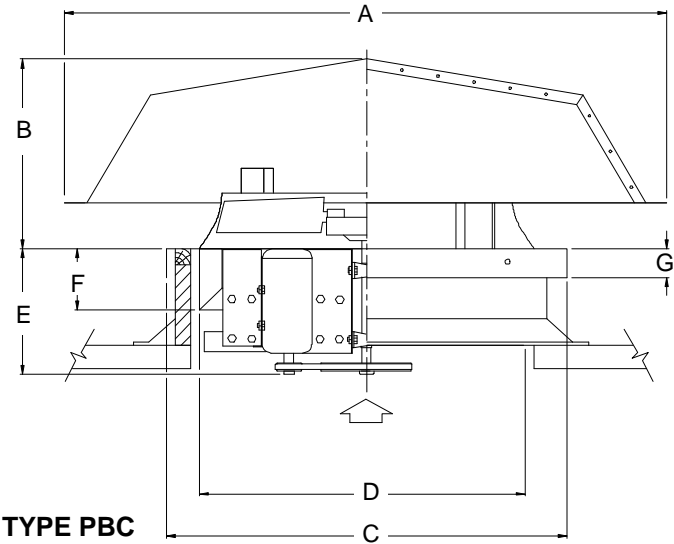
Type PB PRVs are designed to be economical, low-profile roof exhausters.

The pleasing appearance of its low profile is accomplished by recessing the fan unit into the curb opening. Consequently, a mounting sleeve or higher-than-standard curb may be required for clearance between fan motor and damper when a backdraft damper is used.

Type PB PRVs incorporate Style H fan components for models in the 24 inch to 54 inch sizes, Style HX components for models in the 48 inch to 60 inch sizes and Style C components for models in the 24 inch to 84 inch sizes. These fan styles are described in the *Fan Component* section on Pages 4-5.



TYPE PBH and PBHX



TYPE PBC

Dimensions

Dimension A is the O.D. of the square hood.

Dimension B is the overall height above the curb.

Dimension C is the I.D. of the curb cap flange.

Dimension D is the inside curb minimum.

Dimension E is the maximum projection of the motor below top of curb for constant speed, 3-phase TEFC motor of maximum frame size for PRV size and style indicated. This dimension will vary with the type and HP of the motor actually selected.

Dimension F is the depth of the fan angle structure.

Dimension G is the curb cap flange.

Fan	Dimensions in Inches						
	A	B	C	D	E	F	G
H24	57	23 1/4	38	32	11 7/8	5 1/8	2
C24					18 1/4		
H30	57	23 1/4	44	38	16 3/4	5 1/8	2
C30					18 1/4		
H36	67	27	50	44	17	5 1/8	2
C36					19 1/2		
H42	78	28 3/4	56	50	17	5 1/8	2
C42					19 1/2		
H48	88	29 3/4	62	56	17	5 1/8	2
HX48					20 1/4		
C48					24 1/2		
H54	98	35 1/4	68	60	17	5 1/8	2
HX54					20 1/4		
C54					24 1/2		
HX60	109	42 1/4	77	69	21 1/4	7 5/8	3
C60					25 1/2		
72	127 7/8	28 7/8	89	81	26	12 3/8	3
84	139 1/2	37 5/8	101	93	26	12 3/8	3

Performance Ratings

Typical Specifications



American Coolair Corporation certifies that the Type PB PRVs shown herein are licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

Hooded exhaust power roof ventilators shall be American Coolair Type PBH, PBHX, and/or PBC, as manufactured by American Coolair Corporation, Jacksonville, Florida; specific models shall be as shown in the fan schedule. Curb cap and structural angle supports shall be of welded steel construction, hoods shall be of galvanized steel. (Insert additional specifications from below for specific style PRV.) PRVs shall be licensed to bear the AMCA Certified Ratings Seal for air performance and sound. (Specify for each PRV model in the schedule the required CFM and static pressure; motor enclosure, phase and volts; and accessories such as safety disconnect switch, bird screen, backdraft damper, prefabricated curb and special protective coating.)
ADDITIONAL SPECIFICATIONS STYLE H and HX: Die-formed steel blades shall be firmly attached to cast aluminum hub, which also serves as driven sheave. Fan hub shall rotate on fixed shaft using oversized sealed ball bearings. Belt load shall be applied to hub in the same plane as bearings, eliminating overhung load on bearings and increasing bearing life. Motor pulleys shall be variable pitch.
ADDITIONAL SPECIFICATIONS STYLE C: Fan blades shall be of high strength cast aluminum airfoil securely attached to a heavy cast aluminum hub. Blade pitch shall be adjustable. Ball bearings shall be of the heavy-duty pillow block type. Motor pulleys shall be variable pitch.

Item No.	Cubic Feet Per Minute (CFM) at Static Pressure ^{1,6}								Fan Model ²	Fan Size ³	Motor HP	Fan RPM	Sone Rating ⁴	Max BHP ^{5,6}	Approx. Ship Wt.
	0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"								
1	4,903	4,264	3,602	---	---	---	---	PBH24H		1/3	740	14.4	0.42	230	
2	5,552	4,989	4,417	3,775	---	---	---	PBH24J		1/2	838	18.2	0.61	235	
3	6,334	5,841	5,342	4,836	4,238	---	---	PBH24K		3/4	956	23	0.91	250	
4	7,070	6,628	6,183	5,734	5,272	4,719	---	PBH24L*		1	1067	28	1.26	255	
5	7,540	7,127	6,710	6,289	5,866	5,410	4,823	PBH24M*		1 1/2	1138	30	1.53	285	
6	5,232	4,868	4,439	3,964	3,512	---	---	PBC24J	24	1/2	1144	17.3	0.61	307	
7	5,973	5,659	5,305	4,905	4,488	4,091	---	PBC24K		3/4	1306	22	0.91	312	
8	6,640	6,362	6,055	5,714	5,344	4,969	4,611	PBC24L		1	1452	25	1.25	317	
9	7,358	7,109	6,840	6,547	6,228	5,892	5,553	PBC24M		1 1/2	1609	30	1.70	323	
10	8,149	7,926	7,688	7,435	7,161	6,870	6,566	PBC24N		2	1782	35	2.23	336	
11	9,425	9,233	9,033	8,823	8,602	8,368	8,121	PBC24P		3	2061	45	3.34	354	
12	6,234	5,171	3,910	---	---	---	---	PBH30H		1/3	548	11.5	0.42	305	
13	7,042	6,102	5,175	---	---	---	---	PBH30J		1/2	619	15.3	0.61	310	
14	8,077	7,262	6,442	5,577	---	---	---	PBH30K		3/4	710	19.1	0.92	330	
15	8,930	8,196	7,446	6,726	5,761	---	---	PBH30L		1	785	22	1.25	330	
16	9,908	9,249	8,573	7,909	7,253	6,290	---	PBH30M		1 1/2	871	27	1.70	365	
17	10,853	10,251	9,637	9,021	8,429	7,810	6,887	PBH30N		2	954	33	2.24	370	
18	12,229	11,697	11,155	10,606	10,062	9,539	9,005	PBH30P*	30	3	1075	42	3.20	395	
19	8,113	7,446	6,636	5,873	5,174	---	---	PBC30K		3/4	957	19.0	0.91	341	
20	8,986	8,395	7,693	6,958	6,301	5,670	---	PBC30L		1	1060	22	1.24	344	
21	9,969	9,445	8,843	8,168	7,531	6,948	6,381	PBC30M		1 1/2	1176	26	1.70	351	
22	10,936	10,463	9,935	9,338	8,725	8,158	7,630	PBC30N		2	1290	30	2.24	357	
23	12,487	12,077	11,634	11,147	10,615	10,075	9,567	PBC30P		3	1473	37	3.33	381	
24	14,895	14,555	14,197	13,817	13,410	12,974	12,520	PBC30Q		5	1757	51	5.58	394	
25	7,937	6,334	4,551	---	---	---	---	PBH36H		1/3	450	9.6	0.42	375	
26	8,925	7,505	6,027	---	---	---	---	PBH36J		1/2	506	12.1	0.61	380	
27	10,230	8,988	7,718	6,418	---	---	---	PBH36K		3/4	580	15.8	0.91	385	
28	11,342	10,217	9,100	7,919	6,654	---	---	PBH36L		1	643	18.9	1.25	390	
29	12,541	11,521	10,520	9,467	8,416	7,179	---	PBH36M		1 1/2	711	22	1.69	440	
30	13,811	12,882	11,974	11,048	10,072	9,128	8,002	PBH36N		2	783	26	2.25	445	
31	15,734	14,916	14,114	13,317	12,496	11,637	10,799	PBH36P		3	892	32	3.34	470	
32	18,803	18,117	17,440	16,771	16,106	15,430	14,729	PBH36Q*	36	5	1066	44	5.62	487	
33	10,288	9,313	8,272	7,335	6,275	---	---	PBC36L		1	901	24	1.24	508	
34	11,395	10,525	9,579	8,696	7,841	6,856	---	PBC36M		1 1/2	998	29	1.68	514	
35	12,549	11,765	10,917	10,070	9,303	8,508	7,608	PBC36N		2	1099	33	2.25	520	
36	14,284	13,602	12,877	12,115	11,383	10,711	10,034	PBC36P		3	1251	41	3.31	552	
37	17,047	16,480	15,890	15,272	14,633	14,003	13,411	PBC36Q		5	1493	56	5.62	564	
38	19,651	19,161	18,657	18,136	17,597	17,043	16,490	PBC36R		7 1/2	1721	72	8.49	621	
39	21,649	21,206	20,752	20,286	19,806	19,314	18,811	PBC36S		10	1896	87	11.21	632	

(chart continues next page)

Type PB Performance Ratings (cont'd.)

Item No.	Cubic Feet Per Minute (CFM) at Static Pressure ^{1,6}							Fan Model ²	Fan Size ³	Motor HP	Fan RPM	Sone Rating ⁴	Max BHP ^{5,6}	Approx. Ship Wt.
	0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"							
40	11,431	9,069	---	---	---	---	---	PBH42J		1/2	387	9.1	0.61	465
41	13,026	10,942	9,088	---	---	---	---	PBH42K		3/4	441	13.8	0.91	470
42	14,444	12,595	10,812	9,036	---	---	---	PBH42L		1	489	16.7	1.26	495
43	16,039	14,409	12,676	11,239	9,403	---	---	PBH42M		1 1/2	543	20	1.70	525
44	17,545	16,078	14,443	13,071	11,693	---	---	PBH42N		2	594	23	2.24	530
45	20,026	18,763	17,349	15,973	14,816	13,628	12,150	PBH42P		3	678	28	3.34	575
46	23,925	22,885	21,761	20,548	19,381	18,371	17,426	PBH42Q	42	5	810	38	5.63	592
47	15,210	14,041	12,624	11,006	9,694	---	---	PBC42M		1 1/2	832	28	1.69	641
48	16,691	15,642	14,418	12,968	11,588	10,413	---	PBC42N		2	913	33	2.24	627
49	19,068	18,164	17,155	16,004	14,701	13,473	12,446	PBC42P		3	1043	42	3.34	658
50	22,706	21,958	21,154	20,279	19,317	18,258	17,144	PBC42Q		5	1242	55	5.60	672
51	26,399	25,762	25,090	24,379	23,620	22,806	21,933	PBC42R		7 1/2	1444	71	8.61	729
52	28,903	28,323	27,719	27,085	26,418	25,714	24,965	PBC42S		10	1581	84	11.15	740
53	15,440	12,728	9,775	---	---	---	---	PBH48K		3/4	354	13.3	0.91	580
54	17,054	14,639	11,885	---	---	---	---	PBH48L		1	391	16.0	1.24	585
55	18,929	16,778	14,319	11,999	---	---	---	PBH48M		1 1/2	434	19.4	1.69	635
56	20,805	18,861	16,730	14,452	12,165	---	---	PBH48N		2	477	22	2.25	640
57	23,771	22,082	20,300	18,304	16,367	14,499	---	PBH48P		3	545	27	3.35	680
58	28,220	26,807	25,345	23,813	22,133	20,405	18,903	PBH48Q		5	647	36	5.60	697
59	32,580	31,535	30,377	29,064	27,631	26,259	25,035	PBH48R*	48	7 1/2	751	55	8.59	825
60	35,574	34,623	33,591	32,452	31,185	29,868	28,625	PBH48S*		10	820	65	11.18	836
61	20,393	18,672	17,049	15,121	12,830	10,216	---	PBC48N		2	724	31	2.24	701
62	23,322	21,800	20,377	18,916	17,146	15,160	12,874	PBC48P		3	828	38	3.35	743
63	27,688	26,392	25,162	23,977	22,754	21,363	19,759	PBC48Q		5	983	51	5.60	760
64	31,913	30,782	29,694	28,647	27,620	26,570	25,433	PBC48R		7 1/2	1133	66	8.54	840
65	35,012	33,976	32,975	32,006	31,064	30,127	29,168	PBC48S		10	1243	78	11.17	900
66	19,337	16,123	12,532	---	---	---	---	PBH54L		1	375	17.3	1.24	954
67	21,400	18,376	15,547	---	---	---	---	PBH54M		1 1/2	415	21	1.70	958
68	23,514	20,642	18,355	15,095	---	---	---	PBH54N		2	456	24	2.25	964
69	26,866	24,193	22,266	19,955	16,997	---	---	PBH54P		3	521	30	3.36	989
70	32,107	30,140	27,954	25,592	23,249	21,056	---	PBH54Q		5	549	34	5.59	1114
71	36,961	35,274	33,450	31,475	29,411	27,362	25,421	PBH54R	54	7 1/2	632	42	8.53	1166
72	39,885	38,330	36,669	34,886	33,002	31,081	29,198	PBH54S*		10	682	48	10.72	1175
73	23,961	21,709	18,954	---	---	---	---	PBC54N		2	573	29	2.23	920
74	27,474	25,557	23,312	20,760	---	---	---	PBC54P		3	657	37	3.37	940
75	32,492	30,905	29,138	27,150	24,993	22,621	---	PBC54Q		5	777	49	5.57	975
76	37,468	36,108	34,641	33,038	31,289	29,432	27,468	PBC54R		7 1/2	896	63	8.54	1040
77	41,023	39,788	38,475	37,066	35,544	33,916	32,213	PBC54S		10	981	74	11.21	1075

(chart continues next page)

Type PB Performance Ratings (cont'd.)

Item No.	Cubic Feet Per Minute (CFM) at Static Pressure ^{1,6}							Fan Model ²	Fan Size ³	Motor HP	Fan RPM	Sone Rating ⁴	Max BHP ^{5,6}	Approx. Ship Wt.
	0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"							
78	24,174	20,231	---	---	---	---	---	PBH60M		1 1/2	321	14.5	1.68	1296
79	26,659	23,533	---	---	---	---	---	PBH60N		2	354	17.5	2.24	1302
80	30,349	27,908	23,570	19,938	---	---	---	PBH60P		3	403	22	3.34	1327
81	35,997	34,097	31,069	27,418	---	---	---	PBH60Q		5	478	30	5.57	1339
82	41,494	39,912	37,840	34,526	31,572	29,110	---	PBH60R		7 1/2	551	38	8.53	1391
83	45,485	44,068	42,337	39,880	36,597	34,182	31,930	PBH60S	60	10	604	45	11.24	1404
84	26,116	22,283	19,402	14,451	---	---	---	PBC60N		2	545	29	2.24	1140
85	29,854	26,650	23,541	21,203	16,051	---	---	PBC60P		3	623	36	3.35	1165
86	35,221	32,686	29,527	27,364	25,422	21,885	---	PBC60Q		5	735	47	5.50	1175
87	40,588	38,470	35,791	33,269	31,508	29,864	27,685	PBC60R		7 1/2	847	59	8.42	1250
88	44,613	42,721	40,435	37,871	35,914	34,387	32,892	PBC60S		10	931	70	11.19	1280
89	32,432	24,996	17,360	---	---	---	---	PBC72N		2	309	18.9	2.30	1560
90	37,051	31,027	23,247	--	---	---	---	PBC72P		3	353	24	3.44	1578
91	43,873	39,397	32,737	26,483	---	---	---	PBC72Q		5	418	31	5.72	1592
92	50,276	46,615	41,112	35,441	30,089	26,057	---	PBC72R	72	7.5	479	38	8.60	1643
93	55,314	52,085	47,595	42,170	37,025	32,522	28,885	PBC72S*		10	527	44	11.46	1671
94	63,291	60,553	57,157	52,594	47,933	43,484	39,073	PBC72T*		15	603	56	17.18	1735
95	69,588	67,138	64,255	60,581	56,159	52,050	48,000	PBC72U*		20	663	68	22.82	1765
96	39,659	28,137	---	---	---	---	---	PBC84N		2	239	16.0	2.28	2028
97	45,467	35,816	25,427	---	---	---	---	PBC84P		3	274	20	3.44	2049
98	53,763	46,528	36,519	28,663	---	---	---	PBC84Q		5	324	27	5.71	2072
99	61,562	55,800	47,081	38,612	32,386	---	---	PBC84R	84	7.5	371	35	8.58	2123
100	67,868	62,865	55,321	47,595	40,383	34,838	---	PBC84S		10	409	41	11.49	2151
101	77,658	73,462	67,804	60,612	53,965	47,417	42,663	PBC84T*		15	468	49	17.22	2217
102	85,457	81,721	77,065	70,809	64,480	58,389	52,454	PBC84U*		20	515	57	22.96	2247

- 1 — Performance certified is for Installation Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories).
- 2 — The first three or four letters of the model number identify **fan type, drive configuration** and **style**. The next two numbers indicate **fan size**, the next letter identifies motor **horsepower**. Example: Model PBH24H is Type 'P,' belt drive, Style 'H,' 24" size, 1/3 HP.
- 3 — On Style 'H' & 'HX,' die-formed steel blades are standard. On Style 'C,' an adjustable pitch propeller with cast aluminum airfoil blades is standard.
- 4 — The sound ratings shown are loudness values in hemispherical sones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for: Installation Type A: free inlet hemispherical sone levels. The sound ratings shown are at 0" static pressure.
- 5 — Maximum brake horsepower (BHP) within the catalog performance range. Power ratings (BHP) do not include transmission losses. Bearing losses are included. BHP at most static pressures listed is less than that shown, in some cases substantially less. For specific BHP values at individual static pressure points contact your American Coolair representative. Because of the cooling the motor receives from the moving air stream, motor loading beyond the nominal nameplate rating on these American Coolair fans does not overheat the motor and is within NEMA recommended limits and motor service factor. It is not detrimental to the motor and is economically desirable.
- 6 — To convert air performance (CFM and SP) and power (BHP) to metric units, multiply CFM x .000472 to obtain cubic meters per second (m³/s). Multiply SP x 248.36 to obtain pascals (Pa). Multiply BHP x .7457 to obtain kilowatts (kW).

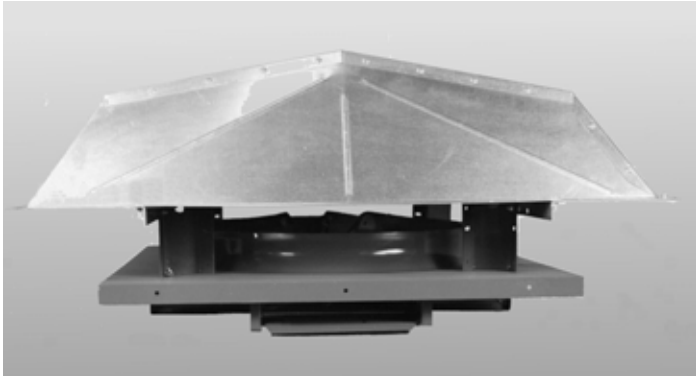
Example: 3904 CFM x .000472 = 1.8427 m³/s
0.125 SP x 248.36 = 31.05 Pa
0.886 BHP x .7457 = 0.661 kW

*These models have fixed pitch motor pulleys.

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

Type PDC

EXHAUST — DIRECT DRIVE — 2,600 to 39,000 CFM
0" to ³/₄" STATIC PRESSURE

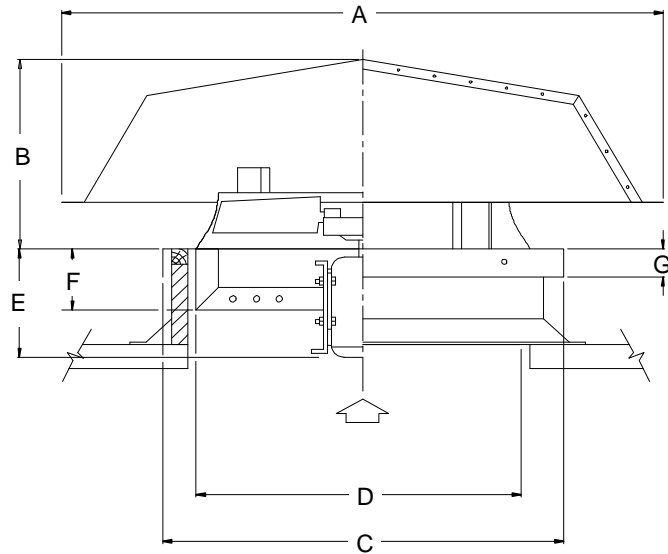


Application and Features

Type PDC PRVs are designed to be economical, low-profile roof exhausters.

The pleasing appearance of its low profile is accomplished by recessing the fan unit into the curb opening. Consequently a mounting sleeve or higher-than-standard curb may be required for clearance between the fan motor and damper when backdraft damper is used. Type PD PRVs incorporate Style 'C' fan components.

This fan style is described in the *Fan Component* section on Pages 4-5.



Dimensions

Dimension A is the O.D. of the square hood.

Dimension B is the overall height above the curb.

Dimension C is the I.D. of the curb cap flange.

Dimension D is the inside curb minimum.

Dimension E is the maximum projection of the motor below top of curb for constant speed, 3-phase TEFC motor of maximum frame size for PRV size and style indicated. This dimension will vary with the type and HP of the motor actually selected.

Dimension F is the depth of the fan angle structure.

Dimension G is the curb cap flange.

Fan Size	Dimensions in Inches						
	A	B	C	D	E	F	G
24	57	23 1/4	38	32	12 3/8	5 1/8	2
30	57	23 1/4	44	38	13 3/4	5 1/8	2
36	67	27	50	44	15 1/4	5 1/8	2
42	78	28 3/4	56	50	15 1/4	5 1/8	2
48	88	29 3/4	62	56	19 3/8	6 5/8	2
54	98	35 1/4	68	62	19 3/4	6 5/8	2
60	109	42 1/4	77	69	20 3/4	7 5/8	3

Performance Ratings

Typical Specifications



American Coolair Corporation certifies that the Type PDC PRVs shown herein are licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

Hooded exhaust power roof ventilators shall be American Coolair Type PDC, as manufactured by American Coolair Corporation, Jacksonville, Florida; specific models shall be as shown in the fan schedule. Curb cap and structural angle supports shall be of welded steel construction, hoods shall be of galvanized steel. Fan blades shall be of high strength cast aluminum airfoil securely attached to a heavy cast aluminum hub. Blade pitch shall be adjustable. Entire blade assembly shall be mounted directly to the motor shaft. PRVs shall be licensed to bear the AMCA Certified Ratings Seal for air performance and sound. (Specify for each PRV model in the schedule the required CFM and static pressure; motor enclosure, phase and volts; and accessories such as safety disconnect switch, bird screen, backdraft damper, prefabricated curb and special protective coating.)

Item No.	Cubic Feet Per Minute (CFM) at Static Pressure ^{1,6}							Fan Model ²	Fan Size	Motor HP	Fan RPM	Sone Rating ³	Max BHP ^{4,6}	Blade Desc. ⁵		Approx. Ship Wt.
	0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"							No.	Pitch	
1	3,981	3,541	2,937	---	---	---	---	PDC24G8		1/4	870	14.0	0.28	6	18.5°	308
2	4,667	4,239	3,739	3,024	---	---	---	PDC24H11		1/3	1160	19.8	0.37	3	15.5°	293
3	5,402	5,058	4,602	3,961	---	---	---	PDC24J11		1/2	1160	27	0.58	4	20.5°	303
4	6,306	5,953	5,557	5,048	4,151	---	---	PDC24K11		3/4	1160	27	0.85	4	27°	321
5	5,914	5,622	5,317	4,973	4,564	4,073	3,488	PDC24K17	24	3/4	1750	38	0.84	3	11°	293
6	6,695	6,404	6,098	5,785	5,445	5,047	4,553	PDC24L17		1	1750	38	1.13	3	14°	293
7	7,833	7,577	7,310	7,029	6,724	6,383	5,992	PDC24M17		1 1/2	1750	40	1.70	3	19.5°	318
8	8,935	8,681	8,417	8,141	7,847	7,529	7,174	PDC24N17		2	1750	46	2.27	3	26.5°	323
9	10,176	9,929	9,674	9,409	9,131	8,840	8,529	PDC24P17		3	1750	51	3.38	4	30.5°	349
10	6,714	6,085	5,289	3,998	---	---	---	PDC30J8		1/2	870	18.5	0.57	4	18.5°	425
11	7,753	7,241	6,643	5,883	4,606	---	---	PDC30K8		3/4	870	19.0	0.85	6	19°	446
12	8,677	8,199	7,644	6,953	5,979	---	---	PDC30L11		1	1160	25	1.14	3	19.5°	436
13	9,759	9,332	8,853	8,298	7,615	6,681	5,173	PDC30M11	30	1 1/2	1160	29	1.70	4	22°	463
14	10,857	10,494	10,097	9,656	9,161	8,594	7,906	PDC30N11		2	1160	33	2.24	6	20.5°	484
15	10,470	10,148	9,805	9,434	9,021	8,544	7,971	PDC30N17		2	1750	46	2.25	3	12°	426
16	12,239	11,925	11,595	11,245	10,868	10,457	9,999	PDC30P17		3	1750	47	3.39	3	17°	458
17	14,683	14,378	14,057	13,716	13,350	12,954	12,520	PDC30Q17		5	1750	54	5.60	3	25.5°	474
18	8,530	7,779	6,797	5,207	---	---	---	PDC36K8		3/4	870	26	0.84	3	15°	506
19	9,112	8,527	7,852	7,034	6,003	4,573	---	PDC36L8		1	870	29	1.14	6	11°	533
20	10,792	10,228	9,575	8,779	7,737	6,193	---	PDC36M8		1 1/2	870	31	1.72	6	17°	544
21	12,052	11,448	10,763	9,957	8,934	7,434	5,091	PDC36N8		2	870	34	2.27	6	22.5°	590
22	10,545	9,991	9,360	8,604	7,661	6,443	---	PDC36M11		1 1/2	1160	39	1.70	3	12.5°	530
23	11,905	11,384	10,783	10,078	9,232	8,139	6,378	PDC36N11	36	2	1160	40	2.28	3	17.5°	544
24	13,517	13,098	12,645	12,147	11,595	10,971	10,251	PDC36P11		3	1160	56	3.44	6	14.5°	586
25	16,320	15,869	15,386	14,864	14,296	13,669	12,961	PDC36Q11		5	1160	65	5.61	6	23.5°	610
26	15,084	14,740	14,381	14,003	13,602	13,166	12,688	PDC36Q17		5	1750	103	5.56	3	10.5°	540
27	17,939	17,608	17,262	16,901	16,522	16,122	15,695	PDC36R17		7 1/2	1750	106	8.52	3	16.5°	582
28	19,838	19,514	19,178	18,831	18,472	18,100	17,709	PDC36S17		10	1750	109	11.40	3	21°	602
29	12,001	10,986	9,735	7,705	---	---	---	PDC42L6		1	680	22	1.15	4	15°	575
30	13,735	12,863	11,772	10,270	7,947	---	---	PDC42M6		1 1/2	680	25	1.69	6	16°	621
31	15,309	14,482	13,521	12,189	9,356	---	---	PDC42N6		2	680	27	2.30	6	21.5°	641
32	11,600	10,571	9,379	7,784	---	---	---	PDC42L8		1	870	27	1.14	3	8°	562
33	13,417	12,563	11,612	10,486	8,977	---	---	PDC42M8		1 1/2	870	31	1.69	4	10°	575
34	14,954	14,175	13,305	12,279	10,967	8,926	---	PDC42N8	42	2	870	34	2.25	4	14°	615
35	17,385	16,723	15,983	15,132	14,124	12,878	11,242	PDC42P8		3	870	37	3.42	6	15.5°	641
36	14,376	13,648	12,858	11,967	10,884	9,411	7,436	PDC42N11		2	1160	43	2.29	3	6°	569
37	17,141	16,435	15,655	14,778	13,788	12,660	11,301	PDC42P11		3	1160	46	3.42	3	11°	612
38	20,725	20,043	19,318	18,539	17,685	16,729	15,608	PDC42Q11		5	1160	51	5.55	3	18.5°	641
39	22,481	21,998	21,502	20,991	20,464	19,916	19,343	PDC42R17		7 1/2	1750	93	8.57	3	7°	610
40	25,496	25,036	24,557	24,056	23,529	22,976	22,394	PDC42S17		10	1750	98	11.35	3	10.5°	631

(chart continues next page)

Type PDC Performance Ratings (cont'd.)

Item No.	Cubic Feet Per Minute (CFM) at Static Pressure ^{1,6}							Fan Model ²	Fan Size	Motor HP	Fan RPM	Sone Rating ³	Max BHP ^{4,6}	Blade Desc. ⁵		Approx. Ship Wt.
	0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"							No.	Pitch	
41	14,345	12,819	11,240	8,720	---	---	---	PDC48L6		1	680	29	1.14	4	5.5°	713
42	17,028	15,638	14,003	11,855	---	---	---	PDC48M6		1 1/2	680	28	1.70	4	11°	755
43	18,644	17,544	16,308	14,775	12,573	---	---	PDC48N6		2	680	34	2.27	6	10.5°	787
44	18,591	17,273	15,859	14,237	11,860	---	---	PDC48N8		2	870	51	2.30	3	8.5°	752
45	21,534	20,471	19,299	18,016	16,555	14,660	11,305	PDC48P8	48	3	870	43	3.45	4	10.5°	787
46	25,463	24,620	23,716	22,737	21,655	20,419	18,913	PDC48Q8		5	870	52	5.56	6	13°	828
47	29,683	28,857	27,990	27,063	26,043	24,899	23,600	PDC48R8		7 1/2	870	58	8.68	6	21°	857
48	25,221	24,262	23,252	22,198	21,093	19,894	18,498	PDC48Q11		5	1160	97	5.67	3	9°	775
49	30,106	29,205	28,262	27,273	26,221	25,077	23,787	PDC48R11		7 1/2	1160	99	8.40	3	15°	816
50	31,805	31,178	30,533	29,867	29,174	28,448	27,677	PDC48S11		10	1160	91	11.24	6	10.5°	857
51	19,538	17,882	15,952	---	---	---	---	PDC54M6		1 1/2	680	38	1.71	4	5.5°	964
52	21,682	19,979	17,954	15,567	---	---	---	PDC54N6		2	680	39	2.22	4	8.5°	984
53	25,260	23,798	22,096	20,166	17,833	---	---	PDC54P8		3	870	57	3.44	3	8°	979
54	29,801	28,586	27,281	25,806	24,053	22,013	19,561	PDC54Q8	54	5	870	65	5.61	4	11°	1035
55	34,664	33,744	32,744	31,636	30,400	29,032	27,552	PDC54R8		7 1/2	870	73	8.55	6	12.5°	1064
56	34,222	33,202	32,083	30,847	29,490	28,023	26,448	PDC54R11		7 1/2	1160	96	8.50	3	8.5°	1011
57	37,788	36,821	35,856	34,862	33,801	32,596	31,134	PDC54S11		10	1160	101	11.20	3	12.5°	1054
58	25,304	22,096	19,082	---	---	---	---	PDC60N6			2	680	41	2.27	3	6°
59	34,247	32,278	29,844	27,035	24,465	21,049	---	PDC60Q8	60	5	870	65	5.57	3	8°	1471
60	39,274	38,000	36,664	35,209	33,601	31,822	29,852	PDC60R8		7 1/2	870	85	8.58	6	6°	1515

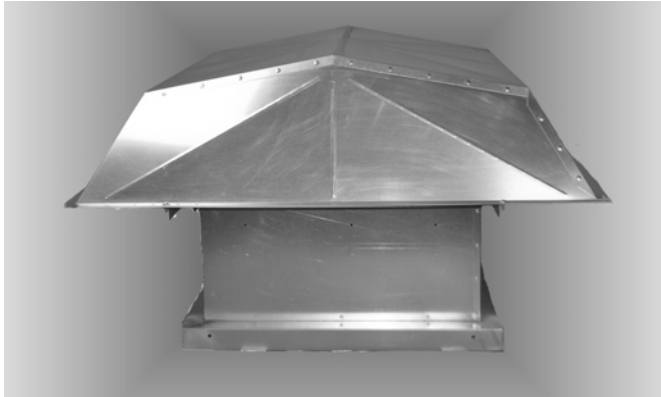
- 1 — Performance certified is for Installation Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories).
- 2 — The first three letters of the model number identify **fan type, drive configuration and style**. The next two numbers indicate **fan size**, the next letter identifies motor **horsepower**, the last number (or numbers) indicates **RPM** in hundreds. Example: Model PDC24G8 is Type 'P,' direct drive, Style 'C,' 24" size, 1/4 HP, 870 RPM.
- 3 — The sound ratings shown are loudness values in hemispherical sones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for: Installation Type A: free inlet hemispherical sone levels. The sound ratings shown are at 0" static pressure.
- 4 — Maximum brake horsepower (BHP) within the catalog performance range. BHP at most static pressures listed is less than that shown, in some cases substantially less. For specific BHP values at individual static pressure points contact your American Coolair representative. Because of the cooling the motor receives from the moving air stream, motor loading beyond the nominal nameplate rating on these American Coolair fans does not overheat the motor and is within NEMA recommended limits and motor service factor. It is not detrimental to the motor and is economically desirable.
- 5 — An adjustable pitch propeller with cast aluminum airfoil blades is standard.
- 6 — To convert air performance (CFM and SP) and power (BHP) to metric units, multiply CFM x .000472 to obtain cubic meters per second (m³/s). Multiply SP x 248.36 to obtain pascals (Pa). Multiply BHP x .7457 to obtain kilowatts (kW).

Example: 3904 CFM x .000472 = 1.8427 m³/s
0.125 SP x 248.36 = 31.05 Pa
0.886 BHP x .7457 = 0.661 kW

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

Type PEB

**EXHAUST — BELT DRIVE — 3,900 to 90,800 CFM
0" to 3/4" STATIC PRESSURE**



Application and Features

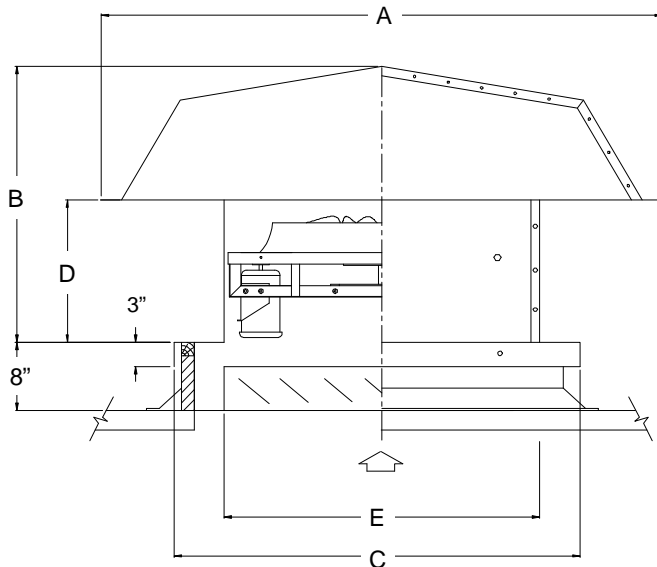
Type PEB exhaust power roof ventilators are designed for maximum efficiency, ease of damper installation and a uniform appearance for both exhaust and supply roof ventilators. They are compatible in appearance and design with the PS, PS-F, RP and P-UD units.

The fan unit is elevated above the roof curb, eliminating the possible damper clearance problem of the Type PB unit.

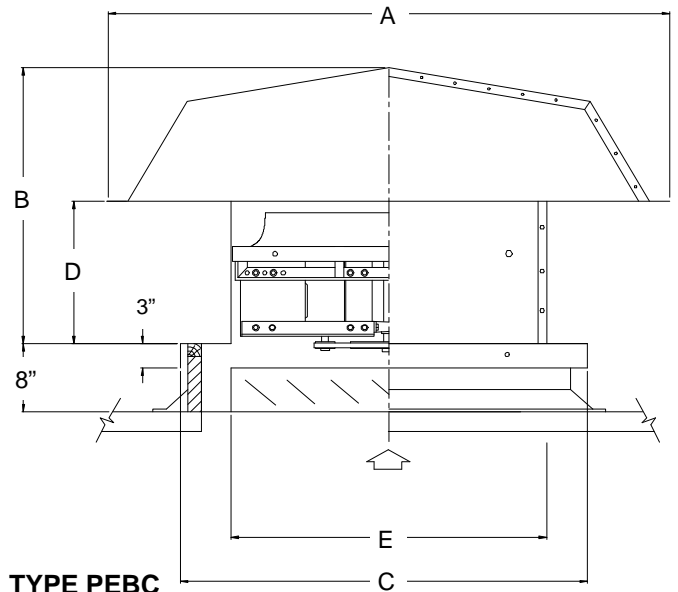
The backdraft damper should be mounted in the standard roof curb.

Type PEB PRVs incorporate Style 'H' fan components for models in the 24 inch to 54 inch size, Style 'HX' fan components for models in the 48 inch to 60 inch size and Style 'C' fan components for models in the 24 inch to 84 inch size. These fan styles are described in the *Fan Component* section on Pages 4-5.

The unit can also be specified less the fan component for use as a gravity ventilator.



TYPE PEBH and PEBHX



TYPE PEBC

Dimensions

Dimension A is the O.D. of the square hood.

Dimension B is the overall height above the curb.

Dimension C is the I.D. of the curb cap flange.

Dimension D is the distance from the curb to the hood.

Dimension E is the damper net length and width, flanges add 1-11/16 inches on all sides.

Fan	Dimensions in Inches				
	A	B	C	D	E
24	67	38 1/4	38	20 3/4	28 3/8
30	78	40	44	20 3/4	34 3/8
36	88	41	50	20 3/4	40 3/8
42	98	46 1/2	56	20 3/4	46 3/8
48	109	55 3/8	62	23 5/8	52 3/8
54	118	58 5/8	68	23 5/8	58 3/8
60	118	58 5/8	77	23 5/8	64 3/8
72	127 7/8	54	89	33 5/8	80 3/4
84	139 1/2	62 3/4	101	33 5/8	92 3/4

Performance Ratings



American Coolair Corporation certifies that the Type PEB PRVs shown herein are licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

Typical Specifications

Hooded exhaust power roof ventilators shall be American Coolair Type PEBH, PEBHX, and/or PEBE, as manufactured by American Coolair Corporation, Jacksonville, Florida; specific models shall be as shown in the fan schedule. Fan component shall be of welded steel construction, PRV hood and base shall be of galvanized steel. (Insert additional specifications from below for specific style PRV.) PRVs shall be licensed to bear the AMCA Certified Ratings Seal for air performance and sound. (Specify for each PRV model in the schedule the required CFM and static pressure; motor enclosure, phase and volts; and accessories such as safety disconnect switch, bird screen, backdraft damper, prefabricated curb and special protective coating.)

ADDITIONAL SPECIFICATIONS STYLE H and HX: Die-formed steel blades shall be firmly attached to cast aluminum hub, which also serves as driven sheave. Fan hub shall rotate on fixed shaft using oversized sealed ball bearings. Belt load shall be applied to hub in the same plane as bearings, eliminating overhung load on bearings and increasing bearing life. Motor pulleys shall be variable pitch.

ADDITIONAL SPECIFICATIONS STYLE C: Fan blades shall be of high strength cast aluminum airfoil securely attached to a heavy cast aluminum hub. Blade pitch shall be adjustable. Ball bearings shall be of the heavy-duty pillow block type. Motor pulleys shall be variable pitch.

Item No.	Cubic Feet Per Minute (CFM) at Static Pressure ^{1,6}							Fan Model ²	Fan Size ³	Motor HP	Fan RPM	Sone Rating ⁴	Max BHP ^{5,6}	Approx. Ship Wt.
	0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"							
1	5,023	4,380	3,748	3,028	---	---	---	PEBH24H		1/3	740	15.2	0.42	330
2	5,688	5,124	4,550	4,001	3,311	---	---	PEBH24J		1/2	838	19.5	0.61	335
3	6,496	6,005	5,498	5,010	4,524	3,928	---	PEBH24K		3/4	957	26	0.91	350
4	7,222	6,782	6,329	5,876	5,447	5,003	4,474	PEBH24L*		1	1064	31	1.25	355
5	7,772	7,364	6,945	6,521	6,111	5,716	5,289	PEBH24M*		1 1/2	1145	34	1.56	375
6	5,301	4,877	4,474	4,068	3,639	3,105	---	PEBC24J	24	1/2	1140	18.2	0.61	359
7	6,050	5,675	5,317	4,967	4,608	4,234	3,819	PEBC24K		3/4	1301	22	0.91	364
8	6,761	6,425	6,100	5,785	5,471	5,149	4,816	PEBC24L		1	1454	27	1.26	369
9	7,487	7,182	6,886	6,598	6,315	6,030	5,740	PEBC24M		1 1/2	1610	31	1.68	375
10	8,291	8,015	7,746	7,483	7,225	6,969	6,713	PEBC24N		2	1783	37	2.23	388
11	9,602	9,363	9,128	8,898	8,672	8,449	8,228	PEBC24P		3	2065	49	3.34	406
12	6,812	5,584	4,413	---	---	---	---	PEBH30H		1/3	540	12.2	0.41	420
13	7,783	6,681	5,548	4,679	---	---	---	PEBH30J		1/2	617	16.7	0.61	425
14	8,893	7,891	6,999	6,036	5,228	---	---	PEBH30K		3/4	705	21	0.91	445
15	9,877	8,947	8,180	7,236	6,522	5,664	---	PEBH30L		1	783	24	1.25	450
16	10,911	10,048	9,343	8,597	7,729	7,141	6,442	PEBH30M		1 1/2	865	30	1.69	480
17	11,971	11,168	10,504	9,872	9,106	8,364	7,843	PEBH30N		2	949	36	2.23	485
18	13,699	12,979	12,365	11,813	11,256	10,598	9,885	PEBH30P*	30	3	1086	49	3.33	515
19	8,624	7,885	7,091	6,224	5,372	---	---	PEBC30K		3/4	953	19.8	0.91	491
20	9,574	8,912	8,214	7,459	6,679	5,904	---	PEBC30L		1	1058	23	1.25	494
21	10,569	9,973	9,350	8,694	7,988	7,289	6,591	PEBC30M		1 1/2	1168	27	1.68	501
22	11,610	11,069	10,509	9,926	9,310	8,661	8,027	PEBC30N		2	1283	31	2.23	507
23	13,311	12,841	12,359	11,863	11,351	10,817	10,256	PEBC30P		3	1471	40	3.32	531
24	16,017	15,628	15,232	14,828	14,417	13,998	13,568	PEBC30Q		5	1770	55	5.61	544
25	8,495	6,826	4,782	---	---	---	---	PEBH36H		1/3	451	9.3	0.42	487
26	9,569	8,128	6,407	---	---	---	---	PEBH36J		1/2	508	11.6	0.61	493
27	10,963	9,717	8,262	6,811	---	---	---	PEBH36K		3/4	582	15.1	0.91	498
28	12,149	11,028	9,825	8,408	---	---	---	PEBH36L		1	645	18.2	1.25	520
29	13,411	12,396	11,353	10,099	8,902	---	---	PEBH36M		1 1/2	712	21	1.68	550
30	14,749	13,826	12,894	11,867	10,660	9,626	---	PEBH36N		2	783	25	2.24	555
31	16,858	16,052	15,242	14,410	13,484	12,418	11,470	PEBH36P		3	895	31	3.34	585
32	20,023	19,345	18,664	17,980	17,282	16,540	15,701	PEBH36Q*	36	5	1063	43	5.52	602
33	10,658	9,703	8,778	7,874	6,706	---	---	PEBC36L		1	897	23	1.25	658
34	11,763	10,896	10,050	9,231	8,380	7,239	---	PEBC36M		1 1/2	990	27	1.68	664
35	12,939	12,149	11,375	10,619	9,881	9,077	8,021	PEBC36N		2	1089	32	2.23	670
36	14,757	14,063	13,379	12,706	12,047	11,401	10,729	PEBC36P		3	1242	39	3.31	702
37	17,644	17,062	16,487	15,917	15,354	14,797	14,251	PEBC36Q		5	1485	52	5.60	714
38	20,460	19,958	19,459	18,965	18,474	17,987	17,505	PEBC36R		7 1/2	1722	68	8.52	771
39	22,539	22,083	21,630	21,179	20,732	20,287	19,845	PEBC36S		10	1897	82	11.19	783

(chart continues next page)

Type PEB Performance Ratings (cont'd.)

Item No.	Cubic Feet Per Minute (CFM) at Static Pressure ^{1,6}							Fan Model ²	Fan Size ³	Motor HP	Fan RPM	Sone Rating ⁴	Max BHP ^{5,6}	Approx. Ship Wt.
	0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"							
40	12,089	9,713	7,383	---	---	---	---	PEBH42J		1/2	385	9.7	0.61	641
41	13,785	11,759	9,665	7,500	---	---	---	PEBH42K		3/4	439	12.6	0.91	646
42	15,230	13,453	11,465	9,638	---	---	---	PEBH42L		1	485	15.3	1.23	668
43	16,862	15,303	13,451	11,811	10,104	---	---	PEBH42M		1 1/2	537	18.4	1.67	697
44	18,558	17,171	15,506	13,926	12,449	10,867	---	PEBH42N		2	591	22	2.23	700
45	21,259	20,074	18,702	17,210	15,871	14,589	13,239	PEBH42P		3	677	26	3.35	730
46	25,152	24,170	23,087	21,875	20,607	19,435	18,347	PEBH42Q	42	5	801	34	5.53	747
47	15,611	14,161	12,756	11,350	9,783	---	---	PEBC42M		1 1/2	809	26	1.68	822
48	17,135	15,811	14,523	13,253	11,938	10,459	---	PEBC42N		2	888	30	2.23	808
49	19,566	18,403	17,265	16,147	15,035	13,890	12,639	PEBC42P		3	1014	39	3.32	839
50	23,387	22,410	21,448	20,502	19,566	18,636	17,704	PEBC42Q		5	1212	50	5.62	853
51	26,976	26,127	25,289	24,460	23,641	22,829	22,022	PEBC42R		7 1/2	1398	63	8.48	910
52	29,736	28,965	28,201	27,446	26,697	25,956	25,219	PEBC42S		10	1541	76	11.22	921
53	16,309	13,047	---	---	---	---	---	PEBH48K		3/4	352	12.2	0.91	840
54	18,116	15,210	12,153	---	---	---	---	PEBH48L		1	391	15.0	1.25	845
55	19,969	17,344	14,532	11,833	---	---	---	PEBH48M		1 1/2	431	18.0	1.68	902
56	21,962	19,579	17,079	14,593	---	---	---	PEBH48N		2	474	21	2.22	905
57	25,158	23,081	20,968	18,702	16,590	---	---	PEBH48P		3	543	26	3.35	950
58	29,931	28,187	26,432	24,634	22,723	20,865	19,156	PEBH48Q		5	646	34	5.64	968
59	33,831	32,406	31,057	29,771	28,499	27,179	25,749	PEBH48R*	48	7 1/2	736	46	8.16	1149
60	37,141	35,836	34,590	33,398	32,239	31,076	29,870	PEBH48S*		10	808	54	10.79	1160
61	20,842	19,062	16,718	14,525	12,363	---	---	PEBC48N		2	724	31	2.22	1115
62	23,923	22,431	20,526	18,461	16,585	14,728	12,651	PEBC48P		3	831	38	3.36	1143
63	28,385	27,166	25,735	24,025	22,275	20,657	19,112	PEBC48Q		5	986	51	5.61	1160
64	32,588	31,545	30,377	29,031	27,511	25,974	24,533	PEBC48R		7 1/2	1132	65	8.50	1215
65	35,783	34,842	33,812	32,663	31,364	29,956	28,559	PEBC48S		10	1243	77	11.23	1265
66	20,793	17,202	---	---	---	---	---	PEBH54L		1	371	15.0	1.25	1136
67	22,811	19,643	16,067	---	---	---	---	PEBH54M		1 1/2	407	17.7	1.65	1140
68	25,221	22,455	19,100	16,168	---	---	---	PEBH54N		2	450	21	2.23	1146
69	28,920	26,602	23,729	20,911	18,390	---	---	PEBH54P		3	516	26	3.35	1171
70	34,978	32,755	30,647	28,271	25,057	22,750	20,403	PEBH54Q		5	544	33	5.54	1296
71	40,250	38,303	36,449	34,606	32,463	29,606	27,339	PEBH54R	54	7 1/2	626	41	8.45	1348
72	43,851	42,057	40,336	38,664	36,906	34,751	32,089	PEBH54S*		10	682	49	10.91	1357
73	25,940	22,636	18,955	---	---	---	---	PEBC54N		2	574	28	2.23	1235
74	29,646	26,737	23,703	20,748	18,871	---	---	PEBC54P		3	656	35	3.33	1260
75	35,159	32,683	30,285	27,542	25,006	23,377	---	PEBC54Q		5	778	47	5.56	1290
76	40,446	38,280	36,192	34,071	31,605	29,289	27,716	PEBC54R		7 1/2	895	61	8.46	1350
77	44,423	42,445	40,527	38,637	36,628	34,294	32,223	PEBC54S		10	983	72	11.21	1380

(chart continues next page)

Type PEB Performance Ratings (cont'd.)

Item No.	Cubic Feet Per Minute (CFM) at Static Pressure ^{1,6}							Fan Model ²	Fan Size ³	Motor HP	Fan RPM	Sone Rating ⁴	Max BHP ^{5,6}	Approx. Ship Wt.
	0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"							
78	25,154	21,231	---	---	---	---	---	PEBHX60M		1 1/2	320	16.4	1.65	1341
79	27,591	23,998	20,352	---	---	---	---	PEBHX60N		2	351	19.3	2.23	1347
80	31,522	28,343	25,239	22,093	---	---	---	PEBHX60P		3	401	25	3.34	1372
81	37,339	34,620	32,042	29,358	26,680	24,201	---	PEBHX60Q		5	475	33	5.57	1384
82	42,920	40,536	38,266	36,024	33,659	31,295	29,165	PEBHX60R		7 1/2	546	42	8.46	1436
83	47,243	45,067	42,982	40,952	38,888	36,711	34,567	PEBHX60S	60	10	601	50	11.20	1449
84	27,387	23,306	19,172	---	---	---	---	PEBC60N		2	545	28	2.24	1360
85	31,257	27,500	24,199	20,906	---	---	---	PEBC60P		3	622	35	3.33	1385
86	36,985	33,602	31,025	27,894	25,125	23,278	---	PEBC60Q		5	736	46	5.52	1415
87	42,614	39,539	37,181	34,953	32,083	29,511	27,827	PEBC60R		7 1/2	848	59	8.44	1475
88	46,835	43,961	41,705	39,704	37,561	34,780	32,502	PEBC60S		10	932	70	11.21	1510
89	34,440	27,475	20,343	---	---	---	---	PEBC72N		2	304	19.9	2.30	1732
90	39,425	33,429	27,009	21,416	---	---	---	PEBC72P		3	348	26	3.45	1754
91	46,675	41,602	36,317	30,984	26,140	---	---	PEBC72Q		5	412	34	5.71	1769
92	53,473	49,016	44,611	39,764	35,219	30,868	27,562	PEBC72R	72	7.5	472	40	8.60	1826
93	58,797	54,726	50,764	46,527	42,116	38,064	34,104	PEBC72S		10	519	46	11.43	1857
94	67,407	63,838	60,375	56,881	53,117	49,240	45,643	PEBC72T*		15	595	60	17.24	1928
95	74,205	70,953	67,787	64,655	61,410	57,932	54,408	PEBC72U*		20	655	75	22.99	1962
96	42,090	31,405	21,826	---	---	---	---	PEBC84N		2	235	16.3	2.27	2254
97	48,179	39,056	29,558	---	---	---	---	PEBC84P		3	269	21	3.42	2277
98	57,314	49,724	41,564	33,907	---	---	---	PEBC84Q		5	320	29	5.57	2302
99	65,553	58,890	52,054	44,923	38,315	33,314	---	PEBC84R	84	7.5	366	39	8.59	2352
100	72,180	66,100	60,084	53,465	47,283	41,387	36,939	PEBC84S		10	403	45	11.49	2390
101	82,568	77,221	72,029	66,569	60,733	55,321	49,993	PEBC84T*		15	461	54	17.19	2463
102	90,807	85,928	81,196	76,412	71,244	65,957	61,068	PEBC84U*		20	507	61	22.88	2497

- 1 — Performance certified is for Installation Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories).
- 2 — The first four or five letters of the model number identify **fan type, drive configuration** and **style**. The next two numbers indicate **fan size**, the next letter identifies motor **horsepower**. Example: Model PEBH24H is Type 'PE,' belt drive, Style 'H,' 24" size, 1/3 HP.
- 3 — On Style 'H' and 'HX,' die-formed steel blades are standard. On Style 'C,' an adjustable pitch propeller with cast aluminum airfoil blades is standard.
- 4 — The sound ratings shown are loudness values in hemispherical sones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for: Installation Type A: free inlet hemispherical sone levels. The sound ratings shown are at 0" static pressure.
- 5 — Maximum brake horsepower (BHP) within the catalog performance range. Power ratings (BHP) do not include transmission losses. Bearing losses are included. BHP at most static pressures listed is less than that shown, in some cases substantially less. For specific BHP values at individual static pressure points contact your American Coolair representative. Because of the cooling the motor receives from the moving air stream, motor loading beyond the nominal nameplate rating on these American Coolair fans does not overheat the motor and is within NEMA recommended limits and motor service factor. It is not detrimental to the motor and is economically desirable.
- 6 — To convert air performance (CFM and SP) and power (BHP) to metric units, multiply CFM x .000472 to obtain cubic meters per second (m³/s). Multiply SP x 248.36 to obtain pascals (Pa). Multiply BHP x .7457 to obtain kilowatts (kW).

Example: 3904 CFM x .000472 = 1.8427 m³/s
0.125 SP x 248.36 = 31.05 Pa
0.886 BHP x .7457 = 0.661 kW

*These models have fixed pitch motor pulleys.

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

Type PEDC

**EXHAUST — DIRECT DRIVE — 2,900 to 40,400 CFM
0" to 3/4" STATIC PRESSURE**



Application and Features

Type PEDC exhaust power roof ventilators are designed for maximum efficiency, ease of damper installation and a uniform appearance for both exhaust and supply roof ventilators.

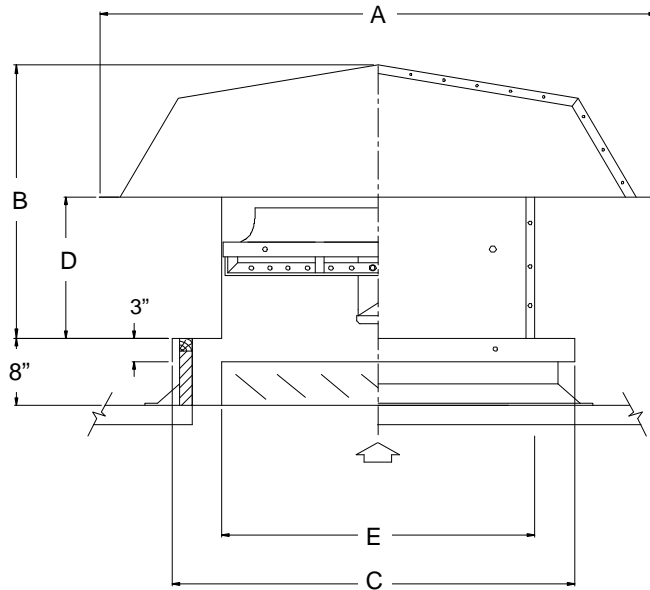
They are compatible in appearance and design with the PS, PSF, RP and PUD units.

The fan unit is elevated above the roof curb, eliminating the possible damper clearance problem of the Type PDC unit.

The backdraft damper should be mounted in the standard roof curb.

Type PEDC PRVs incorporate Style 'C' fan components. This fan style is described in the *Fan Component* section on Pages 4-5.

The unit can be specified less the fan component for use as a gravity ventilator.



TYPE PEDC

Dimensions

- Dimension A is the O.D. of the square hood.
- Dimension B is the overall height above the curb.
- Dimension C is the I.D. of the curb cap flange.
- Dimension D is the distance from the curb to the hood.
- Dimension E is the damper net length and width, flanges add 1-11/16 inches on all sides.

Fan Size	Dimensions in Inches				
	A	B	C	D	E
24	67	38 1/4	38	20 3/4	28 3/8
30	78	40	44	20 3/4	34 3/8
36	88	41	50	20 3/4	40 3/8
42	98	46 1/2	56	20 3/4	46 3/8
48	109	55 3/8	62	23 5/8	52 3/8
54	118	58 5/8	68	23 5/8	58 3/8
60	118	58 5/8	77	23 5/8	64 3/8

Performance Ratings

Typical Specifications



American Coolair Corporation certifies that the Type PEDC PRVs shown herein are licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

Hooded exhaust power roof ventilators shall be American Coolair Type PEDC, as manufactured by American Coolair Corporation, Jacksonville, Florida; specific models shall be as shown in the fan schedule. Fan component shall be of welded steel construction, PRV hood and base shall be of galvanized steel. Fan blades shall be of high strength cast aluminum airfoil securely attached to a heavy cast aluminum hub. Blade pitch shall be adjustable. Entire blade assembly shall be mounted directly to the motor shaft. PRVs shall be licensed to bear the AMCA Certified Ratings Seal for air performance and sound. (Specify for each PRV model in the schedule the required CFM and static pressure; motor enclosure, phase and volts; and accessories such as safety disconnect switch, bird screen, backdraft damper, prefabricated curb and special protective coating.)

Item No.	Cubic Feet Per Minute (CFM) at Static Pressure ^{1,6}							Fan Model ²	Fan Size	Motor HP	Fan RPM	Sone Rating ³	Max BHP ^{4,6}	Blade No.	Desc. ⁵ Pitch	Approx. Ship Wt.
	0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"									
1	4,531	4,078	3,369	---	---	---	---	PEDC24G8		1/4	870	12.4	0.29	3	27.5°	375
2	5,493	5,146	4,698	3,839	---	---	---	PEDC24J8		1/2	870	15.3	0.57	6	30.5°	385
3	4,703	4,360	3,922	3,278	---	---	---	PEDC24H11		1/3	1160	17.3	0.38	3	16°	370
4	5,606	5,283	4,902	4,404	3,399	---	---	PEDC24J11		1/2	1160	18.4	0.58	3	23°	380
5	5,973	5,716	5,423	5,070	4,588	3,795	3,065	PEDC24K11	24	3/4	1160	21	0.87	6	22.5°	385
6	6,769	6,516	6,235	5,906	5,481	4,779	3,723	PEDC24L11		1	1160	23	1.13	6	27°	396
7	6,647	6,407	6,152	5,882	5,588	5,242	4,772	PEDC24L17		1	1750	32	1.13	3	14°	385
8	7,834	7,623	7,401	7,164	6,907	6,617	6,279	PEDC24M17		1 1/2	1750	34	1.70	3	19.5°	390
9	8,993	8,787	8,570	8,340	8,095	7,827	7,527	PEDC24N17		2	1750	40	2.26	3	26.5°	396
10	9,776	9,617	9,452	9,279	9,095	8,899	8,686	PEDC24P17		3	1750	43	3.48	6	25°	426
11	7,209	6,528	5,566	---	---	---	---	PEDC30J8		1/2	870	15.7	0.58	3	22.5°	500
12	9,041	8,556	7,998	7,305	6,313	---	---	PEDC30L11		1	1160	24	1.14	3	19.5°	515
13	9,757	9,385	8,993	8,563	8,061	7,451	6,685	PEDC30M11	30	1 1/2	1160	28	1.72	6	16.5°	545
14	11,296	10,938	10,544	10,104	9,604	9,026	8,328	PEDC30N11		2	1160	29	2.24	6	20.5°	560
15	10,848	10,515	10,165	9,790	9,377	8,906	8,336	PEDC30N17		2	1750	45	2.25	3	12°	510
16	12,739	12,415	12,076	11,719	11,336	10,920	10,459	PEDC30P17		3	1750	47	3.39	3	17°	535
17	15,360	15,053	14,730	14,388	14,024	13,629	13,197	PEDC30Q17		5	1750	57	5.68	3	25.5°	550
18	12,252	11,357	10,249	7,992	---	---	---	PEDC36L6		1	680	24	1.13	6	23.5°	625
19	13,913	12,896	11,647	9,847	---	---	---	PEDC36M6		1 1/2	680	23	1.67	6	30°	670
20	11,557	10,772	9,877	8,725	6,217	---	---	PEDC36L8		1	870	27	1.14	4	15.5°	615
21	13,282	12,669	11,968	11,147	10,076	7,870	---	PEDC36M8		1 1/2	870	30	1.72	6	17°	620
22	15,312	14,638	13,910	13,078	11,959	9,878	---	PEDC36N8		2	870	34	2.26	6	22.5°	670
23	17,621	16,858	16,006	15,044	13,914	12,120	---	PEDC36P8		3	870	34	3.41	6	29.5°	690
24	13,001	12,315	11,557	10,671	9,556	7,621	---	PEDC36M11	36	1 1/2	1160	36	1.70	3	12.5°	615
25	14,858	14,097	13,269	12,456	11,543	10,084	7,574	PEDC36N11		2	1160	38	2.23	3	17°	620
26	16,493	16,032	15,535	15,024	14,466	13,835	13,089	PEDC36P11		3	1160	55	3.41	6	14.5°	670
27	20,900	20,403	19,878	19,322	18,727	18,079	17,341	PEDC36Q11		5	1160	66	5.66	6	23.5°	690
28	18,310	17,875	17,428	16,966	16,485	15,980	15,446	PEDC36Q17		5	1750	82	5.56	3	10.5°	620
29	22,312	21,884	21,445	20,995	20,532	20,052	19,550	PEDC36R17		7 1/2	1750	90	8.52	3	16.5°	670
30	25,093	24,641	24,178	23,702	23,213	22,707	22,184	PEDC36S17		10	1750	90	11.19	3	20.5°	690
31	14,237	12,782	11,087	8,502	---	---	---	PEDC42L6		1	680	20	1.15	4	15°	740
32	16,117	15,037	13,794	12,074	8,485	---	---	PEDC42M6		1 1/2	680	28	1.69	6	16°	790
33	18,125	17,033	15,808	14,336	11,524	---	---	PEDC42N6		2	680	29	2.29	6	21.5°	810
34	15,752	14,658	13,366	11,831	9,858	---	---	PEDC42M8		1 1/2	870	30	1.69	4	10°	740
35	17,693	16,577	15,373	14,037	12,379	9,562	---	PEDC42N8		2	870	31	2.25	4	14°	790
36	20,383	19,559	18,681	17,699	16,541	15,021	12,697	PEDC42P8	42	3	870	44	3.42	6	15.5°	810
37	16,859	15,795	14,667	13,477	12,124	10,247	---	PEDC42N11		2	1160	46	2.29	3	6°	740
38	20,237	19,279	18,265	17,142	15,827	14,191	12,219	PEDC42P11		3	1160	52	3.43	3	11°	790
39	24,287	23,472	22,620	21,722	20,776	19,780	18,714	PEDC42Q11		5	1160	50	5.70	4	15°	810
40	26,495	25,819	25,116	24,383	23,620	22,828	22,012	PEDC42R17		7 1/2	1750	104	8.57	3	7°	790
41	30,061	29,442	28,811	28,164	27,491	26,788	26,048	PEDC42S17		10	1750	127	11.35	3	10.5°	810

(chart continues next page)

Type PEDC Performance Ratings (cont'd.)

Item No.	Cubic Feet Per Minute (CFM) at Static Pressure ^{1,6}							Fan Model ²	Fan Size	Motor HP	Fan RPM	Sone Rating ³	Max BHP ^{4,6}	Blade No.	Desc. ⁵ Pitch	Approx. Ship Wt.
	0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"									
42	15,381	13,432	11,383	8,395	---	---	---	PEDC48L6	1	680	30	1.14	4	5.5°	970	
43	18,276	16,467	14,333	11,678	---	---	---	PEDC48M6	1 1/2	680	28	1.70	4	11°	1010	
44	20,002	18,556	16,989	15,103	12,350	---	---	PEDC48N6	2	680	33	2.26	6	10.5°	1035	
45	19,701	17,881	15,983	13,942	11,148	---	---	PEDC48N8	2	870	46	2.22	3	8°	1010	
46	23,123	21,741	20,204	18,520	16,687	14,367	---	PEDC48P8	48	3	870	42	3.45	4	10.5°	1030
47	27,681	26,588	25,434	24,193	22,827	21,272	19,384	PEDC48Q8		5	870	55	5.73	6	13.5°	1075
48	31,747	30,531	29,344	28,133	26,833	25,366	23,681	PEDC48R8	7 1/2	870	61	8.67	6	21°	1150	
49	26,239	25,175	24,042	22,797	21,509	20,322	19,218	PEDC48Q11	5	1160	79	5.65	4	5.5°	1030	
50	31,176	30,164	29,109	27,986	26,790	25,527	24,210	PEDC48R11	7 1/2	1160	74	8.44	4	11°	1065	
51	34,120	33,294	32,445	31,576	30,683	29,764	28,805	PEDC48S11	10	1160	91	11.24	6	10.5°	1105	
52	21,557	19,055	16,630	---	---	---	---	PEDC54M6	1 1/2	680	35	1.70	4	5.5°	1150	
53	23,797	21,586	18,881	---	---	---	---	PEDC54N6	2	680	36	2.22	4	8.5°	1170	
54	27,243	25,329	23,057	20,470	17,541	---	---	PEDC54P8	3	870	60	3.31	3	7.5°	1165	
55	31,188	29,869	28,602	27,300	25,785	23,883	21,799	PEDC54Q8	54	5	870	74	5.56	6	6.5°	1215
56	37,725	36,463	35,211	33,902	32,434	30,705	28,719	PEDC54R8		7 1/2	870	68	8.51	6	12.5°	1245
57	36,774	35,314	33,812	32,380	31,010	29,612	28,075	PEDC54R11	7 1/2	1160	91	8.46	4	5.5°	1205	
58	40,595	39,323	38,047	36,698	35,231	33,612	31,897	PEDC54S11	10	1160	93	11.03	4	8.5°	1235	
59	26,064	23,253	19,792	---	---	---	---	PEDC60N6	2	680	41	2.28	3	6°	1350	
60	35,398	33,491	31,311	28,437	25,579	22,348	---	PEDC60Q8	60	5	870	64	5.63	3	8°	1390
61	40,215	38,948	37,646	36,259	34,722	33,001	31,076	PEDC60R8		7 1/2	870	78	8.58	6	6°	1440

- 1 — Performance certified is for Installation Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories).
- 2 — The first four letters of the model number identify **fan type, drive configuration** and **style**. The next two numbers indicate **fan size**, the next letter identifies motor **horsepower**; the last number (or numbers) indicates **RPM** in hundreds. Example: Model PEDC24G8 is Type 'PE,' direct drive, Style 'C,' 24" size, 1/4 HP, 870 RPM.
- 3 — The sound ratings shown are loudness values in hemispherical sones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for: Installation Type A: free inlet hemispherical sone levels. The sound ratings shown are at 0" static pressure.
- 4 — Maximum brake horsepower (BHP) within the catalog performance range. BHP at most static pressures listed is less than that shown, in some cases substantially less. For specific BHP values at individual static pressure points contact your American Coolair representative. Because of the cooling the motor receives from the moving air stream, motor loading beyond the nominal nameplate rating on these American Coolair fans does not overheat the motor and is within NEMA recommended limits and motor service factor. It is not detrimental to the motor and is economically desirable.
- 5 — An adjustable pitch propeller with cast aluminum airfoil blades is standard.
- 6 — To convert air performance (CFM and SP) and power (BHP) to metric units, multiply CFM x .000472 to obtain cubic meters per second (m³/s). Multiply SP x 248.36 to obtain pascals (Pa). Multiply BHP x .7457 to obtain kilowatts (kW).

Example: 3904 CFM x .000472 = 1.8427 m³/s
0.125 SP x 248.36 = 31.05 Pa
0.886 BHP x .7457 = 0.661 kW

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

Type PSB

**SUPPLY — BELT DRIVE — 3,300 to 106,500 CFM
0" to ³/₄" STATIC PRESSURE**



Application and Features

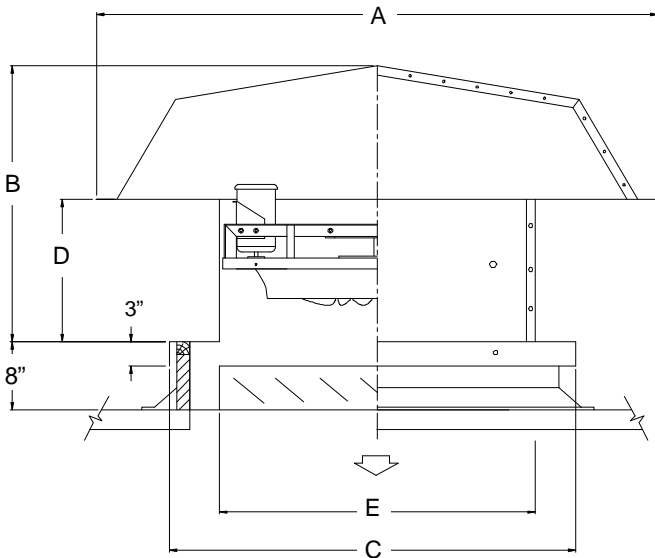
American Coolair's Type PSB unit is identical to the Type PEB unit, but with the fan component inverted to produce air supply rather than exhaust.

A PSB unit can be converted to PEB, and vice versa, after the unit has been installed. Simply remove the fan component, turn it over and re-install it in the PRV base.

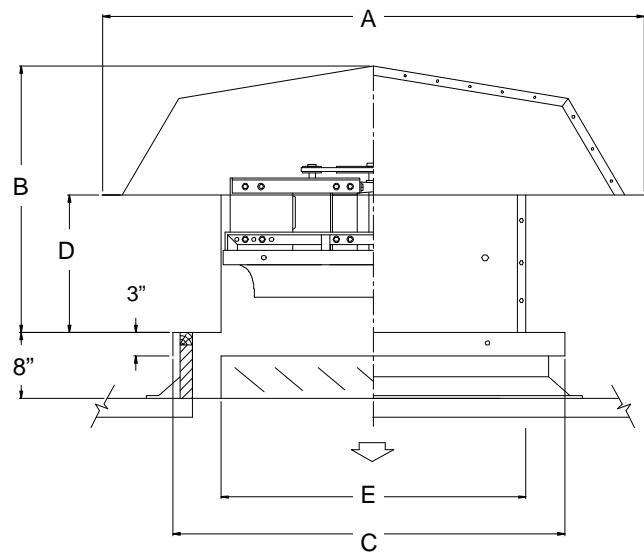
The combination of PEs and PSs allows a complete ventilation system with a uniform appearance on the building roof.

Type PSB PRVs incorporate Style 'H' fan components for models in the 24 inch to 54 inch size, Style 'HX' fan components for models in the 48 inch to 60 inch size and Style 'C' fan components for models in the 24 inch to 84 inch size. These fan styles are described in the *Fan Component* section on Pages 4-5.

The unit can also be specified less the fan component for use as a gravity ventilator.



TYPE PSBH and PSBHx



TYPE PSBC

Dimensions

Dimension A is the O.D. of the square hood.

Dimension B is the overall height above the curb.

Dimension C is the I.D. of the curb cap flange.

Dimension D is the distance from the curb to the hood.

Dimension E is the damper net length and width, flanges add 1-11/16 inches on all sides.

Fan	Dimensions in Inches				
	A	B	C	D	E
24	57	33 3/4	38	20 3/4	28 3/8
30	67	38 1/2	44	20 3/4	34 3/8
36	78	41 3/4	50	20 3/4	40 3/8
42	88	43 7/8	56	20 3/4	46 3/8
48	98	51	62	23 5/8	52 3/8
54	109	55 5/8	68	23 5/8	58 3/8
60	109	55 5/8	77	23 5/8	64 3/8
72	127 7/8	54	89	33 5/8	80 3/4
84	139 1/2	62 3/4	101	33 5/8	92 3/4

Performance Ratings

Typical Specifications



American Coolair Corporation certifies that the Type PSB PRVs shown herein are licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

Hooded supply power roof ventilators shall be American Coolair Type PSBH, PSBHx, and/or PSBC, as manufactured by American Coolair Corporation, Jacksonville, Florida; specific models shall be as shown in the fan schedule. Fan component shall be of welded steel construction, PRV hood and base shall be of galvanized steel. (Insert additional specifications from below for specific style PRV.) PRVs shall be licensed to bear the AMCA Certified Ratings Seal for air performance and sound. (Specify for each PRV model in the schedule the required CFM and static pressure; motor enclosure, phase and volts; and accessories such as safety disconnect switch, bird screen, backdraft damper, prefabricated curb and special protective coating.)

ADDITIONAL SPECIFICATIONS STYLE H and HX: Die-formed steel blades shall be firmly attached to cast aluminum hub, which also serves as driven sheave. Fan hub shall rotate on fixed shaft using oversized sealed ball bearings. Belt load shall be applied to hub in the same plane as bearings, eliminating overhung load on bearings and increasing bearing life. Motor pulleys shall be variable pitch.

ADDITIONAL SPECIFICATIONS STYLE C: Fan blades shall be of high strength cast aluminum airfoil securely attached to a heavy cast aluminum hub. Blade pitch shall be adjustable. Ball bearings shall be of the heavy-duty pillow block type. Motor pulleys shall be variable pitch.

Item No.	Cubic Feet Per Minute (CFM) at Static Pressure ^{1,6}							Fan Model ²	Fan Size ³	Motor HP	Fan RPM	Sone Rating ⁴	Max BHP ^{5,6}	Approx. Ship Wt.
	0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"							
1	5,225	4,344	3,316	---	---	---	---	PSBH24H		1/3	723	15.9	0.41	330
2	5,919	5,218	4,266	3,390	---	---	---	PSBH24J		1/2	819	19.6	0.61	335
3	6,757	6,198	5,334	4,563	3,805	---	---	PSBH24K		3/4	935	25	0.91	350
4	7,487	7,007	6,270	5,533	4,828	4,157	---	PSBH24L*		1	1036	29	1.24	355
5	8,297	7,879	7,289	6,559	5,936	5,293	4,689	PSBH24M*		1 1/2	1148	35	1.68	375
6	6,088	5,279	3,985	---	---	---	---	PSBC24H	24	1/3	987	17.6	0.41	355
7	6,970	6,264	5,409	4,132	---	---	---	PSBC24J		1/2	1130	22	0.62	359
8	7,969	7,350	6,720	5,691	4,646	---	---	PSBC24K		3/4	1292	28	0.93	364
9	8,790	8,227	7,670	6,997	5,912	5,002	---	PSBC24L		1	1425	32	1.24	369
10	9,715	9,205	8,702	8,176	7,428	6,437	5,617	PSBC24M		1 1/2	1575	39	1.67	375
11	10,689	10,225	9,767	9,308	8,793	8,023	7,124	PSBC24N		2	1733	46	2.23	388
12	12,293	11,889	11,489	11,092	10,691	10,255	9,699	PSBC24P		3	1993	60	3.37	406
13	7,394	5,623	---	---	---	---	---	PSBH30H		1/3	529	13.8	0.39	420
14	8,428	6,983	5,211	---	---	---	---	PSBH30J		1/2	603	17.7	0.61	425
15	9,616	8,631	6,890	5,310	---	---	---	PSBH30K		3/4	688	22	0.91	445
16	10,706	9,919	8,265	6,954	5,462	---	---	PSBH30L		1	766	27	1.25	450
17	11,838	11,171	9,760	8,517	7,249	---	---	PSBH30M		1 1/2	847	32	1.69	480
18	12,984	12,400	11,404	9,962	8,919	7,727	---	PSBH30N		2	929	37	2.24	485
19	14,606	14,105	13,416	12,106	11,018	10,095	9,038	PSBH30P*	30	3	1045	47	3.17	515
20	10,823	9,540	8,272	---	---	---	---	PSBC30K		3/4	964	25	0.91	491
21	12,047	10,854	9,853	8,262	---	---	---	PSBC30L		1	1073	30	1.25	494
22	13,316	12,202	11,310	10,217	---	---	---	PSBC30M		1 1/2	1186	35	1.69	501
23	14,629	13,589	12,758	11,917	10,682	---	---	PSBC30N		2	1303	41	2.24	507
24	16,695	15,754	14,984	14,283	13,522	12,464	11,132	PSBC30P		3	1487	52	3.34	531
25	19,884	19,067	18,369	17,748	17,161	16,556	15,860	PSBC30Q		5	1771	73	5.64	544
26	9,167	7,050	---	---	---	---	---	PSBH36H		1/3	445	13.6	0.41	487
27	10,671	9,080	---	---	---	---	---	PSBH36J		1/2	518	18.1	0.61	493
28	11,825	10,483	8,351	---	---	---	---	PSBH36K		3/4	574	22	0.91	498
29	12,958	11,787	9,960	8,120	---	---	---	PSBH36L		1	629	26	1.24	520
30	14,297	13,272	11,813	9,972	8,307	---	---	PSBH36M		1 1/2	694	30	1.67	550
31	15,801	14,897	13,721	12,099	10,552	8,952	---	PSBH36N		2	767	35	2.25	555
32	18,026	17,254	16,330	15,142	13,656	12,287	11,033	PSBH36P		3	875	44	3.35	585
33	21,857	21,236	20,544	19,750	18,805	17,670	16,411	PSBH36Q*	36	5	1061	65	5.62	602
34	13,354	11,760	9,939	---	---	---	---	PSBC36L		1	858	28	1.23	658
35	14,770	13,335	11,801	9,731	---	---	---	PSBC36M		1 1/2	949	33	1.68	664
36	16,218	14,914	13,560	11,980	9,605	---	---	PSBC36N		2	1042	38	2.24	670
37	18,568	17,432	16,273	15,046	13,608	11,635	---	PSBC36P		3	1193	48	3.35	702
38	22,132	21,182	20,219	19,240	18,217	17,091	15,774	PSBC36Q		5	1422	65	5.61	714
39	25,432	24,606	23,772	22,930	22,075	21,191	20,249	PSBC36R		7 1/2	1634	86	8.49	771
40	27,876	27,123	26,364	25,599	24,827	24,042	23,232	PSBC36S		10	1791	103	11.16	785

(chart continues next page)

Type PSB Performance Ratings (cont'd.)

Item No.	Cubic Feet Per Minute (CFM) at Static Pressure ^{1,6}							Fan Model ²	Fan Size ³	Motor HP	Fan RPM	Sone Rating ⁴	Max BHP ^{5,6}	Approx. Ship Wt.
	0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"							
41	13,153	10,469	---	---	---	---	---	PSBH42J		1/2	385	14.4	0.61	641
42	14,690	12,485	---	---	---	---	---	PSBH42K		3/4	430	17.6	0.91	646
43	16,432	14,567	11,622	---	---	---	---	PSBH42L		1	481	21	1.24	668
44	18,038	16,393	13,999	11,212	---	---	---	PSBH42M		1 1/2	528	25	1.68	697
45	19,746	18,278	16,352	13,689	11,071	---	---	PSBH42N		2	578	30	2.24	700
46	22,684	21,440	19,954	17,996	15,639	13,496	---	PSBH42P		3	664	37	3.36	730
47	27,091	26,073	24,936	23,623	22,020	20,014	18,172	PSBH42Q	42	5	793	51	5.62	747
48	18,821	16,743	14,046	---	---	---	---	PSBC42M		1 1/2	789	33	1.68	822
49	20,753	18,946	16,523	13,784	---	---	---	PSBC42N		2	870	39	2.25	808
50	23,687	22,164	20,180	18,036	15,397	---	---	PSBC42P		3	993	49	3.34	839
51	28,052	26,809	25,330	23,534	21,726	19,839	16,582	PSBC42Q		5	1176	66	5.60	853
52	32,370	31,312	30,123	28,733	27,148	25,567	24,022	PSBC42R		7 1/2	1357	85	8.53	910
53	35,399	34,441	33,388	32,202	30,842	29,368	27,932	PSBC42S		10	1484	100	11.15	921
54	18,030	12,716	---	---	---	---	---	PSBH48K		3/4	348	17.8	0.91	840
55	20,051	15,199	---	---	---	---	---	PSBH48L		1	387	22	1.25	845
56	22,071	17,730	13,124	---	---	---	---	PSBH48M		1 1/2	426	26	1.69	902
57	24,299	20,788	16,383	---	---	---	---	PSBH48N		2	469	30	2.24	905
58	27,667	25,042	20,658	17,002	---	---	---	PSBH48P		3	534	38	3.32	950
59	32,951	30,965	27,441	24,166	21,126	18,012	---	PSBH48Q		5	636	51	5.61	967
60	37,200	35,511	33,093	29,378	26,861	24,151	21,274	PSBHX48R*	48	7 1/2	718	66	8.07	1149
61	41,863	40,404	38,562	35,698	32,554	30,367	28,063	PSBHX48S*		10	808	66	11.47	1160
62	23,180	20,538	17,247	---	---	---	---	PSBC48N		2	707	39	2.26	1145
63	26,360	24,010	21,674	17,115	---	---	---	PSBC48P		3	804	49	3.33	1148
64	31,442	29,444	27,559	25,489	21,942	---	---	PSBC48Q		5	959	69	5.65	1160
65	35,999	34,240	32,569	30,921	29,038	26,139	---	PSBC48R		7 1/2	1098	91	8.47	1215
66	39,606	37,999	36,461	34,973	33,437	31,622	28,939	PSBC48S		10	1208	111	11.28	1265
67	24,391	21,525	---	---	---	---	---	PSBH54M		1 1/2	416	26	1.66	1140
68	26,560	23,971	20,847	---	---	---	---	PSBH54N		2	453	30	2.23	1146
69	30,019	27,778	25,219	21,679	---	---	---	PSBH54P		3	512	38	3.32	1171
70	36,147	34,176	32,040	29,582	26,230	21,417	---	PSBHX54Q		5	541	56	5.56	1296
71	41,893	40,208	38,426	36,517	34,355	31,633	28,008	PSBHX54R		7 1/2	627	71	8.48	1348
72	45,568	44,025	42,409	40,706	38,870	36,770	34,163	PSBHX54S*	54	10	682	82	10.56	1357
73	26,327	22,299	---	---	---	---	---	PSBC54N		2	592	37	2.24	1235
74	30,063	26,917	22,551	---	---	---	---	PSBC54P		3	676	45	3.34	1260
75	35,399	32,926	29,228	25,776	21,529	---	---	PSBC54Q		5	796	58	5.45	1290
76	40,958	38,850	36,195	32,812	29,872	26,459	---	PSBC54R		7 1/2	921	78	8.44	1350
77	45,050	43,131	41,010	37,924	35,092	32,409	29,279	PSBC54S		10	1013	95	11.23	1380

(chart continues next page)

Type PSB Performance Ratings (cont'd.)

Item No.	Cubic Feet Per Minute (CFM) at Static Pressure ^{1,6}							Fan Model ²	Fan Size ³	Motor HP	Fan RPM	Sone Rating ⁴	Max BHP ^{5,6}	Approx. Ship Wt.
	0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"							
78	27,512	23,427	---	---	---	---	---	PSBHX60M		1 1/2	328	24	1.65	1341
79	30,112	26,499	22,087	---	---	---	---	PSBHX60N		2	359	29	2.25	1347
80	34,054	30,988	27,215	22,259	---	---	---	PSBHX60P		3	406	37	3.32	1372
81	40,093	37,591	34,546	31,311	27,203	21,722	---	PSBHX60Q		5	478	50	5.61	1384
82	46,132	44,007	41,544	38,746	35,948	32,694	27,601	PSBHX60R		7 1/2	550	63	8.39	1436
83	51,249	49,360	47,245	44,840	42,283	39,774	36,932	PSBHX60S	60	10	611	76	11.15	1449
84	29,633	24,807	---	---	---	---	---	PSBC60N		2	555	40	2.23	1360
85	33,851	29,693	25,082	---	---	---	---	PSBC60P		3	634	49	3.33	1385
86	39,831	36,412	32,626	28,475	24,321	---	---	PSBC60Q		5	746	64	5.42	1415
87	46,132	43,267	39,992	36,751	33,072	29,501	24,220	PSBC60R		7 1/2	864	85	8.42	1475
88	50,830	48,275	45,354	42,385	39,384	35,939	32,727	PSBC60S		10	952	104	11.27	1510
89	40,092	34,163	27,135	---	---	---	---	PSBC72N		2	308	26	2.18	1732
90	46,080	41,207	35,450	24,115	---	---	---	PSBC72P		3	354	33	3.32	1754
91	54,671	50,648	45,845	41,225	33,973	---	---	PSBC72Q		5	420	44	5.52	1769
92	62,611	59,087	55,343	50,869	46,951	41,423	---	PSBC72R	72	7.5	481	56	8.32	1826
93	69,119	65,910	62,707	58,781	54,919	51,359	46,405	PSBC72S*		10	531	67	11.18	1857
94	79,142	76,321	73,583	70,611	67,060	63,641	60,576	PSBC72T*		15	608	87	16.80	1928
95	87,083	84,511	82,018	79,471	76,565	73,267	70,178	PSBC72U*		20	669	105	22.38	1962
96	49,066	39,776	---	---	---	---	---	PSBC84N		2	239	22	2.17	2254
97	56,251	48,472	39,689	---	---	---	---	PSBC84P		3	274	28	3.29	2277
98	66,722	60,560	53,058	45,028	---	---	---	PSBC84Q		5	325	38	5.50	2302
99	76,576	71,270	64,949	58,776	51,127	---	---	PSBC84R	84	7.5	373	48	8.30	2352
100	84,377	79,562	74,283	68,166	62,802	54,650	---	PSBC84S		10	411	58	11.13	2390
101	96,695	92,475	88,221	83,069	77,830	73,204	67,602	PSBC84T		15	471	74	16.74	2463
102	106,549	102,706	98,920	94,708	89,729	85,154	80,971	PSBC84U*		20	519	89	22.37	2497

- 1 — Performance certified is for Installation Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories).
- 2 — The first four or five letters of the model number identify **fan type, drive configuration** and **style**. The next two numbers indicate **fan size**, the next letter identifies motor **horsepower**. Example: Model PSBH24H is Type 'PS,' belt drive, Style 'H,' 24" size, 1/3 HP.
- 3 — On Style 'H' & 'HX,' die-formed steel blades are standard. On Style 'C,' an adjustable pitch propeller with cast aluminum airfoil blades is standard.
- 4 — The sound ratings shown are loudness values in hemispherical sones at a distance of 1.5 m (5 ft) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for: Installation Type A: free outlet hemispherical sone levels. The sound ratings shown are at 0" static pressure.
- 5 — Maximum brake horsepower (BHP) within the catalog performance range. Power ratings (BHP) do not include transmission losses. Bearing losses are included. BHP at most static pressures listed is less than that shown, in some cases substantially less. For specific BHP values at individual static pressure points contact your American Coolair representative. Because of the cooling the motor receives from the moving air stream, motor loading beyond the nominal nameplate rating on these American Coolair fans does not overheat the motor and is within NEMA recommended limits and motor service factor. It is not detrimental to the motor and is economically desirable.
- 6 — To convert air performance (CFM and SP) and power (BHP) to metric units, multiply CFM x .000472 to obtain cubic meters per second (m³/s). Multiply SP x 248.36 to obtain pascals (Pa). Multiply BHP x .7457 to obtain kilowatts (kW).

Example: 3904 CFM x .000472 = 1.8427 m³/s
0.125 SP x 248.36 = 31.05 Pa
0.886 BHP x .7457 = 0.661 kW

*These models have fixed pitch motor pulleys.

Type PSDC

**SUPPLY — DIRECT DRIVE — 3,200 to 48,200 CFM
0" to 3/4" STATIC PRESSURE**



Application and Features

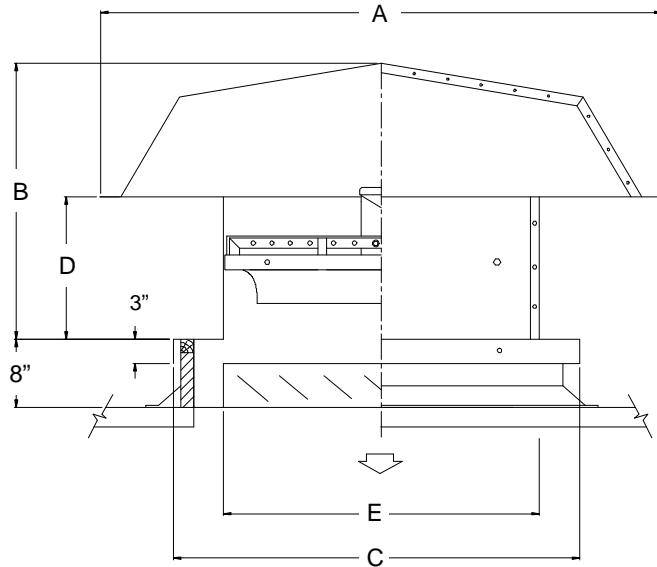
American Coolair's Type PSDC unit is identical to the Type PEDC unit, but with the fan component inverted to produce air supply rather than exhaust.

A PSDC unit can be converted to PEDC, and vice versa, after the unit has been installed. Simply remove the fan component, turn it over and re-install it in the PRV base.

The combination of PEs and PSs allow a complete ventilation system with a uniform appearance on the building roof.

Type PSD PRVs incorporate Style 'C' fan components. This fan style is described in the *Fan Component* section on Pages 4-5.

The unit can also be specified less the fan component for use as a gravity ventilator.



TYPE PSDC

Dimensions

Dimension A is the O.D. of the square hood.

Dimension B is the overall height above the curb.

Dimension C is the I.D. of the curb cap flange.

Dimension D is the distance from the curb to the hood.

Dimension E is the damper net length and width, flanges add 1-11/16 inches on all sides.

Fan Size	Dimensions in Inches				
	A	B	C	D	E
24	57	34 1/2	38	20 3/4	28 3/8
30	67	38 1/4	44	20 3/4	34 3/8
36	78	40	50	20 3/4	40 3/8
42	88	41	56	20 3/4	46 3/8
48	98	49 3/8	62	23 5/8	52 3/8
54	109	55 3/8	68	23 5/8	58 3/8
60	109	55 3/8	77	23 5/8	64 3/8

Performance Ratings

Typical Specifications



American Coolair Corporation certifies that the Type PSDC PRVs shown herein are licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

Hooded supply power roof ventilators shall be American Coolair Type PSDC, as manufactured by American Coolair Corporation, Jacksonville, Florida; specific models shall be as shown in the fan schedule. Fan component shall be of welded steel construction, PRV hood and base shall be of galvanized steel. Fan blades shall be of aluminum airfoil securely attached to a heavy cast aluminum hub. Blade pitch shall be adjustable. Entire blade assembly shall be mounted directly to the motor shaft. PRVs shall be licensed to bear the AMCA Certified Ratings Seal for air performance and sound. (Specify for each PRV model in the schedule the required CFM and static pressure; motor enclosure, phase and volts; and accessories such as safety disconnect switch, bird screen, backdraft damper, prefabricated curb and special protective coating.)

Item No.	Cubic Feet Per Minute (CFM) at Static Pressure ^{1,6}							Fan Model ²	Fan Size	Motor HP	Fan RPM	Sone Rating ³	Max BHP ^{4,6}	Blade No.	Desc. ⁵ Pitch	Approx. Ship Wt.
	0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"									
1	5,112	4,202	2,957	---	---	---	---	PSDC24G8	1/4	870	14.5	0.29	3	27.5°	375	
2	6,220	5,573	4,736	3,168	---	---	---	PSDC24J8	1/2	870	17.8	0.58	6	30.5°	385	
3	5,132	4,632	3,886	2,892	---	---	---	PSDC24H11	1/3	1160	19.7	0.37	3	15.5°	370	
4	6,313	5,688	5,000	4,158	---	---	---	PSDC24J11	1/2	1160	22	0.57	3	23°	380	
5	6,753	6,278	5,810	5,229	4,403	3,391	---	PSDC24K11	24	3/4	1160	27	0.86	6	22.5°	385
6	7,634	7,215	6,711	6,133	5,345	4,094	---	PSDC24L11		1	1160	28	1.13	6	27°	396
7	7,373	7,034	6,681	6,180	5,694	5,153	4,469	PSDC24L17	1	1750	37	1.13	3	14°	385	
8	8,821	8,433	7,998	7,563	7,120	6,637	6,074	PSDC24M17	1 1/2	1750	43	1.70	3	19.5°	390	
9	10,148	9,724	9,280	8,825	8,360	7,877	7,346	PSDC24N17	2	1750	48	2.26	3	26.5°	396	
10	11,056	10,781	10,481	10,163	9,841	9,509	9,155	PSDC24P17	3	1750	53	3.44	6	25°	426	
11	8,874	7,597	6,046	---	---	---	---	PSDC30J8	1/2	870	20	0.56	3	22°	525	
12	9,692	8,953	8,076	6,858	---	---	---	PSDC30K8	3/4	870	22	0.85	6	19°	515	
13	11,067	10,268	9,401	8,281	6,231	---	---	PSDC30L8	1	870	23	1.14	6	23.5°	545	
14	9,573	8,727	7,736	6,619	---	---	---	PSDC30K11	3/4	1160	29	0.83	3	14.5°	500	
15	11,195	10,243	9,278	8,206	6,554	---	---	PSDC30L11	30	1	1160	32	1.14	3	19.5°	515
16	12,914	11,918	10,882	9,790	8,228	---	---	PSDC30M11		1 1/2	1160	34	1.70	3	26°	545
17	13,781	13,208	12,633	12,034	11,354	10,500	9,342	PSDC30N11	2	1160	37	2.32	6	21°	560	
18	13,086	12,493	11,879	11,270	10,638	9,969	9,196	PSDC30N17	2	1750	57	2.25	3	12°	510	
19	15,680	14,994	14,450	13,864	13,214	12,522	11,798	PSDC30P17	3	1750	60	3.39	3	17°	535	
20	19,297	18,651	17,970	17,283	16,614	15,952	15,261	PSDC30Q17	5	1750	69	5.68	3	25.5°	550	
21	13,365	11,880	10,119	---	---	---	---	PSDC36L6	1	680	25	1.13	6	23.5°	625	
22	15,379	13,503	11,220	---	---	---	---	PSDC36M6	1 1/2	680	28	1.67	6	30°	670	
23	11,643	9,977	8,446	---	---	---	---	PSDC36K8	3/4	870	27	0.86	3	15.5°	585	
24	13,201	11,467	9,413	6,758	---	---	---	PSDC36L8	1	870	30	1.15	3	20°	615	
25	15,155	13,315	11,310	---	---	---	---	PSDC36M8	1 1/2	870	33	1.72	3	28°	620	
26	16,643	15,199	13,377	10,444	---	---	---	PSDC36N8	2	870	38	2.29	4	28.5°	670	
27	14,124	12,985	11,869	10,614	9,070	---	---	PSDC36M11	36	1 1/2	1160	41	1.70	3	12.5°	615
28	16,390	15,169	13,747	12,477	11,187	9,063	---	PSDC36N11		2	1160	48	2.30	3	17.5°	620
29	18,973	17,724	16,393	14,798	13,192	10,655	---	PSDC36P11	3	1160	55	3.43	3	24°	670	
30	22,798	21,945	21,082	20,184	19,236	18,219	17,024	PSDC36Q11	5	1160	66	5.64	6	23.5°	690	
31	20,184	19,472	18,772	18,075	17,373	16,656	15,914	PSDC36Q17	5	1750	84	5.80	3	11°	620	
32	24,228	23,477	22,737	22,004	21,275	20,547	19,811	PSDC36R17	7 1/2	1750	94	8.52	3	16.5°	670	
33	27,423	26,593	25,743	24,889	24,041	23,198	22,359	PSDC36S17	10	1750	103	11.19	3	20.5°	690	
34	16,467	13,643	10,366	---	---	---	---	PSDC42L6	1	680	29	1.15	3	18.5°	740	
35	18,342	15,822	13,467	10,562	---	---	---	PSDC42M6	1 1/2	680	31	1.69	4	21.5°	790	
36	19,855	18,245	16,644	14,747	---	---	---	PSDC42N6	2	680	39	2.28	6	21.5°	810	
37	14,893	13,065	10,848	8,246	---	---	---	PSDC42L8	42	1	870	36	1.14	3	8°	730
38	17,989	15,882	13,794	11,259	---	---	---	PSDC42M8		1 1/2	870	40	1.69	3	13°	740
39	20,503	18,398	16,118	13,574	---	---	---	PSDC42N8	2	870	44	2.27	3	17.5°	790	
40	23,909	21,701	19,076	16,189	13,297	---	---	PSDC42P8	3	870	55	3.43	3	25°	810	

(chart continues next page)

Type PSDC Performance Ratings (cont'd.)

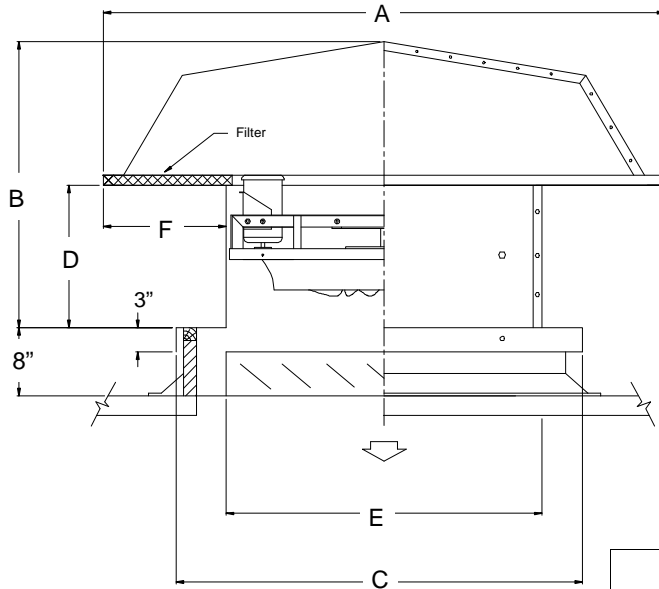
Item No.	Cubic Feet Per Minute (CFM) at Static Pressure ^{1,6}							Fan Model ²	Fan Size	Motor HP	Fan RPM	Sone Rating ³	Max BHP ^{4,6}	Blade Desc. ⁵		Approx. Ship Wt.
	0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"							No.	Pitch	
41	18,325	16,918	15,409	13,872	12,224	9,943	---	PSDC42N11		2	1160	57	2.29	3	6°	740
42	22,207	20,745	19,354	17,907	16,238	14,120	11,737	PSDC42P11		3	1160	66	3.43	3	11°	790
43	27,700	26,120	24,490	22,793	20,998	19,081	16,961	PSDC42Q11	42	5	1160	76	5.53	3	18°	810
44	28,796	27,878	27,011	26,054	25,059	24,018	22,939	PSDC42R17		7 1/2	1750	129	8.57	3	7°	790
45	32,874	31,921	31,002	30,103	29,207	28,297	27,352	PSDC42S17		10	1750	143	11.35	3	10.5°	810
46	16,711	13,732	10,579	---	---	---	---	PSDC48L6		1	680	30	1.13	3	8.5°	970
47	19,378	17,161	14,580	11,403	---	---	---	PSDC48M6		1 1/2	680	37	1.70	4	11°	1010
48	21,466	18,964	16,588	13,701	---	---	---	PSDC48N6		2	680	36	2.24	4	15°	1035
49	21,001	18,732	16,321	13,920	10,668	---	---	PSDC48N8		2	870	46	2.26	3	8°	1010
50	24,879	22,601	20,251	17,673	14,602	---	---	PSDC48P8		3	870	51	3.40	3	13.5°	1030
51	29,047	27,086	24,925	22,676	20,478	18,053	---	PSDC48Q8	48	5	870	60	5.48	4	17.5°	1075
52	33,860	32,042	30,403	28,891	27,338	25,573	23,501	PSDC48R8		7 1/2	870	76	8.63	6	20.5°	1105
53	28,507	26,827	25,096	23,261	21,489	19,718	17,641	PSDC48Q11		5	1160	80	5.59	3	8.5°	1030
54	34,271	32,471	30,693	28,903	27,101	25,220	23,114	PSDC48R11		7 1/2	1160	90	8.63	3	14.5°	1065
55	37,592	35,903	34,146	32,168	29,752	27,200	24,872	PSDC48S11		10	1160	96	11.33	3	19°	1105
56	23,085	19,927	---	---	---	---	---	PSDC54M6		1 1/2	680	39	1.67	3	8°	1150
57	26,188	22,366	19,358	---	---	---	---	PSDC54N6		2	680	43	2.27	3	12°	1170
58	28,938	26,560	23,963	20,863	---	---	---	PSDC54P8		3	870	61	3.34	3	7.5°	1165
59	35,293	32,929	29,145	26,733	24,200	---	---	PSDC54Q8	54	5	870	73	5.47	3	14°	1215
60	41,389	37,842	33,814	30,995	28,199	23,587	---	PSDC54R8		7 1/2	870	88	8.58	3	22°	1245
61	39,381	37,351	35,627	33,825	31,763	29,394	26,938	PSDC54R11		7 1/2	1160	105	8.28	3	8°	1205
62	44,674	42,600	40,142	37,980	36,225	34,547	32,637	PSDC54S11		10	1160	117	11.29	3	12°	1235
63	27,520	24,515	20,042	---	---	---	---	PSDC60N6		2	680	49	2.29	3	6°	1350
64	37,691	35,181	32,651	29,313	25,741	---	---	PSDC60Q8		5	870	80	5.72	3	8°	1390
65	44,218	41,704	39,122	35,682	30,970	26,301	---	PSDC60R8	60	7 1/2	870	90	8.53	3	14°	1440
66	46,947	45,289	43,598	41,618	38,747	35,916	33,834	PSDC60S11		10	1160	137	11.37	3	6°	1440

- 1 — Performance certified is for Installation Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories).
- 2 — The first four letters of the model number identify **fan type, drive configuration** and **style**. The next two numbers indicate **fan size**, the next letter identifies motor **horsepower**; the last number (or numbers) indicates **RPM** in hundreds. Example: Model PSDC24G8 is Type "PS", direct drive, Style "C", 24" size, 1/4 H.P., 870 RPM.
- 3 — The sound ratings shown are loudness values in hemispherical sones at a distance of 1.5 m (5 ft) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for: Installation Type A: free outlet hemispherical sone levels. The sound ratings shown are at 0" static pressure.
- 4 — Maximum brake horsepower (BHP) within the catalog performance range. BHP at most static pressures listed is less than that shown, in some cases substantially less. For specific BHP values at individual static pressure points contact your American Coolair representative. Because of the cooling the motor receives from the moving air stream, motor loading beyond the nominal nameplate ratings on these American Coolair fans does not overheat the motor and is within NEMA recommended limits and motor service factor. It is not detrimental to the motor and is economically desirable.
- 5 — An adjustable pitch propeller with cast aluminum airfoil blades is standard.
- 6 — To convert air performance (CFM and SP) and power (BHP) to metric units, multiply CFM x .000472 to obtain cubic meters per second (m³/s). Multiply SP x 248.36 to obtain pascals (Pa). Multiply BHP x .7457 to obtain kilowatts (kW).

Example: 3904 CFM x .000472 = 1.8427 m³/s
0.125 SP x 248.36 = 31.05 Pa
0.886 BHP x .7457 = 0.661 kW

Type PSB-F

FILTERED SUPPLY — BELT DRIVE — 3,400 to 49,700 CFM — 0" to 3/4" STATIC PRESSURE



TYPE PSBH-F and PSBH-X-F

Dimensions

- Dimension A is the O.D. of the square hood.
- Dimension B is the overall height above the curb.
- Dimension C is the I.D. of the curb cap flange.
- Dimension D is the distance from the curb to the hood.
- Dimension E is the damper net length and width, flanges add 1-11/16 inches on all sides.
- Dimension F is the distance of the filter overhang.

Application and Features

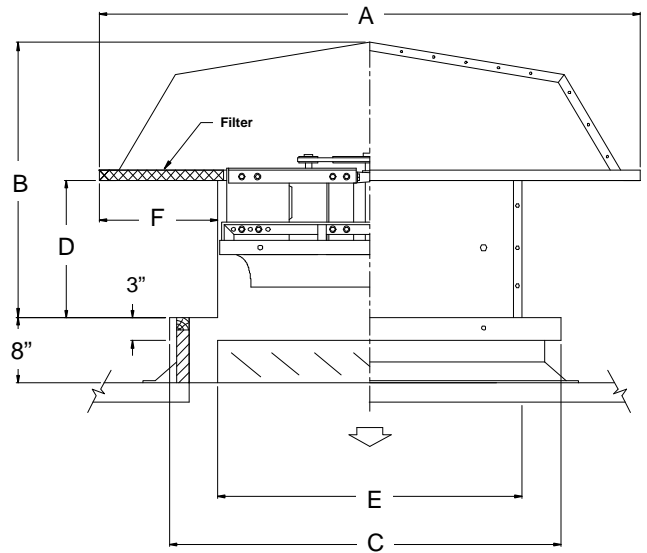
Type PSB-F PRVs provide filtered make-up air from an economical roof mounted unit.

The Type PSB-F unit is similar to the Type PSB, except that the PSB-F unit is furnished with two-inch thick, permanent, cleanable filters.

The filters are easily mounted into the filter rack when the unit is installed at the job site.

American Coolair's performance data provides net CFM ratings with hood and filters in place. We have eliminated the need to estimate the effect of filters on the PRV performance!

Type PSB-F PRVs incorporate Style 'H' fan components for models in the 24 inch to 54 inch size, Style 'HX' fan components for models in the 48 inch to 60 inch size and Style 'C' fan components for models in the 24 inch to 72 inch size. These fan styles are described in the *Fan Component* section on Pages 4-5.



TYPE PSBC-F

Item No. ¹	Fan Size	Dimensions in Inches						Filter Area, ft ²
		A	B	C	D	E	F	
1-3, 6-8	24	57	36 1/4	38	20 1/4	28 3/8	12 1/2	13.2
4, 5, 9-12		67	40				17 1/2	21.3
13-15, 20, 21	30	67	40	44	20 1/4	34 3/8	14 1/2	18.4
16-19, 22-24		78	41 3/4				20	29.0
25-27, 33, 34	36	78	41 3/4	50	20 1/4	40 3/8	17	25.6
28-32, 35-37		88	42 3/4				22	36.7
38-40, 45	42	88	42 3/4	56	20 1/4	46 3/8	19	32.8
41-44, 46-48		98	48 1/4				24	45.3
49-52, 56	48	98	51 1/8	62	23 1/8	52 3/8	21	40.9
53-55, 57-59		109	57 1/8				26 1/2	56.3
60-62, 66, 67	54	109	57 1/8	68	23 1/8	58 3/8	23 1/2	51.3
63-65, 68-70		127 7/8	45 3/4				32 7/8	81.8
71-74, 77-79	60	127 7/8	57 3/8	77	23 1/8	64 3/8	29 7/8	76.4
75, 76, 80, 81		139 1/2	45 3/4				35 3/4	97.3
82	72	127 7/8	56 3/8	89	33 1/2	80 3/4	23 3/4	64.1
83, 84		139 1/2	65 1/4				29 1/2	84.9

Performance Typical Specifications Ratings

American Coolair Corporation certifies that the performance data for the type PSB-F PRV models shown below are based on tests conducted in an accredited laboratory in accordance with ANSI Standards 210-07 and 300-08.

Hooded supply power roof ventilators shall be American Coolair Type PSBH-F and/or PSBC-F, as manufactured by American Coolair Corporation, Jacksonville, Florida; specific models shall be as shown in the fan schedule. Fan component shall be of welded steel construction, PRV hood and base shall be of galvanized steel. PRVs shall be furnished with 2" thick, permanent, cleanable filters. (Insert additional specifications from below for specific style PRV.) Performance ratings shall be from tests of complete PRV and so certified by the PRV manufacturer. (Specify for each PRV model in the schedule the required CFM and static pressure; motor enclosure, phase and volts; and accessories such as safety disconnect switch, bird screen, backdraft damper, prefabricated curb and special protective coating.)
ADDITIONAL SPECIFICATIONS STYLE H and HX: Die-formed steel blades shall be firmly attached to cast aluminum hub, which also serves as driven sheave. Fan hub shall rotate on fixed shaft using oversized sealed ball bearings. Belt load shall be applied to hub in the same plane as bearings, eliminating overhung load on bearings and increasing bearing life. Motor pulleys shall be variable pitch.
ADDITIONAL SPECIFICATIONS STYLE C: Fan blades shall be of high strength cast aluminum airfoil securely attached to a heavy cast aluminum hub. Blade pitch shall be adjustable. Ball bearings shall be of the heavy-duty pillow block type. Motor pulleys shall be variable pitch.

Item No.	Cubic Feet Per Minute (CFM) at Static Pressure ^{1,6}							Fan Model ²	Fan Size ³	Motor HP	Fan RPM	Sone Rating ⁴	Max BHP ^{5,6}	Approx. Ship Wt.
	0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"							
1	4,830	3,948	3,094	---	---	---	---	PSBH24HF		1/3	723	16.3	0.45	355
2	5,472	4,683	3,935	3,186	---	---	---	PSBH24JF		1/2	819	19.3	0.62	360
3	6,247	5,559	4,896	4,226	3,575	---	---	PSBH24KF		3/4	935	24	0.91	375
4	7,274	6,738	6,003	5,353	4,686	4,055	---	PSBH24LF*		1	1036	29	1.25	390
5	8,061	7,597	6,957	6,325	5,745	5,140	4,575	PSBH24MF*		1 1/2	1148	31	1.44	410
6	5,473	4,678	3,564	---	---	---	---	PSBC24HF	24	1/3	987	17.6	0.41	455
7	6,266	5,633	4,648	3,729	---	---	---	PSBC24JF		1/2	1130	22	0.62	458
8	7,164	6,635	5,858	5,006	4,201	---	---	PSBC24KF		3/4	1292	28	0.93	463
9	8,401	7,890	7,351	6,552	5,626	4,799	---	PSBC24LF		1	1425	32	1.24	468
10	9,285	8,823	8,352	7,790	6,927	6,133	5,385	PSBC24MF		1 1/2	1575	39	1.67	474
11	10,216	9,796	9,375	8,919	8,320	7,496	6,785	PSBC24NF		2	1733	46	2.23	487
12	11,749	11,383	11,019	10,647	10,243	9,747	9,065	PSBC24PF		3	1993	60	3.37	505
13	6,715	5,047	---	---	---	---	---	PSBH30HF		1/3	529	14.2	0.44	455
14	7,654	6,151	4,712	---	---	---	---	PSBH30JF		1/2	603	19.9	0.70	460
15	8,733	7,352	6,169	4,791	---	---	---	PSBH30KF		3/4	688	23	0.96	480
16	10,345	9,272	7,883	6,634	5,202	---	---	PSBH30LF		1	766	27	1.31	495
17	11,439	10,572	9,173	8,130	6,939	---	---	PSBH30MF		1 1/2	847	32	1.72	525
18	12,546	11,812	10,496	9,507	8,501	7,408	---	PSBH30NF	30	2	929	38	2.24	530
19	14,113	13,499	12,467	11,357	10,526	9,622	8,647	PSBH30PF*		3	1045	49	3.38	560
20	9,378	8,404	6,976	5,250	---	---	---	PSBC30KF		3/4	964	25	0.91	642
21	10,439	9,604	8,403	6,987	5,435	---	---	PSBC30LF		1	1073	30	1.25	645
22	12,389	11,570	10,719	9,457	7,952	6,259	---	PSBC30MF		1 1/2	1186	35	1.69	652
23	13,611	12,860	12,123	11,175	9,894	8,463	6,924	PSBC30NF		2	1303	41	2.24	658
24	15,533	14,867	14,235	13,550	12,659	11,531	10,349	PSBC30PF		3	1487	52	3.34	682
25	8,434	6,341	---	---	---	---	---	PSBH36HF		1/3	445	12.7	0.42	547
26	9,818	8,058	6,163	---	---	---	---	PSBH36JF		1/2	518	15.9	0.59	553
27	10,879	9,349	7,653	5,699	---	---	---	PSBH36KF		3/4	574	20	0.90	553
28	12,446	11,182	9,395	7,755	---	---	---	PSBH36LF		1	629	24	1.27	595
29	13,733	12,630	11,095	9,538	7,876	---	---	PSBH36MF		1 1/2	694	28	1.73	625
30	15,177	14,210	12,935	11,419	10,113	8,493	---	PSBH36NF		2	767	32	2.27	630
31	17,314	16,491	15,482	14,233	12,908	11,770	10,503	PSBH36PF	36	3	875	43	3.45	660
32	20,995	20,335	19,588	18,718	17,709	16,598	15,533	PSBH36QF*		5	1061	50	5.54	687
33	11,843	10,469	8,640	6,005	---	---	---	PSBC36LF		1	858	28	1.23	802
34	13,099	11,878	10,398	8,236	---	---	---	PSBC36MF		1 1/2	949	33	1.68	808
35	15,227	14,047	12,764	11,166	8,765	---	---	PSBC36NF		2	1042	38	2.24	814
36	17,433	16,408	15,336	14,138	12,670	10,629	---	PSBC36PF		3	1193	48	3.35	846
37	20,780	19,923	19,048	18,130	17,133	16,000	14,636	PSBC36QF		5	1422	65	5.61	858
38	11,909	9,146	---	---	---	---	---	PSBH42JF		1/2	385	14.1	0.64	706
39	13,301	10,895	8,059	---	---	---	---	PSBH42KF		3/4	430	17.9	0.94	711
40	14,879	12,831	10,422	---	---	---	---	PSBH42LF		1	481	21	1.29	733
41	17,114	15,394	12,955	10,522	---	---	---	PSBH42MF	42	1 1/2	528	26	1.76	777
42	18,735	17,206	15,133	12,896	10,293	---	---	PSBH42NF		2	578	30	2.38	785
43	21,522	20,231	18,649	16,624	14,741	12,589	---	PSBH42PF		3	664	37	3.35	815
44	25,703	24,651	23,456	22,046	20,345	18,674	17,148	PSBH42QF		5	793	49	5.50	842

(chart continues next page)

Type PSB-F Performance Ratings (cont'd.)

Item No.	Cubic Feet Per Minute (CFM) at Static Pressure ^{1,6}							Fan Model ²	Fan Size ³	Motor HP	Fan RPM	Sone Rating ⁴	Max BHP ^{5,6}	Approx. Ship Wt.
	0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"							
45	16,442	14,432	11,922	---	---	---	---	PSBC42MF		1 1/2	789	33	1.68	997
46	19,343	17,381	15,305	12,015	---	---	---	PSBC42NF	42	2	870	39	2.25	983
47	22,078	20,399	18,574	16,659	13,253	---	---	PSBC42PF		3	993	49	3.34	1014
48	26,146	24,772	23,224	21,704	20,107	17,949	14,311	PSBC42QF		5	1176	66	5.60	1028
49	15,212	10,937	---	---	---	---	---	PSBH48KF		3/4	348	17.5	0.92	965
50	16,917	13,145	9,183	---	---	---	---	PSBH48LF		1	387	21	1.25	920
51	18,622	15,225	11,664	---	---	---	---	PSBH48MF		1 1/2	426	26	1.77	977
52	20,501	17,380	14,144	10,898	---	---	---	PSBH48NF		2	469	29	2.24	980
53	25,541	21,956	19,084	15,793	---	---	---	PSBH48PF		3	534	37	3.35	1040
54	30,419	27,478	24,701	22,299	19,470	16,945	---	PSBH48QF	48	5	636	51	5.52	1230
55	34,760	33,585	32,380	31,055	29,344	26,824	24,553	PSBH48RF*		7 1/2	760	74	8.48	1350
56	20,440	18,112	---	---	---	---	---	PSBC48NF		2	707	39	2.27	1223
57	24,492	22,510	19,913	---	---	---	---	PSBC48PF		3	804	49	3.34	1228
58	28,635	26,952	25,118	22,405	---	---	---	PSBC48QF		5	940	66	5.33	1342
59	32,899	31,435	29,932	28,166	25,620	21,751	17,688	PSBC48RF		7 1/2	1080	85	8.10	1398
60	22,208	19,491	14,166	---	---	---	---	PSBH54MF		1 1/2	416	25	1.69	1370
61	24,184	21,738	17,987	---	---	---	---	PSBH54NF		2	453	30	2.28	1376
62	27,333	25,207	22,606	17,645	---	---	---	PSBH54PF		3	512	32	3.37	1401
63	34,916	33,025	30,947	28,426	25,019	---	---	PSBH54QF		5	546	57	5.56	1526
64	40,160	38,531	36,799	34,889	32,615	29,745	---	PSBH54RF		7 1/2	628	71	8.38	1578
65	43,741	42,252	40,689	39,014	37,141	34,914	32,194	PSBH54SF*	54	10	691	85	10.85	1587
66	23,152	19,451	---	---	---	---	---	PSBC54NF			2	592	37	2.21
67	26,437	23,152	19,809	---	---	---	---	PSBC54PF		3	676	45	3.29	1576
68	33,894	31,120	27,816	24,697	20,374	---	---	PSBC54QF		5	801	70	5.52	1621
69	38,844	36,593	33,574	30,902	28,126	24,565	---	PSBC54RF		7 1/2	918	95	8.30	1681
70	42,991	41,045	38,366	35,801	33,425	30,849	27,667	PSBC54SF		10	1016	114	11.26	1693
71	25,051	21,008	15,034	---	---	---	---	PSBH60MF		1 1/2	320	23	1.67	1825
72	27,869	24,254	19,639	---	---	---	---	PSBH60NF		2	356	28	2.24	1831
73	31,783	28,648	25,302	20,143	---	---	---	PSBH60PF		3	406	37	3.38	1856
74	37,889	35,315	32,562	29,654	25,184	---	---	PSBH60QF		5	484	51	5.68	1868
75	44,362	42,174	39,696	37,144	34,520	30,826	---	PSBH60RF		7 1/2	552	64	8.33	1920
76	49,024	47,069	44,887	42,569	40,278	37,845	34,513	PSBH60SF	60	10	613	77	11.22	1933
77	27,364	23,056	---	---	---	---	---	PSBC60NF			2	558	40	2.23
78	31,385	27,666	23,484	---	---	---	---	PSBC60PF		3	640	49	3.36	1927
79	37,122	33,971	30,718	27,076	23,271	---	---	PSBC60QF		5	757	69	5.57	1935
80	43,755	40,867	37,947	34,876	31,453	28,229	---	PSBC60RF		7 1/2	864	89	8.33	2003
81	48,161	45,552	42,878	40,223	37,248	34,170	31,255	PSBC60SF		10	951	110	11.11	2015
82	34,018	28,954	18,543	---	---	---	---	PSBC72NF		2	308	26	2.18	2139
83	41,875	36,930	31,965	17,715	---	---	---	PSBC72PF	72	3	354	33	3.32	2159
84	49,682	45,522	41,486	36,840	24,597	---	---	PSBC72QF			5	420	44	5.52

- 1 — Performance shown for Installation Type A: free inlet, free outlet. Performance ratings include the effects of 2" aluminum filters.
- 2 — The first four or five letters of the model number identify **fan type, drive configuration** and **style**. The next two numbers indicate **fan size**, the next letter identifies motor **horsepower**. The following 'F' indicates that it is a **filtered** unit. Example: Model PSBH24HF is Type 'PS,' belt drive, Style 'H,' 24" size, 1/3 HP, filtered.
- 3 — On Style 'H' & 'HX,' die-formed steel blades are standard. On Style 'C,' an adjustable pitch propeller with cast aluminum airfoil blades is standard.
- 4 — The sound ratings shown are loudness values in hemispherical sones at a distance of 1.5 m (5 ft) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for: Installation Type A: free outlet hemispherical sone levels. The sound ratings shown are at 0" static pressure.
- 5 — Maximum brake horsepower (BHP) within the catalog performance range. Power ratings (BHP) do not include transmission losses. Bearing losses are included. BHP at most static pressures listed is less than that shown, in some cases substantially less. For specific BHP values at individual static pressure points contact your American Coolair representative. Because of the cooling the motor receives from the moving air stream, motor loading beyond the nominal nameplate rating on these American Coolair fans does not overheat the motor and is within NEMA recommended limits and motor service factor. It is not detrimental to the motor and is economically desirable.
- 6 — To convert air performance (CFM and SP) and power (BHP) to metric units, multiply CFM x .000472 to obtain cubic meters per second (m³/s). Multiply SP x 248.36 to obtain pascals (Pa). Multiply BHP x .7457 to obtain kilowatts (kW).

*These models have fixed pitch motor pulleys.

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

Type PSD-F

FILTERED SUPPLY — DIRECT DRIVE — 2,700 to 46,000 CFM — 0" to 3/4" STATIC PRESSURE



Application and Features

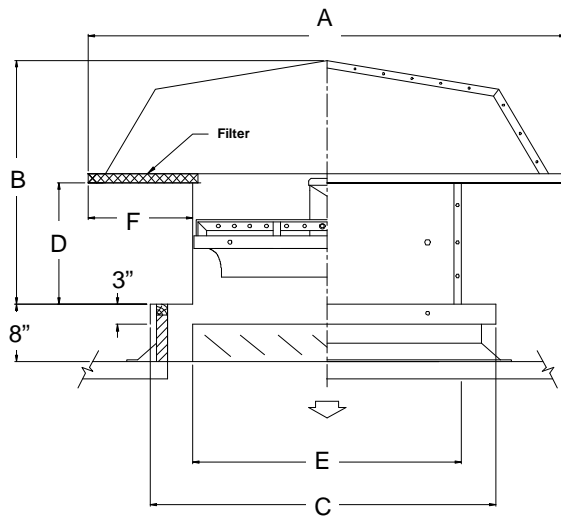
Type PSD-F PRVs provide filtered make-up air from an economical roof mounted unit.

The Type PSD-F unit is similar to the Type PSDC, except that the PSD-F unit is furnished with two-inch thick, permanent, cleanable filters.

The filters are easily mounted into the filter rack when the unit is installed at the job site.

American Coolair's performance data provides net CFM ratings with hood and filters in place. We have eliminated the need to estimate the effect of filters on the PRV performance!

Type PSD-F PRVs incorporate the Style C fan components. This fan style is described in the *Fan Component* section on Pages 4-5.



TYPE PSDC-F

Dimensions

Dimension A is the O.D. of the square hood.

Dimension B is the overall height above the curb.

Dimension C is the I.D. of the curb cap flange.

Dimension D is the distance from the curb to the hood.

Dimension E is the damper net length and width, flanges add 1-11/16 inches on all sides.

Dimension F is the distance of the filter overhang

Item No. ¹	Fan Size	Dimensions in Inches						Filter Area ft ²
		A	B	C	D	E	F	
1-5	24	57	36 1/4	38	20 1/4	28 3/8	12 1/2	13.2
6-10		67	40				17 1/2	
11,12	30	67	40	44	20 1/4	34 3/8	14 1/2	18.4
13-20		78	41 3/4				20	
21,23,24	36	78	41 3/4	50	20 1/4	40 3/8	17	25.6
22,25-33		88	42 3/4				22	
34,35,37,38	42	88	42 3/4	56	20 1/4	46 3/8	19	32.8
36,39-45		98	48 1/4				24	
46-49	48	98	51 1/8	62	23 1/8	52 3/8	21	40.9
50-55		109	57 1/8				26 1/2	
56,57	54	109	57 1/8	68	23 1/8	58 3/8	23 1/2	51.3
58-62		127 7/8	45 3/4				32 7/8	
63,64	60	127 7/8	57 3/8	77	23 1/8	64 3/8	29 7/8	76.4
65,66		139 1/2	45 3/4				35 3/4	

¹ — Numbers are inclusive and identify each model for which dimensions apply.

Performance Ratings

American Coolair Corporation certifies that the performance data for the type PSD-F PRV models shown below are based on tests conducted in an accredited laboratory in accordance with ANSI Standards 210-07 and 300-08.

Typical Specifications

Hooded supply power roof ventilators shall be American Coolair Type PSDC-F, as manufactured by American Coolair Corporation, Jacksonville, Florida; specific models shall be as shown in the fan schedule. Fan component shall be of welded steel construction, PRV hood and base shall be of galvanized steel. PRVs shall be furnished with 2" thick, permanent, cleanable filters. Fan blades shall be of high strength cast aluminum airfoil securely attached to a heavy cast aluminum hub. Blade pitch shall be adjustable. Entire blade assembly shall be mounted directly to the motor shaft. Performance ratings shall be from tests of complete PRV and so certified by the PRV manufacturer. (Specify for each PRV model in the schedule the required CFM and static pressure; motor enclosure, phase and volts; and accessories such as safety disconnect switch, bird screen, backdraft damper, prefabricated curb and special protective coating.)

Item No.	Cubic Feet Per Minute (CFM) at Static Pressure ^{1,6}							Fan Model ²	Fan Size	Fan HP	Fan RPM	Sone Rating ³	Max BHP ^{4,6}	Blade Desc. ⁵		Approx. Ship Wt.
	0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"							No.	Pitch	
1	4,653	3,848	2,555	---	---	---	---	PSDC24G8F	1/4	870	14.5	0.29	3	27.5°	400	
2	5,724	5,097	4,194	2,867	---	---	---	PSDC24J8F	1/2	870	17.8	0.58	6	30.5°	410	
3	4,860	4,317	3,633	2,659	---	---	---	PSDC24H11F	1/3	1160	19.7	0.37	3	15.5°	400	
4	5,813	5,246	4,604	3,776	---	---	---	PSDC24J11F	1/2	1160	22	0.58	3	23°	405	
5	6,300	5,896	5,418	4,820	4,000	3,179	---	PSDC24K11F	24 3/4	1160	27	0.86	6	22.5°	410	
6	7,432	6,999	6,498	5,916	5,088	3,920	---	PSDC24L11F	1	1160	28	1.13	6	27°	431	
7	6,985	6,655	6,218	5,791	5,339	4,798	4,140	PSDC24L17F	1	1750	37	1.13	3	14°	420	
8	8,173	7,802	7,424	7,036	6,614	6,136	5,573	PSDC24M17F	1 1/2	1750	43	1.70	3	19.5°	425	
9	9,259	8,879	8,491	8,092	7,671	7,207	6,680	PSDC24N17F	2	1750	48	2.26	3	26.5°	431	
10	10,764	10,479	10,179	9,875	9,564	9,235	8,874	PSDC24P17F	3	1750	53	3.49	6	25°	461	
11	7,906	6,802	5,177	---	---	---	---	PSDC30J8F	1/2	870	20	0.56	3	22°	560	
12	8,963	8,238	7,323	6,115	---	---	---	PSDC30K8F	3/4	870	22	0.85	6	19°	550	
13	10,627	9,866	9,004	7,816	5,608	---	---	PSDC30L8F	1	870	23	1.15	6	23.5°	590	
14	9,244	8,376	7,458	6,335	---	---	---	PSDC30K11F	3/4	1160	29	0.84	3	14.5°	545	
15	10,676	9,774	8,888	7,812	6,085	---	---	PSDC30L11F	30 1	1160	32	1.14	3	19.5°	560	
16	12,192	11,263	10,330	9,231	7,546	---	---	PSDC30M11F	1 1/2	1160	34	1.70	3	26°	590	
17	13,281	12,746	12,197	11,596	10,882	9,979	8,786	PSDC30N11F	2	1160	37	2.32	6	21°	605	
18	12,639	12,047	11,484	10,902	10,294	9,634	8,835	PSDC30N17F	2	1750	57	2.24	3	12°	555	
19	14,931	14,433	13,893	13,298	12,667	12,011	11,301	PSDC30P17F	3	1750	60	3.39	3	17°	580	
20	18,217	17,603	16,993	16,397	15,794	15,162	14,466	PSDC30Q17F	5	1750	69	5.67	3	25.5°	595	
21	12,011	10,672	8,740	---	---	---	---	PSDC36L6F	1	680	25	1.13	6	23.5°	685	
22	14,266	12,436	10,401	---	---	---	---	PSDC36M6F	1 1/2	680	28	1.66	6	30°	745	
23	10,975	9,489	7,990	---	---	---	---	PSDC36K8F	3/4	870	27	0.86	3	15.5°	645	
24	12,278	10,592	8,915	6,207	---	---	---	PSDC36L8F	1	870	30	1.14	3	20°	675	
25	15,030	13,223	11,216	---	---	---	---	PSDC36M8F	1 1/2	870	33	1.71	3	28°	695	
26	15,592	14,110	12,365	8,907	---	---	---	PSDC36N8F	2	870	38	2.27	4	28.5°	745	
27	14,042	12,929	11,820	10,569	9,021	---	---	PSDC36M11F	36 1 1/2	1160	41	1.70	3	12.5°	690	
28	16,292	15,081	13,665	12,423	11,126	8,998	---	PSDC36N11F	2	1160	48	2.29	3	17.5°	695	
29	18,835	17,607	16,274	14,692	13,104	10,508	---	PSDC36P11F	3	1160	55	3.40	3	24°	745	
30	21,570	20,786	19,969	19,111	18,195	17,147	15,810	PSDC36Q11F	5	1160	66	5.65	6	23.5°	765	
31	19,361	18,715	18,069	17,417	16,753	16,067	15,349	PSDC36Q17F	5	1750	84	5.79	3	11°	695	
32	23,006	22,340	21,675	21,011	20,343	19,665	18,967	PSDC36R17F	7 1/2	1750	94	8.52	3	16.5°	745	
33	25,708	24,954	24,202	23,452	22,701	21,949	21,191	PSDC36S17F	10	1750	103	11.20	3	20.5°	765	
34	14,265	11,932	9,035	---	---	---	---	PSDC42L6F	1	680	29	1.13	3	18.5°	805	
35	15,883	14,015	12,108	---	---	---	---	PSDC42M6F	1 1/2	680	31	1.68	4	21.5°	855	
36	18,701	17,292	15,746	13,849	---	---	---	PSDC42N6F	2	680	39	2.29	6	21.5°	895	
37	13,604	11,908	9,925	7,502	---	---	---	PSDC42L8F	42 1	870	36	1.14	3	8°	795	
38	15,923	14,252	12,403	9,941	---	---	---	PSDC42M8F	1 1/2	870	40	1.67	3	13°	805	
39	18,980	17,077	14,997	12,643	---	---	---	PSDC42N8F	2	870	44	2.26	3	17.5°	875	
40	21,791	19,677	17,309	14,958	11,959	---	---	PSDC42P8F	3	870	55	3.38	3	25°	895	

(chart continues next page)

Type PSD-F Performance Ratings (cont'd.)

Item No.	Cubic Feet Per Minute (CFM) at Static Pressure ^{1,6}							Fan Model ²	Fan Size	Motor HP	Fan RPM	Sone Rating ³	Max BHP ^{4,6}	Blade Desc. ⁵		Approx. Ship Wt.
	0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"							No.	Pitch	
41	17,470	16,131	14,733	13,308	11,698	9,419	---	PSDC42N11F	2	1160	57	2.29	3	6°	825	
42	20,906	19,655	18,379	16,973	15,293	13,285	11,100	PSDC42P11F	3	1160	66	3.43	3	11°	875	
43	25,592	24,182	22,713	21,168	19,528	17,762	15,729	PSDC42Q11F	42	5	1160	76	5.50	3	18°	895
44	27,429	26,600	25,720	24,806	23,854	22,873	21,878	PSDC42R17F	7 1/2	1750	129	8.57	3	7°	875	
45	31,044	30,234	29,427	28,610	27,771	26,895	25,969	PSDC42S17F	10	1750	143	11.35	3	10.5°	895	
46	15,081	12,547	9,644	---	---	---	---	PSDC48L6F	1	680	30	1.11	3	8.5°	1045	
47	17,673	15,640	13,329	10,239	---	---	---	PSDC48M6F	1 1/2	680	37	1.70	4	11°	1085	
48	19,170	17,230	15,071	12,229	---	---	---	PSDC48N6F	2	680	36	2.17	4	15°	1110	
49	18,980	16,980	15,036	12,717	9,700	---	---	PSDC48N8F	2	870	46	2.22	3	8°	1085	
50	23,267	21,223	19,069	16,623	13,734	---	---	PSDC48P8F	48	3	870	51	3.32	3	13.5°	1120
51	27,153	25,286	23,318	21,358	19,354	16,895	---	PSDC48Q8F	5	870	60	5.33	4	17.5°	1165	
52	31,519	30,112	28,762	27,367	25,811	24,033	22,008	PSDC48R8F	7 1/2	870	76	8.46	6	20.5°	1195	
53	26,909	25,374	23,738	22,112	20,527	18,809	16,760	PSDC48Q11F	5	1160	80	5.52	3	8.5°	1120	
54	31,879	30,324	28,751	27,159	25,505	23,698	21,653	PSDC48R11F	7 1/2	1160	90	8.38	3	14.5°	1155	
55	34,872	33,290	31,489	29,402	27,260	25,245	23,249	PSDC48S11F	10	1160	96	11.04	3	19°	1195	
56	20,879	18,063	14,603	---	---	---	---	PSDC54M6F	1 1/2	680	39	1.65	3	8°	1240	
57	22,955	20,424	17,169	11,877	---	---	---	PSDC54N6F	2	680	43	2.22	3	12°	1260	
58	27,764	25,573	22,974	20,070	16,818	---	---	PSDC54P8F	3	870	61	3.31	3	7.5°	1275	
59	33,753	30,648	27,887	25,802	22,879	17,131	---	PSDC54Q8F	54	5	870	73	5.37	3	14°	1325
60	38,226	34,690	31,952	29,555	26,572	21,602	---	PSDC54R8F	7 1/2	870	88	8.36	3	22°	1355	
61	37,562	35,966	34,323	32,511	30,423	28,180	25,900	PSDC54R11F	7 1/2	1160	105	8.25	3	8°	1315	
62	42,331	40,139	38,162	36,511	34,958	33,286	31,126	PSDC54S11F	10	1160	117	11.15	3	12°	1345	
63	26,144	22,746	19,157	13661.9	---	---	---	PSDC60N6F	2	680	49	2.28	3	6°	1460	
64	35,440	33,219	30,591	27,277	24,386	20,377	---	PSDC60Q8F	60	5	870	80	5.63	3	8°	1500
65	42,237	39,932	37,219	33,388	29,264	24,823	---	PSDC60R8F	7 1/2	870	90	8.43	3	14°	1555	
66	45,441	43,870	42,107	39,728	36,922	34,772	32,892	PSDC60S11F	10	1160	137	11.35	3	6°	1555	

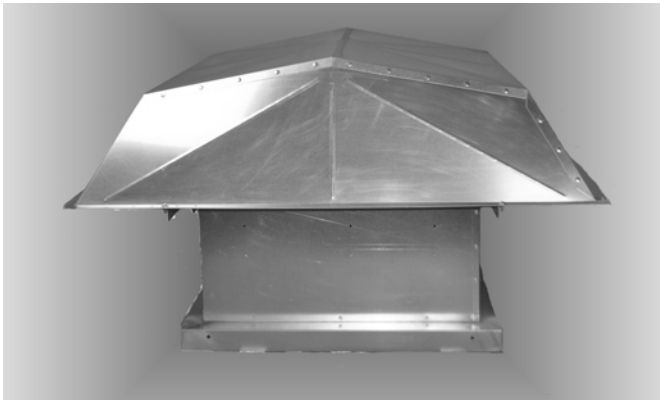
- 1 — Performance shown for Installation Type A: free inlet, free outlet. Performance ratings include the effects of 2" aluminum filters.
- 2 — The first four letters of the model number identify **fan type, drive configuration** and **style**. The next two numbers indicate **fan size**, the next letter identifies motor **horsepower**; the next number (or numbers) indicates **RPM** in hundreds. The following 'F' indicates that it is a **filtered** unit. Example: Model PSDC24G8F is Type 'PS,' direct drive, Style 'C,' 24" size, 1/4 HP, 870 RPM, filtered.
- 3 — The sound ratings shown are loudness values in hemispherical sones at a distance of 1.5 m (5 ft) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for: Installation Type A: free outlet hemispherical sone levels. The sound ratings shown are at 0" static pressure.
- 4 — Maximum brake horsepower (BHP) within the catalog performance range. BHP at most static pressures listed is less than that shown, in some cases substantially less. For specific BHP values at individual static pressure points contact your American Coolair representative. Because of the cooling the motor receives from the moving air stream, motor loading beyond the nominal nameplate ratings on these American Coolair fans does not overheat the motor and is within NEMA recommended limits and motor service factor. It is not detrimental to the motor and is economically desirable.
- 5 — An adjustable pitch propeller with cast aluminum airfoil blades is standard.
- 6 — To convert air performance (CFM and SP) and power (BHP) to metric units, multiply CFM x .000472 to obtain cubic meters per second (m³/s). Multiply SP x 248.36 to obtain pascals (Pa). Multiply BHP x .7457 to obtain kilowatts (kW).

Example: 3904 CFM x .000472 = 1.8427 m³/s
 0.125 SP x 248.36 = 31.05 Pa
 0.886 BHP x .7457 = 0.661 kW

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

Type RPBC and RPDC

**REVERSIBLE — BELT OR DIRECT DRIVE —
2,600 to 42,000 CFM
0" to $\frac{3}{4}$ " STATIC PRESSURE**



Application and Features

Type RPBC (belt drive) and RPDC (direct drive) PRVs are single units designed for both exhaust and supply.

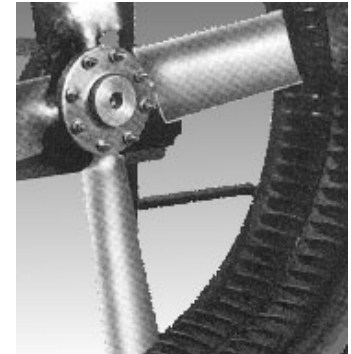
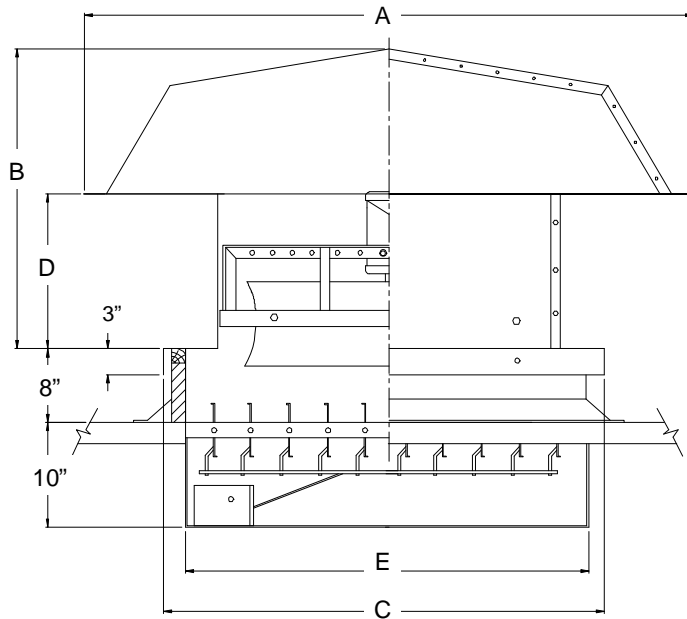
They are identical in exterior appearance to the PE, PS and PS-F units.

Type RPBC and RPDC PRVs use adjustable pitch cast aluminum airfoil propeller blades with alternate blades turned 180° and a double orifice attached to the fan panel. The result is essentially equal air movement abilities in either exhaust or supply mode.

The exhaust capability is reduced slightly due to air flow restrictions imposed by the hood, even through the propeller performs equally in both directions.

To prevent backdraft when the unit is not energized, a center pivoted, motorized damper is recommended.

Type RP models incorporate American Coolair Style 'C' fan components. These fans are described in the *Fan Component* section on Pages 4-5.



TYPE RPB-RPD

Dimensions

Dimension A is the O.D. of the square hood.

Dimension B is the overall height above the curb.

Dimension C is the I.D. of the curb cap flange.

Dimension D is the distance from the curb to the hood.

Dimension E is the damper net length and width, flanges add 1-3/8 inches on all sides.

Fan Size	Dimensions in Inches				
	A	B	C	D	E
24	57	34 1/2	38	20 3/4	28 3/8
30	67	38 1/4	44	20 3/4	34 3/8
36	78	40	50	20 3/4	40 3/8
42	88	41	56	20 3/4	46 3/8
48	98	49 3/8	62	23 5/8	52 3/8
54	109	55 3/8	68	23 5/8	58 3/8
60	109	55 3/8	77	23 5/8	64 3/8

Performance Ratings

American Coolair Corporation certifies that the performance data for the type RPB & RPD PRV models shown below are based on tests conducted in an accredited laboratory in accordance with ANSI Standards 210-07 and 300-08.

Typical Specifications

Reversible hooded power roof ventilators shall be American Coolair Type RP, as manufactured by American Coolair Corporation, Jacksonville, Florida; specific models shall be as shown in the fan schedule. Fan component shall be of welded steel construction, PRV hood and base shall be of galvanized steel. Fan blades shall be of high strength cast aluminum airfoil securely attached to a heavy cast aluminum hub. Blade pitch shall be adjustable and blade shall be designed to move air equally in either direction, exhaust or supply. (For belt drive models: Ball bearings shall be of the heavy-duty pillow block type. Motor pulleys shall be variable pitch.) (For direct drive models: Entire propeller assembly shall be mounted directly to the motor shaft.) Performance ratings shall be based on tests in accordance with industry test standards and procedures and so certified by the manufacturer. (Specify for each PRV model in the schedule the required CFM and static pressure; motor enclosure, phase and volts; and accessories such as safety disconnect switch; bird screen; heavy duty, center-pivoted, motor operated, backdraft damper; prefabricated curb and special protective coating.)

Item No.	Cubic Feet Per Minute (CFM) at Static Pressure ^{1,6}							Fan Model ²	Fan Size	Motor HP	Fan RPM	Sone Rating ³	Max BHP ^{4,6}	Blade ⁵ Pitch	Approx. Ship Wt.
	0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"								
1	5,013	4,204	2,555	---	---	---	---	RP-C24H11		1/3	1160	20	0.38	20°	415
2	6,253	5,297	3,648	---	---	---	---	RP-C24J11		1/2	1160	24	0.58	29°	430
3	6,402	5,890	5,369	4,720	3,531	---	---	RP-C24K17	24	3/4	1750	35	0.90	15°	435
4	7,562	7,057	6,514	5,830	4,943	---	---	RP-C24L17		1	1750	40	1.23	20°	440
5	8,602	8,066	7,447	6,716	5,851	4,187	---	RP-C24M17		1 1/2	1750	43	1.79	25°	445
6	7,558	6,137	3,232	---	---	---	---	RP-C30J8		1/2	870	18.8	0.53	20.5°	540
7	7,302	6,247	4,962	---	---	---	---	RP-C30J11		1/2	1160	27	0.60	12°	540
8	8,716	7,674	6,547	4,329	---	---	---	RP-C30K11		3/4	1160	28	0.89	16°	545
9	10,496	9,418	8,213	6,199	---	---	---	RP-C30L11	30	1	1160	32	1.26	22°	560
10	11,335	10,292	8,975	7,124	4,618	---	---	RP-C30M11		1 1/2	1160	33	1.69	25°	560
11	11,293	10,624	9,939	9,159	8,295	7,215	5,625	RP-C30N17		2	1750	53	2.31	12.5°	565
12	14,308	13,652	12,980	12,228	11,403	10,519	9,358	RP-C30P17		3	1750	59	3.41	18.5°	585
13	18,147	17,495	16,760	15,929	15,001	13,994	12,926	RP-C30Q17		5	1750	67	5.69	27.5°	600
14	8,900	7,215	4,298	---	---	---	---	RP-C36J8		1/2	870	24	0.59	10.5°	630
15	11,738	9,993	7,844	---	---	---	---	RP-C36K8		3/4	870	26	0.90	16.5°	635
16	13,194	11,541	9,399	5,252	---	---	---	RP-C36L8		1	870	28	1.28	20°	645
17	15,432	13,716	11,356	6,953	---	---	---	RP-C36M8		1 1/2	870	32	1.79	26°	650
18	11,538	10,292	9,105	6,649	---	---	---	RP-C36L11		1	1160	39	1.27	10°	645
19	12,850	11,586	10,173	8,489	5,767	---	---	RP-C36M11	36	1 1/2	1160	40	1.64	12°	650
20	15,373	14,087	12,777	11,347	8,645	6,112	---	RP-C36N11		2	1160	43	2.31	16°	655
21	18,835	17,537	16,124	14,572	12,527	8,768	---	RP-C36P11		3	1160	51	3.46	22.5°	675
22	14,355	13,446	12,570	11,521	10,264	8,906	7,614	RP-C36P17		3	1750	73	3.41	7°	675
23	20,871	20,019	19,202	18,406	17,551	16,564	15,446	RP-C36Q17		5	1750	83	5.64	13.5°	690
24	26,121	25,296	24,477	23,663	22,821	21,903	20,879	RP-C36R17		7 1/2	1750	95	8.57	19.5°	740
25	29,540	28,755	27,935	27,024	26,045	25,030	23,950	RP-C36S17		10	1750	108	11.50	24°	760
26	13,138	11,437	8,849	5,584	---	---	---	RP-C42L8		1	870	36	1.26	10°	765
27	15,996	14,263	12,022	8,382	---	---	---	RP-C42M8		1 1/2	870	39	1.72	14°	770
28	17,905	16,026	13,979	10,313	7,074	---	---	RP-C42N8		2	870	41	2.31	17°	775
29	21,483	19,521	17,293	14,083	9,729	---	---	RP-C42P8	42	3	870	49	3.45	23.5°	795
30	15,022	13,605	11,833	9,583	7,530	---	---	RP-C42N11		2	1160	55	2.31	7.5°	775
31	18,490	17,083	15,690	14,176	11,609	8,917	6,875	RP-C42P11		3	1160	60	3.39	11°	795
32	25,053	23,750	22,292	20,686	18,945	16,513	12,631	RP-C42Q11		5	1160	71	5.71	18.5°	810

(chart continues next page)

Type RPB & RPD Performance Ratings (cont'd.)

Item No.	Cubic Feet Per Minute (CFM) at Static Pressure ^{1,6}							Fan Model ²	Fan Size	Motor HP	Fan RPM	Sone Rating ³	Max BHP ^{4,6}	Blade ⁵ Pitch	Approx. Ship Wt.
	0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"								
33	19,751	17,160	13,504	---	---	---	---	RP-C48M6		1 1/2	680	32	1.77	16°	1110
34	22,443	19,886	16,425	---	---	---	---	RP-C48N6		2	680	33	2.27	20°	1115
35	25,314	22,430	18,847	12,515	---	---	---	RP-C48P6		3	680	37	3.42	25°	1135
36	19,295	17,421	15,328	11,007	---	---	---	RP-C48N8		2	870	44	2.29	10°	1115
37	23,419	21,523	19,297	16,149	11,909	---	---	RP-C48P8	48	3	870	47	3.38	14°	1135
38	29,350	27,367	25,143	22,373	18,129	13,353	---	RP-C48Q8		5	870	52	5.74	21°	1150
39	25,727	24,308	22,914	21,418	19,420	15,699	13,115	RP-C48Q11		5	1160	75	5.61	10°	1150
40	33,134	31,671	30,200	28,679	27,019	24,940	21,832	RP-C48R11		7 1/2	1160	83	8.53	15.5°	1205
41	38,285	36,878	35,402	33,769	31,909	29,860	27,569	RP-C48S11		10	1160	88	11.33	20°	1255
42	22,792	19,722	16,065	10,023	---	---	---	RP-C54N6		2	680	37	2.21	10.5°	1235
43	28,268	25,318	22,100	15,999	10,245	---	---	RP-C54P6		3	680	42	3.31	15°	1260
44	36,574	33,283	29,556	24,654	16,639	---	---	RP-C54Q6		5	680	49	5.74	23.5°	1290
45	33,037	30,726	28,207	25,201	21,423	16,082	---	RP-C54Q8	54	5	870	64	5.64	13°	1290
46	42,053	39,775	37,373	34,555	31,305	26,903	---	RP-C54R8		7 1/2	870	77	8.48	19.5°	1350
47	34,533	32,689	30,899	28,970	26,739	23,262	20,021	RP-C54R11		7 1/2	1160	95	8.55	8.5°	1350
48	41,961	40,202	38,403	36,421	34,386	32,240	29,844	RP-C54S11		10	1160	103	11.24	12°	1380
49	29,192	26,251	22,755	15,941	---	---	---	RP-C60P6		3	680	49	3.39	10°	1375
50	38,113	34,973	31,625	26,766	19,707	---	---	RP-C60Q6		5	680	55	5.76	16°	1405
51	31,032	28,414	24,996	21,103	17,215	13,704	---	RP-C60Q8	60	5	870	73	5.65	7°	1405
52	40,352	37,767	35,130	32,350	28,926	23,306	19,053	RP-C60R8		7 1/2	870	80	8.55	11.5°	1465

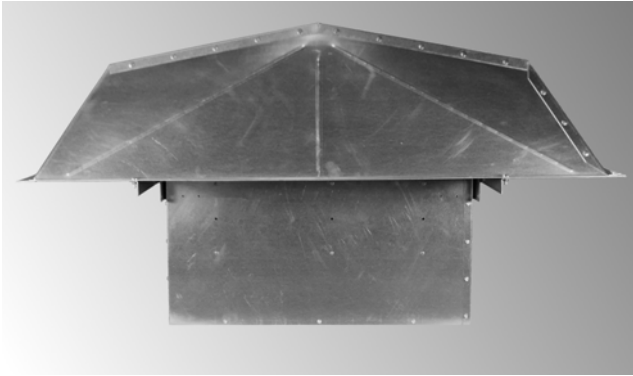
- 1 — Performance shown is for Installation Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances in the airstream.
- 2 — The first four letters of the model number identify **fan type, drive configuration** and **style**. (Drive configuration has been omitted in the above table. Replace the '-' with a 'D' for direct drive or 'B' for belt drive to complete model number.) The next two numbers indicate **fan size**, the next letter identifies motor **horsepower**; the last number (or numbers) indicates **RPM** in hundreds. Example: Model RPDC24H11 is Type 'RP,' direct drive, Style 'C,' 24" size, 1/3 HP, 1160 RPM.
- 3 — The sound ratings shown are loudness values in fan sones at 5 ft. (1.5m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for Installation Type A: free inlet fan sone levels. The sound ratings shown are at 0" static pressure.
- 4 — Maximum brake horsepower (BHP) within the catalog performance range. On belt drive models, power ratings (BHP) do not include transmission losses. Bearing losses are included. On both belt and direct drive models, BHP at most static pressures listed is less than that shown, in some cases substantially less. For specific BHP values at individual static pressure points contact your American Coolair representative. Because of the cooling the motor receives from the moving air stream, motor loading beyond the nominal nameplate ratings on these American Coolair fans does not overheat the motor and is within NEMA recommended limits and motor service factor. It is not detrimental to the motor and is economically desirable.
- 5 — All models use a four bladed adjustable pitch propeller with cast aluminum airfoil blades. Alternate blades are pitched 180° apart. Blade pitch in degrees from plane of hub is shown.
- 6 — To convert air performance (CFM and SP) and power (BHP) to metric units, multiply CFM x .000472 to obtain cubic meters per second (m³/s). Multiply SP x 248.36 to obtain pascals (Pa). Multiply BHP x .7457 to obtain kilowatts (kW).

Example: 3904 CFM x .000472 = 1.8427 m³/s
0.125 SP x 248.36 = 31.05 Pa
0.886 BHP x .7457 = 0.661 kW

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

Type P-UD

LOW CFM — DIRECT DRIVE — 460 to 4,800 CFM
0" to 1/2" STATIC PRESSURE



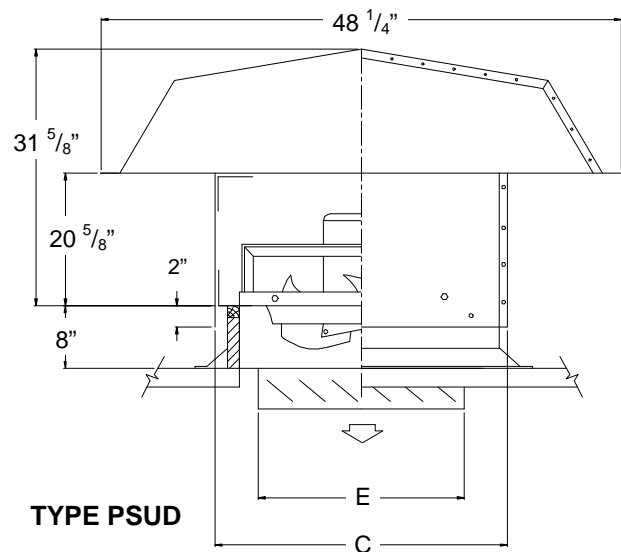
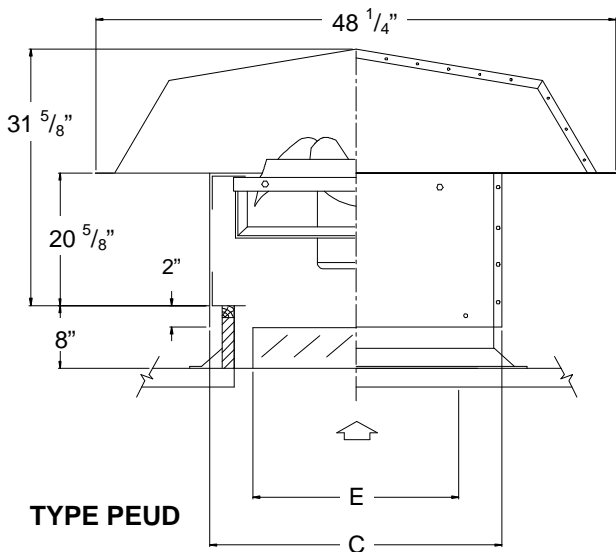
Application and Features

Type P-UD PRVs combine the heavy-duty construction and reliability needed for industrial applications with unusually low noise levels.

P-UD PRVs can be specified for exhaust, supply or filtered supply. A wide selection of motor speeds are offered.

In addition, many models can be supplied with a solid state speed control for precise adjustment of performance.

Type P-UD PRVs incorporate Style U fan components. This fan style is described in the fan component section.

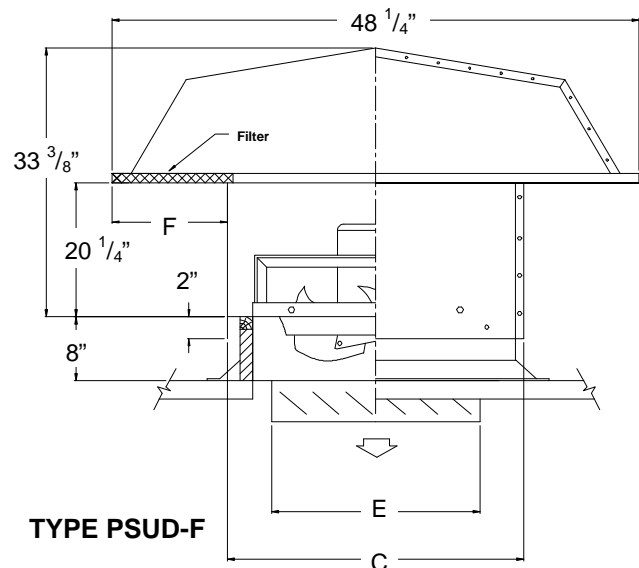


Dimensions

Dimension C is the I.D. of the internal curb cap flange.

Dimension E is the damper net length and width, flanges add 1-5/8 inches on all sides.

Dimension F is the distance of the filter overhang for Type PSUD-F.



Fan Size	Dimensions in Inches			Filter Area, ft ²
	C	E	F	
10" & 12"	24	14 1/4	12 1/8	9.9
14 & 16"	28	18 1/4	10 1/8	8.6
18 & 20"	32	22 1/4	8 1/8	7.1

* - The P-UD10 models feature aluminum blades, all other sizes feature epoxy-coated steel blades.

Performance Ratings

American Coolair Corporation certifies that the performance data for the type P-UD PRV models shown below are based on tests conducted in an accredited laboratory in accordance with ANSI Standards 210-07 and 300-08.

Typical Specifications

Hooded propeller power roof ventilators shall be American Coolair Type PEUD, PSUD, and/or PSUD-F as manufactured by American Coolair Corporation, Jacksonville, Florida; specific models shall be as shown in the fan schedule. Propellers shall be designed for high efficiency and low noise level. PRV hood and base shall be of galvanized steel for protection against rust and corrosion. Entire blade assembly shall be mounted directly to the motor shaft. Performance ratings shall be based on tests in accordance with industry test standards and procedures and so certified by the manufacturer. (Specify for each PRV model in the schedule the required CFM and static pressure; motor enclosure, phase and volts; and accessories such as safety disconnect switch, bird screen, backdraft damper, prefabricated roof curb and special protective coating.)

Item No.	Cubic Feet Per Minute (CFM) at Static Pressure ^{1,6}					Fan Model ²	Fan Size	Motor HP	Fan RPM	Sone Rating ³	Max BHP ^{4,6}	Blade Pitch	Approx. Ship Wt.
	0"	1/8"	1/4"	3/8"	1/2"								
EXHAUST													
1	790	635	---	---	---	PEUD10B15 ⁵	10	1/20	1550	7.1	0.05	40°	83
2	1,470	1,354	1,190	904	603	PEUD12F17	12	1/6	1750	7.2	0.16	33°	96
3	1,625	1,449	941	469	---	PEUD14H11 ⁵	14	1/3	1160	6.5	0.16	41°	106
4	1,985	1,873	1,749	1,424	1,188	PEUD14F17	14	1/6	1750	8.8	0.22	29°	113
5	2,286	2,059	1,800	1,137	---	PEUD16H11 ⁵	16	1/3	1160	8.9	0.23	41°	107
6	2,735	2,619	2,478	2,319	2,124	PEUD16H17	16	1/3	1750	15.5	0.39	32°	115
7	2,677	2,487	2,241	1,557	1,242	PEUD18H11 ⁵	18	1/3	1160	8.4	0.29	32°	136
8	3,387	3,301	3,165	3,024	2,849	PEUD18J17	18	1/2	1750	15.1	0.57	25°	135
9	3,530	3,314	3,068	2,790	---	PEUD20H11 ⁵	20	1/3	1160	10.8	0.39	31°	137
10	4,575	4,462	4,328	4,186	4,026	PEUD20K17	20	3/4	1750	22	0.89	24°	142
SUPPLY													
11	786	632	---	---	---	PSUD10B15 ⁵	10	1/20	1550	7.1	0.05	40°	83
12	1,485	1,368	1,202	913	610	PSUD12F17	12	1/6	1750	7.2	0.16	33°	96
13	1,634	1,456	946	471	---	PSUD14H11 ⁵	14	1/3	1160	6.5	0.16	41°	106
14	2,005	1,892	1,767	1,438	1,200	PSUD14F17	14	1/6	1750	8.8	0.22	29°	113
15	2,358	2,123	1,857	1,173	---	PSUD16H11 ⁵	16	1/3	1160	8.9	0.23	41°	107
16	2,913	2,790	2,640	2,471	2,263	PSUD16H17	16	1/3	1750	15.5	0.39	32°	115
17	2,820	2,619	2,360	1,640	1,308	PSUD18H11 ⁵	18	1/3	1160	8.4	0.29	32°	136
18	3,662	3,569	3,421	3,269	3,080	PSUD18J17	18	1/2	1750	15.1	0.57	25°	135
19	3,604	3,384	3,136	2,802	1,903	PSUD20H11 ⁵	20	1/3	1160	10.8	0.39	31°	137
20	4,793	4,674	4,534	4,385	4,217	PSUD20K17	20	3/4	1750	22	0.89	24°	142
FILTERED SUPPLY													
21	760	611	---	---	---	PSUD10B15F ⁵	10	1/20	1550	7.1	0.05	40°	118
22	1,440	1,326	1,165	885	591	PSUD12F17F	12	1/6	1750	7.2	0.16	33°	131
23	1,590	1,417	921	459	---	PSUD14H11F ⁵	14	1/3	1160	6.5	0.16	41°	146
24	1,944	1,834	1,713	1,394	1,163	PSUD14F17F	14	1/6	1750	8.8	0.22	29°	153
25	2,234	2,012	1,759	1,111	---	PSUD16H11F ⁵	16	1/3	1160	8.9	0.23	41°	147
26	2,675	2,563	2,424	2,269	2,078	PSUD16H17F	16	1/3	1750	15.5	0.39	32°	155
27	2,529	2,349	2,117	1,471	1,173	PSUD18H11F ⁵	18	1/3	1160	8.4	0.29	32°	181
28	3,271	3,188	3,056	2,920	2,751	PSUD18J17F	18	1/2	1750	15.1	0.57	25°	180
29	3,483	3,270	3,027	2,753	---	PSUD20H11F ⁵	20	1/3	1160	10.8	0.39	31°	182
30	4,511	4,399	4,267	4,128	3,970	PSUD20K17F	20	3/4	1750	22	0.89	24°	187

- 1 — Performance shown is for Installation Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories). Models PSUD-F include the effects of filters in the airstream.
- 2 — The first four letters of the model number identify **fan type, drive configuration and style**. The next two numbers indicate **fan size**, the next letter identifies motor **horsepower**; the next number (or numbers) indicates **RPM** in hundreds. An additional letter 'F' is added for **filtered** model. Example: Model PEUD10B15 is Type 'PE,' Style 'U,' direct drive, 10" size, 1/20 HP, 1550 RPM.
- 3 — The sound ratings shown are loudness values in fan sones at 5 ft. (1.5m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for Installation Type A: free inlet fan sone levels. The sound ratings shown are at 0" static pressure.
- 4 — Maximum brake horsepower (BHP) within the catalog performance range. BHP at most static pressures listed is less than that shown, in some cases substantially less. For specific BHP values at individual static pressure points contact your American Coolair representative. Because of the cooling the motor receives from the moving air stream, motor loading beyond the nominal nameplate ratings on these American Coolair fans does not overheat the motor and is within NEMA recommended limits and motor service factor. It is not detrimental to the motor and is economically desirable.
- 5 — Manually adjustable variable speed control is available as an option with these models. Control provides infinite variation of motor from full speed to 50 percent of full speed. It is available only with single phase motors. Specify "variable speed control" when this accessory is desired.
- 6 — To convert air performance (CFM and SP) and power (BHP) to metric units, multiply CFM x .000472 to obtain cubic meters per second (m³/s). Multiply SP x 248.36 to obtain pascals (Pa). Multiply BHP x .7457 to obtain kilowatts (kW).

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

Installation, Selection, and Maintenance

INSTALLATION: Hooded PRVs are shipped in two packages (fan base and hood) for quick assembly and installation onto a roof curb. Type PSF units have additional packages containing filter rack and filters. The base section, fan, and motor should be securely attached to a roof curb. The hood (and filter rack, if applicable) can then be easily attached to the base. Before connecting the fan motor to a power source, check the motor nameplate to be sure of correct phase and voltage. Also, check the motor wiring connections on dual-voltage motors to make sure of the correct motor voltage. Make sure propeller turns freely without striking fan frame or any foreign object which may interfere with its operation. Note the arrow on the fan orifice to make sure the propeller is rotating in the correct direction when power is applied.

SOUND RATINGS: When sound is a critical issue, ventilator selection should be made from accurate sound data. The only completely accurate sound ratings are octave band sound power levels. Your American Coolair representative can furnish these for each PRV model on request. With this data, the acoustical engineer can accurately predict on-the-job sound levels. Published sound ratings are in Sones. Your American Coolair representative can also provide sound ratings in dBA. Both Sones and dBA ratings are calculated from the octave band sound power ratings. They may be used as a guide in ventilator selection where noise is NOT critical. Both Sones and dBA ratings are determined from laboratory testing according to AMCA Standards 300 & 301.

MAINTENANCE: American Coolair's power roof ventilators are factory lubricated for extended service. Fan bearings on Style 'H' and 'HX' belt drive units are permanently lubricated, and require no further maintenance for the life of the fan. Style 'C' belt drive units use pillow-block ball bearings and should be lubricated annually or more frequently, depending upon conditions and operating cycle. Refer to the maintenance instructions shipped with the fan. For lubrication of the electric motor, see the motor manufacturer's instructions.

On belt drive units, the belt tension should be checked within the first 24 hours of the fan's operation. After which, belt tension should be checked as part of maintenance routine to assure maximum efficiency and belt life. Refer to the instructions shipped with the fan for proper belt tension maintenance.

Accessories

American Coolair provides a complete line of accessories for its hooded roof ventilators. Note that fan ratings are determined without accessories. An allowance for resistance for a backdraft damper or other accessory is recommended. As resistance (static pressure loss) is dependent upon the fan's flow rate, there can be no precise resistance figure or average pressure loss for a given accessory. For specific resistance values for a given accessory for a particular fan unit, consult your American Coolair representative.

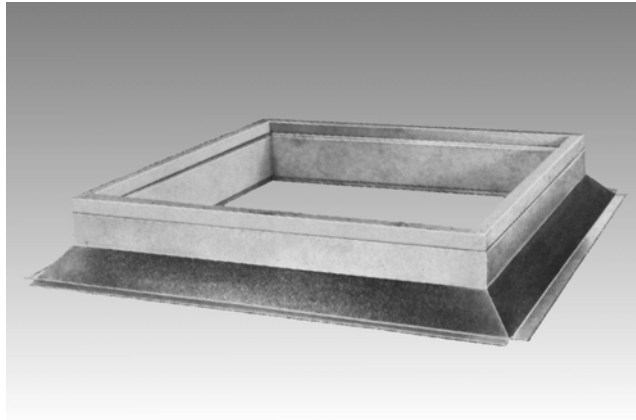
BACKDRAFT DAMPER: An aluminum backdraft damper prevents the intrusion of outside air when the unit is not running. The damper features American Coolair's exclusive "Type S" shutter design modified to operate in a horizontal position. A mounting sleeve for the damper or an extended height curb may be required to provide proper clearance between the ventilator motor and damper for PBH, PBHX, PBC, and PDC units. Refer to dimension drawings for details.



BIRD SCREEN: This galvanized or PVC coated wire mesh will prevent entry of birds and rodents. This accessory not necessary on filtered units, as filters provide this protection.

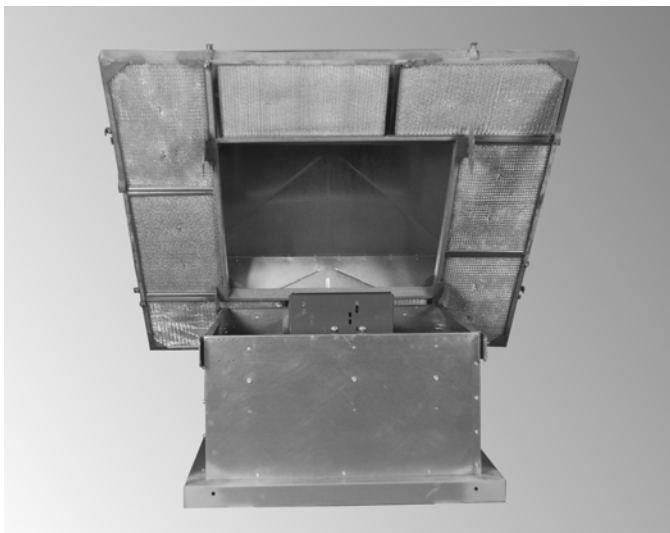
CENTER PIVOTED BACKDRAFT DAMPER: A heavy duty motorized backdraft damper specifically suited for reversible air flow (for RPBC and RBDC units) is available. It features extruded aluminum blades and frame, and a heavy-duty damper motor. With center pivoted blades, no fan delay switch is necessary. The damper should be mounted in the base of the roof curb, as the damper and damper motor require 12 inches of clearance.

PRE-FABRICATED ROOF CURB: You may specify surface mount or bulb-T style 8-inch standard height curbs. Constructed of welded galvanized steel, these roof curbs are insulated, and feature a wood nailer. Construction to accommodate a single- or double-pitched roof slope is also available.



SPARK RESISTANT CONSTRUCTION: For hazardous locations, most PRV's not standardly supplied with an aluminum blade assembly can be ordered with a non-ferrous blade assembly and explosion-proof motors. Motors only qualify for Class I Group D and Class II Groups F & G hazards.

FILTERS: (Type PS-F) Type PS-F units come with a set of filters for mounting during installation. They are 2-inch thick, permanent, cleanable filters as manufactured by Research Products Corp., or equivalent. They are factory coated with filter adhesive. Filters are easily cleaned by flushing with water. Adhesive must be reapplied after cleaning. Filter racks are designed for easy filter removal and replacement. Filters are designed to handle air velocities up to 650 feet per minute. They should not be specified where ambient temperature will be above 120°F.



FILTER GAUGE: (Type PS-F) A factory installed filter gauge with signal light alarm is preset for recommended maximum filter load. The gauge measures the pressure differential across the filters and signals when the filters require cleaning. It operates on a 24 volt power supply.

PROTECTIVE COATINGS: For most applications, the American Coolair powder coating system will provide the necessary surface protection for painted parts. This system includes a thermosetting epoxy powder coating to an average thickness of 3 mils and baked at 400° F for hardness, impact resistance, adhesion, and chemical resistance.

The hood on Type PB and PD PRVs is made of galvanized steel. Both hood and base on all other units are made of galvanized steel. A finish coat of epoxy can be specified. For maximum corrosion resistance, hot dip galvanized finish on fan frame and supports (and curb cap on Type P PRV) may be specified.

For applications that require more specialized surface protection, American Coolair offers alternatives: 6 mil epoxy, hot dip galvanizing, and others. For more information about special protective coatings, contact your American Coolair representative.

UNDERCOATING: A special undercoating to reduce condensation and add sound-deadening insulation may be specified. This coating is factory applied to interior surfaces of the hood on Type P units and hood and base for Type PE, PS, and Type RP models.

FIBERGLASS INSULATION: The inner crown of the hood on all units and inside the base section on models other than Type P can be lined with one inch thick fiberglass insulation to eliminate condensation in cold weather.

Limited Warranty

In the sale of its products, American Coolair Corporation agrees to correct, by repairs or replacement, any defects in workmanship or material that may develop under proper and normal use during the period of one year from the date of shipment from the factory. Any product or part proving, upon American Coolair's examination, to be defective during limited warranty period will be repaired or replaced, at American Coolair's option, f.o.b. factory, without charge.

Deterioration or wear caused by chemicals, abrasive action or excessive heat shall not constitute defects.

Motors are guaranteed only to the extent of the manufacturer's warranty.

American Coolair's limited warranty does not apply to any of its products or parts that have been subject to accidental damage, misuse by the user, unauthorized modifications, improper installation or electrical wiring, or lack of proper lubrication or other service requirements as established by American Coolair.

Repairs or replacements provided under the above terms shall constitute fulfillment of all American Coolair's obligations with respect to limited warranty.

THE LIMITED WARRANTY STATED HEREIN IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, STATUTORY OR IMPLIED, INCLUDING WITHOUT LIMITATION THAT OF MERCHANTABILITY AND FITNESS.

NO LIABILITY FOR REINSTALLATION COST OR FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OF ANY NATURE IS ASSUMED OR SHALL BE IMPOSED UPON AMERICAN COOLAIR.

WARNING

CAUTION



DO NOT INSTALL FAN WITH MOVING PARTS WITHIN 8 FEET OF FLOOR OR GRADE LEVEL WITHOUT A GUARD THAT COMPLIES WITH OSHA REGULATIONS. **DO NOT** USE UNLESS ELECTRICAL WIRING COMPLIES WITH ALL APPLICABLE CODES. **DO NOT** WIRE WITHOUT PROVIDING FOR A POWER SOURCE DISCONNECT AT THE FAN ITSELF. **DO NOT** SERVICE EXCEPT BY A QUALIFIED MAINTENANCE TECHNICIAN AND ONLY AFTER DISCONNECTING THE POWER SOURCE. FAILURE TO OBSERVE THESE PRECAUTIONS CAN RESULT IN SERIOUS INJURY OR DEATH.



AMERICAN COOLAIR CORPORATION

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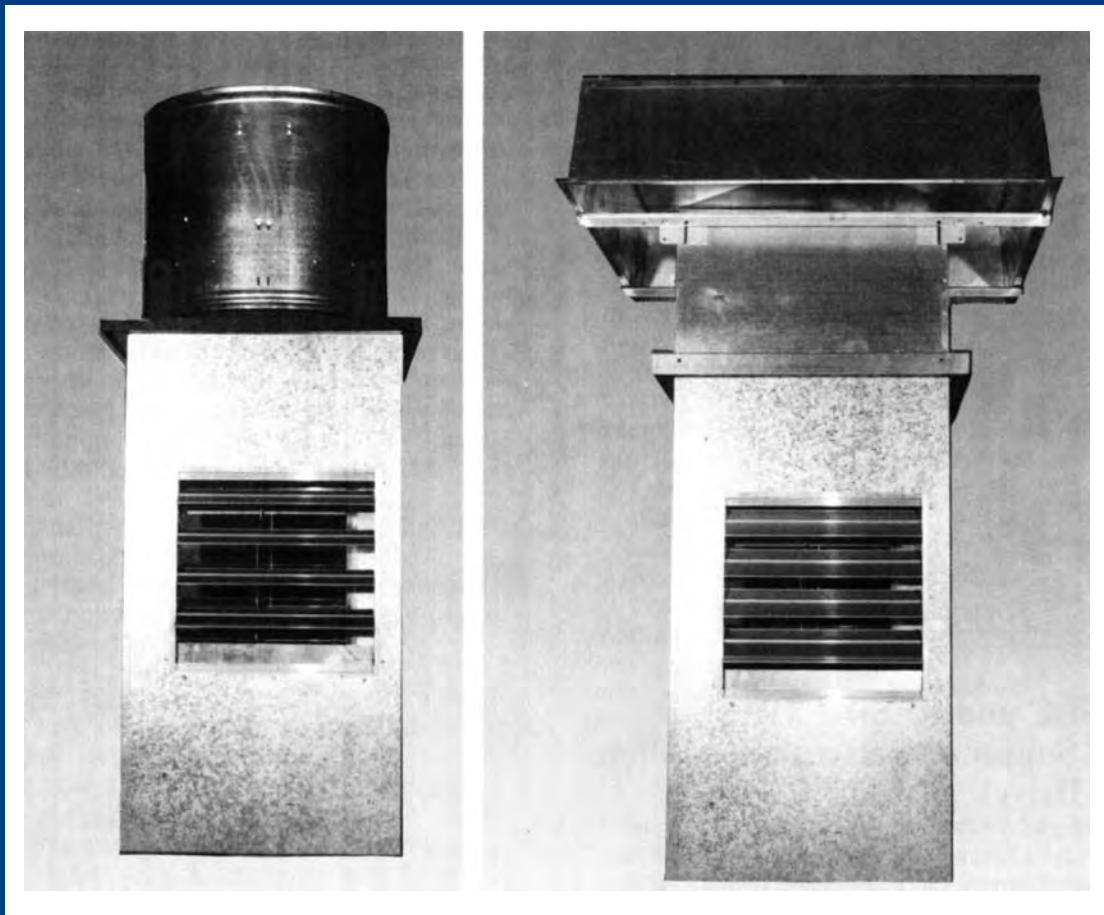
Phone: (904) 389-3646

Fax: (904) 387-3449 or (904) 381-7560

E-mail: info@coolair.com

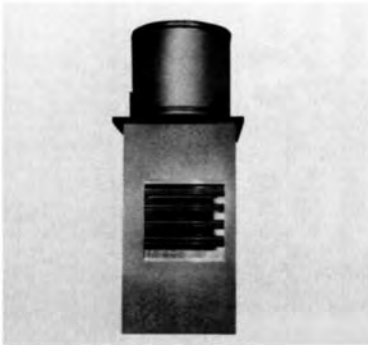
REPRESENTED BY:

Types RE & RES- Recirculating Roof Ventilators



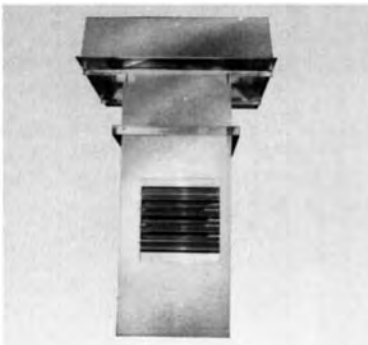
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Type REBC and REDC PRVs (Exhaust or Recirculation—Belt or Direct Drive)

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- Drawings and Dimensions Page 4
- Performance Ratings Page 5
- Typical Specifications Page 5



Type RESBC and RESDC PRVs (Exhaust, Supply or Recirculation—Belt or Direct Drive)

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- Drawings and Dimensions Page 8
- Performance Ratings Page 8
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Special Performance Requirements Page 2

Warranty and Caution Back Cover

Special performance requirements

American Coolair makes axial, propeller and centrifugal type ventilation equipment to meet virtually any requirement.

Units built in larger sizes, smaller sizes and with performance capabilities other than the standard models listed are available. Custom modifications can also be supplied for unique applications.

If you do not find a standard model in this form that meets your needs, contact your American Coolair representative for further information.

American Coolair has over 70 years of experience in air moving systems and offers you the very best equipment and knowledgeable personnel.

Additional information available

Octave band sound power levels are available for use by the acoustical engineer in predicting on-the-job noise levels.

American Coolair will provide installation instructions and maintenance information at your request as well as information on any air movement need you may have. Simply contact your American Coolair representative.

American Coolair wishes to provide you with every assistance in determining your air movement requirements.

Type RE and RES PRVs

Application

Type RE and RES recirculators are multi-purpose power roof ventilators.

They are suggested for use in commercial and industrial applications where there is sufficient ceiling height to create a temperature differential between the floor and ceiling.

These applications include factories, warehouses and large commercial buildings.

Type RE and RES recirculators function as normal power roof ventilators in warmer weather and as an energy-saving recirculation system in cold weather.

Each unit is equipped with a reversible fan that redistributes warm ceiling air throughout the plant and reduces the building's heating requirement. With the flip of a switch, it can function as a conventional roof ventilator.

The Type RE is used for exhaust or recirculation.

The Type RES is used for exhaust, supply or recirculation.

Construction

MATERIALS: The fan/damper plenum is fabricated of galvanized steel on 24" through 48" models. An optional plenum construction protected by a finish coat of epoxy can be specified. This option is standard on 54" and 60" models. The fan panel is constructed of heavy-gauge steel and the uprights, which support the motor and propeller, are formed of heavy gauge steel angle for maximum strength and rigidity. Four high strength cast aluminum airfoil blades are securely attached to a heavy cast aluminum hub.

See individual types for information on shroud or hood materials and damper construction.

Painted parts are coated with epoxy to provide a protective coating rated excellent for hardness, impact resistance, adhesion and chemical resistance.

METHODS: American Coolair's Type RE and RES recirculating PRVs are especially constructed for rugged all-weather use. The fan panel utilizes all welded construction. Both the fan panel and dampers are mounted in the plenum which has removable flanges for ease of installation. An access panel is provided in the fan/damper plenum to aid routine maintenance and inspection. The reversible propeller incorporates specifically engineered airfoil sections and hub size for optimum efficiency and physical strength. Alternate adjustable pitch propeller blades are turned 180° to one another and a double orifice is attached to the fan panel.

All propellers are dynamically balanced.

Parts requiring painting are processed through the American Coolair five-stage pretreatment system prior to the application of any coatings to ensure maximum finish adhesion. These parts use a thermosetting epoxy powder paint with an average thickness of 3 mils and baked at 400 degrees Fahrenheit to a smooth, hard, continuous finish.

Drive mechanism

BELT DRIVE: Available in sizes 24 inch to 60 inch.

Belt driven models are designed for quieter operation and in many cases, lower initial cost. They use standardly available motors.

DIRECT DRIVE: Available in sizes 24 inch to 60 inch.

Direct driven models require less maintenance, offer longer operating life, increased efficiency and reduced operating cost.

VARIABLE PITCH PULLEYS: Most belt drive models are equipped with a variable pitch motor pulley which allows fan speed adjustment where desirable.

The setting made at the factory operates the fan at maximum safe load of the motor. See individual types for cautions concerning change of pulley setting.

Bearings

BELT DRIVE: Two heavy-duty, pillow-block ball bearings support the steel fan shaft.

DIRECT DRIVE: The propeller assembly is connected directly to the motor shaft. There are no fan bearings to require maintenance. Many motors are permanently lubricated.

Motors

American Coolair's air over motor design provides extra capacity and economy because air velocity over motor is used to dissipate heat and thus increase horsepower capability.

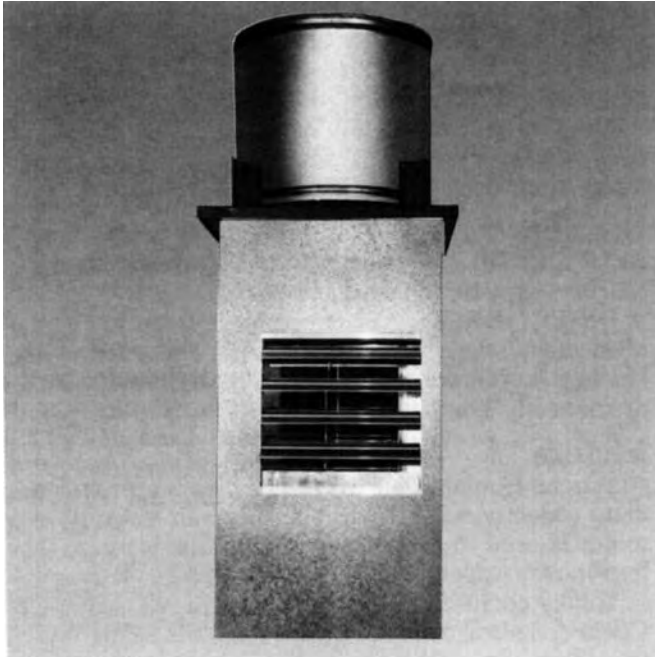
Totally enclosed motors are standard with American Coolair. Several alternatives are available to fit your specific needs, such as explosion proof motors, energy efficient motors and severe duty motors.

One-third HP to 5 HP single phase motors are available in 115v or 230v. One-third HP to 10 HP three phase motors are available in 208v, 230v, 460v or 575v.

Only nationally recognized brand motors with nationwide service facilities are used.

Type REBC and REDC

Exhaust or Recirculation—Belt or Direct Drive—4,500 to 48,000 CFM—to 1/2” static pressure



Application and features

REBC and REDC PRVs can either exhaust to the outside or recirculate inside building air.

The fan/damper plenum is suspended from a roof opening, and a stack cap and base are mounted to a curb above the opening on the roof.

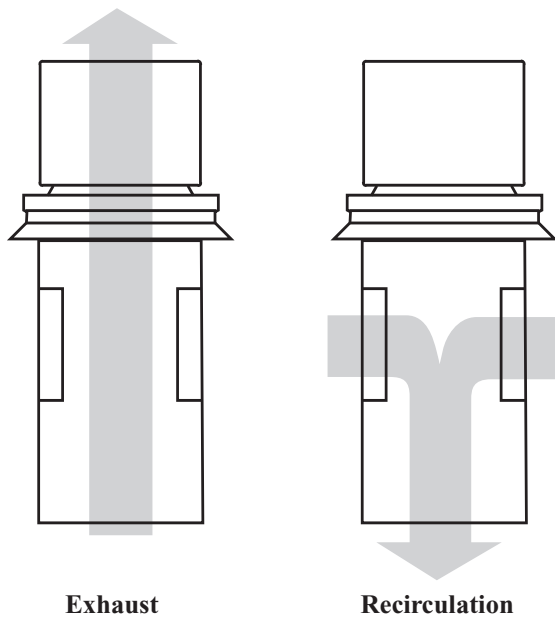
The stack cap base is fabricated of heavy gauge steel. The wind shroud is made of galvanized steel; an exterior finish coat of epoxy can be specified. The stack cap dampers are fiberglass.

The fan/damper plenum construction is described on page 3.

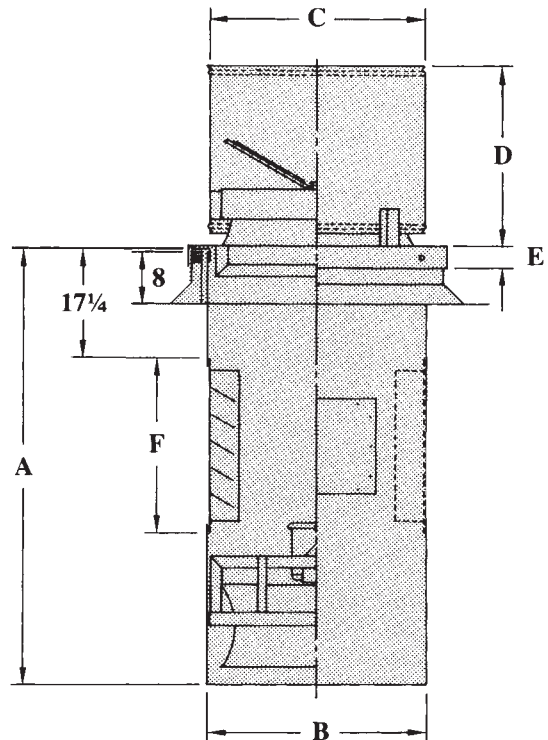
Counter-balanced dampers fabricated of aluminum (the dampers have steel frames with aluminum blades on 24” models) are located in the sides of the plenum.

When the direction of airflow is up, the stack cap dampers are opened and the plenum dampers are closed creating an upblast exhaust PRV. When the direction of airflow is reversed, the stack cap dampers are closed and the plenum dampers open toward the interior of the plenum creating a recirculating unit.

For belt drive models, caution should be exercised in making changes in the variable pitch motor pulley setting. If pulley is opened to reduce propeller speed, air velocity may be reduced below minimum essential for all-weather usage. A speed increase may overload the motor. Contact your American Coolair representative for recommendation before making any speed adjustment.



TYPE REBC-REDC



BLADE DIA.	DIMENSIONS IN INCHES					
	A	B	C	D	E	F
24	65½	33	32	28¾	2	25½
30	71½	39	38	33¾	2	31¾
36	77¾	45	44	33¾	2	37¾
42	83¾	51	50	38½	2	43¾
48	92¾	57	56	38½	2	49¾
54	98¾	63	62	43¾	3	55¾
60	104¾	70	68	46¾	3	61¾

Note: Roof curb dimensions are critical.
 Inside curb dimension—"B" dimension plus 1 inch
 Outside curb dimensions—"B" dimension plus 4 inches

Dimensions

Dimension "A" is overall height of plenum.
 Dimension "B" is width of plenum (square).
 Dimension "C" is diameter of circular wind shroud.
 Dimension "D" is overall height above curb.
 Dimension "E" is depth of curb cap flange.
 Dimension "F" is overall length and width of damper including flange.

Performance

Ratings

American Coolair Corporation certifies that the Type RE PRV models shown herein have ratings based on tests to AMCA (Air Movement and Control Association Int'l, Inc.) Standard 210. Performance shown is for Type RE PRVs without ducts. For belt drive models, BHP does not include drive losses. BHP includes bearing losses. Performance shown is for exhaust operation. Performance for recirculation operation averages 5% less due to damper and plenum restrictions.

Typical Specifications

Recirculating power roof ventilators shall be Type RE as manufactured by American Coolair Corporation, Jacksonville, Florida; specific models shall be as shown in the fan schedule. Curb cap and fan component shall be of welded steel construction, PRV wind shroud shall be of galvanized steel. (Insert additional specifications from below for specific size PRV.) Shroud dampers shall be of fiberglass. Plenum dampers shall be of aluminum (for 24" models, plenum damper frames shall be of steel), with aluminum blades reinforced with galvanized steel. Fan blades shall be of high strength cast aluminum securely attached to a heavy cast aluminum hub. Propeller blade pitch shall be adjustable and blade shall be designed to move air equally in either direction, exhaust or recirculation. (For belt drive models: Ball bearings shall be of the heavy-duty

pillow-block type. Motor pulleys shall be variable pitch.) (For direct drive models: Entire propeller shall be mounted directly to motor shaft.) Performance ratings shall be based on tests in accordance with AMCA (Air Movement and Control Association Int'l, Inc.) standards and procedures. (Specify for each PRV model in the schedule: the required CFM and static pressure; motor enclosure, phase and volts; and accessories such as safety disconnect switch, safety guard, prefabricated curb and special protective coating.)

ADDITIONAL SPECIFICATIONS FOR 24" THROUGH 48" SIZE PRVs: Plenum shall be of galvanized steel.

ADDITIONAL SPECIFICATIONS FOR 54" AND 60" SIZE PRVs: Plenum shall be of hot rolled steel protected by a finish coat of epoxy.

ITEM NO.	CUBIC FEET PER MINUTE (CFM) AT STATIC PRESSURE ¹					PRV ² MODEL	FAN SIZE	MOTOR HP	FAN RPM	SONES ³	BRAKE ⁴ HP	BLADE ⁵ PITCH	APPROX. SHIP WT.
	0"	¼"	½"	¾"	1"								
1	5,450	4,450	—	—	—	RE-C24H11		½	1160	23	.38	20°	601
2	6,500	5,450	—	—	—	RE-C24J11		½	1160	26	.55	27°	603
3	6,550	5,950	5,300	4,600	—	RE-C24K17	24	¾	1750	43	.85	14°	607
4	7,650	7,050	6,300	5,600	5,000	RE-C24L17		1	1750	48	1.13	18°	612
5	9,300	8,750	8,150	7,300	6,200	RE-C24M17		1½	1750	53	1.66	25°	616
6	8,350	6,950	—	—	—	RE-C30J8		½	870	21	.56	22°	710
7	8,800	7,700	—	—	—	RE-C30K11		¾	1160	33	.81	15°	714
8	10,500	9,450	8,200	—	—	RE-C30L11		1	1160	38	1.10	20°	719
9	12,200	11,100	9,800	7,850	—	RE-C30M11	30	1½	1160	38	1.65	25°	723
10	12,250	11,500	10,750	10,000	9,100	RE-C30N17		2	1750	73	2.26	13°	731
11	15,000	14,200	13,400	12,650	11,750	RE-C30P17		3	1750	79	3.30	18°	748
12	19,100	18,300	17,500	16,650	15,750	RE-C30Q17		5	1750	85	5.50	27°	763

Type REBC and REDC Performance Ratings (cont'd)

ITEM NO.	CUBIC FEET PER MINUTE (CFM) AT STATIC PRESSURE ¹					PRV ² MODEL	FAN SIZE	MOTOR HP	FAN RPM	SONES ³	BRAKE ^{4,6} HP	BLADE ⁵ PITCH	APPROX. SHIP WT.
	0"	1/8"	1/4"	3/8"	1/2"								
13	8,800	7,400	—	—	—	RE-C36J8		1/2	870	26	.56	10°	887
14	11,400	9,700	7,300	—	—	RE-C36K8		3/4	870	27	.82	15°	891
15	13,600	11,850	9,600	—	—	RE-C36L8		1	870	28	1.11	20°	897
16	15,200	13,400	11,200	—	—	RE-C36M8		1 1/2	870	30	1.67	24°	901
17	16,100	14,850	13,500	11,900	—	RE-C36N11	36	2	1160	44	2.21	16 1/2°	908
18	20,500	19,100	17,700	16,100	14,750	RE-C36P11		3	1160	48	3.26	24°	927
19	22,700	22,000	21,300	20,500	19,500	RE-C36Q17		5	1750	98	5.60	15°	941
20	27,400	26,600	26,000	25,100	24,100	RE-C36R17		7 1/2	1750	91	8.21	20°	982
21	32,400	31,750	31,000	30,000	28,500	RE-C36S17		10	1750	109	11.05	25 1/2°	1010
22	14,000	12,200	—	—	—	RE-C42L8		1	870	26	1.11	10°	1145
23	17,250	15,150	12,600	—	—	RE-C42M8		1 1/2	870	30	1.67	14°	1149
24	19,550	17,500	15,000	12,000	—	RE-C42N8	42	2	870	33	2.24	17°	1173
25	26,000	24,200	22,100	19,000	13,500	RE-C42P8		3	870	36	3.32	26°	1192
26	28,800	27,500	26,150	24,500	22,600	RE-C42Q11		5	1160	55	5.54	20°	1211
27	21,550	18,600	—	—	—	RE-C48M6		1 1/2	680	26	1.66	15 1/2°	1454
28	25,200	22,500	18,800	—	—	RE-C48N6		2	680	28	2.22	20°	1475
29	30,100	27,200	23,400	—	—	RE-C48P6		3	680	31	3.22	27°	1673
30	21,000	18,600	16,000	—	—	RE-C48N8	48	2	870	35	2.21	10°	1449
31	25,800	23,600	21,100	18,100	—	RE-C48P8		3	870	40	3.30	14°	1466
32	35,400	33,200	30,750	28,000	24,250	RE-C48Q8		5	870	45	5.42	23°	1631
33	37,400	36,400	35,000	33,400	30,500	RE-C48R11		7 1/2	1160	68	8.40	16 1/2°	1637
34	44,500	43,000	41,000	39,000	36,850	RE-C48S11		10	1160	77	11.10	21°	1673
35	23,100	20,400	—	—	—	RE-C54N6		2	680	36	2.09	10°	1931
36	30,100	27,000	23,100	—	—	RE-C54P6		3	680	39	3.31	15°	2128
37	39,500	37,000	32,500	28,000	—	RE-C54Q6		5	680	47	5.46	23°	1631
38	35,800	33,600	31,100	28,150	24,250	RE-C54Q8	54	5	870	57	5.43	13 1/2°	2086
39	45,900	43,200	40,750	38,000	34,600	RE-C54R8		7 1/2	870	66	8.31	20°	2122
40	46,700	45,100	43,500	41,600	39,600	RE-C54S11		10	1160	104	11.16	13°	2128
41	32,000	28,500	24,100	—	—	RE-C60P6		3	680	44	3.28	10°	2444
42	42,750	39,500	35,400	30,500	—	RE-C60Q6		5	680	48	5.56	16°	2613
43	36,100	33,100	30,100	26,500	—	RE-C60Q8	60	5	870	63	5.55	8°	2402
44	48,000	45,400	42,600	39,500	35,600	RE-C60R8		7 1/2	870	77	8.38	13°	2438

1—Performance shown is for exhaust operation. CFM performance for recirculation operation will be 1½% to 8% less, depending on size and CFM of fan, due to recirculation and damper restriction.

2—The first four letters of the model number identify **fan type, drive configuration and style**. (Drive configuration has been omitted in table. Insert "D" for direct drive or "B" for belt drive to complete model number.) The next two numbers indicate **fan size**; the next letter identifies motor **horsepower**; the last number (or numbers) indicates **RPM** in hundreds. Example: Model REDC24H11 is a Type RE, direct drive. Style C, 24" size, 1/2 HP, 1160 RPM.

3—The sound ratings shown are loudness values in fan sones at 5 ft. (1.5m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for Installation Type A: free inlet fan sone levels. The sound ratings shown are at 0" static pressure.

4—Maximum brake horsepower (BHP) within the catalog performance range. On belt drive models, BHP does not include drive losses. Bearing losses are included. BHP at most static pressures listed is less than that shown, in some cases substantially less. For specific BHP values at individual static pressure points contact your American Coolair representative. Because of the cooling the motor receives from the moving air stream, motor loading beyond the nominal nameplate rating on these American Coolair fans does not overheat the motor and is within NEMA recommended limits and motor service factor. It is not detrimental to the motor and is economically desirable.

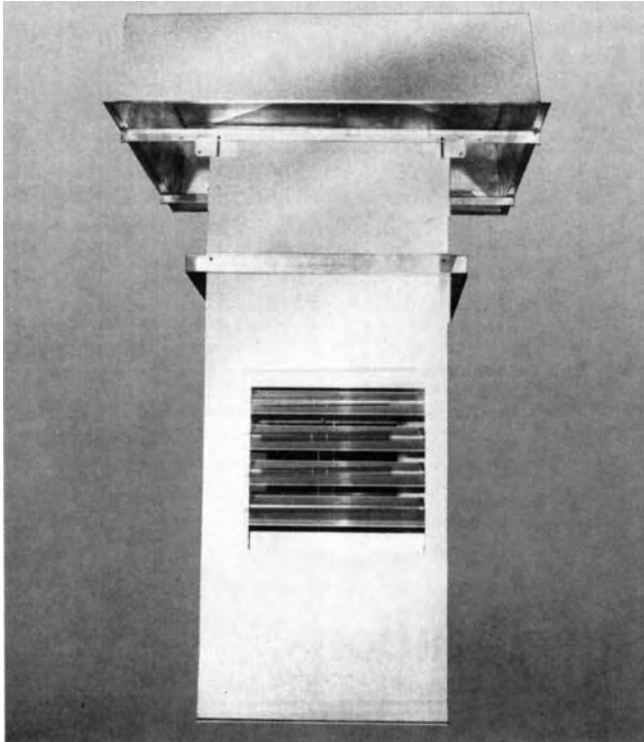
5—All models use a four bladed adjustable pitch propeller with cast aluminum airfoil blades. Alternate blades are pitched 180° apart. Blade pitch in degrees from plane of hub is shown.

6—To convert air performance (CFM and SP) and power (BHP) to metric units, multiply CFM x .000472 to obtain cubic meters per second. Multiply SP x 248.36 to obtain Pa (Pascals). Multiply BHP x .7457 to obtain Kilowatts.

Example: 3904 CFM x .000472 = 1.8427 Cubic meters per second.
0.125 SP x 248.36 = 31.05 Pascals
0.886 BHP x .7457 = 0.661 Kilowatts

Type RESBC and RESDC

Exhaust, Supply or Recirculation—Belt or Direct Drive-2,600 to 40,000 CFM—to 1/2" static pressure



Application and features

RESBC and RESDC PRVs can exhaust to the outside, supply from the outside or recirculate inside building air.

With the addition of an optional modulating damper motor, various amounts of outside air may be mixed with recirculated inside building air.

The fan/damper plenum is suspended from a roof opening, and a hood and base are mounted to a curb above the opening on the roof.

The hood and base are made of galvanized steel. An exterior finish coat of epoxy can be specified.

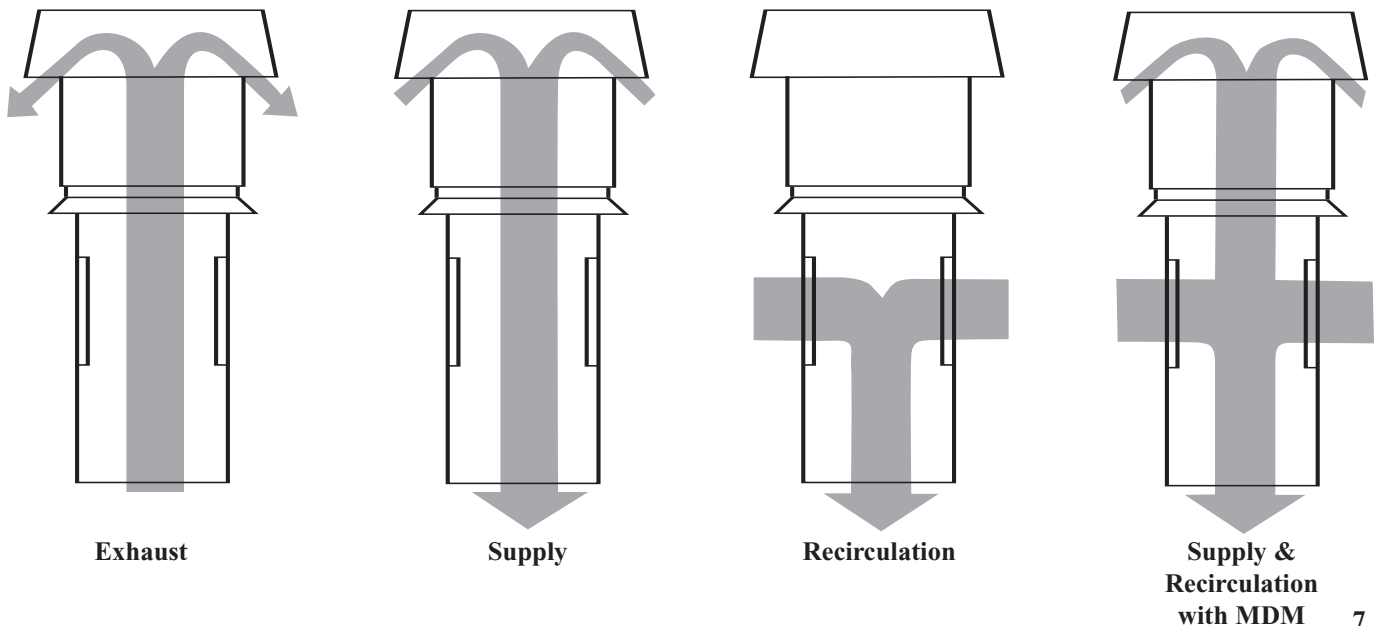
The fan/damper plenum construction is described on page 3.

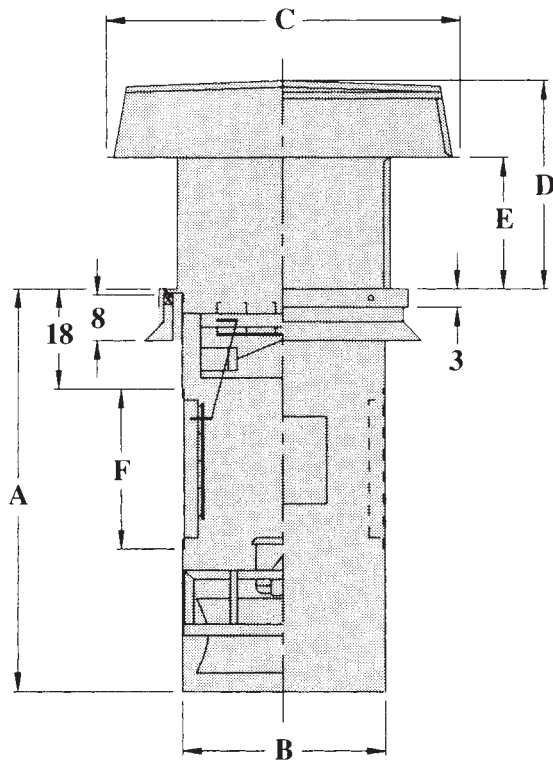
Motor operated, center pivoted dampers are located in the sides of the plenum and at the top of the plenum in the throat of the roof curb. Dampers are linked together so that as the throat damper closes, the plenum dampers open and vice versa. All dampers are shipped installed in the plenum.

When the direction of airflow is up, the dampers in the sides of the plenum are closed and the damper at the top of the plenum is opened creating an exhaust PRV. When the direction of airflow is reversed and the damper arrangement is not changed, the unit acts as a supply PRV. With the direction of airflow down and the damper positions reversed, a recirculating unit is created.

For belt-drive models, caution should be exercised in making changes in the variable pitch motor pulley setting. The motor pulley can be opened to reduce fan speed and thus decrease air flow.

If an increase in fan speed is desired, contact your American Coolair representative for information on fan performance and motor load before making any adjustment.





TYPE RESBC-RESDC

Dimensions

Dimension "A" is overall height of plenum.

Dimension "B" is width of plenum (square).

Dimension "C" is OD of square hood.

Dimension "D" is overall height above curb.

Dimension "E" is distance from curb to hood.

Dimension "F" is overall length and width of damper, including flange.

DIMENSIONS IN INCHES

BLADE DIA.	A	B	C	D	E	F
24	65½	33	57	33¾	20¼	25
30	71¾	39	67	38½	20¼	30½
36	77¾	45	78	41¾	20¼	36½
42	83¾	51	88	43¾	20¼	42½
48	92¾	57	98	51	23¾	48½
54	98¾	63	109	55¾	23¾	54½
60	104¾	70	109	55¾	23¾	60½

Note: Roof curb dimensions are critical.

Inside curb dimension—"B" dimension plus 1 inch

Outside curb dimensions—"B" dimension plus 4 inches

Performance Ratings

American Coolair Corporation certifies that the Type RES PRV models shown herein have ratings based on tests to AMCA (Air Movement and Control Association Int'l, Inc.) Standard 210. Performance shown is for Type RES PRVs without ducts. For belt drive models, BHP does not include drive losses. BHP includes bearing losses. Performance shown is for supply or recirculation operation. Performance for exhaust operation will be slightly less due to hood restriction.

Recirculating power roof ventilators shall be Type RES as manufactured by American Coolair Corporation, Jacksonville, Florida; specific models shall be as shown in the fan schedule. Fan component shall be of welded steel construction, PRV hood and base shall be of galvanized steel. (Insert additional specifications from below for specific size PRV.) PRV throat damper and plenum dampers shall be centered pivoted and motor operated and shall be of aluminum. Fan blades shall be of high strength cast aluminum securely attached to a heavy cast aluminum hub. Propeller blade pitch shall be adjustable and blade shall be designed to move air equally in either direction, exhaust or supply/recirculation. (For belt drive models: Ball bearings shall be of the heavy-duty pillow-block type. Motor pulleys shall be variable pitch.) (For

direct drive models: Entire propeller assembly shall be mounted directly to motor shaft.) Performance ratings shall be based on tests in accordance with AMCA (Air Movement and Control Association Int'l, Inc.) standards and procedures. (Specify for each PRV model in the schedule the required CFM and static pressure; motor enclosure, phase and volts; and accessories such as modulating damper motor, safety disconnect switch, safety guard, prefabricated curb and special protective coating.)

ADDITIONAL SPECIFICATIONS FOR 24" THROUGH 48" SIZE PRVs: Plenum shall be of galvanized steel.

ADDITIONAL SPECIFICATIONS FOR 54" AND 60" SIZE PRVs: Plenum shall be of hot rolled steel protected by a finish coat of epoxy.

Type RESBC and RESDC

ITEM NO.	CUBIC FEET PER MINUTE (CFM) AT STATIC PRESSURE ¹					PRV ² MODEL	FAN SIZE	MOTOR HP	FAN RPM	SONES ³	BRAKE ^{4,6} HP	BLADE ⁵ PITCH	APPROX. SHIP WT.
	0"	¼"	½"	¾"	1"								
1	4,850	4,100	2,700	—	—	RES-C24H11		½	1160	23	.36	20°	658
2	5,650	4,800	2,600	—	—	RES-C24J11		½	1160	26	.56	26°	660
3	6,050	5,600	5,050	4,300	3,100	RES-C24K17	24	¾	1750	43	.83	14°	665
4	7,150	6,700	6,200	5,450	4,150	RES-C24L17		1	1750	48	1.14	19°	670
5	8,400	7,850	7,300	6,600	5,400	RES-C24M17		1½	1750	53	1.65	24½°	674
6	7,250	5,800	3,050	—	—	RES-C30J8		½	870	21	.53	20½°	781
7	8,050	7,200	5,700	3,800	—	RES-C30K11		¾	1160	33	.81	15°	785
8	9,400	8,400	7,100	5,700	—	RES-C30L11	30	1	1160	36	1.10	20°	791
9	11,000	9,900	8,400	6,400	4,600	RES-C30M11		1½	1160	38	1.65	25°	795
10	10,800	10,250	9,700	9,000	8,000	RES-C30N17		2	1750	73	2.26	12½°	802
11	12,950	12,400	11,800	11,000	10,200	RES-C30P17		3	1750	79	3.21	17°	819
12	16,900	16,250	15,600	14,750	13,800	RES-C30Q17		5	1750	85	5.32	27°	835
13	7,200	5,500	2,800	—	—	RES-C36J8		½	870	26	.53	8°	984
14	10,250	8,950	6,400	—	—	RES-C36K8		¾	870	27	.82	15°	988
15	12,100	10,600	8,300	5,000	—	RES-C36L8		1	870	28	1.19	20°	993
16	14,200	12,500	9,800	6,200	—	RES-C36M8		1½	870	30	1.66	27°	998
17	13,700	12,750	11,550	9,900	7,500	RES-C36N11	36	2	1160	46	2.20	15°	1005
18	17,350	16,200	15,000	13,300	10,400	RES-C36P11		3	1160	48	3.27	22½°	1024
19	19,000	18,400	17,700	17,000	16,200	RES-C36Q17		5	1750	86	5.50	13°	1037
20	23,700	23,000	22,300	21,500	20,650	RES-C36R17		7½	1750	91	8.30	19°	1078
21	27,750	27,100	26,100	25,200	24,200	RES-C36S17		10	1750	109	11.09	24½°	1107
22	10,500	8,500	6,250	3,000	—	RES-C42L8		1	870	26	1.08	7°	1268
23	15,400	13,600	11,100	8,000	—	RES-C42M8		1½	870	30	1.63	13½°	1273
24	17,000	15,400	13,000	9,500	5,250	RES-C42N8	42	2	870	33	2.09	16°	1297
25	21,600	19,700	17,150	13,200	9,250	RES-C42P8		3	870	36	3.35	25°	1316
26	24,500	23,000	21,600	20,000	17,900	RES-C42Q11		5	1160	55	5.50	18½°	1335
27	19,100	16,500	12,750	—	—	RES-C48M6		1½	680	26	1.65	15°	1577
28	22,500	20,000	16,000	—	—	RES-C48N6		2	680	28	2.22	20°	1598
29	25,000	22,000	17,500	—	—	RES-C48P6		3	680	31	3.30	25°	1796
30	16,600	14,250	—	—	—	RES-C48N8	48	2	870	35	2.15	7½°	1572
31	22,750	21,000	18,500	14,750	11,750	RES-C48P8		3	870	40	3.29	13½°	1587
32	28,500	26,500	24,250	21,300	15,500	RES-C48Q8		5	870	45	5.57	20°	1754
33	32,500	31,200	29,500	28,000	26,000	RES-C48R11		7½	1160	67	8.19	15°	1760
34	38,000	36,400	34,800	33,000	31,400	RES-C48S11		10	1160	75	11.00	20°	1796
35	21,400	19,000	14,500	9,350	—	RES-C54N6		2	680	36	2.09	10°	2086
36	26,100	23,500	19,500	13,500	9,250	RES-C54P6		3	680	39	3.31	15°	2284
37	35,000	32,400	28,500	21,000	16,000	RES-C54Q6	54	5	680	47	5.47	24°	2457
38	30,250	28,400	26,000	23,000	18,500	RES-C54Q8		5	870	57	5.45	12°	2242
39	39,000	37,000	34,500	32,000	28,000	RES-C54R8		7½	870	66	8.20	19°	2277
40	40,000	38,500	36,900	35,250	33,200	RES-C54S11		10	1160	104	11.12	12°	2284
41	25,500	22,000	18,000	12,000	7,000	RES-C60P6		3	680	44	3.27	8°	2544
42	36,750	34,000	30,500	25,500	18,500	RES-C60Q6		5	680	48	5.42	15°	2713
43	31,250	28,500	25,400	21,850	18,000	RES-C60Q8	60	5	870	63	5.55	7°	2502
44	40,500	38,000	35,250	32,400	28,750	RES-C60R8		7½	870	72	8.26	11½°	2538

1—Performance shown is for supply operation or recirculation operation and includes resistance of dampers. Performance for exhaust operation will be slightly less due to hood restriction.

2—The first five letters of model number identify fan type, drive configuration and style. (Drive configuration has been omitted in table. Insert "D" for direct drive or "B" for belt drive to complete model number.) The next two numbers indicate fan size; the next letter identifies motor horsepower; the last number (or numbers) indicates RPM in hundreds. Example: Model RESDC24H11 is a Type RES, direct drive, Style C, 24" size, ½HP, 1160 RPM.

3—The sound ratings shown are loudness values in fan sones at 5 ft. (1.5m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for Installation Type A: free inlet fan sone levels. The sound ratings shown are at 0" static pressure.

4—Maximum brake horsepower (BHP) within the catalog performance range. On belt drive models, BHP does not include drive losses. Bearing losses are included. BHP at most static pressures listed is less than that shown, in some cases substantially less. For specific BHP values at individual static pressure points contact your American Coolair representative. Because of the cooling the motor receives from the moving air stream, motor loading beyond the nominal nameplate rating on these American Coolair fans does not overheat the motor and is within NEMA recommended limits and motor service factor. It is not detrimental to the motor and is economically desirable.

5—All models use a four bladed adjustable pitch propeller with cast aluminum airfoil blades. Alternate blades are pitched 180° apart. Blade pitch in degrees from plane of hub is shown.

6—To convert air performance (CFM and SP) and power (BHP) to metric units, multiply CFM x .000472 to obtain cubic meters per second. Multiply SP x 248.36 to obtain Pa (Pascals). Multiply BHP x .7457 to obtain Kilowatts.

Example: 3904 CFM x .000472 = 1.8427 Cubic meters per second.
0.125 SP x 248.36 = 31.05 Pascals
0.886 BHP x .7457 = 0.661 Kilowatts

Installation, selection and maintenance

INSTALLATION: RE and RES PRVs are shipped in three packages for quick assembly and installation on the roof curb. Mounting, installation and maintenance instructions are included.

The plenum, complete with fan and dampers, can be lowered through the roof opening with flanges attached or raised from below with flanges temporarily unbolted until the top of the plenum is above the roof opening. The plenum is then attached to the roof curb with the flanges resting on top of the curb.

Next, the curb cap or base should be securely attached to the roof curb.

The wind shroud or hood is then easily attached to the base.

Curb should be level.

Before connecting motor to power source, check motor nameplate to be sure of correct phase and voltage.

Make sure propeller turns freely without striking fan frame or any foreign object which may interfere with its operation.

SELECTION: Choice of specific model(s) should be based on exhaust or supply CFM requirements. Recirculation velocities should be considered with regard to human comfort at floor levels.

SOUND RATINGS: When sound is a critical problem, ventilator selection should be made from accurate sound data. The only completely accurate sound ratings are octave band sound power levels. American Coolair can furnish these for each PRV model on request. With this data the acoustical engineer can accurately predict on-the-job sound levels. Published sound ratings are in Sones. American Coolair can also provide sound ratings in dBA. Both Sones and dBA are sound pressure ratings which have been calculated from the octave band sound power ratings. They may be used as a guide in ventilator selection where sound is NOT a critical problem.

MAINTENANCE: American Coolair's Type RE and Type RES PRVs are factory lubricated for extended service without re-lubrication. Belt drive models use pillow-block ball bearings and should be lubricated annually or more frequently, depending upon conditions and operating cycle. Refer to maintenance instructions shipped with fan. Instructions for motor lubrication are supplied by motor manufacturer. On belt drive units, re-check belt tension as part of maintenance routine to assure maximum efficiency and belt life.

Accessories

American Coolair provides a long list of accessories that can be selected from our Form 610-15. Several accessories commonly used with Type RE and Type RES PRVs include:

SAFETY DISCONNECT SWITCH: Prevents accidental starting of PRV. NEMA I enclosure. Shipped separate for mounting to fan/damper plenum after installation through roof opening.

PREFABRICATED ROOF CURB: You may specify surface mount or bulb T-style 8-inch standard height curbs. Curbs are welded galvanized steel, insulated, with wood nailer. Construction to accommodate single or double pitch roof slope is also available. (Special height plenum may be required depending on amount of roof slope.)

Curb size is different from standard American Coolair curbs used with other type PRVs. Specify "curb for type RE-RES PRV".



SAFETY GUARD: Attaches to interior opening at bottom of plenum. The guard is made of PVC coated steel wire with $\frac{1}{2}$ " x 1" spacing. If four-way diffuser is needed, this accessory is not available.

SPARK RESISTANT CONSTRUCTION: For hazardous locations, all RE and RES PRVs standardly use cast aluminum airfoil blade assemblies and any PRV can be ordered with explosion-proof motors. Motors only qualify for Class I Group D and Class II Groups F & G hazards.

PROTECTIVE COATINGS: For most applications, the American Coolair powder coating system will provide the necessary surface protection for painted parts. This system includes a thermosetting epoxy powder coating to an average thickness of 3 mils and

baked at 400 degrees Fahrenheit for hardness, impact resistance, adhesion and chemical resistance.

The fan assembly on all models, and the curb cap on Type RE units are heavy gauge steel using all welded construction throughout. The standard finish is epoxy paint; however, additional corrosion protection is available by specifying hot dip galvanizing.

The plenum on 54" and 60" size units is heavy gauge steel finished with epoxy paint.

The wind shroud on Type RE units, the hood and base on Type RES units and the plenum on 24" through 48" size units are fabricated of galvanized steel. A finish coat of epoxy can be specified on the exterior of all galvanized components if desirable.

For applications that require more specialized surface protection, American Coolair offers alternatives: 6 mil epoxy or hot dip galvanizing, and others. For more information about special protective coatings, contact your American Coolair representative.

FOUR-WAY DIFFUSER: For directing airflow from the plenum into the plant area as desired. It is shipped mounted to the plenum. The 14 gauge frame and 20 gauge blades are constructed of galvanized steel.

MAGNETIC LATCHES: (Type RE) The addition of magnetic latches can minimize "damper flap" and accidental venting when unit is not in use.

OUTLET GUARD: (Type RE) The outlet guard mounts on top edge of wind shroud. It is constructed of 1" x 1", 14-gauge galvanized wire mesh. This guard prevents entry of foreign objects that might damage units.

MODULATING DAMPER MOTOR (Type RES): For use when it is desirable to maintain a predetermined inside temperature by mixing varying amounts of recirculated plant air and cool outside air. The modulating motor, complete with linkage, electronic temperature controller and transformer are mounted within the plenum. A remote temperature sensor with set point is also provided for mounting and wiring by the customer. Primary voltage must be specified.

FILTERS: (Type RES) When specified, units come with a set of filters for mounting during installation. They are nominal 2-inch thick, permanent, cleanable filters as manufactured by Research Products Corp., or equivalent. They are factory coated with filter

adhesive. Filters are easily cleaned by flushing with water. Adhesive must be reapplied after cleaning. Filter racks are designed for easy filter removal and replacement. Standard filters are designed to handle air velocities up to 650 feet per minute. They should not be specified where ambient temperature will exceed 120°F.

BIRD SCREEN: (Type RES) This galvanized wire mesh will prevent entry of birds and rodents.

UNDERCOATING: (Type RES) A special undercoating is factory-applied to interior surfaces of hood and base. It reduces condensation and adds sound-deadening insulation.

FIBERGLASS INSULATION: (Type RES) The inner crown of the hood and inside the base section of Type RES units can be lined with one-inch thick fiberglass insulation to minimize condensation in cold weather.

REVERSING SWITCH: For single phase motor operation, American Coolair offers this reversing switch to control fan motor for either exhaust or supply operation. It is essential for fan rotation to stop entirely before reversing direction. Therefore, a separate ON/OFF switch is required. American Coolair's reversing switch is shipped separately for installation in a convenient location.

ELECTRICAL CONTROLS: Normally the needed electrical controls are provided by those involved with the fan installation.

LIMITED WARRANTY

In the sale of its products, American Coolair Corporation agrees to correct, by repairs or replacement, any defects in workmanship or materials that develop under proper and normal use during the period of one year from the date of shipment from the factory. Any product or part proving, upon American Coolair's examination, to be defective during the limited warranty period will be repaired or replaced, at American Coolair's option, f.o.b. factory, at no charge.

Deterioration or wear caused by chemicals, abrasive action or excessive heat shall not constitute a defect. Motors are guaranteed only to the extent of the manufacturers warranty.

American Coolair's limited warranty does not apply to any of its products or parts that have been subjected to accidental damage, misuse by the user, unauthorized modifications, improper installation or electrical wiring, or lack of proper lubrication or other service requirements as established by American Coolair.

Repairs or replacements provided under the above terms shall constitute fulfillment of all American Coolair's obligations with respect to this limited warranty.

THE LIMITED WARRANTY STATED HEREIN IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, STATUTORY OR IMPLIED, INCLUDING WITHOUT LIMITATION THAT OF MERCHANTABILITY AND FITNESS.

NO LIABILITY FOR REINSTALLATION COST OR FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OF ANY NATURE IS ASSUMED OR SHALL BE IMPOSED UPON AMERICAN COOLAIR.

WARNING



CAUTION

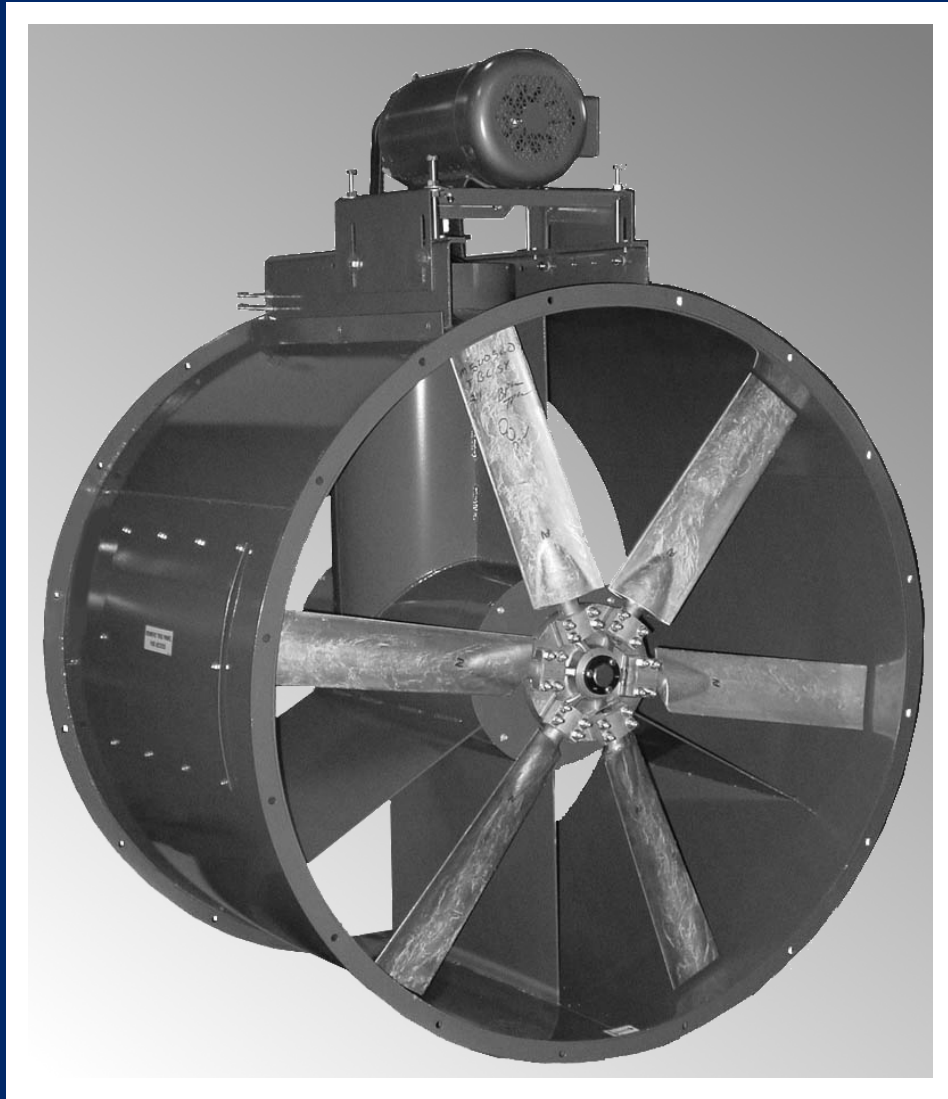
DO NOT INSTALL WITH MOVING PARTS WITHIN 8 FEET OF FLOOR OR GRADE LEVEL WITHOUT A GUARD THAT COMPLIES WITH OSHA REGULATIONS. **DO NOT** USE UNLESS ELECTRICAL WIRING COMPLIES WITH ALL APPLICABLE CODES. **DO NOT** WIRE WITHOUT PROVIDING FOR A POWER SOURCE DISCONNECT AT THE FAN ITSELF. **DO NOT** SERVICE EXCEPT BY A QUALIFIED MAINTENANCE TECHNICIAN AND ONLY AFTER DISCONNECTING THE POWER SOURCE. FAILURE TO OBSERVE THESE PRECAUTIONS CAN RESULT IN SERIOUS INJURY OR DEATH.



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Represented By:

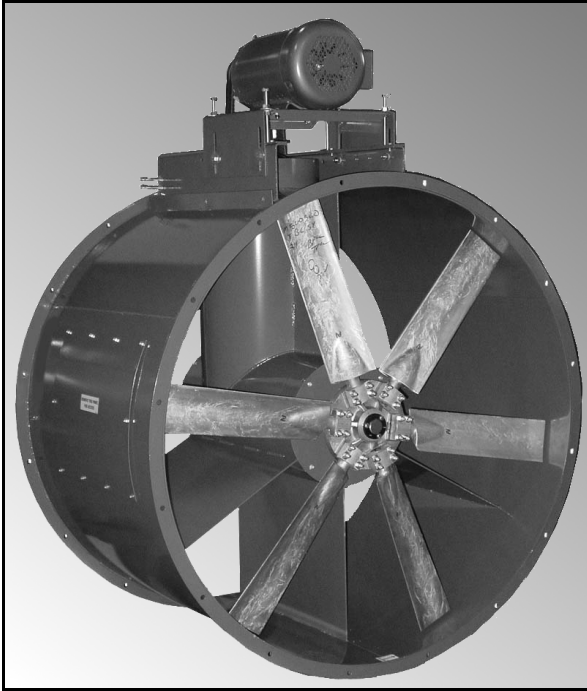
Type T Duct Fans



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Type T Fans - General Information

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Type TB Fans (Belt Drive)

- Application and Features
- Drawings and Dimensions
- Performance Ratings
- Typical Specification

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Type TD Fans (Direct Drive)

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Special Performance Requirements

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Special performance requirements

American Coolair makes axial, propeller and centrifugal type ventilation equipment to meet virtually all requirements.

Units with performance capabilities other than the standard models listed in this form are available.

Custom modifications can also be supplied for unique applications.

If you do not find a standard model in this form that meets your needs, contact your nearest American Coolair representative for further information.

American Coolair Corporation has over 80 years of experience in air moving systems and offers you knowledgeable personnel and the very best equipment.

Additional information available

Octave band sound power levels are available for use by the acoustical engineer in predicting on-the-job sound levels.

American Coolair will provide installation instructions and maintenance information at your request, as well as information on any air movement need you may have. For performance requirements not listed or alternate construction requirements, contact your American Coolair representative.

American Coolair wishes to provide you with every assistance in determining your air movement requirements.

Type T Fans

Application

A high performance, axial flow fan designed for duct connected applications.

Suggested for commercial and industrial uses such as make-up air systems, booster fans, return air fans or to exhaust contaminated or high temperature air.

Type T fans are available in a large selection of CFMs and operate efficiently against static pressures up to 2 inches.

Construction

MATERIALS: The fan housing and motor supports are made of heavy gauge steel plate for maximum strength and durability.

See specific fan type features for information on blade material.

Painted parts are coated with a baked-on epoxy to provide a protective coating rated excellent for hardness, impact resistance, adhesion and chemical resistance. For protective coating options see the Accessories section.

METHODS: The fan unit is mounted within the housing with flanged ends to form a complete fan-duct section.

All blade assemblies are dynamically balanced.

Parts requiring painting are processed through the advanced American Coolair five-stage pretreatment system prior to the application of any coatings to ensure maximum finish adhesion.

These parts use a thermosetting epoxy powder paint with an average thickness of 3 mils and baked at 400 degrees Fahrenheit to a smooth, hard, continuous finish.

Drive mechanism

BELT DRIVE: Available in sizes 18 inch to 84 inch.

The belt drive design is recommended where high temperature or contaminated air make it desirable to isolate the motor, bearings and belts from the airstream or for quieter operation by using low fan speed. Standard fan components are suitable for handling air up to 250°F. (For temperatures in excess of 250°F, see page 4.)

VARIABLE PITCH PULLEYS: Most belt driven models are equipped with a variable pitch motor pulley which allows fan speed adjustment where desirable.

The setting made at the factory allows the fan to operate within the maximum safe capabilities of the motor. The pulley may be opened to reduce fan speed and thus decrease air flow.

If an increase in fan speed is desired, contact your American Coolair representative for information on fan performance and motor load before making any adjustment.

DIRECT DRIVE: Available in sizes 18 inch to 60 inch.

The direct drive design is suitable for applications where motor location in the air stream is satisfactory.

Direct driven models require less maintenance, offer longer operating life and increased efficiency.

Bearings

See specific fan type features for bearing information.

Motors

Totally enclosed motors are standard for all models.

A selection of motor speeds is available on direct drive units.

Several alternatives are available to fit your specific needs, such as explosion proof motors, two-speed motors, energy efficient motors and severe duty motors,

Only nationally recognized brand motors with nationwide service facilities are used.

Listings



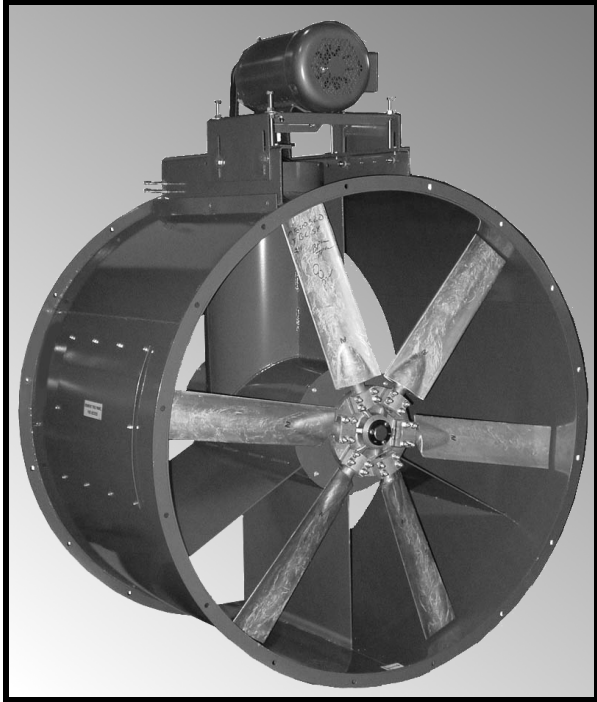
UL705 - E39944

Type TBC and TDC ventilators are Listed by Underwriters Laboratories Inc. to U.S. and Canadian safety standards.

Certified ratings authorized by AMCA (Air Movement and Control Association, Inc.) for air performance are available on all Type T Fans. These, along with dimension drawings, are included in this form.

Type TBC

Belt Drive — 1,500 to 107,000 CFM — to 2" static pressure



Applications

TBC duct fans are designed to operate reliably in hostile environments where high temperatures or contaminated air is present.

Features

The motor, belts and bearings are isolated from the air stream.

The steel fan shaft is supported by two pillow-block ball bearings that are mounted in an enclosed tube to provide years of service under harsh conditions.

External grease fittings for relubrication of fan bearings are standard.

TBC models have from 3 to 8 cast aluminum airfoil blades that are securely attached to a heavy cast aluminum hub. Blade pitch is set for catalog performance. The blade pitch should not be adjusted without first contacting your American Coolair representative.

TBC models incorporate specifically engineered airfoil sections and hub sizes for optimum efficiency and physical strength.

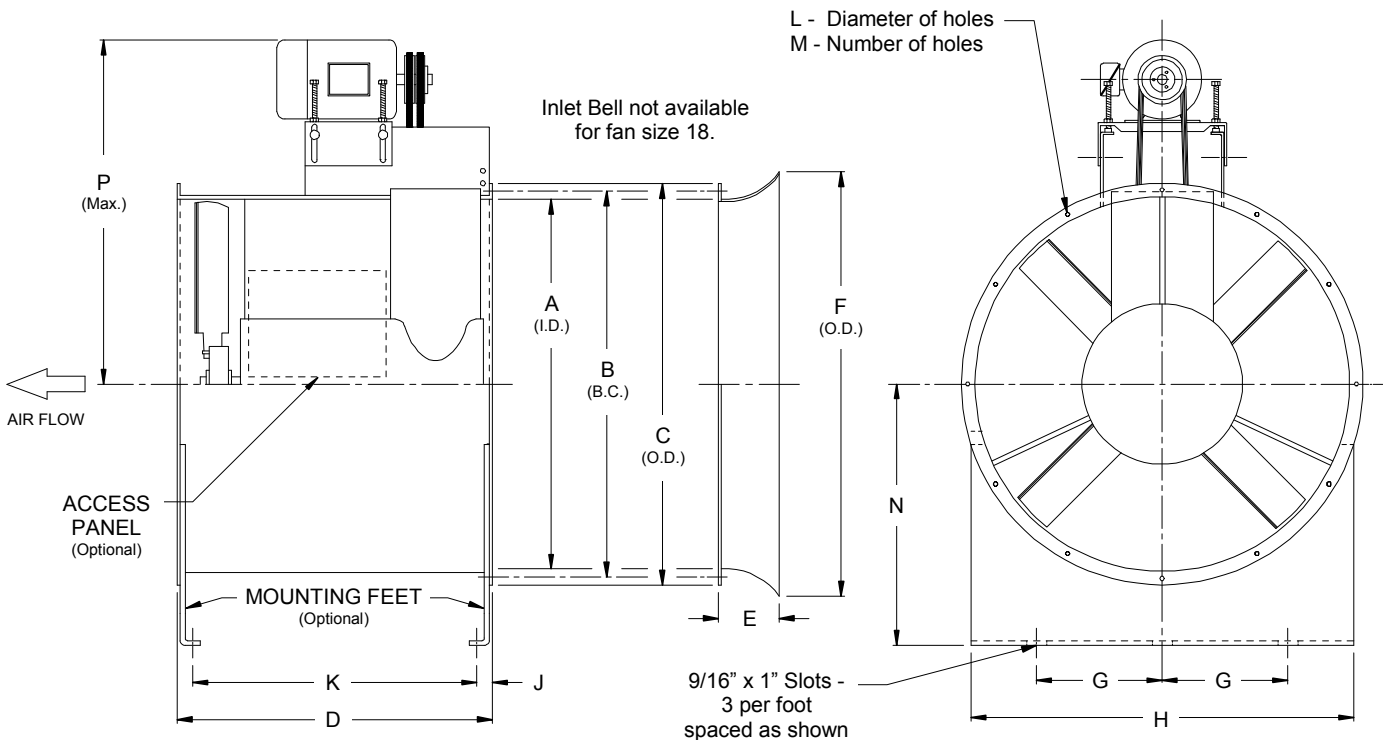
Fan speed reduction is conveniently available on most belt drive models by use of a variable pitch motor pulley.

If an increase in fan speed is desired, contact your American Coolair representative for information on fan performance and motor load before make any adjustment.

The standard model TBC duct fan is recommended for use when ambient temperatures are 250°F or less.

TBC models can be furnished for temperatures up to 725°F. Modifications are available for two extended temperature ranges, 250°F to 650°F and 650°F to 725°F. Specify the temperature requirement.

With these modifications, it is required that the electrical controls allow the fan to operate whenever the ambient temperature at the fan exceeds 250°F.



Drawing of belt and drive are schematic. Single belts are used on certain sizes and HPs.

DIMENSIONS IN INCHES

Fan Size	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Fan Duct Gauge	Access Panel (optional)	Outlet Area ft ²
18	18 1/8	19 7/8	21 3/8	20	N/A	N/A	7	21 1/4	1 1/2	17	9/16	6	14	24 1/4	1/8	8 x 10	1.79
24	25 1/2	27 3/8	28 7/8	28	6	30 1/4	9	26 1/2	1 1/2	25	9/16	8	17	31 1/8	1/8	10 x 12	3.55
30	31 1/4	33 1/8	34 5/8	28	6	36 1/4	12	33	1 1/2	25	9/16	8	21 1/4	36	1/8	10 x 15	5.33
36	37 1/4	39 1/4	40 3/4	36	6	42 1/4	16	40	1 5/8	32 3/4	9/16	12	25	41 3/4	3/16	12 x 15	7.57
42	43 1/4	45 1/4	46 3/4	36	6	48 1/2	18	45	1 11/16	32 5/8	9/16	12	29 1/4	45 1/8	3/16	16 x 18	10.20
48	49 1/4	51 1/4	52 3/4	36	6	54 5/8	19	47	1 11/16	32 5/8	9/16	16	32 1/2	48 1/4	3/16	16 x 18	13.23
54	55 1/4	57 1/4	58 3/4	36	6	59 1/2	22	53	1 3/4	32 1/2	9/16	16	36 1/2	51 1/2	1/4	16 x 18	16.65
60	61 3/8	63 1/2	65	36	6	65 5/8	25	59	1 3/4	32 1/2	9/16	16	40	54 3/4	1/4	16 x 18	20.55
72	73 3/8	75 1/2	77	48	6	77 5/8	31	72	1 3/4	44 1/2	9/16	20	48	60 7/8	1/4	18 x 20	29.36
84	85 3/8	87 1/2	89	48	6	89 5/8	37	84	1 3/4	44 1/2	9/16	20	56	67	1/4	18 x 20	39.75

Dimensions

Dimension A is I.D. of duct section.

Dimension B is bolt hole center to bolt hole center.

Dimension C is O.D. of flange.

Dimension D is overall length of duct section.

Dimension E is nominal length of Inlet Bell (Accessory).

Dimension F is O.D. of Inlet Bell

Dimension G is distance between center points of horizontal slots in Mounting Feet.

Dimension H is overall width of Mounting Feet (Accessory)

Dimension J is distance from center of slot to outer edge of flange.

Dimension K is distance between center line of slots in Mounting Feet.

Dimension L is diameter of bolt holes in flange.

Dimension M is number of bolt holes.

Dimension N is distance from the center line of propeller to bottom of Mounting Feet.

Dimension P is distance from the center line of propeller to top of motor (maximum).

Performance Ratings



American Coolair Corporation certifies that the Type TB fans shown herein are licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and comply with the requirements of the AMCA Certified Ratings Program.

Typical Specifications

Duct fans shall be American Coolair belt drive Type TBC as manufactured by American Coolair Corporation, Jacksonville, Florida; specific models shall be as shown in the fan schedule. Fan housing to be of heavy gauge steel. Ball bearings shall be of heavy duty pillow-block type. Fans shall be licensed to bear the AMCA Certified Ratings Seal for air performance. (Specify CFM and static pressure; motor enclosure, phase and volts; and accessories such as inlet bell with guard, drive guard, mounting feet and safety disconnect switch.) Fan blades shall be of high strength cast aluminum airfoil securely attached to a heavy cast aluminum hub.

Item No.	Cubic Feet Per Minute (CFM) at Static Pressure ¹												Fan Model ²	Fan Size	Motor HP	Fan RPM ³	Sone Rating ⁴	Max BHP ⁵	Blade Desc.		Approx. Ship Wt.
	0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"	1 3/4"	2"							No.	Pitch	
1	3,226	2,876	---	---	---	---	---	---	---	---	---	---	TBC18H11	1/3	1160	11.9	0.31	6	33°	245	
2	2,543	2,406	2,177	1,920	1,579	---	---	---	---	---	---	---	TBC18H17	1/3	1750	15.6	0.32	4	13.5°	245	
3	3,299	3,123	12,063	2,662	2,326	---	---	---	---	---	---	---	TBC18J17	18	1/2	1750	17.9	0.47	4	20.5°	252
4	4,085	3,841	14,121	3,271	2,918	---	---	---	---	---	---	---	TBC18K17	3/4	1750	22	0.70	4	28°	257	
5	4,507	4,340	17,161	3,863	3,561	---	---	---	---	---	---	---	TBC18L17	1	1750	21	0.94	6	29.5°	260	
6	5,354	4,540	---	---	---	---	---	---	---	---	---	---	TBC24H8	1/3	870	12.7	0.31	4	24°	337	
7	5,925	5,361	4,553	---	---	---	---	---	---	---	---	---	TBC24J8	1/2	870	13.1	0.48	6	25°	337	
8	6,877	6,289	5,666	4,914	---	---	---	---	---	---	---	---	TBC24K11	3/4	1160	19.8	0.69	4	22.5°	337	
9	7,845	7,203	6,500	---	---	---	---	---	---	---	---	---	TBC24L11	1	1160	22	0.93	4	28°	343	
10	8,961	8,506	8,006	7,375	---	---	---	---	---	---	---	---	TBC24M11	24	1 1/2	1160	23	1.44	6	30°	354
11	8,686	8,224	7,788	7,327	6,813	6,240	5,570	---	---	---	---	---	TBC24M17	1 1/2	1750	32	1.42	3	17.5°	354	
12	9,868	9,406	8,951	8,470	7,967	7,440	6,818	---	---	---	---	---	TBC24N17	2	1750	34	1.89	3	22°	354	
13	11,256	10,895	10,506	10,087	9,635	9,156	8,647	---	---	---	---	---	TBC24P17	3	1750	48	2.84	4	26°	386	
14	13,358	13,066	12,765	12,441	12,092	11,730	11,324	---	---	---	---	---	TBC24Q17	5	1750	44	4.81	6	29.5°	397	
15	9,939	8,854	7,568	---	---	---	---	---	---	---	---	---	TBC30K8	3/4	870	18.2	0.71	4	21°	347	
16	11,092	9,959	8,566	---	---	---	---	---	---	---	---	---	TBC30L8	1	870	20	0.92	4	26°	347	
17	12,519	11,617	10,621	---	---	---	---	---	---	---	---	---	TBC30M8	1 1/2	870	22	1.39	6	28°	398	
18	12,195	11,437	10,586	9,620	8,549	7,130	---	---	---	---	---	---	TBC30M11	1 1/2	1160	27	1.41	4	18°	398	
19	13,897	13,052	12,146	11,205	10,117	---	---	---	---	---	---	---	TBC30N11	30	2	1160	30	1.87	4	23°	398
20	15,440	14,860	14,243	13,553	12,779	11,783	---	---	---	---	---	---	TBC30P11	3	1160	33	2.79	6	24.5°	429	
21	19,113	18,452	17,818	17,156	16,451	15,683	14,824	13,003	---	---	---	---	TBC30Q17	5	1750	50	4.72	3	22°	442	
22	21,694	21,183	20,642	20,043	19,396	18,745	18,079	16,716	15,179	---	---	---	TBC30R17	7 1/2	1750	66	6.92	4	24.5°	490	
23	23,601	23,218	22,827	22,427	22,017	21,598	21,164	20,229	19,108	17,662	---	---	TBC30S17	10	1750	66	9.89	6	25°	573	

(continued next page)

Type TBC Performance Ratings (cont'd)

Item No.	Cubic Feet Per Minute (CFM) at Static Pressure ¹												Fan Model ²	Fan Size	Motor HP	Fan RPM ³	Sone Rating ⁴	Max BHP ⁵	Blade Desc.		Approx. Ship Wt.
	0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"	1 3/4"	2"							No.	Pitch	
24	11,922	10,177	6,989	---	---	---	---	---	---	---	---	---	TBC36K6	3/4	680	19.8	0.69	4	18.5°	696	
25	12,894	11,576	9,849	---	---	---	---	---	---	---	---	---	TBC36L6	1	680	21	0.93	6	18.5°	696	
26	15,620	14,120	12,063	---	---	---	---	---	---	---	---	---	TBC36M6	1 1/2	680	24	1.43	6	27.5°	714	
27	16,262	15,258	14,121	12,798	10,890	---	---	---	---	---	---	---	TBC36N8	2	870	32	1.88	6	18°	714	
28	19,441	18,344	17,161	15,720	13,698	---	---	---	---	---	---	---	TBC36P8	3	870	36	2.83	6	26°	745	
29	16,113	14,949	13,724	12,176	10,653	---	---	---	---	---	---	---	TBC36N11	2	1160	38	1.88	3	12.5°	714	
30	19,028	17,793	16,467	15,059	13,322	10,530	---	---	---	---	---	---	TBC36P11	3	1160	40	2.74	3	19°	745	
31	23,009	21,988	21,000	19,961	18,680	16,968	14,145	---	---	---	---	---	TBC36Q11	36	5	1160	51	4.70	4	25°	756
32	26,404	25,555	24,700	23,783	22,758	21,581	20,235	16,667	---	---	---	---	TBC36R11	7 1/2	1160	62	6.97	6	27°	806	
33	18,926	18,153	17,383	16,530	15,699	14,858	13,983	11,965	---	---	---	---	TBC36Q17	5	1750	72	4.55	3	7.5°	756	
34	24,377	23,637	22,887	22,131	21,372	20,587	19,775	17,948	15,632	12,637	---	---	TBC36R17	7 1/2	1750	78	7.19	3	13.5°	806	
35	27,996	27,277	26,537	25,743	24,954	24,147	23,309	21,493	19,350	---	---	---	TBC36S17	10	1750	76	9.46	3	18°	847	
36	32,654	32,035	31,378	30,746	30,110	29,468	28,817	27,464	25,956	---	---	---	TBC36T17	15	1750	93	14.5	4	21.5°	910	
37	36,809	36,152	35,492	34,866	34,226	33,566	32,880	31,390	---	---	---	---	TBC36U17	20	1750	92	19.02	4	27°	962	
38	14,688	12,142	8,843	---	---	---	---	---	---	---	---	---	TBC42K6	3/4	680	23	0.70	3	11°	766	
39	16,849	14,339	11,121	---	---	---	---	---	---	---	---	---	TBC42L6	1	680	25	0.93	3	15.5°	771	
40	19,161	17,034	14,596	---	---	---	---	---	---	---	---	---	TBC42M6	1 1/2	680	28	1.41	4	18°	790	
41	18,483	16,530	14,427	11,836	---	---	---	---	---	---	---	---	TBC42M8	1 1/2	870	33	1.43	3	10.5°	790	
42	21,279	19,372	17,338	14,777	11,079	---	---	---	---	---	---	---	TBC42N8	2	870	37	1.89	3	15°	790	
43	25,097	23,073	20,888	18,475	---	---	---	---	---	---	---	---	TBC42P8	3	870	40	2.85	3	22°	821	
44	28,512	27,267	25,986	24,619	23,124	---	---	---	---	---	---	---	TBC42Q8	42	5	870	52	4.76	6	21°	834
45	22,378	20,912	19,398	17,711	15,990	14,033	11,394	---	---	---	---	---	TBC42P11	3	1160	51	2.79	3	8°	821	
46	28,743	27,283	25,822	24,322	22,672	20,749	18,550	---	---	---	---	---	TBC42Q11	5	1160	62	4.64	3	15.5°	834	
47	32,686	31,535	30,273	28,936	27,569	26,154	24,603	---	---	---	---	---	TBC42R11	7 1/2	1160	71	6.99	4	18°	882	
48	35,468	34,564	33,652	32,712	31,712	30,706	29,655	27,310	---	---	---	---	TBC42S11	10	1160	84	9.91	6	18.5°	905	
49	41,553	40,605	39,656	38,705	37,745	36,760	35,742	33,567	31,166	28,469	25,299	21,091	TBC42T17	15	1750	132	14.39	3	14°	952	
50	44,508	43,699	42,902	42,115	41,340	40,573	39,810	38,240	36,517	34,539	32,297	29,816	TBC42U17	20	1750	140	19.55	4	14.5°	986	
51	18,773	15,649	11,842	---	---	---	---	---	---	---	---	---	TBC48L6	1	680	25	0.93	3	7°	885	
52	22,687	19,338	15,782	---	---	---	---	---	---	---	---	---	TBC48M6	1 1/2	680	29	1.41	3	12.5°	910	
53	24,206	21,800	19,080	15,540	---	---	---	---	---	---	---	---	TBC48N6	2	680	34	1.85	4	13°	910	
54	29,405	26,691	23,341	19,808	---	---	---	---	---	---	---	---	TBC48P6	3	680	33	2.80	4	20°	941	
55	34,358	32,241	29,876	27,505	---	---	---	---	---	---	---	---	TBC48Q6	5	680	43	4.61	6	23.5°	953	
56	23,547	21,137	18,621	15,610	---	---	---	---	---	---	---	---	TBC48N8	2	870	37	1.88	3	6.5°	910	
57	28,138	25,588	23,163	20,348	16,992	---	---	---	---	---	---	---	TBC48P8	3	870	43	2.78	3	11.5°	942	
58	33,739	31,645	29,688	27,696	25,325	22,346	---	---	---	---	---	---	TBC48Q8	5	870	53	4.68	4	16°	953	
59	40,211	37,789	35,333	32,987	30,743	---	---	---	---	---	---	---	TBC48R8	48	7 1/2	870	53	7.10	4	24°	1001
60	42,954	41,298	39,532	37,822	36,145	34,338	31,999	---	---	---	---	---	TBC48S8	10	870	65	9.26	6	22.5°	1025	
61	32,024	30,258	28,430	26,524	24,567	22,338	19,687	---	---	---	---	---	TBC48Q11	5	1160	62	4.67	3	7°	953	
62	38,702	36,712	34,702	32,821	30,936	28,856	26,480	19,981	---	---	---	---	TBC48R11	7 1/2	1160	72	7.00	3	12.5°	1001	
63	41,910	40,439	39,048	37,702	36,207	34,612	32,896	28,834	23,773	---	---	---	TBC48S11	10	1160	87	9.48	4	13.5°	1053	
64	50,161	48,727	47,142	45,363	43,420	41,424	39,466	35,407	---	---	---	---	TBC48T11	15	1160	86	13.90	4	20°	1072	
65	53,924	52,764	51,650	50,576	49,532	48,494	47,430	45,069	41,814	37,379	---	---	TBC48U11	20	1160	110	19.54	6	20°	1105	
66	46,415	45,235	44,058	42,820	41,596	40,384	39,168	36,633	33,786	30,664	26,995	---	TBC48T17	10	1750	126	14.85	3	6°	1072	
67	53,057	51,918	50,781	49,645	48,508	47,359	46,178	43,654	40,916	38,059	34,946	30,679	TBC48U17	15	1750	148	19.69	3	9.5°	1105	

(continued next page)

Type TBC Performance Ratings (cont'd)

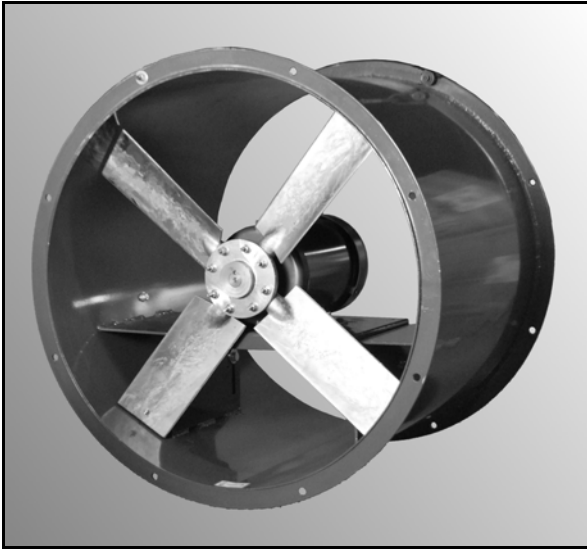
Item No.	Cubic Feet Per Minute (CFM) at Static Pressure ¹											Fan Model ²	Fan Size	Motor HP	Fan RPM ³	Sone Rating ⁴	Max BHP ⁵	Blade Desc.		Approx. Ship Wt.	
	0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"	1 3/4"							2"	No.		Pitch
68	28,619	24,581	20,410	---	---	---	---	---	---	---	---	---	TBC54N6	2	680	35	1.83	3	9°	1129	
69	32,710	29,685	26,080	22,606	---	---	---	---	---	---	---	---	TBC54P6	3	680	41	2.78	4	11.5°	1160	
70	38,551	36,216	34,116	31,652	28,345	24,268	---	---	---	---	---	---	TBC54Q6	5	680	48	4.65	6	14.5°	1173	
71	46,291	43,803	41,134	37,957	34,594	---	---	---	---	---	---	---	TBC54R6	7 1/2	680	58	7.05	6	22°	1221	
72	48,611	46,739	45,021	43,404	41,576	39,390	36,875	30,857	---	---	---	---	TBC54S8	54	10	870	75	9.46	6	14°	1244
73	57,755	55,999	54,083	51,945	49,563	47,002	44,370	---	---	---	---	---	TBC54T8	15	870	89	14.01	6	20.5°	1291	
74	43,287	40,924	38,732	36,621	34,214	31,196	28,520	---	---	---	---	---	TBC54R11	7 1/2	1160	81	7.07	3	6°	1221	
75	46,760	45,036	43,091	41,292	39,387	37,342	35,146	30,330	23,920	---	---	---	TBC54S11	10	1160	93	9.36	4	6.5°	1244	
76	52,811	51,527	50,216	48,873	47,437	45,978	44,552	41,335	37,413	32,974	26,771	---	TBC54T11	15	1160	112	14.78	6	8°	1291	
77	61,010	59,626	58,340	57,110	55,744	54,317	52,831	49,708	46,363	42,499	36,899	---	TBC54U11	20	1160	123	19.84	6	12°	1350	
78	37,507	33,142	29,072	21,859	---	---	---	---	---	---	---	---	TBC60P6	3	680	42	2.78	4	6.5°	1274	
79	47,674	43,942	40,126	34,690	27,328	---	---	---	---	---	---	---	TBC60Q6	5	680	51	4.66	4	13.5°	1287	
80	53,913	51,041	47,135	43,610	40,303	32,074	---	---	---	---	---	---	TBC60R6	60	7 1/2	680	56	6.91	6	14.5°	1335
81	61,324	58,400	55,240	51,683	46,755	41,364	---	---	---	---	---	---	TBC60S6	10	680	64	9.36	6	19.5°	1358	
82	56,206	54,061	51,510	48,261	45,782	43,028	39,288	28,824	---	---	---	---	TBC60S8	10	870	78	9.32	6	8.5°	1358	
83	63,983	61,620	59,078	56,299	53,800	51,482	49,162	42,394	32,818	---	---	---	TBC60T11	15	1160	111	13.94	4	6.5°	1405	
84	57,371	51,828	45,126	32,969	---	---	---	---	---	---	---	---	TBC72Q	5	360	33	4.74	8	20°	1735	
85	65,658	60,910	55,492	48,873	36,200	---	---	---	---	---	---	---	TBC72R	7 1/2	412	43	7.10	8	20°	1783	
86	72,192	67,920	63,173	57,780	50,700	---	---	---	---	---	---	---	TBC72S	72	10	453	51	9.46	8	20°	1806
87	83,005	78,897	74,700	70,044	64,644	57,323	---	---	---	---	---	---	TBC72TL	15	503	64	14.12	8	22°	1853	
88	75,590	73,126	70,427	67,037	64,142	60,976	57,470	49,132	---	---	---	---	TBC72TH	15	682	83	14.34	8	7°	1853	
89	87,276	84,517	81,772	78,941	75,956	72,768	69,301	61,258	50,866	---	---	---	TBC72U	20	682	90	18.99	8	11°	1887	
90	68,503	61,154	52,913	37,057	---	---	---	---	---	---	---	---	TBC84Q	5	307	31	4.76	8	15°	1850	
91	78,321	71,857	65,332	56,582	40,135	---	---	---	---	---	---	---	TBC84R	7 1/2	351	40	7.10	8	15°	1898	
92	85,907	79,987	74,181	67,505	57,385	---	---	---	---	---	---	---	TBC84S	84	10	385	48	9.40	8	15°	1921
93	103,027	96,681	89,986	82,151	70,936	---	---	---	---	---	---	---	TBC84TL	15	385	56	14.58	8	23.5°	1968	
94	91,993	88,239	83,278	79,041	74,314	68,949	62,764	46,285	---	---	---	---	TBC84TH	15	525	70	14.05	8	7°	1968	
95	107,582	103,314	99,169	94,779	90,022	84,713	78,632	63,363	---	---	---	---	TBC84U	20	525	78	19.19	8	11.5°	2002	

- 1 — Performance shown is for Installation Type B: free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream.
- 2 — The first three letters of model number identify **fan type, drive configuration** and **style**. The next two numbers indicate **fan size**, the next letter identifies motor **horsepower**; the last number (or numbers) indicates **RPM** in hundreds. Example: Model TBC18H11 is Type "T", belt drive, Style "C", 18" size, 1/3 HP motor, 1160 RPM.
- 3 — Fan RPM is maximum for motor horsepower on standard models. Use of a variable pitch motor pulley will permit reduced fan speed; a proportional reduction in air volume results.
- 4 — Sone ratings apply to non-ducted application of fan. The sound ratings are loudness values in fan sones at 5 ft. (1.5m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for Installation Type B: free inlet fan sone levels. The sound ratings shown are at 0" static pressure. The AMCA Certified Ratings Seal applies to air performance only.
- 5 — Maximum brake horsepower (BHP) within the catalog performance range. BHP at most static pressures listed is less than that shown, in some cases substantially less. For specific BHP values at individual static pressure points, contact your American Coolair representative. Power ratings (BHP) does not include drive losses. Bearing losses are included.

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

Type TDC

Direct drive — 2,000 to 78,000 CFM — to 2" static pressure



Features

The propeller assembly is connected directly to the motor shaft. There are no fan bearings or belts that require maintenance.

TDC models have from 3 to 6 cast aluminum airfoil blades that are securely attached to a heavy cast aluminum hub.

Blade pitch is set for catalog performance. The blade pitch should not be adjusted without first contacting your American Coolair representative.

Type TDC fans incorporate specifically engineered airfoil sections and hub sizes for optimum efficiency and physical strength.

Dimensions

Dimension A is I.D. of duct section.

Dimension B is bolt hole center to bolt hole center.

Dimension C is O.D. of flange.

Dimension D is overall length of duct section.

Dimension E is nominal length of Inlet Bell (Accessory).

Dimension F is O.D. of Inlet Bell.

Dimension G is distance between center points of horizontal slots in Mounting Feet.

Dimension H is overall width of Mounting Feet (Accessory)

Dimension J is distance from center of slot to outer edge of flange.

Dimension K is distance between center line of slots in Mounting Feet.

Dimension L is diameter of bolt holes in flange.

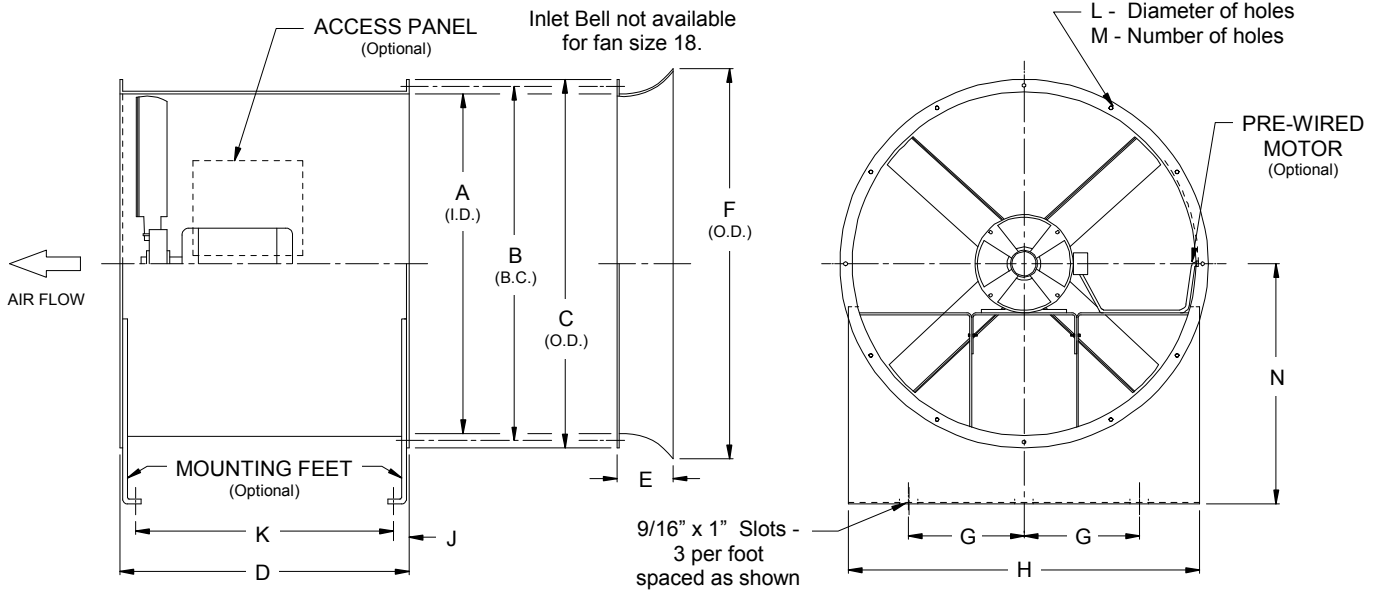
Dimension M is number of bolt holes.

Dimension N is distance from center line of propeller to bottom of Mounting Feet.

Applications

TDC duct fans are suitable for application where motor location in the air stream is satisfactory.

Direct driven models require less maintenance, offer longer operating life and increased efficiency.



Fan Size	A	B	C	D	E	F	G	H	J	K	L	M	N	Fan Duct Gauge	Access Panel (Optional)	Outlet Area ft ²
18	18 1/8	19 7/8	21 3/8	20	N/A	N/A	7	21 1/4	1 1/2	17	9/16	6	14	1/8	8 x 10	1.79
24	25 1/2	27 3/8	28 7/8	28	6	30 1/4	9	26 1/2	1 1/2	25	9/16	8	17	1/8	10 x 12	3.55
30	31 1/4	33 1/8	34 5/8	28	6	36 1/4	12	33	1 1/2	25	9/16	8	21 1/4	1/8	10 x 15	5.33
36	37 1/4	39 1/4	40 3/4	36	6	42 1/4	16	40	1 5/8	32 3/4	9/16	12	25	3/16	12 x 15	7.57
42	43 1/4	45 1/4	46 3/4	36	6	48 1/2	18	45	1 11/16	32 5/8	9/16	12	29 1/4	3/16	16 x 18	10.20
48	49 1/4	51 1/4	52 3/4	36	6	54 5/8	19	47	1 11/16	32 5/8	9/16	16	32 1/2	3/16	16 x 18	13.23
54	55 1/4	57 1/4	58 3/4	36	6	59 1/2	22	53	1 3/4	32 1/2	9/16	16	36 1/2	1/4	16 x 18	16.65
60	61 3/8	63 1/2	65	36	6	65 5/8	25	59	1 3/4	32 1/2	9/16	16	40	1/4	16 x 18	20.55

Performance Ratings



American Coolair Corporation certifies that the Type TDC fans shown herein are licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and comply with the requirements of the AMCA Certified Ratings Program.

Typical Specifications

Duct fans shall be American Coolair Type TDC as manufactured by American Coolair Corporation, Jacksonville, Florida; specific models shall be as shown in the fan schedule. Fan housing to be of heavy gauge steel. Fan blades shall be of high strength cast aluminum airfoil securely attached to a heavy cast aluminum hub. Fans shall be licensed to bear the AMCA Certified Ratings Seal for air performance. (Specify CFM and static pressure; motor enclosure, phase and volts; and accessories such as inlet bell with guard, mounting feet and safety disconnect switch.)

Item No.	Cubic Feet Per Minute (CFM) at Static Pressure ¹											Fan Model ²	Fan Size	Motor HP	Fan RPM ³	Sone Rating ⁴	Max BHP ⁵	Blade Desc.		Approx. Ship Wt.	
	0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"	1 3/4"							2"	No.		Pitch
1	3,387	3,014	---	---	---	---	---	---	---	---	---	---	TDC18H11	1/3	1160	12.1	0.28	4	35°	139	
2	2,991	2,829	2,628	2,393	2,039	---	---	---	---	---	---	---	TDC18H17	1/3	1750	16.3	0.38	4	16.5°	126	
3	3,922	3,725	3,499	3,205	2,845	---	---	---	---	---	---	---	TDC18J17	18	1/2	1750	19.9	0.57	4	24°	135
4	4,854	4,636	4,355	4,030	---	---	---	---	---	---	---	---	TDC18K17	3/4	1750	23	0.85	4	32.5°	139	
5	5,408	5,235	5,038	4,777	---	---	---	---	---	---	---	---	TDC18L17	1	1750	23	1.14	6	34.5°	140	
6	5,748	5,067	4,270	---	---	---	---	---	---	---	---	---	TDC24H11	1/3	1160	16.7	0.37	3	16°	214	
7	7,144	6,415	5,589	4,624	---	---	---	---	---	---	---	---	TDC24J11	1/2	1160	17.7	0.58	3	23°	214	
8	8,050	7,420	6,730	---	---	---	---	---	---	---	---	---	TDC24K11	3/4	1160	21	0.84	4	26.5°	217	
9	8,253	7,849	7,398	6,869	6,140	---	---	---	---	---	---	---	TDC24L11	24	1	1160	21	1.13	6	25°	228
10	10,065	9,613	9,141	8,632	8,090	7,537	6,911	---	---	---	---	---	TDC24M17	1 1/2	1750	33	1.73	3	20.5°	228	
11	10,654	10,280	9,861	9,448	9,024	8,584	8,110	---	---	---	---	---	TDC24N17	2	1750	43	2.22	4	21.5°	228	
12	12,959	12,569	12,152	11,664	11,149	10,616	10,032	---	---	---	---	---	TDC24P17	3	1750	50	3.40	4	29°	255	
13	9,270	8,183	6,863	---	---	---	---	---	---	---	---	---	TDC30J8	1/2	870	17.1	0.57	4	17.5°	282	
14	11,047	9,907	8,499	---	---	---	---	---	---	---	---	---	TDC30K8	3/4	870	19.5	0.83	4	24°	282	
15	11,593	10,803	9,837	8,603	---	---	---	---	---	---	---	---	TDC30L8	1	870	20	1.11	6	23.5°	313	
16	12,087	11,120	9,992	8,644	7,302	---	---	---	---	---	---	---	TDC30L11	1	1160	25	1.12	3	18.5°	282	
17	13,692	12,861	12,007	11,082	9,940	---	---	---	---	---	---	---	TDC30M11	1 1/2	1160	29	1.68	4	21°	313	
18	15,544	14,675	13,769	12,708	11,531	---	---	---	---	---	---	---	TDC30N11	30	2	1160	32	2.25	4	26.5°	325
19	17,457	16,817	16,126	15,340	14,521	13,540	---	---	---	---	---	---	TDC30P11	3	1160	36	3.39	6	28.5°	374	
20	17,186	16,561	15,870	15,191	14,469	13,710	12,908	11,069	---	---	---	---	TDC30P17	3	1750	48	3.38	3	16.5°	313	
21	20,656	20,146	19,566	19,001	18,434	17,851	17,247	15,897	14,181	---	---	---	TDC30Q17	5	1750	59	5.78	4	21°	325	
22	22,658	22,289	21,910	21,519	21,057	20,561	20,124	19,182	18,082	16,844	---	---	TDC30R17	7 1/2	1750	64	8.59	6	22.5°	374	
23	26,047	25,630	25,209	24,777	24,309	23,781	23,274	22,255	21,099	---	---	---	TDC30S17	10	1750	71	11.34	6	28°	397	
24	10,213	8,623	6,463	---	---	---	---	---	---	---	---	---	TDC36J8	1/2	870	22	0.57	3	7.5°	460	
25	12,849	11,224	9,150	---	---	---	---	---	---	---	---	---	TDC36K8	3/4	870	24	0.83	3	13.5°	471	
26	14,826	13,058	11,060	---	---	---	---	---	---	---	---	---	TDC36L8	1	870	25	1.15	3	19°	508	
27	16,901	15,471	13,952	11,969	---	---	---	---	---	---	---	---	TDC36M8	1 1/2	870	31	1.69	4	21.5°	519	
28	18,868	17,320	15,745	13,697	---	---	---	---	---	---	---	---	TDC36N8	2	870	31	2.25	4	28°	565	
29	21,678	20,524	19,284	17,715	15,088	---	---	---	---	---	---	---	TDC36P11	3	1160	37	3.38	6	30°	585	
30	12,019	10,961	9,689	8,192	---	---	---	---	---	---	---	---	TDC36L11	1	1160	33	1.12	3	5°	471	
31	15,483	14,415	12,960	11,705	10,057	---	---	---	---	---	---	---	TDC36M11	1 1/2	1160	37	1.68	3	10.5°	508	
32	18,183	16,926	15,677	14,330	12,522	10,075	---	---	---	---	---	---	TDC36N11	36	2	1160	40	2.28	3	15.5°	519
33	20,727	19,728	18,625	17,538	16,331	14,783	11,910	---	---	---	---	---	TDC36P11	3	1160	48	3.37	4	18°	565	
34	24,988	24,175	23,311	22,457	21,564	20,581	19,423	15,686	---	---	---	---	TDC36Q11	5	1160	57	5.76	6	22.5°	585	
35	16,873	16,048	15,250	14,470	13,660	12,740	---	---	---	---	---	---	TDC36P17	3	1750	71	3.45	3	5°	508	
36	22,397	21,603	20,795	19,972	19,130	18,266	17,379	15,493	---	---	---	---	TDC36Q17	5	1750	74	5.7	3	10.5°	519	
37	27,320	26,558	25,761	24,961	24,152	23,327	22,482	20,710	18,698	---	---	---	TDC36R17	7 1/2	1750	79	8.51	3	16°	565	
38	31,710	30,943	30,091	29,285	28,476	27,649	26,802	25,006	22,913	---	---	---	TDC36S17	10	1750	74	11.42	3	21.5°	585	
39	36,756	36,138	35,507	34,862	34,202	33,525	32,832	31,377	29,772	27,880	---	---	TDC36T17	15	1750	91	17.17	4	25°	635	
40	40,658	39,900	39,152	38,414	37,686	36,967	36,257	34,834	33,306	---	---	---	TDC36U17	20	1750	92	21.84	4	30°	668	

(continued next page)

Type TDC Performance Ratings (cont'd)

Item No.	Cubic Feet Per Minute (CFM) at Static Pressure ¹												Fan Model ²	Fan Size	Motor HP	Fan RPM ³	Sone Rating ⁴	Max BHP ⁵	Blade Desc.		Approx. Ship Wt.
	0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"	1 3/4"	2"							No.	Pitch	
41	18,761	15,968	12,794	---	---	---	---	---	---	---	---	---	TDC42L6	1	680	26	1.11	3	18.5°	561	
42	20,971	18,880	16,363	---	---	---	---	---	---	---	---	---	TDC42M6	1 1/2	680	29	1.64	4	20.5°	610	
43	22,494	20,863	19,126	17,116	---	---	---	---	---	---	---	---	TDC42N6	2	680	33	2.24	6	20.5°	633	
44	16,796	14,737	12,450	9,719	---	---	---	---	---	---	---	---	TDC42L8	1	870	31	1.13	3	7.5°	549	
45	20,878	18,869	16,695	14,066	---	---	---	---	---	---	---	---	TDC42M8	1 1/2	870	36	1.71	3	13.5°	561	
46	23,696	21,593	19,308	16,874	---	---	---	---	---	---	---	---	TDC42N8	2	870	39	2.27	3	18°	610	
47	26,830	25,223	23,508	21,534	19,159	---	---	---	---	---	---	---	TDC42P8	3	870	45	3.44	4	20.5°	633	
48	31,405	30,172	28,884	27,494	25,940	---	---	---	---	---	---	---	TDC42Q8	5	870	56	5.55	6	24°	680	
49	20,468	18,905	17,346	15,717	13,793	11,591	---	---	---	---	---	---	TDC42N11	42	2	1160	47	2.24	3	5.5°	561
50	25,237	23,703	22,172	20,616	18,831	16,791	14,653	---	---	---	---	---	TDC42P11	3	1160	55	3.37	3	10.5°	610	
51	30,222	28,934	27,690	26,485	25,250	23,859	22,215	18,110	---	---	---	---	TDC42Q11	5	1160	64	5.68	4	14.5°	633	
52	33,465	32,521	31,535	30,565	29,588	28,599	27,580	25,243	---	---	---	---	TDC42R11	7 1/2	1160	79	8.54	6	16°	680	
53	38,872	37,938	36,957	35,981	34,975	33,933	32,845	30,475	---	---	---	---	TDC42S11	10	1160	90	11.32	6	21°	713	
54	32,332	31,301	30,281	29,240	28,155	27,069	25,985	23,734	21,125	18,044	---	---	TDC42R17	7 1/2	1750	105	8.41	3	6.5°	610	
55	37,419	36,397	35,385	34,384	33,392	32,403	31,393	29,173	26,578	23,962	21,050	---	TDC42S17	10	1750	117	11.23	3	10°	633	
56	45,811	44,835	43,784	42,666	41,610	40,550	39,490	37,354	35,065	32,418	29,399	---	TDC42T17	15	1750	140	16.95	3	16.5°	680	
57	51,612	50,638	49,576	48,524	47,486	46,410	45,295	42,959	40,526	37,998	---	---	TDC42U17	20	1750	146	22.63	3	21.5°	713	
58	18,340	15,018	11,093	---	---	---	---	---	---	---	---	---	TDC48K6	3/4	680	24	0.83	3	5.5°	616	
59	21,076	17,891	14,138	---	---	---	---	---	---	---	---	---	TDC48L6	1	680	27	1.11	3	9°	622	
60	24,094	21,378	18,631	15,099	---	---	---	---	---	---	---	---	TDC48M6	1 1/2	680	32	1.70	4	11.5°	677	
61	27,628	24,722	22,012	18,563	---	---	---	---	---	---	---	---	TDC48N6	2	680	35	2.23	4	16°	700	
62	30,558	28,428	26,387	24,062	21,220	---	---	---	---	---	---	---	TDC48P6	3	680	39	3.37	6	17°	748	
63	23,464	20,841	18,243	15,147	---	---	---	---	---	---	---	---	TDC48M8	1 1/2	870	36	1.70	3	5.5°	622	
64	26,464	23,959	21,343	18,404	14,261	---	---	---	---	---	---	---	TDC48N8	2	870	40	2.24	3	8.5°	677	
65	30,322	28,181	26,086	24,003	21,496	18,642	---	---	---	---	---	---	TDC48P8	48	3	870	47	3.44	4	11°	700
66	38,796	36,871	34,557	31,718	28,937	25,990	---	---	---	---	---	---	TDC48Q8	5	870	51	5.69	4	19.5°	748	
67	43,318	41,567	39,771	38,082	36,477	34,802	32,715	---	---	---	---	---	TDC48R8	7 1/2	870	64	8.64	6	21°	781	
68	36,619	34,759	32,911	31,049	29,027	26,793	24,441	---	---	---	---	---	TDC48Q11	5	1160	68	5.73	3	9.5°	700	
69	43,859	42,105	40,277	38,073	35,532	33,165	30,893	---	---	---	---	---	TDC48R11	7 1/2	1160	75	8.49	3	15.5°	748	
70	47,788	46,166	44,394	42,626	40,945	39,324	37,678	33,838	---	---	---	---	TDC48S11	10	1160	89	11.38	4	16.5°	781	
71	56,677	55,037	53,285	51,173	49,097	47,013	45,025	41,303	---	---	---	---	TDC48T11	15	1160	91	16.86	4	24°	840	
72	60,491	59,285	58,075	56,844	55,423	53,901	52,422	49,536	46,595	---	---	---	TDC48U11	20	1160	113	22.41	6	23°	891	
73	28,803	24,575	20,137	---	---	---	---	---	---	---	---	---	TDC54M6	1 1/2	680	34	1.69	3	8°	919	
74	32,845	28,856	23,714	17,996	---	---	---	---	---	---	---	---	TDC54N6	2	680	37	2.26	3	12°	942	
75	34,041	31,630	29,188	26,570	23,222	18,202	---	---	---	---	---	---	TDC54P6	3	680	43	3.35	6	9.5°	989	
76	43,992	41,377	38,431	35,542	32,619	28,869	---	---	---	---	---	---	TDC54Q6	5	680	52	5.65	6	17.5°	1022	
77	36,146	33,091	29,476	26,102	21,664	---	---	---	---	---	---	---	TDC54P8	3	870	51	3.39	3	7.5°	942	
78	43,113	40,606	38,095	35,123	32,183	29,285	25,288	---	---	---	---	---	TDC54Q8	5	870	63	5.65	4	11°	989	
79	47,753	45,626	43,703	41,843	39,762	37,534	35,162	28,767	---	---	---	---	TDC54R8	54	7 1/2	870	71	8.39	6	12°	1022
80	55,573	53,414	51,339	48,984	46,785	44,699	42,532	36,916	---	---	---	---	TDC54S8	10	870	81	11.48	6	17°	1083	
81	49,134	46,888	44,635	41,668	39,149	36,677	33,766	26,762	---	---	---	---	TDC54R11	7 1/2	1160	88	8.39	3	8°	989	
82	52,529	50,838	49,051	47,133	44,967	42,823	40,797	36,170	29,927	---	---	---	TDC54S11	10	1160	101	11.10	4	8.5°	1022	
83	59,259	57,828	56,401	54,978	53,558	52,140	50,713	47,758	44,489	40,415	34,587	---	TDC54T11	15	1160	117	17.26	6	10°	1082	
84	69,187	67,329	65,613	64,049	62,593	61,222	59,900	57,250	54,010	49,871	45,157	38,495	TDC54U11	20	1160	132	23.08	6	14.5°	1133	
85	38,352	32,360	27,066	---	---	---	---	---	---	---	---	---	TDC60N6	2	680	40	2.21	3	7.5°	1045	
86	45,239	39,623	33,828	25,984	---	---	---	---	---	---	---	---	TDC60P6	3	680	47	3.34	3	12.5°	1093	
87	53,840	48,710	44,491	40,284	33,237	---	---	---	---	---	---	---	TDC60Q6	5	680	55	5.72	4	16.5°	1126	
88	60,107	57,232	53,861	50,017	44,989	40,546	---	---	---	---	---	---	TDC60R6	7 1/2	680	61	8.30	6	17.5°	1186	
89	66,882	63,644	60,479	57,193	53,096	46,992	---	---	---	---	---	---	TDC60S6	60	10	680	72	11.23	6	22.5°	1236
90	52,898	49,383	44,201	39,166	34,962	---	---	---	---	---	---	---	TDC60Q8	5	870	66	5.53	3	9.5°	1092	
91	55,001	52,933	50,408	47,196	44,606	41,289	37,341	27,845	---	---	---	---	TDC60R8	7 1/2	870	76	8.54	6	7.5°	1126	
92	63,064	60,835	58,193	55,647	52,735	49,418	46,135	37,654	---	---	---	---	TDC60S8	10	870	83	11.32	6	11°	1186	
93	66,700	63,711	60,804	56,283	52,882	49,897	46,793	36,541	---	---	---	---	TDC60S11	10	1160	106	11.50	3	8°	1126	
94	78,246	75,832	72,450	68,157	64,723	61,553	58,229	49,080	---	---	---	---	TDC60T11	15	1160	125	17.26	3	13°	1186	

1 — Performance shown is for Installation Type B: free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream.
2 — The first three letters of model number identify fan type, drive configuration and style. The next two numbers indicate fan size, the next letter identifies motor horsepower; the last number (or numbers) indicates RPM in hundreds. Example: Model TDC18H11 is Type "T", direct drive, Style "C", 18" size, 1/3 HP, 1160 RPM.
3 — Fan RPM is identical to motor speed.
4 — Sone ratings apply to non-ducted application of fan. The sound ratings are loudness values in fan sones at 5 ft. (1.5m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for Installation Type B: free inlet fan sone levels. The sound ratings shown are at 0" static pressure. The AMCA Certified Ratings Seal applies to air performance only.
5 — Maximum brake horsepower (BHP) within the catalog performance range. BHP at most static pressures listed is less than that shown, in some cases substantially less. For specific BHP values at individual static pressure points, contact your American Coolair representative. Because of the cooling the motor receives from the moving air stream, motor loading beyond the nominal nameplate rating on these American Coolair fans does not overheat the motor and is within NEMA recommended limits and motor service factor. It is not detrimental to the motor and is economically desirable.

Installation, Selection and Maintenance

INSTALLATION: American Coolair's Type T duct fans may be mounted in any position. For convenience in wiring and service, the motor should be readily accessible.

On direct drive units, access through adjacent duct work is recommended.

On belt drive units, the motor position must be considered with regard to service and adjacent objects such as wall or ceiling.

The duct fan has flanged ends on the steel housing for convenient mounting directly to the duct system. Flexible connections or transition pieces may be utilized to reduce noise transmission, simplify duct attachment, and provide access to interior of fan.

If the fan is not adequately supported by duct work or otherwise, optional mounting feet should be utilized. Type of support (floor or ceiling) and location relative to motor or access panel will determine proper type and location of mounts furnished.

Mounting, installation and maintenance instructions are included with fan shipment. Always check blade clearance and check direction of rotation with arrow on housing before operating.

TEMPERATURE LIMITS: On direct drive units with motor in airstream, standard motors can be used satisfactorily where the maximum ambient temperature does not exceed 104°F. For belt drive models, see page 4.

SOUND: Sound ratings may also be a factor in fan selection. These are provided in sones. If additional information is needed, contact your American Coolair representative.

MAINTENANCE: Type T duct fans should be cleaned as necessary to remove accumulated dust, dirt and other foreign matter which may collect on the blades or interior surfaces. If belt drive, belt(s) should be inspected and tension adjusted. Check belt(s) for proper alignment.

On all belt drive models, fan bearings are factory lubricated for extended service.

External relubrication fan bearing fittings are standard with belt drive models.

Pillow-block ball bearings should be lubricated annually or more frequently, depending upon conditions and operating cycle. Refer to maintenance instructions shipped with fan.

For lubrication of electric motor, see instructions supplied by motor manufacturer.

Accessories

INLET BELL WITH GUARD: If fan inlet is not duct connected, an inlet bell is needed for efficient performance. Bell includes a 1" x 1" galvanized wire guard.

ACCESS PANEL: This removable panel allows limited access to fan for inspection and cleaning of fan interior, and lubrication of direct drive motors.

MOTOR COVER: (Belt drive only) Galvanized steel housing encloses motor on belt drive models. Cover is open on motor pulley end to allow for ventilation of motor.

DRIVE GUARD: (Belt drive only) This guard keeps personnel and foreign objects away from the motor sheave and belts.



MOUNTING FEET: When necessary to support fan weight from floor or ceiling, mounting feet should be specified. Applications which involve wall mounting should be referred to your American Coolair representative for recommended fan mounts. Type of support to which fan will be mounted and location relative to motor (or access panel) should be clearly stated.

SPARK RESISTANT CONSTRUCTION: For hazardous locations, any Type T fan can be ordered with an explosion-proof motor. Motors only qualify for Class I Group D and Class II Groups F & G hazards.

PROTECTIVE COATINGS: For most applications, the American Coolair powder coating system will provide the necessary surface protection for painted parts. This system includes a thermosetting epoxy powder coating to an average thickness of 3 mils and baked at 400 degrees Fahrenheit for hardness, impact resistance, adhesion and chemical resistance.

For applications that require more specialized surface protection, American Coolair offers alternatives: 6 mil epoxy or hot dip galvanizing, and others. For more information about special protective coatings, contact your American Coolair representative.

PRE-WIRED MOTOR: (Direct drive only) For convenience in connecting direct drive units to power supply, motor may be pre-wired to conduit box mounted on exterior of fan housing

SAFETY DISCONNECT SWITCH: This switch is designed to mount near the fan and serve as a safety disconnect from power supply.

COMPANION FLANGE: It is identical to the fan flange and may be welded to the adjoining duct to simplify fan installation.

Limited Warranty

In the sale of its products, American Coolair Corporation agrees to correct, by repairs or replacement, any defects in workmanship or material that may develop under proper and normal use during the period of one year from the date of shipment from the factory. Any product or part proving, upon American Coolair's examination, to be defective during limited warranty period will be repaired or replaced, at American Coolair's option, f.o.b. factory, without charge.

Deterioration or wear caused by chemicals, abrasive action or excessive heat shall not constitute defects.

Motors are guaranteed only to the extent of the manufacturer's warranty.

American Coolair's limited warranty does not apply to any of its products or parts that have been subject to accidental damage, misuse by the user, unauthorized alterations, improper installation or electrical wiring, or lack of proper lubrication or other service requirements as established by American Coolair.

Repairs or replacements provided under the above terms shall constitute fulfillment of all American Coolair's obligations with respect to limited warranty.

THE LIMITED WARRANTY STATED HEREIN IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, STATUTORY OR IMPLIED, INCLUDING WITHOUT LIMITATION THAT OF MERCHANTABILITY AND FITNESS.

NO LIABILITY FOR REINSTALLATION COST OR FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OF ANY NATURE IS ASSUMED OR SHALL BE IMPOSED UPON AMERICAN COOLAIR.

TO CONVERT AIR PERFORMANCE (CFM AND STATIC PRESSURE) AND POWER (BHP) TO METRIC UNITS, MULTIPLY CFM X .000472 TO OBTAIN CUBIC METERS PER SECOND. MULTIPLY STATIC PRESSURE X 248.36 TO OBTAIN PA (PASCAL). MULTIPLY BHP X .7457 TO OBTAIN KILOWATTS.

**EXAMPLE: 3,904 CFM X .000472 = 1.84
 CUBIC METERS PER SECOND**

**0.125 SP X 248.36 = 31.05
 PASCAL**

**.886 BHP X .7457 = .661
 KILOWATTS**

WARNING

CAUTION



DO NOT INSTALL FAN WITH MOVING PARTS WITHIN 8 FEET OF FLOOR OR GRADE LEVEL WITHOUT A GUARD THAT COMPLIES WITH OSHA REGULATIONS. **DO NOT** USE UNLESS ELECTRICAL WIRING COMPLIES WITH ALL APPLICABLE CODES. **DO NOT** WIRE WITHOUT PROVIDING FOR A POWER SOURCE DISCONNECT AT THE FAN ITSELF. **DO NOT** SERVICE EXCEPT BY A QUALIFIED MAINTENANCE TECHNICIAN AND ONLY AFTER DISCONNECTING THE POWER SOURCE. FAILURE TO OBSERVE THESE PRECAUTIONS CAN RESULT IN SERIOUS INJURY OR DEATH.



P.O. Box 2300 ~ Jacksonville, Florida 32203

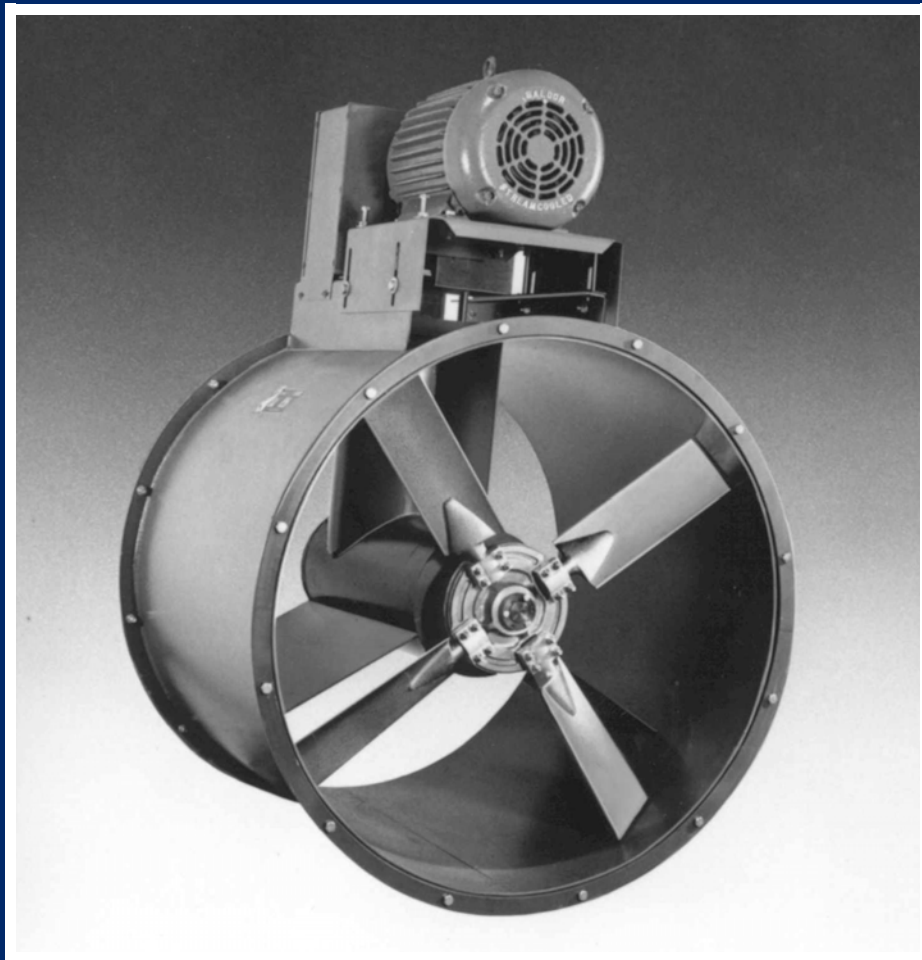
Phone: (904) 389-3646

Fax: (904) 387-3449 or (904) 381-7560

E-Mail: info@coolair.com

REPRESENTED BY:

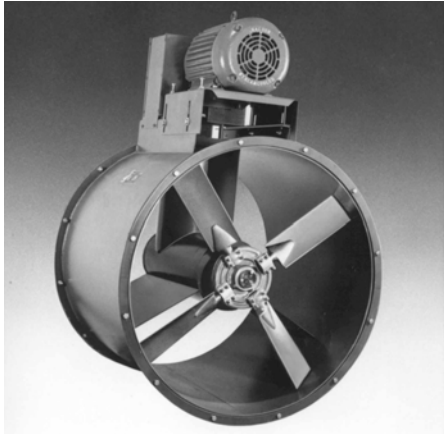
Type TEBC Duct Fans



Type TEBC

Belt Drive Axial Duct Fans

2,600 CFM to 52,000 CFM to 1-1/4" Static Pressure



Construction

MATERIALS: The fan housing and motor supports are made of heavy gauge steel for maximum strength and durability.

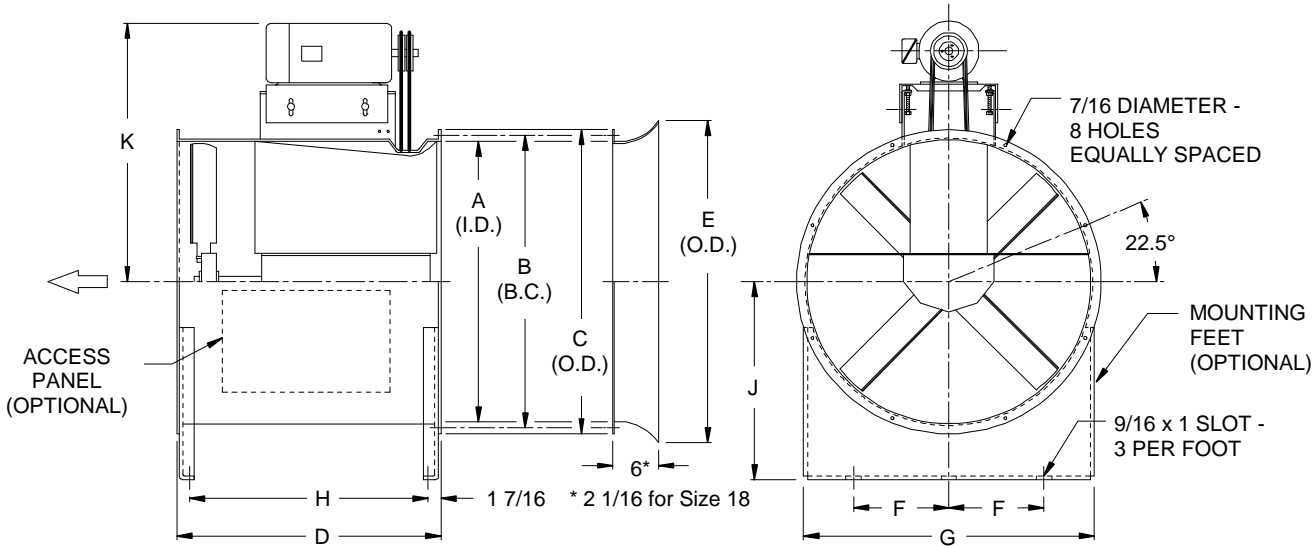
TEBC models have 4 or 6 high-strength cast aluminum airfoil section blades specifically engineered for optimum efficiency and physical strength. The blades are securely attached to a heavy-duty cast aluminum hub with the blade pitch set for catalog performance. Blade pitch should not be adjusted without first contacting an American Coolair representative. All blade assemblies are dynamically balanced.

Painted parts are coated with a thermosetting epoxy to provide a protective coating rated excellent for hardness, impact resistance, adhesion, and chemical resistance. Parts requiring painting are processed through the American Coolair five-stage pretreatment system prior to the application of any coatings to ensure maximum finish adhesion. For additional protective coating options see the Accessories section.

Application

Type TEBC duct fans are designed to operate reliably in all environments including elevated temperature (up to 250° F) or contaminated air. TEBC units are suggested for many commercial and industrial uses such as make-up air systems, booster fans, or return air fans.

METHODS: The steel belt and bearing tubes within the fan's casing isolate the fan's critical drive components from the exhaust airstream. The fan motor is also located out of the airstream to insure long motor life. The fan casing is constructed with flanged ends to form a complete fan-duct section.



Fan Size	Dimensions in Inches										Access Panel (Optional)	Outlet Area (sq. ft.)
	A	B	C	D	E	F	G	H	J	K		
18	18 1/8	20	21 1/4	17 1/2	24	8 3/4	19 1/2	15 5/8	13 3/8	20 1/16	8 x 10	1.79
24	25 7/8	25 3/4	27 1/4	19 1/2	30 1/2	8 3/4	19 1/2	17 5/8	16 3/8	24 7/8	10 x 10	3.17
30	31 3/16	32 7/8	34 1/16	21 1/8	36 1/4	12	32 11/16	18 1/4	21 5/8	31 3/4	10 x 10	5.31
36	37 1/4	38 15/16	40 1/8	31 1/8	42 1/4	16	38 7/8	28 1/4	26 5/8	35 1/4	12 x 15	7.57
42	43 1/4	44 15/16	46 1/8	31 1/8	48 1/4	18	44 1/2	28 1/4	29 5/8	39 3/4	16 x 18	10.2
48	49 1/4	50 15/16	52 1/8	31 1/8	54 5/8	19	49 7/8	28 1/4	32 5/8	42 3/4	16 x 18	13.23
54	55 1/4	56 15/16	58 1/8	31 1/8	59 1/2	22	55 1/2	28 1/4	36 1/8	45 1/2	16 x 18	16.65
60	61 3/8	63 1/16	64 1/4	31 1/8	65 5/8	25	61 5/8	28 1/4	39 5/8	48 1/2	16 x 18	20.55

Performance Ratings

Typical Specifications



American Coolair Corporation certifies that the Type TEBC fans shown herein are licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

Duct fans shall be American Coolair Type TEBC as manufactured by American Coolair Corporation, Jacksonville, Florida; specific models shall be as shown in the fan schedule. Fan housing to be of heavy gauge steel. Fan blades shall be of high strength cast aluminum airfoil securely attached to a heavy cast aluminum hub. Blade pitch shall be adjustable. Ball bearings shall be of heavy duty pillow-block type. Fans shall be licensed to bear the AMCA Certified Ratings Seal for air and sound performance. (Specify for each Fan model in schedule the required CFM and static pressure; motor enclosure, phase and voltage; and accessories such as safety disconnect switch, mounting feet and special protective coating, etc.)

Item No.	Cubic Feet Per Minute (CFM) at Static Pressure ^{1,5}								Fan Model ²	Fan Size	Motor HP	Fan RPM	Sone Rating ³	MAX BHP ^{4,5}	Approx. Sh. Wt.
	0"	1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"							
1	2,918	2,587	---	---	---	---	---	---	TEBC18H	18	1/3	1253	16.9	0.31	120
2	3,463	3,209	2,859	---	---	---	---	---	TEBC18J	18	1/2	1487	24	0.48	120
3	3,977	3,772	3,484	3,150	---	---	---	---	TEBC18K	18	3/4	1708	31	0.70	125
4	4,501	4,327	4,091	3,825	---	---	---	---	TEBC18L	18	1	1933	36	0.97	130
5	5,198	5,052	4,871	4,648	4,416	---	---	---	TEBC18M	18	1 1/2	2232	45	1.44	135
6	7,738	7,398	6,753	6,088	---	---	---	---	TEBC24L	24	1	1198	28	0.93	220
7	9,056	8,795	8,322	7,768	7,198	---	---	---	TEBC24M	24	1 1/2	1402	38	1.47	225
8	9,934	9,706	9,346	8,812	8,336	7,032	---	---	TEBC24N	24	2	1538	44	1.92	230
9	11,277	11,084	10,824	10,415	9,946	9,071	---	---	TEBC24P	24	3	1746	53	2.77	245
10	11,760	11,070	10,316	9,568	8,686	---	---	---	TEBC30M	30	1 1/2	1150	36	1.46	265
11	12,700	12,067	11,375	10,680	9,968	7,087	---	---	TEBC30N	30	2	1242	41	1.83	270
12	14,643	14,101	13,517	12,907	12,306	10,991	---	---	TEBC30P	30	3	1432	54	2.77	285
13	17,476	17,026	16,553	16,054	15,543	14,535	13,469	11,810	TEBC30Q	30	5	1709	77	4.67	300
14	16,906	15,925	14,856	13,648	12,488	---	---	---	TEBC36N	36	2	1063	37	1.96	400
15	19,053	18,190	17,273	16,255	15,191	12,698	---	---	TEBC36P	36	3	1198	47	2.80	415
16	22,727	22,009	21,262	20,480	19,634	17,863	15,928	12,005	TEBC36Q	36	5	1429	68	4.73	430
17	22,737	21,407	20,112	18,659	16,775	---	---	---	TEBC42P	42	3	820	35	2.88	545
18	26,813	25,679	24,578	23,469	22,238	18,915	---	---	TEBC42Q	42	5	967	47	4.68	560
19	31,028	30,044	29,082	28,138	27,175	24,955	21,951	16,844	TEBC42R	42	7 1/2	1119	62	7.22	600
20	34,189	33,294	32,416	31,554	30,697	28,870	26,638	23,701	TEBC42S	42	10	1233	76	9.62	610
21	26,449	24,532	22,615	20,536	17,634	---	---	---	TEBC48P	48	3	718	33	2.91	575
22	31,533	29,904	28,355	26,686	24,951	19,989	---	---	TEBC48Q	48	5	856	44	4.92	590
23	36,174	34,744	33,378	32,020	30,535	27,450	22,632	---	TEBC48R	48	7 1/2	982	58	7.39	635
24	39,821	38,517	37,261	36,041	34,772	32,028	28,952	24,107	TEBC48S	48	10	1081	72	9.85	645
25	29,630	26,935	24,412	21,481	17,703	---	---	---	TEBC54P	54	3	626	35	2.89	1015
26	35,404	33,114	30,971	28,858	26,454	19,782	---	---	TEBC54Q	54	5	748	48	4.90	1040
27	40,752	38,745	36,845	35,012	33,170	28,735	22,534	---	TEBC54R	54	7 1/2	861	63	7.43	1075
28	42,577	41,075	39,601	38,157	36,749	33,774	29,801	25,799	TEBC54S	54	10	1073	94	10.00	1085
29	37,228	33,210	29,329	23,490	---	---	---	---	TEBC60P	60	3	526	35	2.91	1045
30	44,376	41,030	37,879	34,270	29,393	---	---	---	TEBC60Q	60	5	627	47	4.92	1070
31	48,010	45,426	43,337	41,264	38,607	33,016	26,033	---	TEBC60R	60	7 1/2	866	74	7.76	1105
32	52,112	49,686	47,694	45,854	43,735	38,626	33,126	---	TEBC60S	60	10	940	87	9.92	1115

- 1 — Performance shown is for Installation Type B: free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories).
- 2 — The first four letters of the model number identify **fan type, drive configuration and style**. The next two numbers indicate **fan size**, the next letter identifies **motor horsepower**. Example: Model TEBC24N is Type "TE", belt drive, Style "C", 24" size, 2 H.P.
- 3 — The sound ratings shown are loudness values in hemispherical sones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for Installation Type B: free inlet hemispherical sone levels. The sound ratings shown are at 0" static pressure.
- 4 — Maximum brake horsepower (BHP) within the catalog performance range. Power Rating (BHP) does not include transmission losses. Bearing losses are included. BHP at most static pressures listed is less than that shown, in some cases substantially less. For specific BHP values at individual static pressure points contact your American Coolair representative.
- 5 — To convert air performance (CFM and SP) and power (BHP) to metric units, multiply CFM x .000472 to obtain cubic meters per second (m³/s). Multiply SP x 248.36 to obtain pascals (Pa). Multiply BHP x .7457 to obtain kilowatts (kW).

Example: 3904 CFM x .000472 = 1.8427 m³/s
 0.125 SP x 248.36 = 31.05 Pa
 0.886 BHP x .7457 = 0.661 kW

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

Accessories

MOUNTING FEET: When necessary to support the fan weight from floor or ceiling, mounting feet should be specified.

Applications which involve wall mounting should be referred to your American Coolair representative for recommended fan mounts. Type of support to which fan will be mounted and location relative to motor (or access panel) should be clearly stated.

SPARK RESISTANT CONSTRUCTION: For hazardous locations, any Type TEBC fan can be ordered with an explosion-proof motor. Motors only qualify for Class I Group D and Class II Groups F & G hazards.

PROTECTIVE COATING: For most applications, the American Coolair powder coating system will provide the necessary surface protection for painted parts. This system includes a thermosetting epoxy powder coating to a thickness of 3 mils and baked at 400°F for hardness, impact resistance, adhesion, and chemical resistance.

For applications that require more specialized surface protection, American Coolair offers alternatives: 6 mil epoxy, hot dipped galvanizing, and others. For more information about special protective coatings, contact your American Coolair representative.

SAFETY DISCONNECT SWITCH: This switch can be mounted near fan and serve as a safety disconnect from the power supply.

COMPANION FLANGE: It is identical to the fan flange and may be welded to the adjoining duct to simplify fan installation.

REPRESENTED BY:

Limited Warranty

In the sale of its products, American Coolair Corporation agrees to correct, by repairs or replacement, any defects in workmanship or material that may develop under proper and normal use during the period of one year from the date of shipment from the factory. Any product or part proving, upon American Coolair's examination, to be defective during limited warranty period will be repaired or replaced, at American Coolair's option, f.o.b. factory, without charge.

Deterioration or wear caused by chemicals, abrasive action or excessive heat shall not constitute defects.

Motors are guaranteed only to the extent of the manufacturer's warranty.

American Coolair's limited warranty does not apply to any of its products or parts that have been subject to accidental damage, misuse by the user, unauthorized modifications, improper installation or electrical wiring, or lack of proper lubrication or other service requirements as established by American Coolair.

Repairs or replacements provided under the above terms shall constitute fulfillment of all American Coolair's obligations with respect to limited warranty.

THE LIMITED WARRANTY STATED HEREIN IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, STATUTORY OR IMPLIED, INCLUDING WITHOUT LIMITATION THAT OF MERCHANTABILITY AND FITNESS.

NO LIABILITY FOR REINSTALLATION COST OR FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OF ANY NATURE IS ASSUMED OR SHALL BE IMPOSED UPON AMERICAN COOLAIR.

WARNING



DO NOT INSTALL FAN WITH MOVING PARTS WITHIN 8 FEET OF FLOOR OR GRADE LEVEL WITHOUT A GUARD THAT COMPLIES WITH OSHA REGULATIONS. **DO NOT** USE UNLESS ELECTRICAL WIRING COMPLIES WITH ALL APPLICABLE CODES. **DO NOT** WIRE WITHOUT PROVIDING FOR A POWER SOURCE DISCONNECT AT THE FAN ITSELF. **DO NOT** SERVICE EXCEPT BY A QUALIFIED MAINTENANCE TECHNICIAN AND ONLY AFTER DISCONNECTING THE POWER SOURCE. FAILURE TO OBSERVE THESE PRECAUTIONS CAN RESULT IN SERIOUS INJURY OR DEATH.

CAUTION



AMERICAN COOLAIR CORPORATION

P.O. BOX 2300 ~ Jacksonville, Florida 32203

Phone: (904) 389-3646

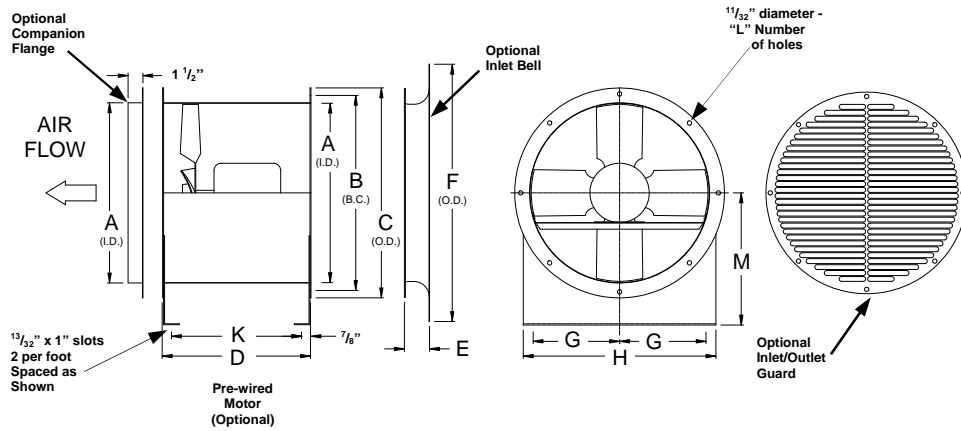
Fax: (904) 387-3449 or (904) 381-7560

E-mail: info@coolair.com



Type **TEBH** and **TEDH** Duct Fans

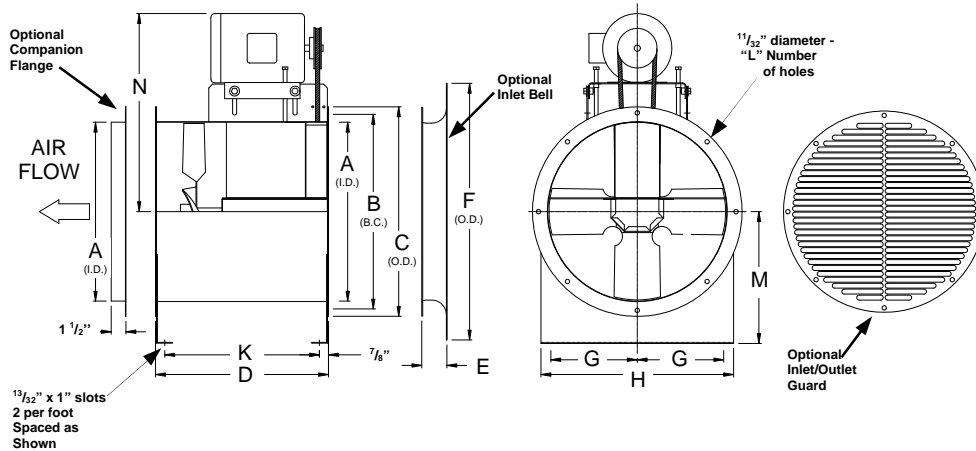
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Fan Size	A	B	C	D	E	F	G	H	K	L	M	Casing Gage	Outlet Area
12	12 1/8	13 1/8	14	14	2	18	4 3/4	11 1/2	12 1/4	8	9 5/16	18	0.80
16	16 1/8	17 3/8	18 1/4	14	2	22	5 15/16	13 7/8	12 1/4	8	11 5/16	14	1.42
18	18 1/8	19 3/8	20 3/8	16	2	24	6 3/4	15 1/2	14 1/4	8	13 5/16	14	1.79
24	24 1/8	25 1/2	26 1/2	20 1/2	2	30	6 1/4	14 1/2	18 3/4	12	16 5/16	14	3.17

Dimensions in inches

**T
E
B
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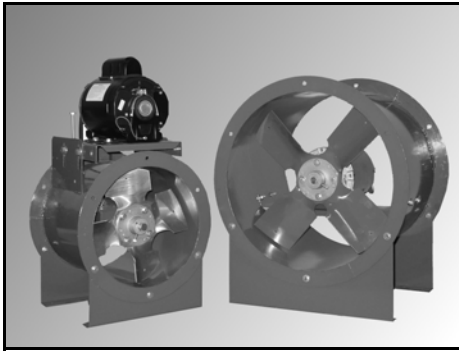
Fan Size	A	B	C	D	E	F	G	H	K	L	M	N	Casing Gauge	Outlet Area
12	12 1/8	13 1/8	14	12	2	18	4 3/4	11 1/2	10 1/4	8	9 5/16	17	18	0.80
16	16 1/8	17 3/8	18 1/4	16 1/2	2	22	5 15/16	13 7/8	14 3/4	8	11 5/16	20	14	1.42
18	18 1/8	19 1/2	20 3/8	16 1/2	2	24	6 3/4	15 1/2	14 3/4	8	13 5/16	21	14	1.79
24	24 1/8	25 1/2	26 1/2	20 3/4	2	30	6 1/4	14 1/2	19	12	16 5/16	27	14	3.17

Dimensions in inches

Application

Type TEBH and TEDH fans are suited to meet your ducted fan needs both economically and efficiently. They are designed to operate reliably in all environments including elevated temperature (TEBH) or contaminated air (TEBH).

Construction



The fan housing and motor supports are made of heavy gauge steel plate for maximum strength and durability. Die-formed aluminum blades are standard; steel blades are optional. Painted parts are coated with epoxy to provide a protective coating rated excellent for hardness, impact resistance, adhesion and chemical resistance. Contact factory for protective coating options.

Drive mechanism

BELT DRIVE: Available in sizes 12 inch to 24 inch. Belt driven models are designed for quieter operation and lower initial cost. They use standardly available 1750 RPM motors.

DIRECT DRIVE: Available in sizes 12 inch to 24 inch. Direct driven models require less maintenance, offer longer operating life, increased efficiency and reduced operating cost.

TEBH Performance Ratings

Item No.	Cubic Feet Per Minute (CFM) at Static Pressure									Fan Model	Fan Size	Motor HP	Fan RPM	Sone Rating	Max BHP
	0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"	1"	1 1/4"						
1	1480	1391	1291	1173	987	---	---	---	---	TEBH12G	12	1/4	2232	19.1	0.25
2	1626	1546	1458	1359	1238	1044	---	---	---	TEBH12H		1/3	2452	22	0.33
3	1863	1793	1719	1639	1551	1448	1305	---	---	TEBH12J		1/2	2809	28	0.50
4	2133	2072	2009	1942	1872	1796	1711	1473	---	TEBH12K		3/4	3216	34	0.75
5	2517	2359	2157	1854	---	---	---	---	---	TEBH16G	16	1/4	1508	16.9	0.25
6	2754	2612	2441	2213	1862	---	---	---	---	TEBH16H		1/3	1650	19.8	0.33
7	3163	3042	2904	2740	2532	2242	---	---	---	TEBH16J		1/2	1895	25	0.50
8	3641	3537	3423	3296	3149	2974	2753	---	---	TEBH16K		3/4	2181	31	0.75
9	3984	3890	3789	3678	3555	3416	3253	2805	---	TEBH16L		1	2387	37	1.00
10	3411	3166	2896	2559	---	---	---	---	---	TEBH18H	18	1/3	1444	19.2	0.33
11	3917	3705	3479	3230	2923	---	---	---	---	TEBH18J		1/2	1658	25	0.50
12	4496	4313	4120	3918	3697	3437	---	---	---	TEBH18K		3/4	1903	32	0.75
13	4952	4786	4614	4434	4245	4040	3802	---	---	TEBH18L		1	2096	35	1.00
14	5663	5519	5370	5217	5059	4894	4720	4313	---	TEBH18M		1 1/2	2397	44	1.50
15	5262	4712	4093	---	---	---	---	---	---	TEBH24H	24	1/3	1031	19.4	0.33
16	5967	5483	4978	4338	---	---	---	---	---	TEBH24J		1/2	1169	24	0.50
17	6824	6402	5972	5505	4911	---	---	---	---	TEBH24K		3/4	1337	32	0.75
18	7493	7109	6720	6317	5856	5282	---	---	---	TEBH24L		1	1468	38	1.00
19	8631	8299	7963	7622	7269	6879	6417	---	---	TEBH24M		1 1/2	1691	47	1.50
20	9438	9134	8827	8518	8204	7875	7514	6619	---	TEBH24N		2	1849	54	2.00
21	10795	10530	10263	9994	9723	9449	9167	8543	7773	TEBH24P		3	2115	69	3.00

TEDH Performance Ratings

Item No.	Cubic Feet Per Minute (CFM) at Static Pressure									Fan Model	Fan Size	Motor HP	Fan RPM	Sone Rating	Max BHP
	0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"	1"	1 1/4"						
1	823	677	---	---	---	---	---	---	---	TEDH12H11	12	1/3	1190	8.2	0.04
2	1191	1101	991	861	---	---	---	---	---	TEDH12F17		1/6	1725	18.7	0.12
3	2300	2262	2221	2178	2132	2083	2031	1914	1783	TEDH12K34		3/4	3475	51	0.90
4	2011	1782	1499	---	---	---	---	---	---	TEDH16H11	16	1/3	1180	10.5	0.12
5	2863	2708	2541	2360	2146	1886	---	---	---	TEDH16H16		1/3	1680	22	0.37
6	2803	2508	2117	1001	---	---	---	---	---	TEDH18H11	18	1/3	1170	10.7	0.18
7	4157	3965	3761	3538	3268	2933	2450	---	---	TEDH18J17		1/2	1735	23	0.61
8	5971	5474	4872	4296	---	---	---	---	---	TEDH24H11	24	1/3	1130	21	0.45
9	9038	8703	8370	8040	7705	7337	6884	5887	---	TEDH24M17		1 1/2	1750	46	1.69

Type VA Vanax Fans Models VA, VAD, & VAB



Type VA — Direct Drive

Model VA

Sizes 6 through 10
207 to 1,811 CFM
Static Pressure to 1-1/2"



Construction

Model VA fans feature a spun aluminum casing and a sturdy cast aluminum vane section. The vane section also serves as the motor mount for the fan, and the cast aluminum rotor is mounted directly to the motor shaft. This direct drive arrangement provides years of maintenance-free service.

Model VAD

Sizes 12 through 48
955 to 36,396 CFM
Static Pressure to 2-1/2"



Construction

Model VAD fans feature a rolled steel casing with a formed steel vane section. Both the steel casing and vane section are coated with a protective epoxy paint finish. The vane section for the VAD also serves as the motor mount for the fan, and the cast aluminum rotor is mounted directly to the motor shaft. This direct drive arrangement provides years of maintenance-free service.

VAD fans come standard with heavy-gauge welded fan brackets for ease of handling and mounting the fan.

Type VAB — Belt Drive

Model VAB

Sizes 12 through 48
1,004 to 47,176 CFM
Static Pressure to 3"



Construction

Model VAB fans feature a rolled steel casing with a formed steel vane section. Both the steel casing and vane section are coated with a protective epoxy paint finish.

Motors for the VAB are mounted such that they are isolated from the airstream. Most models utilize variable pitch motor pulleys, which provide a wide adjustment of fan speed. This allows the performance of a VAB unit to be precisely matched to the system in which it operates.

VAB fans come standard with heavy-gauge welded fan brackets for ease of handling and mounting the fan.

Application

American Coolair *Vanax* fans are true vane axial fans designed for a wide range of commercial and industrial applications. High pressure efficiency permits the fans to be installed anywhere in the system — in any position. The fans can be used for either supply or exhaust by simply turning the entire unit to move air in the desired direction.

Vanax fans are extremely compact and well suited to locations where space is limited, and can often be easily mounted directly to the ductwork. As a result of very close tolerances and carefully matched vanes and rotors, *Vanax* fans offer exceptional performance across their size ranges.

Motors

Totally enclosed motors are standard. Several alternatives, such as explosion proof or two-speed motors, are available to fit your specific needs. Only nationally recognized brand motors with nationwide service facilities are used.

Motor availability is limited on certain fan models.

Contact your American Coolair representative for more information. Totally enclosed, single phase motors have built-in overload protection.

Finish

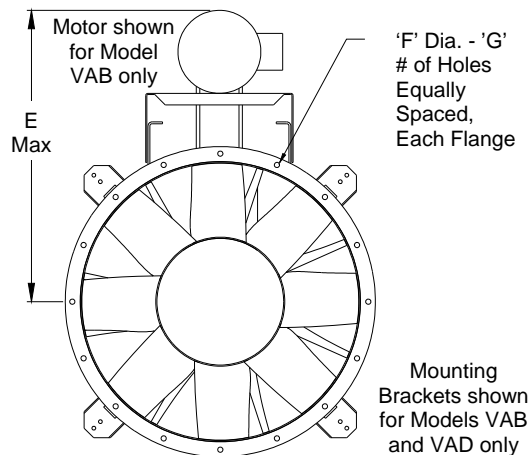
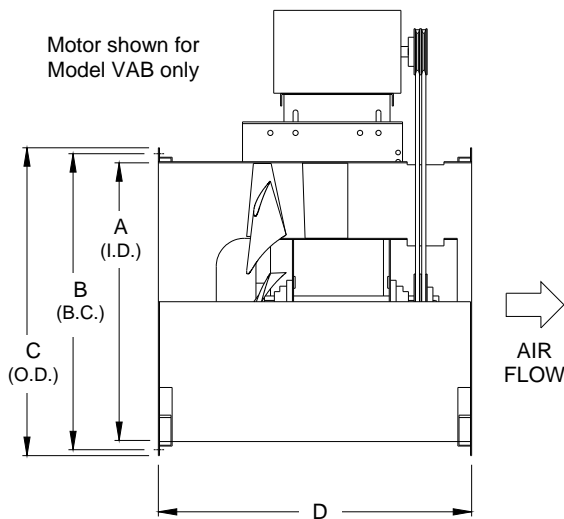
Parts requiring painting are processed through the advanced American Coolair multi-stage pretreatment system prior to the application of any coatings to ensure maximum finish adhesion. These parts are then powder coated with epoxy to provide a protective coating rated excellent for hardness, impact resistance, adhesion and chemical resistance.

Listings



Type VA, VAD, and VAB ventilators are listed by Underwriters Laboratory, Inc. to U.S. and Canadian safety standards.

Certified ratings licensed by AMCA (Air Movement and Control Association International, Inc.), for both air and sound performance, are available for all *Vanax* fans.



Vanax Fan Dimensions

Fan Size	A	B	C	D		E	F	G	Outlet Area, ft ²
				VA/VAD	VAB				
6	6	7	7 1/2	6 3/4	—	—	7/32	8	0.20
7	7	8	8 1/2	6 3/4	—	—	7/32	8	0.27
8	8	9	9 1/2	10 1/4	—	—	7/32	8	0.35
85	8 1/2	9 1/2	10	10 1/4	—	—	7/32	8	0.39
9	9	10	10 1/2	10 1/4	—	—	7/32	8	0.44
95	9 1/2	10 1/2	11	10 1/4	—	—	7/32	8	0.49
10	10	11	11 1/2	10 1/4	—	—	7/32	8	0.54
12	12 1/8	13 1/8	14 13/16	15	17	17	3/8	8	0.80
14	14 1/8	15 3/8	16 13/16	15	17	19 1/2	3/8	8	1.09
16	16 1/8	17 3/8	18 13/16	15	17	20	3/8	8	1.42
18	18 1/8	19 1/2	20 13/16	15	17	21	3/8	8	1.79
24	24 1/8	25 7/8	28	23	30	32	9/16	12	3.19
30	30 1/8	32 1/8	34 1/4	26	34	38	9/16	16	4.95
36	36 1/8	38 1/8	40 1/2	36	36	42	9/16	16	7.12
42	42 1/8	44 3/16	46 3/4	36	36	47	9/16	24	9.68
48	48 1/8	50 1/2	53	36	36	50	9/16	24	12.63

Performance Ratings



American Coolair Corporation certifies that the Type VA, VAD, and VAB fan models shown herein are licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

Typical Specifications

Vane axial fans shall be American Coolair Type VA, VAD, or VAB as manufactured by American Coolair Corporation, Jacksonville, Florida; specific models shall be as shown in the fan schedule. Fan housing shall be made of aluminum with cast aluminum vane section (VA) or epoxy paint coated steel with formed steel vane section (VAD & VAB). Fan rotor shall be cast aluminum. All motors shall be totally-enclosed. Fans shall be licensed to bear the AMCA Certified Ratings Seal for Sound and Air Performance. (Specify for each fan model in schedule the required CFM and static pressure; motor enclosure, phase and voltage. List accessories — as described on Pages 6 & 7 — as required.)

VA and VAD — Direct Drive

Item No.	Cubic Feet Per Minute (CFM) at Static Pressure ^{1,5}									Fan Model ²	Fan Size	Motor HP	Fan RPM	Sone Rating ³	MAX BHP ^{4,5}	Approx. Ship Wt.
	0"	1/4"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"							
1	292	249	207	---	---	---	---	---	---	VA6D34	6	1/12	3400	7.6	0.04	9
2	511	456	391	---	---	---	---	---	---	VA7D32	7	1/12	3225	8.6	0.07	12
3	758	711	659	603	540	---	---	---	---	VA8H35	8	1/3	3550	14.8	0.21	21
4	994	948	895	834	757	674	---	---	---	VA85H35	85	1/3	3525	15.6	0.27	22
5	1,291	1,235	1,171	1,096	1,001	891	---	---	---	VA9H35	9	1/3	3500	17.1	0.33	23
6	1,502	1,434	1,357	1,268	1,164	1,049	918	---	---	VA95H34	95	1/3	3475	18.1	0.39	24
7	1,811	1,730	1,644	1,551	1,439	1,289	1,142	---	---	VA10H34	10	1/3	3450	21.0	0.50	25
8	1,095	955	---	---	---	---	---	---	---	VAD12H17	12	1/3	1790	11.5	0.10	56
9	2,156	2,085	2,014	1,943	1,872	1,796	1,708	---	---	VAD12K35	12	3/4	3525	30	0.77	58
10	1,822	1,608	---	---	---	---	---	---	---	VAD14H17	14	1/3	1780	12.1	0.18	61
11	3,608	3,507	3,401	3,290	3,174	3,049	2,906	2,542	2,149	VAD14M35	14	1 1/2	3525	31	1.43	73
12	2,648	2,368	1,958	---	---	---	---	---	---	VAD16H17	16	1/3	1770	17.8	0.30	65
13	5,274	5,153	5,021	4,875	4,710	4,520	4,311	3,885	3,470	VAD16N35	16	2	3525	37	2.41	79
14	3,634	3,276	2,800	---	---	---	---	---	---	VAD18H17	18	1/3	1760	19.2	0.42	69
15	7,278	7,119	6,948	6,764	6,563	6,342	6,103	5,613	5,090	VAD18P35	18	3	3525	54	3.37	85
16	6,115	5,712	5,236	4,640	---	---	---	---	---	VAD24L11	24	1	1160	18.8	1.12	365
17	9,252	8,996	8,724	8,433	8,118	7,773	---	---	---	VAD24P17	24	3	1755	35	3.40	399
18	9,305	9,050	8,780	8,491	8,179	7,837	7,459	6,537	---	VAD24Q17	24	5	1765	35	3.84	415
19	12,549	11,891	11,147	---	---	---	---	---	---	VAD30N11	30	2	1175	25	2.14	422
20	12,602	11,947	11,208	10,348	9,317	8,122	---	---	---	VAD30P11	30	3	1180	25	2.76	439
21	18,903	18,479	18,035	17,568	17,072	16,544	15,977	14,697	---	VAD30R17	30	7 1/2	1770	47	8.52	451
22	12,267	11,517	10,583	9,382	---	---	---	---	---	VAD36N8	36	2	870	21	2.00	685
23	16,497	15,961	15,370	14,700	13,919	13,026	12,039	---	---	VAD36Q11	36	5	1170	32	5.03	709
24	24,886	24,540	24,181	23,805	23,412	22,998	22,559	21,590	20,485	VAD36T17	36	15	1765	62	15.60	935
25	17,356	16,269	14,999	13,435	11,475	---	---	---	---	VAD42P8	42	3	870	23	3.32	863
26	23,541	22,763	21,927	21,016	20,008	18,873	17,578	14,471	---	VAD42R11	42	7 1/2	1180	36	8.28	878
27	27,028	25,698	24,129	22,175	19,730	16,795	13,636	---	---	VAD48Q8	48	5	880	29	5.75	1045
28	36,088	35,124	34,078	32,928	31,638	30,168	28,497	---	---	VAD48S11	48	10	1175	45	11.50	1061
29	36,396	35,439	34,405	33,270	31,999	30,557	28,918	25,003	20,501	VAD48T11	48	15	1185	46	13.91	1228

VAB — Belt Drive

Item No.	Cubic Feet Per Minute (CFM) at Static Pressure ^{1,5}									Fan Model ²	Fan Size	Motor HP	Fan RPM	Sone Rating ³	MAX BHP ^{4,5}	Approx. Ship Wt.
	0"	1/4"	1/2"	3/4"	1"	1 1/2"	2"	2 1/2"	3"							
1	1,244	1,133	1,004	---	---	---	---	---	---	VAB12G	12	1/4	2186	12.9	0.25	73
2	1,369	1,270	1,159	1,014	---	---	---	---	---	VAB12H	12	1/3	2406	15.2	0.33	73
3	1,571	1,485	1,392	1,289	1,155	---	---	---	---	VAB12J	12	1/2	2760	19.0	0.50	79
4	1,797	1,722	1,644	1,560	1,468	---	---	---	---	VAB12K	12	3/4	3157	23	0.75	88
5	1,790	1,583	1,319	---	---	---	---	---	---	VAB14G	14	1/4	1869	13.4	0.25	77
6	1,968	1,785	1,551	---	---	---	---	---	---	VAB14H	14	1/3	2054	15.4	0.33	77
7	2,262	2,108	1,918	1,707	---	---	---	---	---	VAB14J	14	1/2	2361	19.0	0.50	84
8	2,586	2,454	2,301	2,121	1,937	---	---	---	---	VAB14K	14	3/4	2699	23	0.75	87
9	2,844	2,726	2,593	2,439	2,271	---	---	---	---	VAB14L	14	1	2969	27	1.00	90
10	2,590	2,338	---	---	---	---	---	---	---	VAB16H	16	1/3	1814	15.7	0.33	84
11	2,963	2,751	2,476	---	---	---	---	---	---	VAB16J	16	1/2	2075	19.4	0.50	90
12	3,390	3,209	2,993	2,721	---	---	---	---	---	VAB16K	16	3/4	2374	24	0.75	94
13	3,731	3,569	3,383	3,160	2,891	---	---	---	---	VAB16L	16	1	2613	28	1.00	100
14	4,275	4,136	3,982	3,809	3,608	3,111	---	---	---	VAB16M ⁶	16	1 1/2	2994	34	1.50	94
15	4,701	4,575	4,439	4,290	4,123	3,722	3,226	---	---	VAB16N ⁶	16	2	3292	41	2.00	97

VAB Performance Ratings Continued

Item No.	Cubic Feet Per Minute (CFM) at Static Pressure ^{1,5}									Fan Model ²	Fan Size	Motor HP	Fan RPM	Sone Rating ³	MAX BHP ^{4,5}	Approx. Ship Wt.
	0"	1/4"	1/2"	3/4"	1"	1 1/2"	2"	2 1/2"	3"							
16	4,503	4,226	3,930	3,606	3,235	---	---	---	---	VAB18L	18	1	2290	27	1.00	105
17	5,149	4,907	4,654	4,387	4,098	3,424	---	---	---	VAB18M ⁶		1 1/2	2618	33	1.50	98
18	5,666	5,447	5,221	4,984	4,735	4,172	3,509	---	---	VAB18N ⁶		2	2881	39	2.00	101
19	6,486	6,296	6,100	5,899	5,691	5,246	4,739	4,171	---	VAB18P ⁶		3	3298	49	3.00	123
20	4,133	3,470	--	--	--	--	--	--	--	VAB24H	24	1/3	784	9.8	0.33	351
21	4,734	4,184	3,400	--	--	--	--	--	--	VAB24J		1/2	898	12.2	0.50	358
22	5,367	4,896	4,300	3,418	--	--	--	--	--	VAB24K		3/4	1018	15.0	0.75	360
23	5,883	5,462	4,955	4,297	--	--	--	--	--	VAB24L		1	1116	17.5	0.96	365
24	6,843	6,488	6,086	5,615	5,037	--	--	--	--	VAB24M		1 1/2	1298	22	1.50	378
25	7,428	7,104	6,745	6,339	5,866	4,544	--	--	--	VAB24N		2	1409	25	2.00	385
26	8,493	8,212	7,911	7,582	7,218	6,336	5,101	--	--	VAB24P		3	1611	31	3.00	406
27	10,053	9,819	9,572	9,311	9,034	8,413	7,672	6,704	--	VAB24Q		5	1907	40	4.97	429
28	8,191	7,091	5,502	--	--	--	--	--	--	VAB30K	30	3/4	767	12.9	0.75	399
29	9,217	8,272	7,024	--	--	--	--	--	--	VAB30L		1	863	15.3	1.00	405
30	10,370	9,552	8,551	7,262	--	--	--	--	--	VAB30M		1 1/2	971	18.0	1.50	417
31	11,331	10,593	9,728	8,663	7,366	--	--	--	--	VAB30N		2	1061	21	2.00	422
32	13,339	12,724	12,041	11,264	10,355	--	--	--	--	VAB30P		3	1249	27	3.00	439
33	15,357	14,830	14,261	13,640	12,951	11,300	9,141	--	--	VAB30Q		5	1438	35	5.00	451
34	17,568	17,111	16,627	16,113	15,561	14,311	12,806	11,034	--	VAB30R		7 1/2	1645	42	7.50	518
35	19,341	18,927	18,495	18,040	17,561	16,507	15,289	13,873	12,262	VAB30S		10	1811	49	10.00	532
36	10,857	9,985	8,805	7,248	--	--	--	--	--	VAB36M	36	1 1/2	770	18.0	1.50	659
37	11,830	11,046	10,047	8,756	6,995	--	--	--	--	VAB36N		2	839	20	2.00	665
38	14,001	13,359	12,610	11,695	10,602	--	--	--	--	VAB36P		3	993	25	3.00	685
39	16,454	15,917	15,324	14,651	13,866	11,976	--	--	--	VAB36Q		5	1167	32	5.00	709
40	18,386	17,910	17,396	16,833	16,203	14,694	12,894	10,202	--	VAB36R		7 1/2	1304	37	7.50	761
41	20,233	19,803	19,346	18,855	18,322	17,084	15,604	13,906	11,434	VAB36S		10	1435	44	10.00	787
42	23,857	23,495	23,118	22,723	22,306	21,393	20,339	19,131	17,798	VAB36T		15	1692	58	15.00	944
43	25,915	25,583	25,240	24,882	24,510	23,709	22,813	21,797	20,665	VAB36U		20	1838	68	19.99	959
44	14,883	13,580	11,928	9,688	--	--	--	--	--	VAB42N	42	2	746	18.1	2.00	760
45	16,977	15,862	14,547	12,905	10,830	--	--	--	--	VAB42P		3	851	22	3.00	786
46	19,950	19,020	17,982	16,794	15,387	11,679	--	--	--	VAB42Q		5	1000	28	5.00	797
47	22,803	21,998	21,128	20,172	19,104	16,488	12,996	--	--	VAB42R		7 1/2	1143	34	7.49	863
48	25,077	24,350	23,576	22,744	21,838	19,727	17,094	13,602	--	VAB42S		10	1257	40	10.00	886
49	28,907	28,281	27,626	26,937	26,208	24,596	22,712	20,477	17,864	VAB42T		15	1449	50	15.00	1022
50	31,581	31,010	30,417	29,800	29,153	27,758	26,186	24,380	22,299	VAB42U		20	1583	59	19.98	1043
51	34,573	34,053	33,517	32,963	32,388	31,168	29,832	28,348	26,677	VAB42V ⁷		25	1733	69	25.00	1158
52	37,565	37,088	36,598	36,095	35,576	34,488	33,319	32,050	30,661	VAB42W ⁷	30	1883	80	29.98	1193	
53	22,359	20,692	18,484	15,429	--	--	--	--	--	VAB48P	48	3	728	22	3.00	953
54	26,721	25,373	23,775	21,772	19,256	--	--	--	--	VAB48Q		5	870	29	4.99	965
55	29,946	28,761	27,419	25,835	23,924	18,988	--	--	--	VAB48R		7 1/2	975	34	7.50	1020
56	32,618	31,540	30,347	28,993	27,412	23,414	18,454	--	--	VAB48S		10	1062	39	10.00	1045
57	37,471	36,543	35,545	34,459	33,255	30,368	26,733	22,426	--	VAB48T		15	1220	49	14.98	1184
58	41,310	40,474	39,587	38,641	37,618	35,267	32,403	28,959	25,031	VAB48U		20	1345	58	20.00	1215
59	44,105	43,325	42,504	41,637	40,711	38,637	36,171	33,251	29,845	VAB48V ⁷		25	1436	65	24.98	1330
60	47,176	46,449	45,689	44,892	44,053	42,209	40,076	37,592	34,725	VAB48W ⁷		30	1536	73	29.96	1365

- 1 — Performance certified is for Installation Type B: free inlet, ducted outlet. Performance includes the effects of an inlet bell.
- 2 — The first two or three letters of the model number identify **fan type**. The next two numbers indicate **fan size**, the next letter identifies motor **horsepower**. For direct drive fans, the last two numbers indicate fan speed. Example: Model VAD14M35 is Type "VAD" (direct drive) 14" size, 1-1/2 H.P., 3525 RPM.
- 3 — The sound ratings shown are loudness values in hemispherical sones at 1.5m (5 ft.) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for Installation Type B: free inlet hemispherical sone levels. The sound ratings shown are at 0" static pressure.
- 4 — Maximum brake horsepower (BHP) within the catalog performance range. Power rating (BHP) does not include transmission losses. BHP at most static pressures listed is less than that shown, in some cases substantially less. For specific BHP values at individual static pressure points, contact your American Coolair representative.
- 5 — To convert air performance (CFM and SP) and power (BHP) to metric units, multiply CFM x .000472 to obtain cubic meters per second (m³/s). Multiply SP x 248.36 to obtain pascals (Pa). Multiply BHP x .7457 to obtain kilowatts (kW).
- 6 — These models use a 3450 RPM motor with a maximum 145T frame size.
- 7 — These models use fixed pitch pulleys.

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

Options and Accessories

Inlet Bell

For a Vanax fan that is not duct connected at the inlet, an inlet bell is recommended for efficient performance.

Inlet/Outlet Guard

Guards prevent the entry of foreign material into the fan. Punched sheet metal guards with OSHA compliant openings are used on Vanax fans up through Size 18. For sizes 24 and up, the guard consists of 1" x 1" wire mesh. Guards can be mounted on either the fan inlet or outlet.

Belt Tube (VAB 24-48 Only)

The painted steel belt tube isolates the drive components from the airstream. A belt tube is standard on VAB sizes 12-18, and is an option for sizes 24-48. Due to positive pressures on the motor shaft side of the VAB fan, either a belt tube or drive guard accessory (see below) is recommended to minimize air leakage.

Motor Cover (VAB Only)

The painted steel housing encloses motor and drives on belt drive models. The cover is open on the motor pulley end to allow for ventilation of motor.

Drive Guard (VAB Only)

This guard keeps personnel and foreign objects away from the rotating motor sheave and belts. For Size 24-48 units without a belt tube, a drive guard is recommended to minimize air leakage.

Companion Flange (VAB and VAD only)

The companion flange — a flange identical to the fan flange — is designed to be attached to the adjoining duct to simplify fan installation.

Duct Connector

A duct connector is available for ease in mating the Vanax fan to ductwork. The duct connector is tapered for sizes 10 and below, and is straight for sizes 12 and above.

Access Panel (VAB and VAD only)

This removable panel allows limited access to fan for inspection and cleaning of fan interior, and lubrication of direct drive motors.

Protective Coatings

Ventilator units are not recommended for exhausting air of a corrosive nature. However, special protective coatings are available where units may be exposed to corrosive exterior conditions. Parts requiring painting are processed through the American Coolair multi-stage pretreatment system prior to the application of any coatings to insure maximum finish adhesion. These parts use a thermosetting epoxy powder paint with an average thickness of 3 mils and baked at 400°F to a smooth, hard continuous finish.

For applications that require more specialized surface protection, American Coolair offers alternatives: 6 mil epoxy or hot dip galvanizing, and others. For more information about special protective coatings, contact your American Coolair representative.

Pre-Wired Motor

For convenience in connecting direct drive units to the power supply, the motor may be pre-wired to a conduit box mounted on the exterior of the fan housing.

Safety Disconnect Switch

This switch is designed to mount near the fan and serve as a safety disconnect from the power supply.

Mounting Feet

When necessary to support fan weight from floor or ceiling, mounting feet should be specified. Applications which involve wall mounting should be referred to your American Coolair representative for recommended fan mounts. Type of support to which fan will be mounted and location relative to motor (or access panel) should be clearly stated.

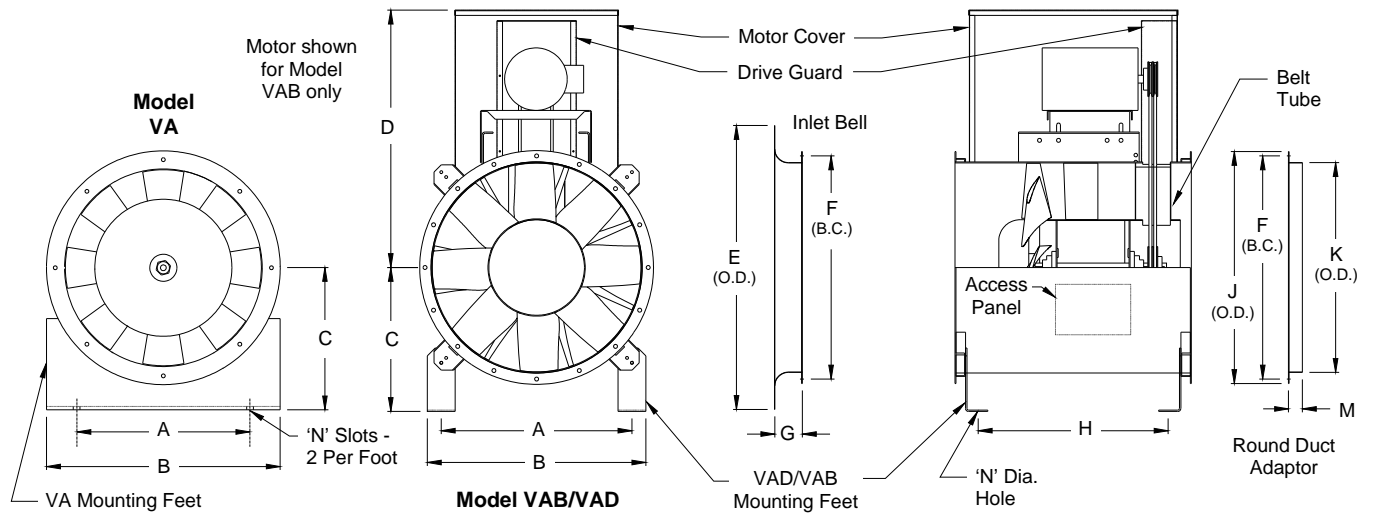
PRV Kit (VAB and VAD only)

The VAB or VAD fan can be ordered with a PRV kit, which permanently converts the unit to an Upblast Power Roof Ventilator. The kit includes a curb cap for roof mounting, and an exhaust shroud suitable for all-weather operation.

Special Motors

Two-speed, energy efficient and explosion-proof motors for hazardous locations may be available for many models. Motor enclosure may affect UL listing.

Accessory Dimensions



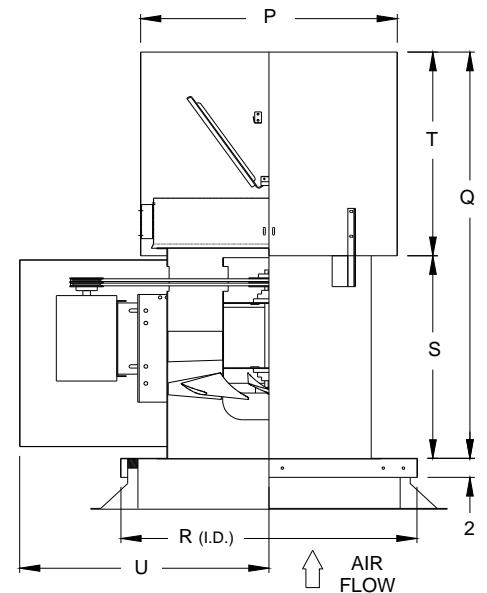
Fan Size	A	B	C	D	E	F	G	H		J	K*	M*	N	Access Panel
								VA-VAD	VAB					
6	4 1/2	7	4 5/8	—	8 1/4	7	1	5 9/16	—	7 1/2	6	2	9/32 x 1 1/4	—
7	5 1/2	8	5 1/8	—	9 1/4	8	1	5 9/16	—	8 1/2	7	2	9/32 x 1 1/4	—
8	6 1/2	9	5 5/8	—	10 1/4	9	1	9	—	9 1/2	8	2	9/32 x 1 1/4	—
85	7	9 1/2	5 7/8	—	10 3/4	9 1/2	1	9	—	10	8 1/2	2	9/32 x 1 1/4	—
9	7 1/2	10	6 1/8	—	11 1/4	10	1	9	—	10 1/2	9	2	9/32 x 1 1/4	—
95	8	10 1/2	6 3/8	—	11 3/4	10 1/2	1	9	—	11	9 1/2	2	9/32 x 1 1/4	—
10	8 1/2	11	6 5/8	—	12 1/4	11	1	9	—	11 1/2	10	2	9/32 x 1 1/4	—
12	13 1/8	14 5/8	10 3/16	19 1/8	18	13 1/8	2 1/16	11 7/16	13 7/16	14	12 1/4	1 1/4	13/32	4 x 6 3/8
14	14 1/2	16	10 7/8	20 11/16	20	15 3/8	2 1/16	11 7/16	13 7/16	16 1/8	14 1/4	1 1/4	13/32	4 x 6 3/8
16	15 7/8	17 3/8	11 5/8	22 3/8	22	17 3/8	2 1/16	11 7/16	13 7/16	18 1/4	16 1/4	1 3/8	13/32	5 x 7
18	17 3/8	18 7/8	12 5/16	23 3/4	24	19 1/2	2 1/16	11 7/16	13 7/16	20 3/8	18 1/4	1 1/4	13/32	5 x 7
24	21 11/16	23 3/16	14 1/2	32 3/4	34 7/8	25 3/4	4	19 3/8	26 3/8	28	24 1/4	1 1/2	13/32	7 x 10 1/2
30	27 1/2	31 1/2	20 3/4	37 1/16	40 7/8	32 1/8	4	19 5/8	27 5/8	34 1/4	30 1/4	1 1/2	9/16	8 x 13 1/8
36	31 3/4	35 3/4	22 7/8	42 1/8	46 7/8	38 1/8	4	29 5/8	29 5/8	40 1/2	36 1/4	1 1/2	9/16	10 x 15 3/4
42	35 13/16	39 15/16	25	46 1/16	52 7/8	44 3/16	4	29 5/8	29 5/8	46 3/4	42 1/4	1 1/2	9/16	12 x 18 3/8
48	40 3/16	44 3/16	27 1/8	49 11/16	58 7/8	50 1/2	4	29 5/8	29 5/8	53	48 1/4	1 1/2	9/16	12 x 21

PRV Kit Dimensions

Fan Size	P	Q		R*	S		T	U
		VAD	VAB		VAD	VAB		
12	16	26 1/2	28 1/2	26	14	16	12 1/2	19 1/8
14	18	27 1/2	29 1/2	28	14	16	13 1/2	20 11/16
16	20	28 1/2	30 1/2	30	14	16	14 1/2	22 3/8
18	22	30	32	32	14	16	16	23 3/4
24	32	49 3/8	56 3/8	38	21 3/4	28 3/4	27 5/8	33
30	38	57 1/4	65 1/4	44	24 3/4	32 3/4	32 1/2	37
36	44	67 1/4	67 1/4	50	34 3/4	34 3/4	32 1/2	42 1/4
42	50	72 1/8	72 1/8	56	34 3/4	34 3/4	37 3/8	46 1/8
48	56	72 1/8	72 1/8	62	34 3/4	34 3/4	37 3/8	49 3/4

* - Recommended curb O.D. is 'R' - 2".

All Dimensions in Inches



Installation, Selection, and Maintenance

INSTALLATION: American Coolair's Vanax fans may be mounted in any position. For convenience in wiring and service, the motor should be readily accessible. On direct drive units, access through adjacent duct work is recommended. On belt drive units, the motor position must be considered with regard to service and adjacent objects such as wall or ceiling.

The duct fan has flanged ends on the steel housing for convenient mounting directly to the duct system. Flexible connections or transition pieces may be utilized to reduce noise transmission, simplify duct attachment, and provide access to the fan interior.

If the fan cannot be adequately supported by duct work or otherwise, optional mounting feet should be utilized. Type of support (floor or ceiling) and location relative to motor or access panel will determine proper type and location of mounts needed.

Always check blade clearance and direction of rotation before operating.

SOUND: Sound ratings may also be a factor in fan selection. Sound ratings provided in the performance tables on Pages 4 & 5 are shown in Sones. Individual octave band sound data can be provided upon request; contact your American Coolair representative.

MAINTENANCE: Vanax fans should be cleaned as necessary to remove accumulated dust, dirt and other foreign matter which may collect on the blades or interior surfaces. If belt drive, belt(s) should be inspected and tension adjusted. Check belt(s) for proper alignment.

External relubrication fan bearing fittings are standard with belt drive models. Pillow-block ball bearings should be lubricated annually or more frequently, depending upon conditions and operating cycle. Refer to the maintenance instructions supplied with the fan. For lubrication of the electric motor, consult the instructions provided by the motor manufacturer.

Limited Warranty

In the sale of its products, American Coolair Corporation agrees to correct, by repairs or replacement, any defects in workmanship or material that may develop under proper and normal use during the period of one year from date of shipment from factory. Any product or part proving, upon American Coolair's examination, to be defective during limited warranty period will be repaired or replaced, at American Coolair's option, f.o.b. factory, without charge.

Deterioration or wear caused by chemicals, abrasive action or excessive heat shall not constitute defects.

Motors are guaranteed only to the extent of manufacturer's warranty.

American Coolair's limited warranty does not apply to any of its products or parts that have been subject to accidental damage, misuse by the user, unauthorized alterations, improper installation or electrical wiring, or lack of proper lubrication or other service requirements established by American Coolair.

Repairs or replacements provided under the above terms shall constitute fulfillment of all American Coolair's obligations with respect to limited warranty.

THE LIMITED WARRANTY STATED HEREIN IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, STATUTORY OR IMPLIED, INCLUDING WITHOUT LIMITATION THAT OF MERCHANTABILITY AND FITNESS.

NO LIABILITY FOR REINSTALLATION COST OR FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OF ANY NATURE IS ASSUMED OR SHALL BE IMPOSED UPON AMERICAN COOLAIR.

WARNING CAUTION



DO NOT INSTALL FAN WITH MOVING PARTS WITHIN 8 FEET OF FLOOR OR GRADE LEVEL WITHOUT A GUARD THAT COMPLIES WITH OSHA REGULATIONS. **DO NOT** USE UNLESS ELECTRICAL WIRING COMPLIES WITH ALL APPLICABLE CODES. **DO NOT** WIRE WITHOUT PROVIDING FOR A POWER SOURCE DISCONNECT AT THE FAN ITSELF. **DO NOT** SERVICE EXCEPT BY A QUALIFIED MAINTENANCE TECHNICIAN AND ONLY AFTER DISCONNECTING THE POWER SOURCE. FAILURE TO OBSERVE THESE PRECAUTIONS CAN RESULT IN SERIOUS INJURY OR DEATH.



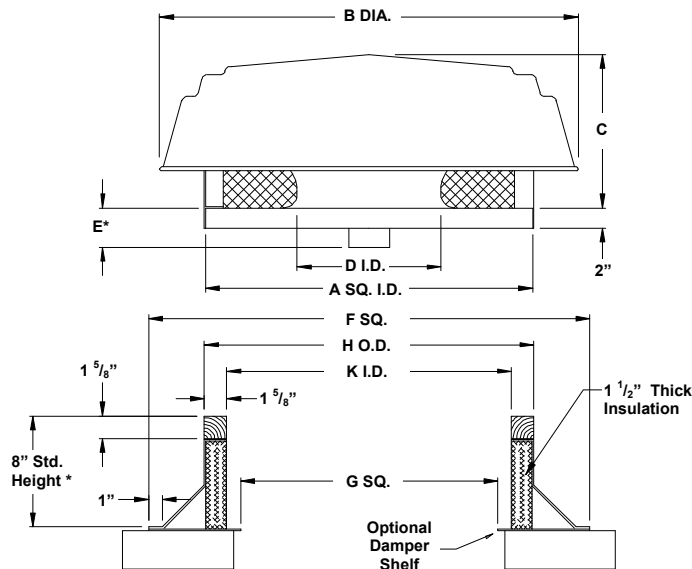
REPRESENTED BY:



AMERICAN COOLAIR CORPORATION

Spun Axial Roof Ventilators

TYPE SASD — DIRECT DRIVE SUPPLY
TYPE SAED — DIRECT DRIVE EXHAUST



* - For units requiring a backdraft damper, a taller (than standard) curb may be necessary for proper damper/fan motor clearance.

Dimensions in Inches



Unit Size	Ventilator Dimensions					Roof Curb Dimensions				Material Thickness	
	A	B	C	D	E	F	G	H	K	Base	Hood
12	18	20 7/8	13	12	4 1/4	24 1/2	11 1/4	16 1/2	13 1/4	.050	.063
16	23	28 5/8	12 3/8	16	6 1/4	29 1/2	16 1/4	21 1/2	18 1/4	.050	.063
20	30	39 5/8	15 3/8	20	6 1/2	36 1/2	23 1/4	28 1/2	25 1/4	.050	.063
25	34	43 5/8	16 3/4	25	9	40 1/2	27 1/4	32 1/2	29 1/4	.063	.063
31	40	48 5/8	18 1/8	31	9	46 1/2	33 1/4	38 1/2	35 1/4	.063	.080
37	46	62 7/8	22 1/8	37	9	52 1/2	39 1/4	44 1/2	41 1/4	.063	.080

SUPPLY UNITS								
Fan Model	Motor HP	Motor RPM	Sones @ 0"	Performance at Static Pressure				
				0"	.125"	.25"	.375"	.5"
SASD12C16	1/13	1625	11.3	846	679	399	207	—
SASD16F11	1/5	1140	12.3	1,268	938	560	—	—
SASD16J17	1/2	1725	25	1,919	1,659	1,475	1,252	986
SASD20F11	1/5	1100	16.6	2,111	1,518	—	—	—
SASD20K17	3/4	1700	35	3,262	2,928	2,439	2,226	1,937
SASD25H11	1/3	1125	20	3,669	3,248	2,734	2,031	847
SASD31J8	1/2	850	20	4,589	3,918	3,090	2,196	—
SASD37J8	1/2	825	25	7,023	6,103	4,994	3,483	—

EXHAUST UNITS									
Fan Model	Motor HP	Motor RPM	Sones @ 0"	Performance at Static Pressure					
				0"	.125"	.25"	.375"	.5"	
SAED12C16	1/13	1625	12.6	924	832	723	571	465	
SAED16F11	1/5	1140	9.3	1,292	1,035	698	385	—	
SAED16J17	1/2	1725	20	1,956	1,797	1,619	1,431	1,201	
SAED20F11	1/5	1100	11.0	2,688	2,186	1,531	1,157	576	
SAED20K17	3/4	1700	24	4,155	3,845	3,501	3,186	2,722	
SAED25H11	1/3	1125	21	4,395	3,842	3,397	2,715	2,260	
SAED31J8	1/2	850	19.5	5,728	4,972	4,340	3,108	2,033	
SAED37J8	1/2	825	23	8,426	7,204	5,840	4,352	2,899	

SASD/SAED Direct Drive - Spun Axial Roof Ventilators

Applications

The SASD/SAED is a low silhouette axial propeller roof ventilator that is compatible with modern architectural lines and also matches ILG's centrifugal power roof ventilators.

Construction

- Round spun aluminum hood
- Heavy gauge hood supports
- Vibration isolators
- Galvanized wire bird screen
- Wide range of sizes for every need

Suggested Specifications

Spun axial roof ventilators shall have circular hoods of spun aluminum. Ventilators will be low in silhouette to conform to present architectural styles. Square bases will be constructed of aluminum. Ventilators will be equipped with galvanized mesh bird screen.

Specification Checklist

- Units provide general supply (SASD) or exhaust (SAED) of low, medium or high air volumes in commercial, institutional and light manufacturing buildings.
- Weatherproof heavy duty aluminum housing resists corrosion and maintains appearance.
- Deep-spun, one-piece venturi improves efficiency and minimizes pressure losses.
- Bird screen prevents entry of birds or other potentially damaging objects.

Limited Warranty

In the sale of its products, American Coolair Corporation agrees to correct, by repairs or replacement, any defects in workmanship or material that may develop under proper and normal use during the period of one year from the date of shipment from the factory. Any product or part proving, upon American Coolair's examination, to be defective during limited warranty period will be repaired or replaced, at American Coolair's option, f.o.b. factory, without charge.

Deterioration or wear caused by chemicals, abrasive action or excessive heat shall not constitute defects.

American Coolair's limited warranty does not apply to any of its products or parts that have been subject to accidental damage, misuse by the user, unauthorized alterations, improper installation or electrical wiring, or lack of proper lubrication or other service requirements as established by American Coolair.

Repairs or replacements provided under the above terms shall constitute fulfillment of all American Coolair's obligations with respect to limited warranty.

THE LIMITED WARRANTY STATED HEREIN IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, STATUTORY OR IMPLIED, INCLUDING WITHOUT LIMITATION THAT OF MERCHANTABILITY AND FITNESS.

NO LIABILITY FOR REINSTALLATION COST OR FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OF ANY NATURE IS ASSUMED OR SHALL BE IMPOSED UPON AMERICAN COOLAIR.



AMERICAN COOLAIR CORPORATION

Installation

All models are shipped fully assembled and ready for installation. Always inspect equipment for transit damage before accepting delivery to assure a valid claim.

Placement

Refer to local building codes for placement of exhaust air streams relative to supply air streams.

Mounting

Satisfactory operation of roof ventilators requires mounting on adequately designed and constructed roof curbs. Prefabricated curbs for convenience in installation are available from ILG. Install with base of unit horizontal. Provide adequate caulking, flashing or other weatherproofing means.

Options & Accessories

Prefabricated Roof Curbs

Insulated roof curbs with weather-resistant continuous welded construction are available for convenience in installation for both insulated and non-insulated roof decks.

Backdraft Dampers

Gravity or motor operated backdraft dampers are available. They are aluminum construction and designed for installation in prefabricated roof curbs.

Protective Coatings

Ventilator units are not recommended for exhausting air of a corrosive nature. However, special protective coatings are available where units may be exposed to corrosive exterior conditions. Parts requiring painting are processed through the American Coolair multi-stage pretreatment system prior to the application of any coatings to insure maximum finish adhesion. These parts use a thermosetting epoxy powder paint with an average thickness of 3 mils and baked at 400° F to a smooth, hard continuous finish. Consult your ILG Industries representative for available coatings.

REPRESENTED BY:



DIGITAL CATALOG INDEX
CENTRIFUGAL PRODUCTS
EFFECTIVE MAY 2020

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705-15-5 GENERAL PRODUCTS BROCHURE

ENERGY SAVER

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CENTRIFUGAL UPBLAST PRVS

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715-15-3 TYPE CUBA & CUDA CENTRIFUGAL UPBLAST PRV BROCHURE

CENTRIFUGAL FILTERED SUPPLY VENTILATORS

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CENTRIFUGAL IN-LINE DUCT VENTILATORS

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755-15-3 TYPE RIBA & RIDA CENTRIFUGAL DUCT FAN BROCHURE
758-15-5 TYPE MXF MIXED FLOW DUCT FAN BROCHURE

CENTRIFUGAL UTILITY VENT SETS

740-15-2 TYPE VS VENTILATING SETS BROCHURE

GRAVITY VENTILATORS

770-15-3 GRAVITY VENTILATORS TYPE TEV, TIV, LVN, LVX & ARVE

SUBMITTALS, OPERATION & MAINTENANCE AND OTHER FAN AND PRV DATA CAN BE FOUND AT WWW.COOLAIR.COM

AMERICAN COOLAIR CORPORATION

P.O. BOX 2300 | JACKSONVILLE, FLORIDA

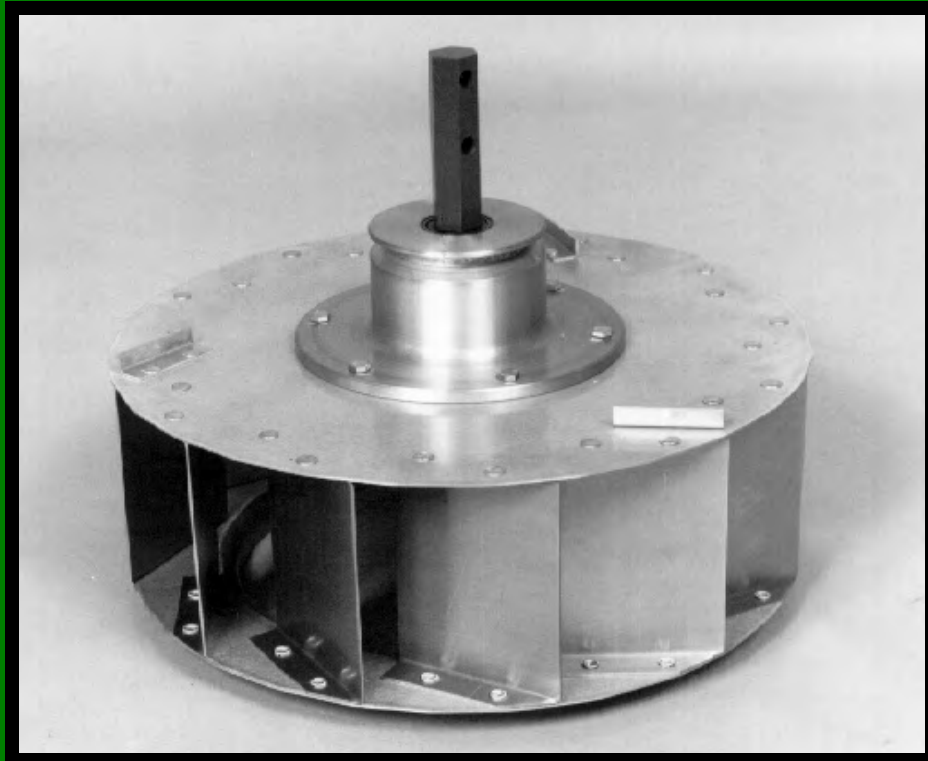
TEL: 904-389-3646 | FAX: 904-387-3449

INFO@COOLAIR.COM | ORDERS@COOLAIR.COM



AMERICAN COOLAIR CORPORATION

The
C-DRIVE
Centrifugal Wheel Assembly



Fans for a given application can be similarly priced. Differences in value only become apparent after years of use. That is when poor design and cost cutting "tricks" begin to rob you of fan life.

The **C-DRIVE**

In 1994, AMERICAN COOLAIR CORPORATION introduced a new type of centrifugal wheel drive to the commercial and restaurant ventilation equipment markets; a drive that was derived from our axial/propeller fan design experience spanning seventy years.

It is called the **C-DRIVE**.

Since that time, thousands of units have been built and shipped, providing reliable service to hundreds of end users. Here's how:

The centrifugal wheel bolts directly to the **C-DRIVE** - an all-aluminum cast disc and sheave assembly - which incorporates a static shaft with permanently sealed ball bearings. The **C-DRIVE** transmits the drive forces *directly through* the bearings. In turn, the calculated bearing life is off the chart! This means a virtually maintenance free piece of equipment to you and your customer.

The heavy gauge drive package is supported on vibration isolators, and utilizes a hinged motor mount with belt tensioner. The **C-DRIVE** positions the motor shaft down, providing easy electrical access for wiring and motor nameplate information.

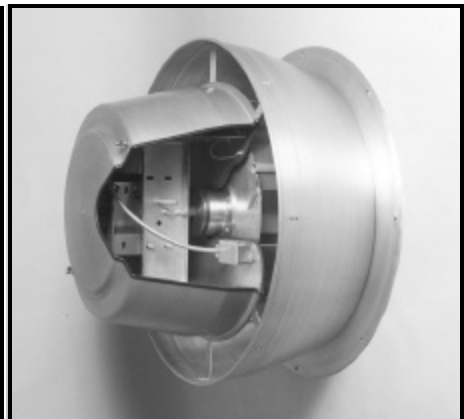
Specify and buy the drive of the future.



CRBCA Belt C-Drive Downblast Centrifugal Exhaust PRV
Sizes - 06 to 24
185 to 10328 CFM; Static Pressure to 2"
AMCA Seal for Sound and Air
UL705 Listing Available



CUBA Belt C-Drive Upblast Centrifugal Exhaust PRV
Sizes - 12 to 24
711 to 8850 CFM; Static Pressure to 2"
AMCA Seal for Sound and Air
UL705 or UL762 Listing Available

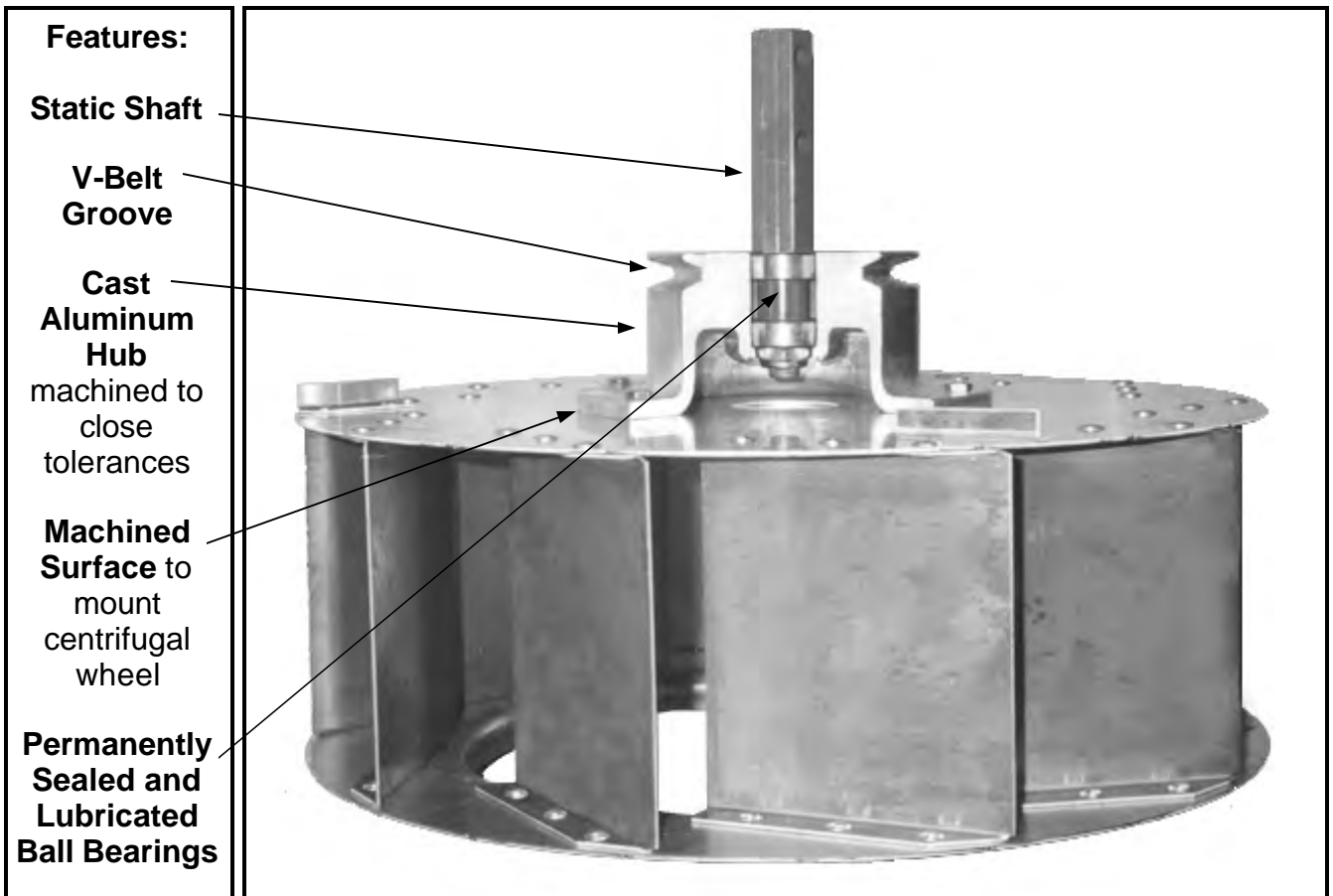
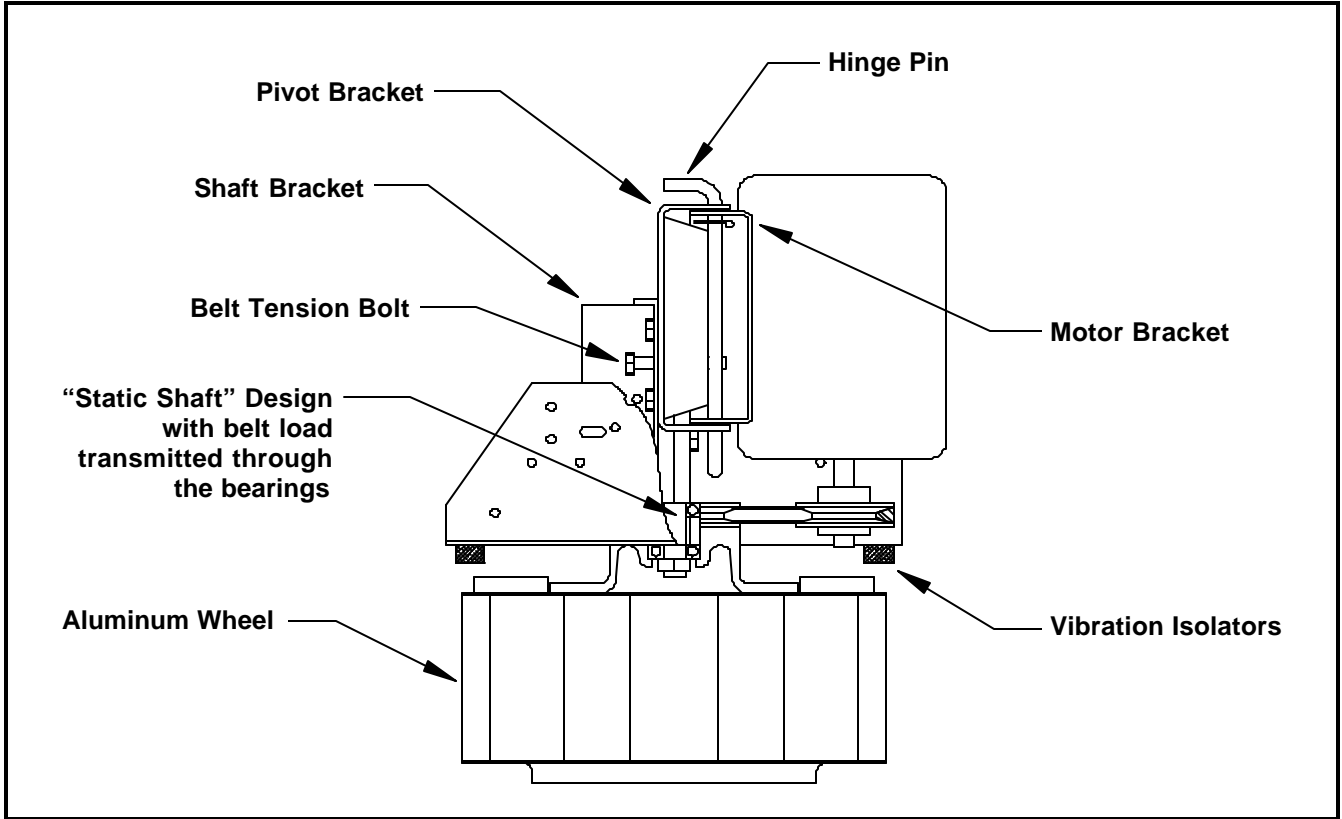


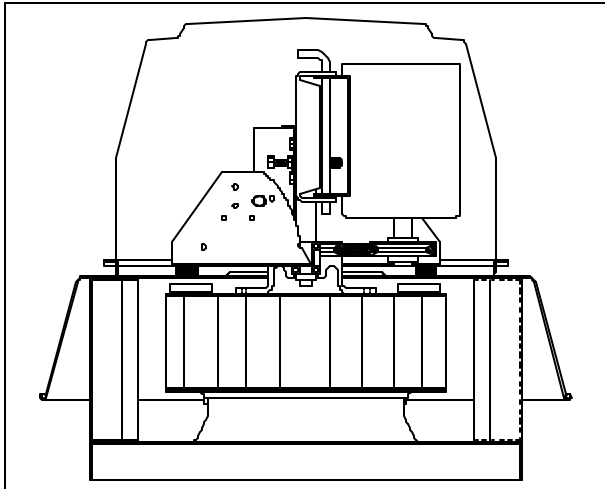
CWBA Belt C-Drive Wall Centrifugal Exhaust Ventilator
Sizes - 12 to 20
711 to 5709 CFM; Static Pressure to 2"
AMCA Seal for Sound and Air
UL705 Listing Available



Components of the C-Drive

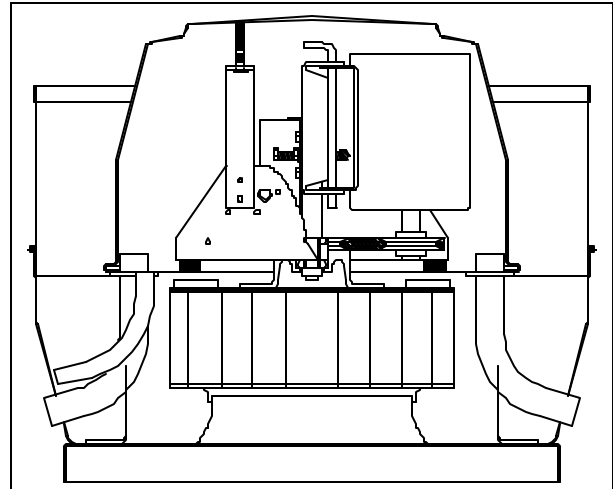
Available Exclusively on CRBCA, CUBA and CWBA Units





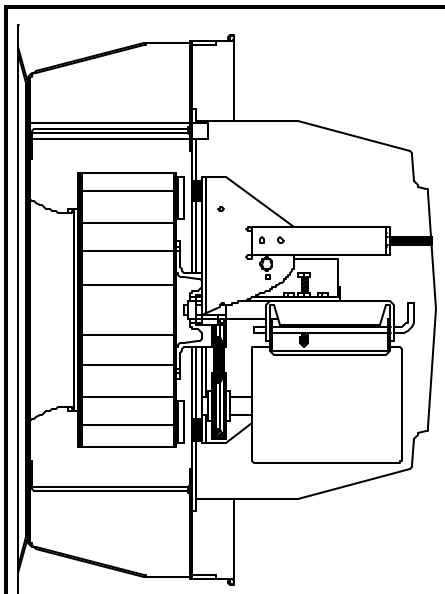
TYPE CRBCA DOMED POWER ROOF VENTILATORS

USED FOR COMMERCIAL VENTILATION APPLICATIONS.
MEETS UL STANDARD 705.



TYPE CUBA UPBLAST POWER ROOF VENTILATORS

USED FOR RESTAURANT AND KITCHEN EXHAUST SYSTEMS.
MEETS UL STANDARD 762.
USED FOR GENERAL VENTILATION APPLICATIONS.
MEETS UL STANDARD 705.



TYPE CWBA WALL MOUNTED VENTILATORS

USED FOR COMMERCIAL VENTILATION APPLICATIONS.
MEETS UL STANDARD 705.



AMERICAN COOLAIR CORPORATION

REPRESENTED BY:

GENERAL OFFICE, JACKSONVILLE, FLORIDA 32203-2300 ~ (904) 389-3646

FAX: (904) 387-3449, (904) 381-7560 ~ WEBSITE: www.coolair.com ~ E-MAIL: fans@coolair.com

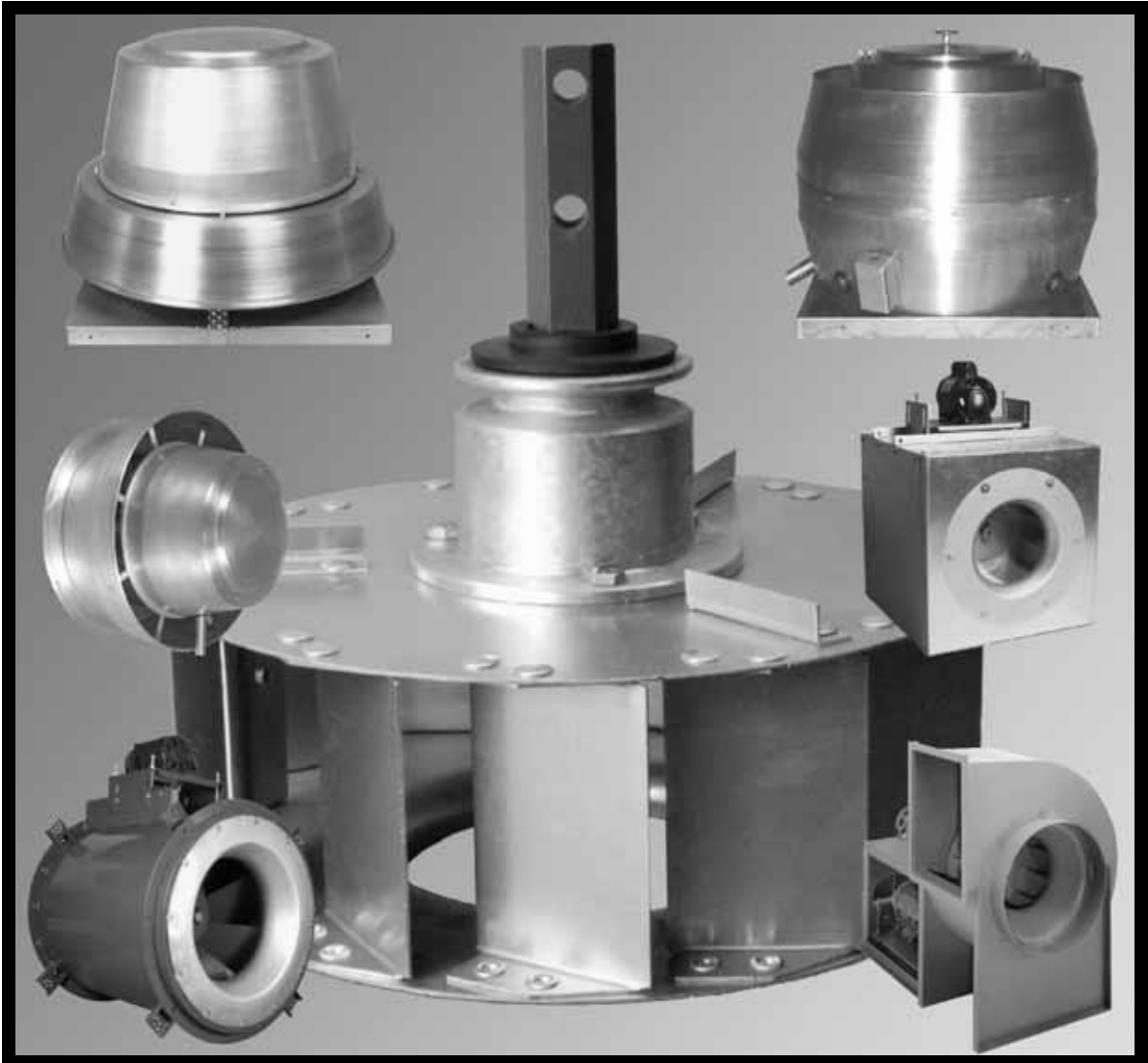
VANE AXIAL FANS ~ TUBE AXIAL FANS ~ PROPELLER FANS ~ POWER ROOF VENTILATORS ~ CENTRIFUGAL VENTILATORS
MEMBER OF AMCA

Form No. 705-10-2 (August, 2001)





AMERICAN COOLAIR CORPORATION



CENTRIFUGAL VENTILATION PRODUCTS

EXHAUST POWER ROOF VENTILATORS

FILTERED SUPPLY POWER ROOF VENTILATORS

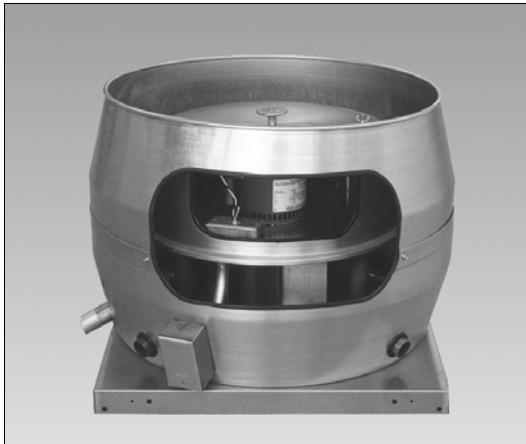
INLINE DUCT FANS

WALL VENTILATORS

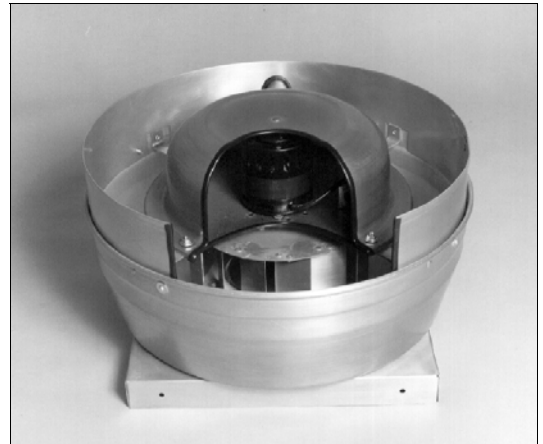
GRAVITY VENTILATORS

CEILING VENTILATORS

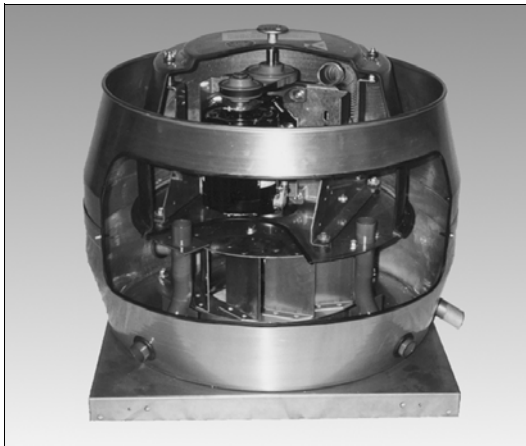
UPBLAST EXHAUST PRVS



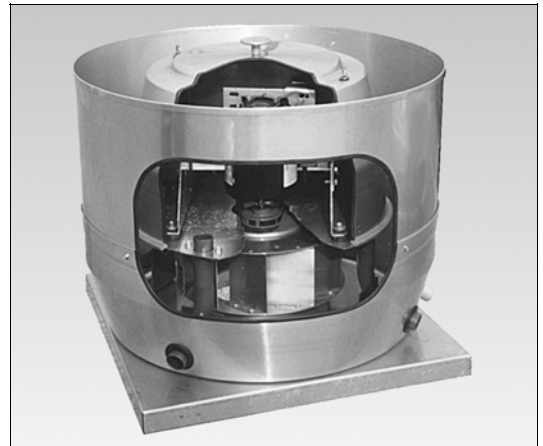
UDCA Direct Drive Upblast Centrifugal Exhaust PRV
 Sizes - 12 to 15
 619 to 3,032 CFM; Static Pressure to 1.5"
 AMCA Licensed for Sound and Air
 UL Listed for Standard 762



CUDA Direct Drive Upblast Centrifugal Exhaust PRV
 Sizes - 06 to 20
 133 to 4,942 CFM; Static Pressure to 1"
 AMCA Licensed for Sound and Air
 UL Listed for Standard 705

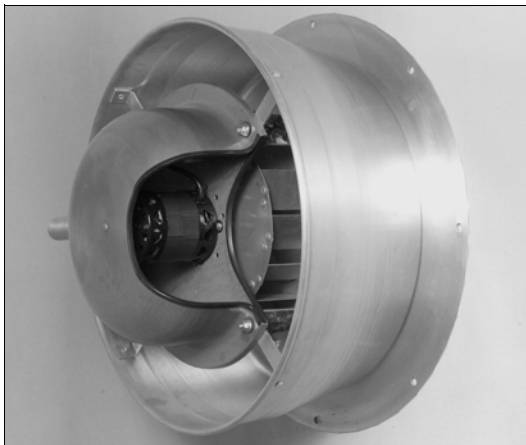


UBCA Belt Drive Upblast Centrifugal Exhaust PRV
 Sizes - 06 to 44
 203 to 29,002 CFM; Static Pressure to 2"
 AMCA Licensed for Sound and Air - UBCA
 UL Listed for Standard 705; 762; 793

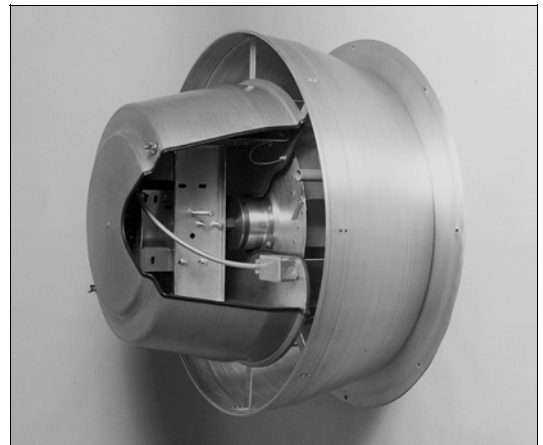


CUBA Belt C-Drive Upblast Centrifugal Exhaust PRV
 Sizes - 12 to 24
 781 to 8,850 CFM; Static Pressure to 2"
 AMCA Licensed for Sound and Air
 UL Listed for Standard 705; 762

WALL FANS

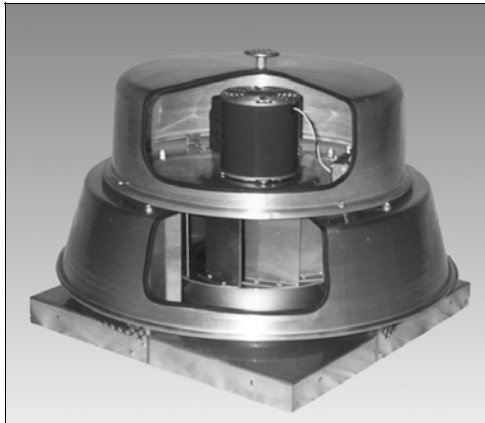


CWDA Direct Drive Centrifugal Wall Exhaust Ventilator
 Sizes - 06 to 20
 133 to 4,942 CFM; Static Pressure to 1"
 AMCA Licensed for Sound and Air
 UL Listed for Standard 705

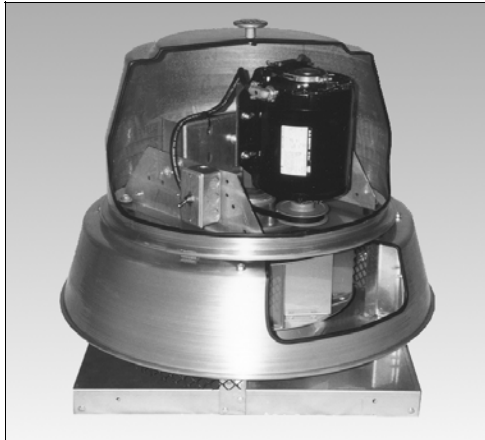


CWBA Belt C-Drive Centrifugal Wall Exhaust Ventilator
 Sizes - 12 to 20
 711 to 5,709 CFM; Static Pressure to 2"
 AMCA Licensed for Sound and Air
 UL Listed for Standard 705

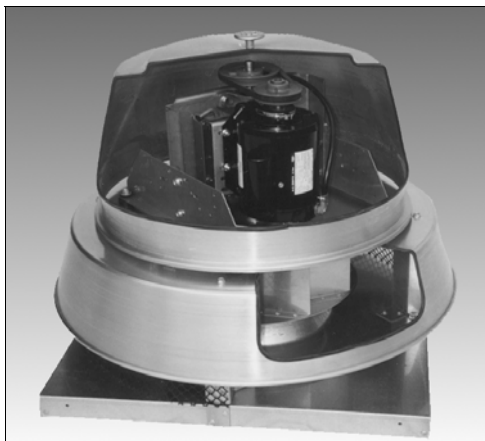
DOWNBLAST EXHAUST PRVS



CRDA Direct Drive Downblast Centrifugal Exhaust PRV
Sizes - 06 to 20
162 to 5,730 CFM; Static Pressure to 1"
AMCA Licensed for Sound and Air
UL Listed for Standard 705

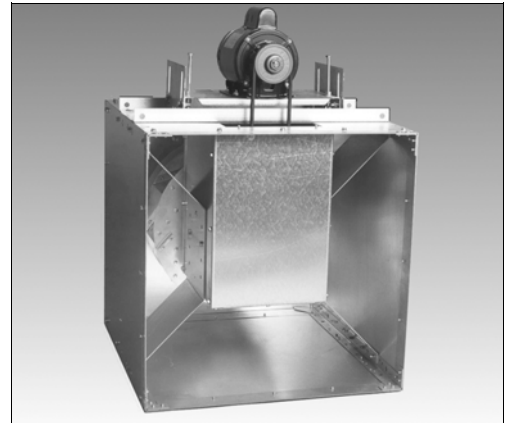


CRBCA Belt C-Drive Downblast Centrifugal Exhaust PRV
Sizes - 06 to 24
185 to 10,328 CFM; Static Pressure to 2"
AMCA Licensed for Sound and Air
UL Listed for Standard 705



CRBA Belt Drive Downblast Centrifugal Exhaust PRV
Sizes - 06 to 52
185 to 43,962 CFM; Static Pressure to 2"
AMCA Licensed for Sound and Air
UL Listed for Standard 705

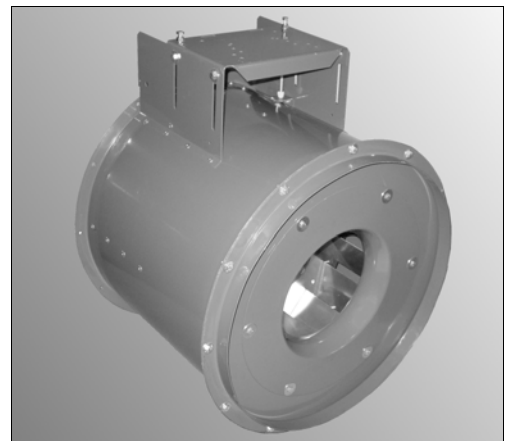
IN-LINE DUCT VENTILATORS



SQBA (Belt Drive) & SQDA (Direct Drive) Square In-Line Centrifugal Fans
Sizes - 06 to 44 (SQBA); 06 to 18 (SQDA)
113 to 31,491 CFM; Static Pressure to 3"
AMCA Licensed for Sound and Air
UL Listed for Standard 705

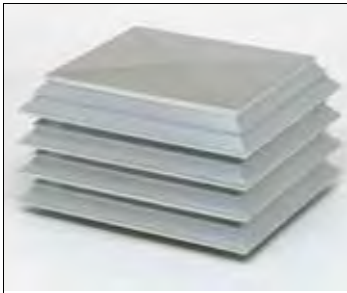


MXF Belt Drive In-Line Mixed Flow Fan
Sizes - 9 to 43
1,100 to 41,250 CFM
Static Pressure to 6"

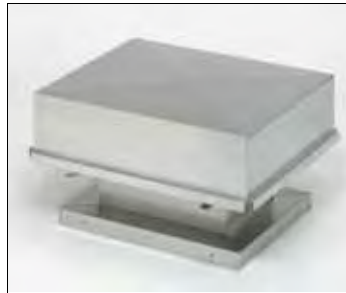


RIBA (Belt Drive) & RIDA (Direct Drive) Round In-Line Centrifugal Fans
Sizes - 06 to 30 (RIBA); 06 to 15 (RIDA)
261 to 15,288 CFM; Static Pressure to 2"
AMCA Licensed for Sound and Air
UL Listed for Standard 705; 793

GRAVITY VENTS



LVN/LVX Louverline Penthouse Ventilator
Relief or Intake Applications
Extruded Aluminum Design

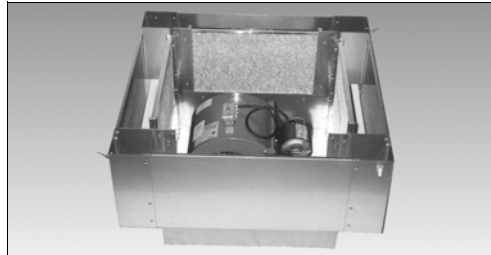


TIV/TEV Trimline Hood Ventilator
Relief or Intake Applications
Fabricated Aluminum Design

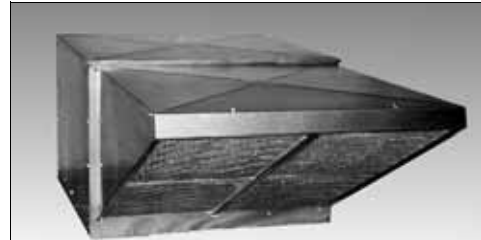


ARVE Roof Ventilators
Relief or Intake Applications
Spun Aluminum Design

FILTERED FANS

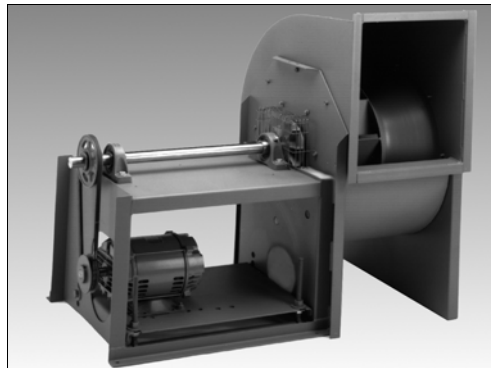


CFS Belt Drive Centrifugal Filtered Supply Ventilator
Sizes - 9 to 18
600 to 9,200 CFM; Static Pressure to 1.5"
AMCA Licensed for Air
UL Listed for Standard 705

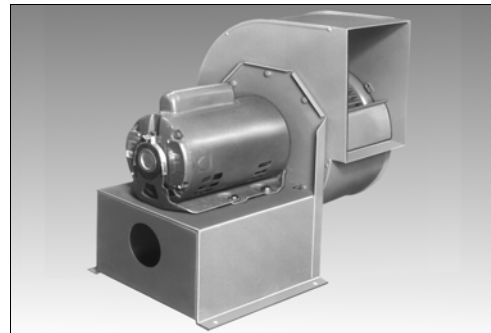


SIS Belt Drive Centrifugal Single Inlet Filtered Supply Ventilator
Sizes - 9 to 18
700 to 9,200 CFM; Static Pressure to 1.5"
AMCA Licensed for Air
UL Listed for Standard 705

VENTILATING SETS

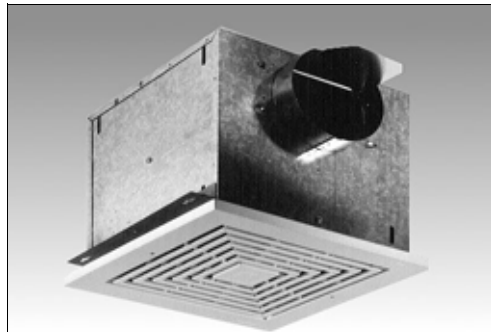


VSBC, VSFC and VSAC Belt Drive Centrifugal Ventilating Sets
Sizes - 12 to 36
688 to 29,108 CFM; Static Pressure to 8"
AMCA Licensed for Sound and Air - VSBC, VSAC
AMCA Licensed for Air - VSFC



VSDDF, VSBCJ and VSFCJ Centrifugal Junior Ventilating Sets
Sizes - 6 to 10
254 to 2,127 CFM; Static Pressure to 5"
AMCA Licensed for Sound and Air - VSBCJ

CENTRIFUGAL FANS



CF, CFL, and IL Centrifugal Ceiling Fans
29 to 3,868 CFM; Static Pressure to 1"
AMCA Licensed for Sound and Air

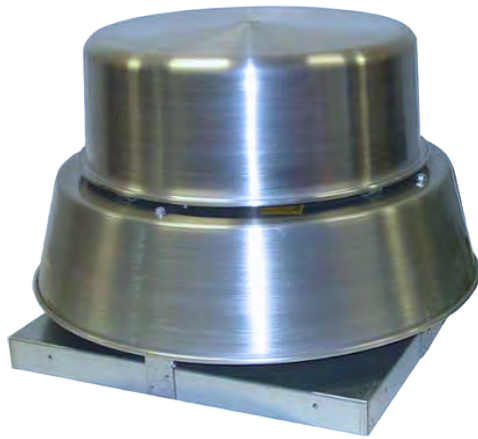


AMERICAN COOLAIR CORPORATION

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WEBSITE - coolair.com
VANE AXIAL FANS ~ TUBE AXIAL FANS ~ PROPELLER FANS ~
POWER ROOF VENTILATORS ~ CENTRIFUGAL VENTILATORS
MEMBER OF AMCA

DIRECT DRIVE ENERGY SAVER FANS



ENERGYSAVER



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American Coolair is proud to introduce its line of electrically commutated EnergySaver motor powered fans. EnergySaver motors allow for precise control of air movement systems, while operating at a fraction of the cost of conventional permanent split capacitor (PSC) direct drive motors, and even belt-drive units.


In many cases, EnergySaver motors will pay for themselves within the first year of their operation!



Sales 904-389-3646 | Fax 904-387-3449
 info@coolair.com

www.AmericanCoolair.com

 /AmericanCoolair  /AmericanCoolair
 /Company/American-Coolair-Corp

WARNING	CAUTION
 <p>DO NOT INSTALL FAN WITH MOVING PARTS WITHIN 8 FEET OF FLOOR OR GRADE LEVEL WITHOUT A GUARD THAT COMPLIES WITH OSHA REGULATIONS. DO NOT USE UNLESS ELECTRICAL WIRING COMPLIES WITH ALL APPLICABLE CODES.</p>	<p>DO NOT WIRE WITHOUT PROVIDING FOR A POWER SOURCE DISCONNECT AT THE FAN ITSELF. DO NOT SERVICE EXCEPT BY A QUALIFIED MAINTENANCE TECHNICIAN AND ONLY AFTER DISCONNECTING THE POWER SOURCE. FAILURE TO OBSERVE THESE PRECAUTIONS CAN RESULT IN SERIOUS INJURY OR DEATH.</p>

ENERGYSAVER



EnergySaver motors offer significant savings over both PSC Motor direct-drive fans and standard belt-drive fans. Not only do EnergySaver motors have a higher nameplate efficiency, they maintain that efficiency even as the motor load is reduced with slower fan speeds.

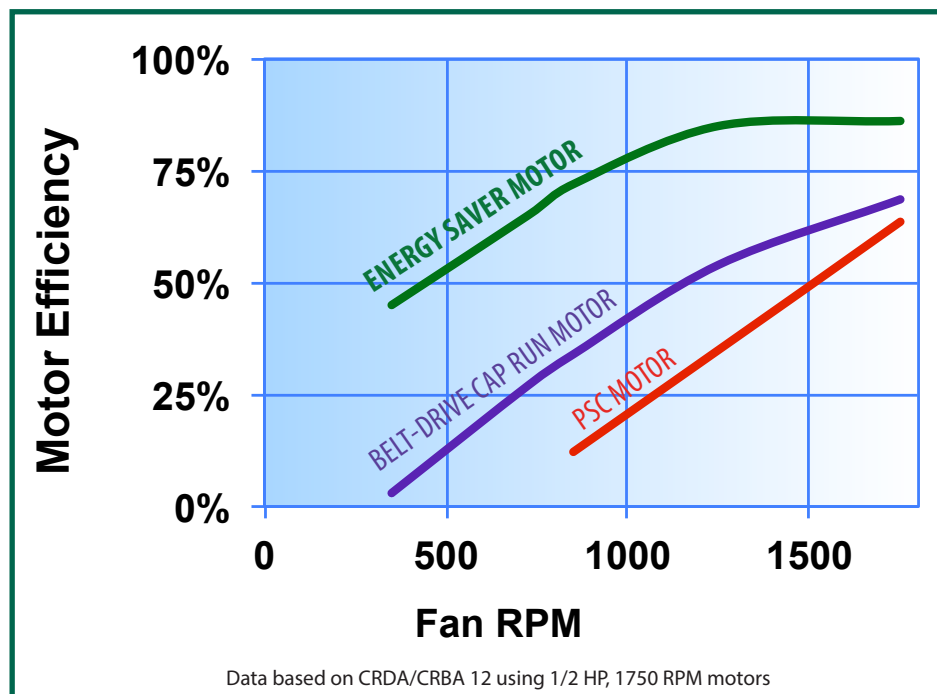
At 75% of motor nameplate speed, the EnergySaver motor provides for a 40% energy savings over a comparable belt-drive unit, and a 60% savings over a PSC motor. At 50% of full speed, a 60% savings over belt-drives, and an 80% savings over PSC motors is realized.

The electrically commutated EnergySaver motor is a super-efficient brushless DC motor. The internal electronics of the motor convert standard single-phase AC line power into DC power, without the need for any external inverter or VFD device. With ability to control the motor manually, and an option to automate control based on system performance, American Coolair's EnergySaver motors are a compliment to today's lean building design.

Centrifugal and axial units powered by EnergySaver motors provide the versatility and low maintenance requirements and impressive fan efficiencies.

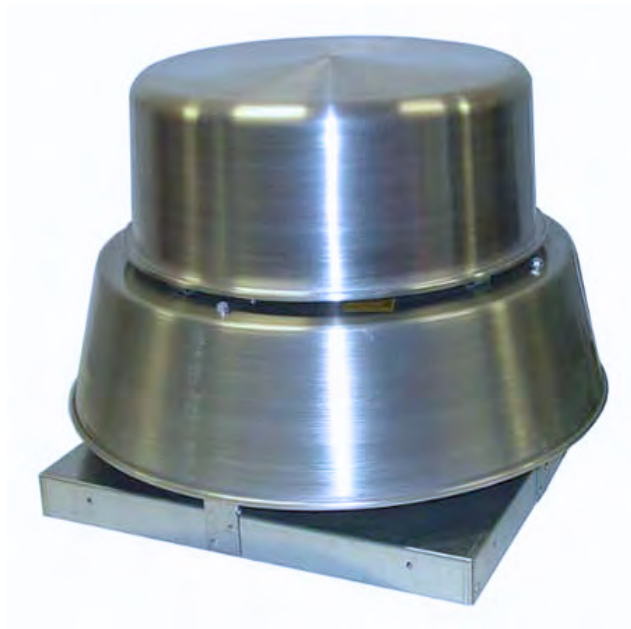
All EnergySaver motors can be controlled down to 20% of the nameplate speed. This means a 1750 RPM motor can operate at any speed between 350 and 1750 RPM. That's a 60% greater RPM range than what is capable for a PSC motor.

Engineered to exacting standards, EnergySaver motors will provide you with years of trouble-free, economical service. EnergySaver motors are currently available in 1/4 HP, 1/2 HP, and 1 HP, and will soon be available in additional sizes and voltages!



CRDA

DIRECT DRIVE DOMED CENTRIFUGAL POWER ROOF VENTILATORS



STANDARD FEATURES

- Weather-resistant aluminum motor compartment cover removes easily for access to the motor
- Out-of-airstream motors are isolated for protection from exhaust airstream
- Aluminum centrifugal wheel is a non-overloading, backward inclined design with state-of-the-art computerized balancing
- Overlapping wheel and deep-spun venturi minimize noise and air turbulence, increasing efficiency
- Wheel balance weights are permanently affixed to ensure vibration-free operation
- Wheel backplate fins cool the motor compartment, extending motor life
- On board motor speed controller varies speed to 20% of nameplate
- Birdscreen is 1/2" galvanized mesh
- Safety Disconnect Device
- AMCA Licensed for Sound and Air Performance
- UL Listed for Standard 705

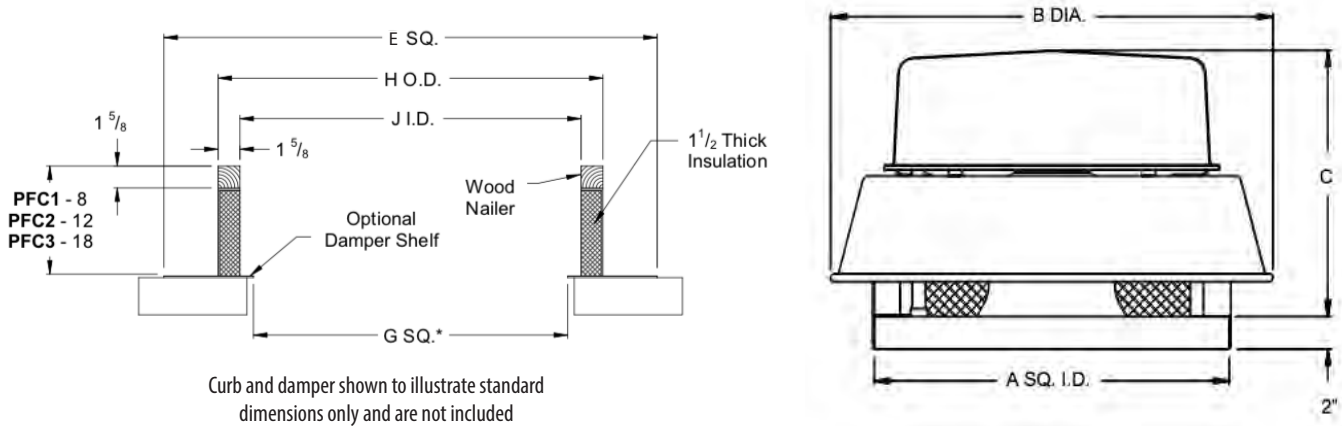
MORE MOTOR SELECTIONS AVAILABLE SOON!

115v, 208v, 230v, 277v selectable
motors in 1/4, 1/2 and 1 HP

AVAILABLE ACCESSORIES

- Backdraft Damper
- Hinge Kit
- Remote Speed Controller
- Variable Pressure Control
- Variable Temperature Control

DIMENSIONS



Unit Size	Dimensions in Inches							
	A	B	C	D	E	G	H	J
06, 10	18	23 1/8	12	24 1/2	12 3/4	11 1/4	16 1/2	13 1/4
12 - 15	23	28 5/8	16 1/2	29 1/2	17 3/4	16 1/4	21 1/2	18 1/4

PERFORMANCE DATA

Fan Size	CFM at Static Pressure														Motor HP	RPM
	0"		1/8"		1/4"		1/2"		3/4"		1"		1.5"			
	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones		
6	582		546		518		443								1/4	1750
	0.10	12.9	0.10	12.6	0.10	12.1	0.11	11.1								
8	759		724		695		618		527						1/4	1750
	0.09	11.9	0.10	11.8	0.11	11.6	0.12	11.3	0.13	11.1						
10	1006		957		910		811		689		452				1/4	1750
	0.13	12.4	0.13	12.6	0.14	12.1	0.16	11.4	0.16	10.6	0.15	9.8				
12	1983		1933		1881		1776		1671		1549		1239		1/2	1750
	0.40	18.1	0.42	17.8	0.43	17.5	0.47	17.1	0.49	16.9	0.52	16.8	0.52	16.3		
13	2651		2601		2547		2427		2301		2168		1873		1	1750
	0.62	22	0.65	22	0.67	22	0.72	21	0.74	21	0.78	20	0.81	18.8		
15	3216		3191		3160		3055		2937		2802		2576		1	1625
	0.93	24	0.95	23	0.97	23	1.02	22	1.06	22	1.11	22	1.20	21		

CUDA

DIRECT DRIVE UPBLAST CENTRIFUGAL POWER ROOF VENTILATORS



STANDARD FEATURES

- Safety disconnect device
- Weather-resistant, spun aluminum motor compartment cover removes easily for access to motor and drive
- Out-of-airstream motors are isolated for protection from exhaust airstream
- Overlapping wheel and deep-spun venturi minimize noise and air turbulence, increasing efficiency
- Aluminum centrifugal wheel is a non-overloading, backward inclined design with state-of-the-art computerized balancing
- Permanently affixed wheel balance weights ensure vibration free operation
- On board motor speed controller varies speed to 20% of nameplate
- Wheel backplate fins cool the motor compartment, extending motor life
- AMCA Licensed for Sound and Air Performance
- UL Listed for Standard 705

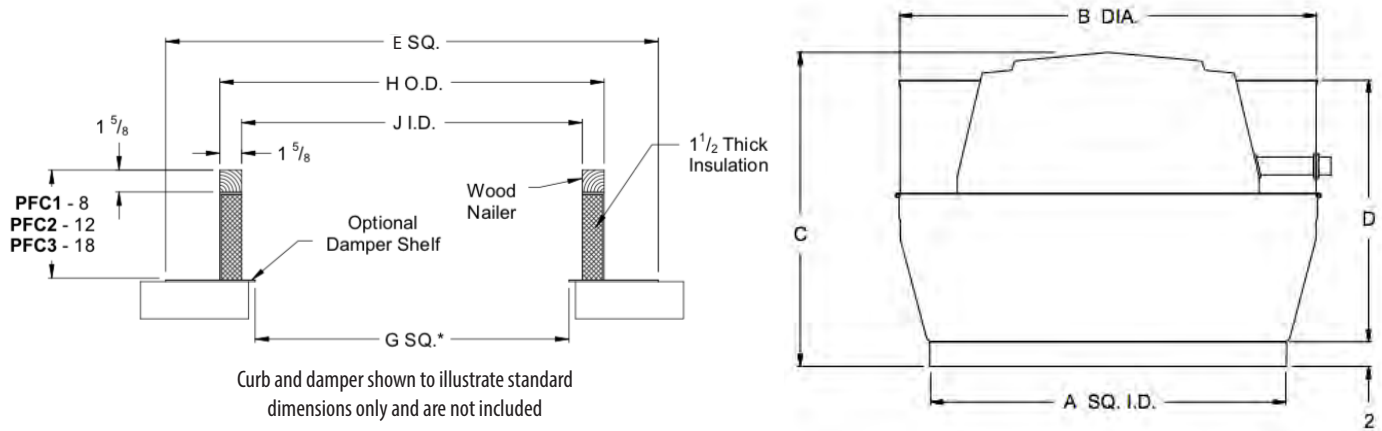
AVAILABLE ACCESSORIES

- Backdraft Dampers
- Hinged base kits
- Speed Controller
- Variable Pressure Control
- Variable Temperature Control
- Bird Screen

**MORE MOTOR SELECTIONS
AVAILABLE SOON!**

115v, 208v, 230v, 277v selectable
motors in 1/4, 1/2 and 1 HP

DIMENSIONS



Unit Size	Dimensions in Inches							
	A	B	C	D	E	G	H	J
06 - 10	18	23	14 1/8	11 1/8	12 1/2	11 1/4	16 1/2	13 1/4
12 - 15	26	29 1/4	19	22	32 1/2	19 1/4	24 1/2	21 1/4

PERFORMANCE DATA

Fan Size	CFM at Static Pressure														Motor HP	RPM
	0"		1/8"		1/4"		1/2"		3/4"		1"		1.5"			
	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones		
6	581		547		508		437								1/4	1750
	0.07	12.0	0.07	11.4	0.07	10.8	0.08	9.9								
8	741		705		671		591		469						1/4	1750
	0.08	11.2	0.08	10.8	0.09	10.2	0.09	10.3	0.10	10.0						
10	952		925		890		802		693		523				1/4	1750
	0.10	11.6	0.10	11.4	0.11	11.3	0.12	10.2	0.13	9.4	0.13	9.0				
12	1800		1751		1703		1606		1502		1383		1082		1/2	1750
	0.36	17.4	0.37	17.1	0.38	17.0	0.41	17.6	0.43	18.0	0.45	17.2	0.45	15.6		
13	2427		2363		2302		2182		2071		1958		1639		1	1750
	0.61	18	0.63	17	0.65	17	0.69	16	0.72	16	0.74	16	0.74	14.7		
15	3011		2953		2894		2774		2639		2476		2122		1	1625
	0.86	20	0.88	19	0.90	19	0.95	18	0.98	17	1.00	17	1.02	17		

SQDA

DIRECT DRIVE CENTRIFUGAL
IN-LINE DUCT FAN



STANDARD FEATURES

- Direct drive assembly reduces maintenance and operating costs
- Out-of-airstream motors are isolated for protection from exhaust airstream
- Aluminum centrifugal wheel is a non-overloading, backward inclined design with state-of-the-art computerized balancing
- Galvanized outer skin with 3 removable panels for access
- Rigid internal cross-bracing
- On board motor speed controller varies speed to 20% of nameplate
- Factory wired disconnect device
- AMCA Licensed for Sound and Air Performance
- UL Listed for Standard 705

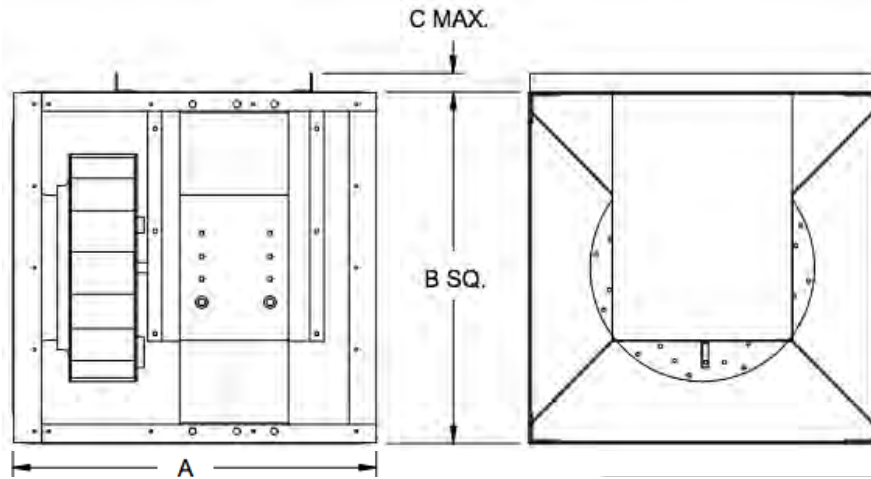
AVAILABLE ACCESSORIES

- Vibration Isolators
- Inlet & Outlet Flanges
- Inlet & Outlet Guards
- Backdraft Dampers
- Duct Connector
- Internal Insulation
- Remote Speed Controller
- Variable Pressure Control
- Variable Temperature Control

**MORE MOTOR SELECTIONS
AVAILABLE SOON!**

115v, 208v, 230v, 277v selectable
motors in 1/4, 1/2 and 1 HP

DIMENSIONS



Unit Size	Dimensions in Inches		
	A	B	C
06 - 10	17	14	-
12	25 3/4	18	1 3/8
13	26 3/8	20	1 3/8
15	27 7/8	23	1 3/8

PERFORMANCE DATA

Fan Size	CFM at Static Pressure														Motor HP	RPM
	0"		1/8"		1/4"		1/2"		3/4"		1"		1.5"			
	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones		
6	474		450		409		327								1/4	1750
	0.08	9.9	0.08	9.6	0.09	9.4	0.09	8.6								
8	655		626		598		534								1/4	1750
	0.09	10.6	0.09	10.5	0.09	10.2	0.10	9.7								
10	802		766		726		639		581						1/4	1750
	0.10	11.2	0.10	11.3	0.11	11.2	0.12	11.2	0.13	10.5						
12	1746		1682		1630		1523		1400		1273				1/2	1750
	0.37	16.3	0.39	16.1	0.41	15.6	0.44	14.9	0.47	15.1	0.48	14.9				
13	2314		2260		2208		2106		2003		1884		1570		1	1750
	0.58	20	0.60	19	0.62	19	0.66	18	0.70	17	0.73	17	0.75	16.4		
15	3122		3046		2973		2836		2693		2526		2119		1	1625
	0.76	24	0.79	23	0.82	22	0.88	21	0.93	21	0.96	20	0.99	20		

CWDA

DIRECT DRIVE CENTRIFUGAL WALL FANS



pictured from bottom to show drain hole

STANDARD FEATURES

- Weather-resistant aluminum motor compartment cover removes easily for access to motor
- Out-of-airstream motors are isolated for protection from exhaust airstream
- Aluminum centrifugal wheel is a non-overloading, backward inclined design with state-of-the-art computerized balancing
- Overlapping wheel and deep-spun venturi minimize noise and air turbulence, increasing efficiency
- On board motor speed controller varies speed to 20% of nameplate
- Permanently affixed wheel balance weights ensure vibration-free operation
- Wheel backplate fins cool the motor compartment, extending motor life
- Birdscreen is 1/2" x 1/2" galvanized wire mesh
- Safety disconnect device
- AMCA Licensed for Sound and Air Performance
- UL Listed for Standard 705

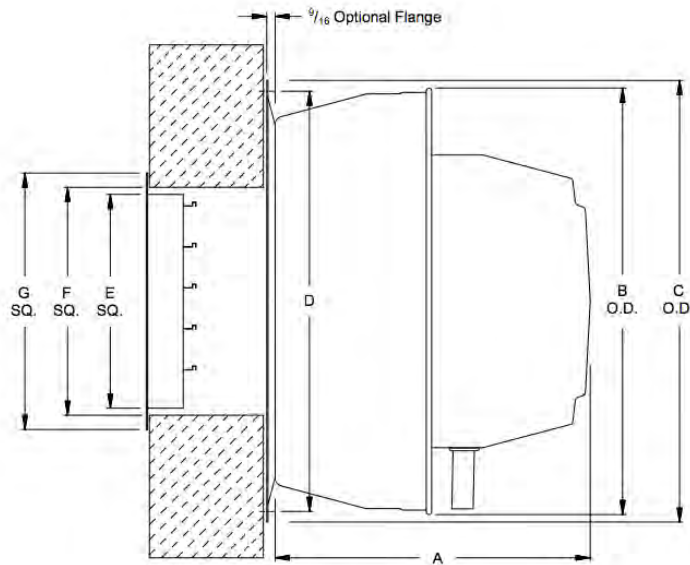
MORE MOTOR SELECTIONS AVAILABLE SOON!

115v, 208v, 230v, 277v selectable
motors in 1/4, 1/2 and 1 HP

AVAILABLE ACCESSORIES

- Optional Wall Mounting Flange
- Remote Speed Controller
- Backdraft Damper
- Variable Pressure Control
- Variable Temperature Control

DIMENSIONS



Unit Size	Dimensions in Inches						
	A	B	C	D	E	F	G
06 - 10	12 1/8	22 3/4	25 1/4	24 1/8	10 1/4	10 3/4	12 1/2
12 - 15	17 1/4	29 7/8	31	29 1/2	15 1/4	15 3/4	17 1/2

PERFORMANCE DATA

Fan Size	CFM at Static Pressure														Motor HP	RPM
	0"		1/8"		1/4"		1/2"		3/4"		1"		1.5"			
	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones		
6	581		547		508		437								1/4	1750
	0.07	12.0	0.07	11.4	0.07	10.8	0.08	9.9								
8	741		705		671		591		469						1/4	1750
	0.08	11.2	0.08	10.8	0.09	10.2	0.09	10.3	0.10	10.0						
10	952		925		890		802		693		523				1/4	1750
	0.10	11.6	0.10	11.4	0.11	11.3	0.12	10.2	0.13	9.4	0.13	9.0				
12	1800		1751		1703		1606		1502		1383		1082		1/2	1750
	0.36	17.4	0.37	17.1	0.38	17.0	0.41	17.6	0.43	18.0	0.45	17.2	0.45	15.6		
13	2427		2363		2302		2182		2071		1958		1639		1	1750
	0.61	18	0.63	17	0.65	17	0.69	16	0.72	16	0.74	16	0.74	14.7		
15	3011		2953		2894		2774		2639		2476		2122		1	1625
	0.86	20	0.88	19	0.90	19	0.95	18	0.98	17	1.00	17	1.02	17		

CDU

DIRECT DRIVE
WALL FANS



STANDARD FEATURES

- Ideal for quietly moving low to medium volumes of air
- 3 Formed Steel “Teardrop” Blades designed for ultra-quiet operation
- Steel panel with rugged angle frame construction
- Epoxy finish
- PVC coated steel wire motor side inlet guard
- Motors are 115v, single phase
- Available controller to adjust the speed to 20% of nameplate
- AMCA Licensed for Sound and Air Performance
- UL Listed for Standard 705

**MORE MOTOR SELECTIONS
AVAILABLE SOON!**

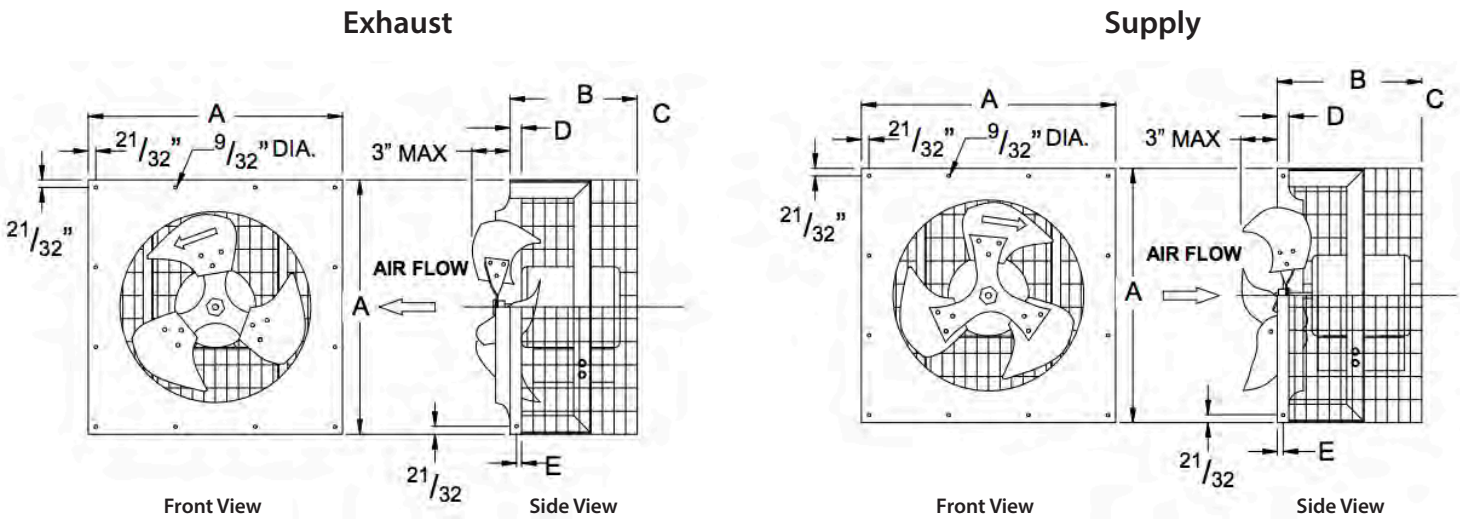
2 HP 208v or 230v

AVAILABLE ACCESSORIES

- Remote Speed Controller
- Shutters
- Shutter Motor Kit
- Wall Housing
- Discharge Guards
- Discharge Hoods
- Intake Hoods



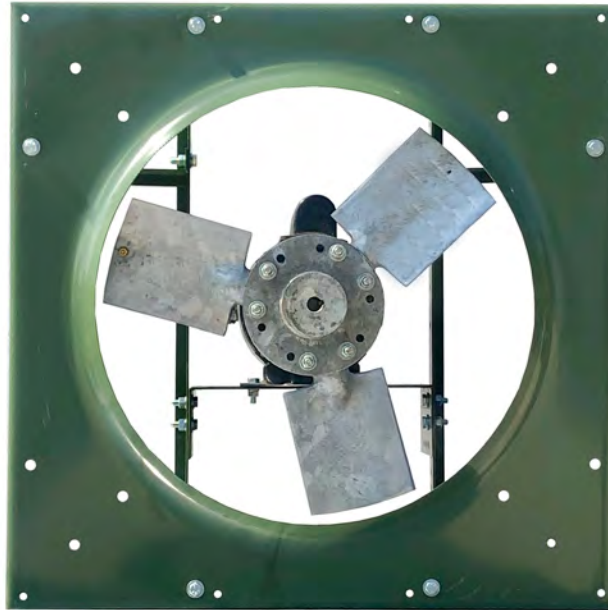
DIMENSIONS



Unit Size	Dimensions in Inches			
	A	B	C	D
12	18	15	1/2	1/4
14	22	13	1	1/2
16	22	13	1	1/2
18	26	15	1	1/2
20	26	15	1	1/2

PERFORMANCE DATA

Fan Model	Fan Size	Cubic Feet Per Minute (CFM) at Static Pressure						Motor HP	Fan RPM	Sone Rating	Max BHP	Blade Descr.	
		0"	1/8"	1/4"	3/8"	1/2"	5/8"					No.	Pitch
CDU12F17	12	1,500	1,380	1,210	—	—	—	1/4	1750	7.6	0.16	3	33°
CDU12H17	12	1,760	1,630	1,430	—	—	—	1/2	1750	9.8	0.23	3	41°
CDU14F17	14	2,035	1,920	1,795	—	—	—	1/4	1750	9.2	0.23	3	29°
CDU14H17	14	2,635	2,520	2,395	2,200	—	—	1/2	1750	13.8	0.38	3	41°
CDU16H17	16	2,970	2,845	2,690	2,515	2,285	—	1/2	1750	16.6	0.39	3	32°
CDU18H17	18	3,265	3,130	2,960	—	—	—	1/2	1750	14.7	0.40	3	21°
CDU18J17	18	3,760	3,660	3,510	3,355	3,150	—	1	1750	16.2	1.0	3	25°
CDU18K17	18	4,385	4,230	4,110	3,960	3,780	—	1	1750	17.5	0.76	3	32°
CDU20K17	20	4,940	4,815	4,670	4,520	4,340	—	1	1750	24	0.89	3	24°



STANDARD FEATURES

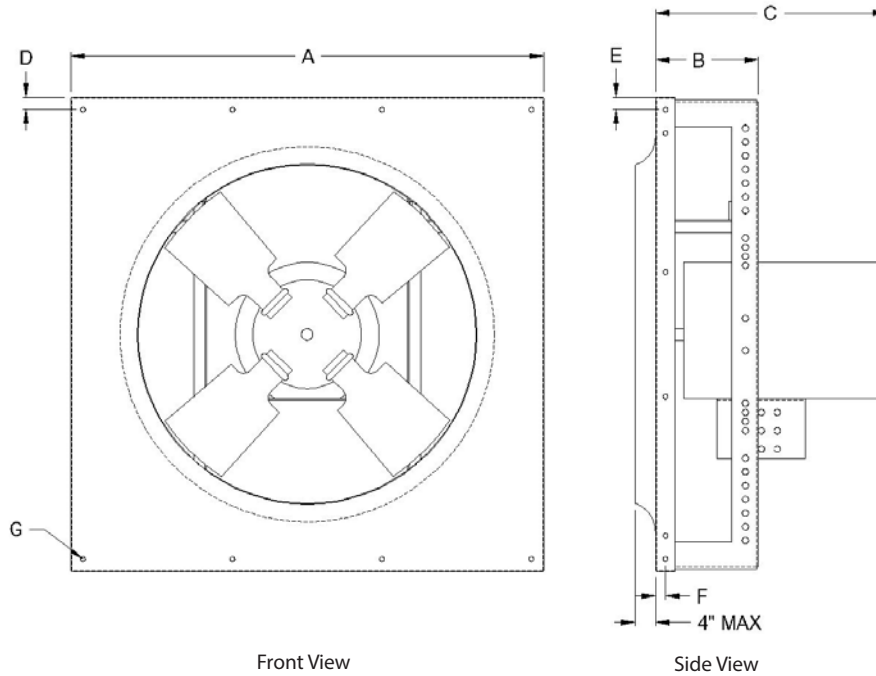
- Ideal for quietly moving medium to high volumes of air
- Cast Aluminum adjustable pitch airfoil blades - blade pitch is set for optimum performance
- Cast aluminum hub
- Epoxy finish
- 1HP motors are 115v, single phase
- 2HP motors are 208-230v, single or three phase
- Available controller to adjust the speed to 20% of nameplate
- AMCA Licensed for Sound and Air Performance
- UL Listed for Standard 705

AVAILABLE ACCESSORIES

- Available Speed Controller
- Wall Housing
- Shutters
- Discharge Guards
- Discharge Hoods
- Intake Hoods



DIMENSIONS



Unit Size	Dimensions in Inches						
	A	B	C	D	E	F	G
18	26	5 5/8	13 3/8	11/16	11/16	9/16	17/64
24	32	5 1/8	12 1/2	6	5	7/8	3/8
30	38	5 1/8	13 7/8	6	5	7/8	3/8

PERFORMANCE DATA

Fan Model	Fan Size	Cubic Feet Per Minute (CFM) at Static Pressure							Motor HP	Fan RPM	Sone Rating	Max BHP	Blade Descr.	
		0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"					No.	Pitch
CDC18K17	18	5,065	4,851	4,569	4,373	3,942	3,456	2,894	1	1750	23	0.85	4	29.5°
CDC24N17	24	11,646	11,235	10,739	10,221	9,651	9,052	8,445	2	1750	39	2.31	3	27°
CDC30N17	30	13,716	13,156	12,517	11,835	11,161	10,457	9,695	2	1750	47	2.24	3	12°

SPEED CONTROL OPTIONS



REMOTE MOUNT SPEED CONTROL

When frequent or occasional adjustment of the fan speed is necessary, Coolair offers a manual speed controller that can be located at the fan or up to 100' away. The controller can be specified pre-wired at the fan, or loose for remote field mounting, and can control the fan from nameplate speed down to 20% of nameplate.

VARIABLE TEMPERATURE CONTROL

The Variable Temperature Control allows the EnergySaver motor to be controlled via a remotely mounted room thermostat. The thermostat is connected to a programmable control module which, in turn, varies the motor speed to maintain the desired room temperature automatically.

VARIABLE PRESSURE CONTROL

The Variable Pressure Control features a remotely mounted pressure sensor which is connected to the motor controller. Motor speed is then automatically adjusted based on the system status as indicated by the pressure sensor. Once set and tuned for the system, the VPC allows for fully automated ventilation control.

LIMITED WARRANTY

In the sale of its products, American Coolair Corporation agrees to correct, by repairs or replacement, any defects in workmanship or material that may develop under proper and normal use during the period of one year from the date of shipment from the factory. Any product or part proving, upon American Coolair's examination, to be defective during limited warranty period will be repaired or replaced, at American Coolair's option, f.o.b. factory, without charge.

Deterioration or wear caused by chemicals, abrasive action or excessive heat shall not constitute defects.

Motors are guaranteed only to the extent of the manufacturer's warranty.

American Coolair's limited warranty does not apply to any of its products or parts that have been subject to accidental damage, misuse by the user, unauthorized alterations, improper installation or electrical wiring, or lack of proper lubrication or other service requirements as established by American Coolair.

Repairs or replacements provided under the above terms shall constitute fulfillment of all American Coolair's obligations with respect to limited warranty.

THE LIMITED WARRANTY STATED HEREIN IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, STATUTORY OR IMPLIED, INCLUDING WITHOUT LIMITATION THAT OF MERCHANTABILITY AND FITNESS.

NO LIABILITY FOR RE-INSTALLATION COST OR FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OF ANY NATURE IS ASSUMED OR SHALL BE IMPOSED UPON AMERICAN COOLAIR.



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AMERICAN COOLAIR CORPORATION

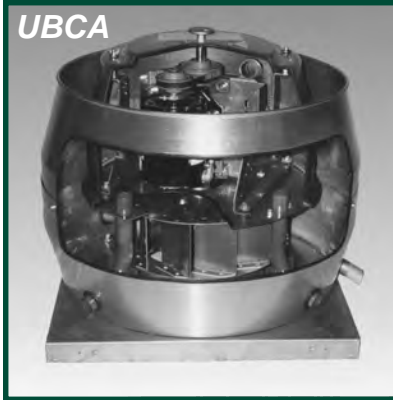


Centrifugal Upblast Power Roof Ventilators

**TYPE UBCA - BELT DRIVE
TYPE UDCA - DIRECT DRIVE**

TABLE OF CONTENTS

BELT DRIVE FANS



UBCA

*Sizes 12" to 44"
Flow rates from
781 to 29,002 CFM
and 2" Static Pressure*

UBCA

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DIRECT DRIVE FANS



UDCA

*Sizes 12" to 15"
Flow rates from
619 to 3,032 CFM
and 1 1/2" Static Pressure*

UDCA

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STANDARD FEATURES

UBCA and UDCA Units

Weather-resistant motor compartment cover of spun aluminum removes easily for access to motor and drive.

Out-of-airstream open motors are isolated for protection from exhaust airstream.

Overlapping wheel and deep-spun venturi minimize noise and air turbulence, increasing efficiency.

Built-in drain removes grease and water from fan housing.

Aluminum centrifugal wheel is a non-overloading, backward-inclined design and is computer balanced.

Permanently affixed wheel balance weights assure vibration-free operation.

Wheel backplate fins cool the motor compartment, extending motor life.

AMCA Seal assures certified rating of air and sound

UBCA

Safety disconnect switch is an available option.

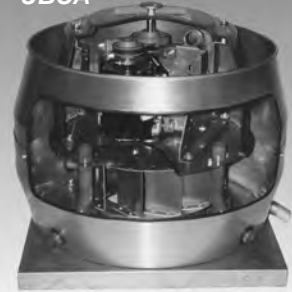
Belt drive with adjustable motor pulley for flexibility to match operating requirements.

Heavy duty pillow-block ball bearings with cast iron housing are self-aligning and relubricable.

Hinged motor bracket with tensioning bolt(s) facilitates maintenance of belt tension.

UL Listed for Standard 705 and Standard 762.

UBCA



UDCA



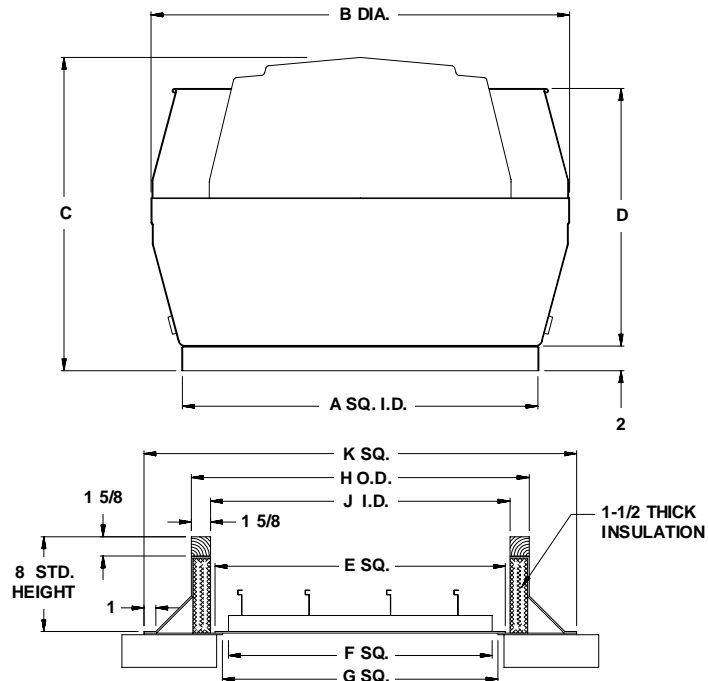
UDCA

Factory-wired disconnect switch for standard motors.

Direct-drive assembly reduces maintenance and operating costs.

UL Listed for Standard 705 and Standard 762.

UBCA and UDCA Ventilator, Roof Curb and Damper Dimensions



Unit	Ventilator Dimensions				Roof Curb and Damper Dimensions					
	A	B	C	D	E	F	G	H	J	K
UDCA 12-15	26	29 3/8	18 1/8	19 1/4	20 1/2	18	19 1/4	24 1/2	21 1/4	32 1/2
UBCA 12-15	26	29 3/8	24 1/2	19 1/4	20 1/2	18	19 1/4	24 1/2	21 1/4	32 1/2
UBCA 16, 18	30	35 3/8	26 1/2	21 5/8	24 1/2	22	23 1/4	28 1/2	25 1/4	36 1/2
UBCA 20	34	43 3/8	29 7/8	25 1/2	28 1/2	26	27 1/4	32 1/2	29 1/4	40 1/2
UBCA 24	34	43 3/8	34 1/4	25 1/2	28 1/2	26	27 1/4	32 1/2	29 1/4	40 1/2
UBCA 30	40	51 1/4	38 1/2	29 1/2	34 1/2	32	33 1/4	38 1/2	35 1/4	46 1/2
UBCA 36	46	62 5/8	45 7/8	37 1/2	40 1/2	38	39 1/4	44 1/2	41 1/4	52 1/2
UBCA 44	56	73	51 1/8	40	50 1/2	48	49 1/4	54 1/2	51 1/4	62 1/2

Dimensions in inches

UBCA

Belt Drive Centrifugal Upblast Power Roof Ventilators

Applications

The UBCA units are quiet, dependable upblast power roof ventilators for the exhaust of grease-laden air from restaurant range hoods, and general ventilation applications where vertical discharge of exhaust air is required. Applications include virtually all types of commercial and institutional kitchens, such as restaurant and cafeteria, fast food, hospital, hotel and motel, bakery, delicatessen, school and military.

UBCA units are specified where a roof-mounted location is desired to eliminate interference with other equipment or activities in the building. They permit the direct upward venting of overheated air.

The UBCA is listed under UL classification YZHW for Power Roof Ventilators for Restaurant Exhaust Systems. When properly installed, the UBCA also meets the requirements of National Fire Protection Association Standard NFPA 96. These units are particularly recommended for economical and efficient range hood ventilation where continuous operation under severe conditions may cause other power roof ventilators to fail.

Construction

Construction of UBCA units features heavy gauge steel structural support throughout consisting of steel base, motor compartment disc and support pipes, to maintain support and proper alignment of motor, wheel and drive during shipment, installation and operation. The spun aluminum motor compartment cover provides protection from weather and contaminated air and is easily removable for complete access to motor and drive.

UBCA models feature a housing of durable spun aluminum for optimum weather protection. The overlapping deep-spun venturi minimizes air turbulence and increases efficiency.

The aluminum centrifugal wheel is a non-overloading, backward-inclined type, selected for low noise levels. Backplate fins draw cool air through the motor compartment. The wheels are computer balanced on state-of-the-art equipment.

The UBCA wheel is secured to a machined aluminum hub with a line bore, which eliminates the need for bushings.

Drive Mechanism

The belt driven UBCA utilizes a standard V-belt drive design with a variable pitch cast iron motor pulley for adjusting fan speed. Drive shaft is turned, ground and polished. Motor support features a hinged motor bracket with belt tensioning bolt(s) for easy field adjustment.

Motors

The standard motor for UBCA models is open construction, located out of the airstream. Totally enclosed, energy efficient, two-speed and explosion-proof motors may also be available. Motor enclosure may affect UL Listing. All motor brands are recognized and serviced nationwide.

Bearings

Heavy duty pillow-block ball bearings with cast iron housing are self-aligning and relubricable.



UL705 - E39944

Type UBCA ventilators are UL705 Listed by Underwriters Laboratory Inc. to U.S. and Canadian safety standards.



UL762 - MH9847

Type UBCA ventilators are UL762 Listed by Underwriters Laboratory Inc. to U.S. safety standards.



American Coolair Corporation, ILG Industries certifies that the Type UBCA PRVs shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

Guide Specifications

Upblast power roof ventilators shall be of the UBCA centrifugal type as manufactured by ILG Industries of American Coolair Corporation (individual models to be listed in fan schedule). Units shall meet UL Standard 705 or 762 as required and shall bear the AMCA Certified Ratings Seal for air and sound performance.

Bottom outer housing and venturi inlet shall be one piece heavy gauge spun aluminum, with built-in grease drain. Wheel and venturi shall overlap for efficient operation. Motor compartment cover shall be heavy gauge spun aluminum construction and easily removable for access to motor and drive. Base, motor compartment disc and support pipes shall be heavy gauge steel.

Drive mechanism shall incorporate a V-belt drive with cast iron motor pulley. Drive shaft shall be turned, ground and polished. The centrifugal wheel shall be heavy gauge aluminum with backward-inclined, non-overloading blades and be computer balanced.

Bearings shall be self-aligning and have fittings for relubrication.

Motor shall be open drip-proof construction, NEMA design B with minimum service factor of 1.15. Motor compartment shall be cooled by a forced air ventilation system. Adjustable motor pulley shall be provided to allow for field adjustment and system balance. Motor shall be mounted on an adjustable steel mounting bracket. Motor shall be mounted with the shaft up to allow easy access to the cast iron variable pitch drive pulley.

(Safety disconnect switch, epoxy coating, roof curb and other accessories shall be listed in the fan schedule.)

UDCA

Direct Drive Centrifugal Upblast Power Roof Ventilators

Applications

The UDCA units are quiet, dependable upblast power roof ventilators for the exhaust of grease-laden air from restaurant range hoods, and general ventilation applications where vertical discharge of exhaust air is required. Applications include virtually all types of commercial and institutional kitchens, such as restaurant and cafeteria, fast food, hospital, hotel and motel, bakery, delicatessen, school and military.

UDCA units are specified where a roof-mounted location is desired to eliminate interference with other equipment or activities in the building. They permit the direct upward venting of overheated air.

The UDCA is listed under UL classification YZHW for Power Roof Ventilators for Restaurant Exhaust Systems. When properly installed, the UDCA also meets the requirements of National Fire Protection Association Standard NFPA 96. These units are particularly recommended for economical and efficient range hood ventilation where continuous operation under severe conditions may cause other power roof ventilators to fail.

Construction

UDCA models feature a housing of durable spun aluminum for optimum weather protection. The overlapping deep spun venturi minimizes air turbulence and increases efficiency.

The aluminum centrifugal wheel is a non-overloading, backward-inclined type, selected for low noise levels. Backplate fins draw cool air through the motor compartment. The wheels are computer balanced on state-of-the-art equipment. The hub features a line bore, which eliminates the need for bushings.

The motor compartment cover is easily removable for complete access to the motor, and a factory wired safety disconnect device is standard.

Drive Mechanism

UDCA models have all the advantages of a direct drive assembly. There are no belts, pulleys, or bearings to consume power or require maintenance.

Motors

The standard motor for UDCA models is open construction, located out of the airstream. Totally enclosed, energy efficient, two-speed and explosion-proof motors may also be available. Motor enclosure may affect UL Listing. All motor brands are recognized and serviced nationwide.



UL762 – MH9847

Type UDCA ventilators are Listed by Underwriters Laboratory Inc.



American Coolair Corporation, ILG Industries certifies that the Type UDCA PRVs shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

Guide Specifications

Upblast power roof ventilators shall be of the UDCA centrifugal type as manufactured by ILG Industries of American Coolair Corporation (individual models to be listed in fan schedule). Units shall meet UL Standard 762 and shall bear the AMCA Certified Ratings Seal for air sound performance.

Bottom outer housing and venturi inlet shall be one piece heavy gauge spun aluminum, with built-in grease drain. Wheel and venturi shall overlap for efficient operation. Motor compartment cover shall be heavy gauge spun aluminum construction and easily removable for access to motor. Motor compartment disc and support pipes shall be heavy gauge steel.

Drive mechanism shall be of the direct-drive design. The line bore hub shall be mounted onto the backplate of the centrifugal wheel. The centrifugal wheel shall be heavy gauge aluminum with backward-inclined, non-overloading blades and be computer balanced.

Motor shall be open construction, NEMA design B. Optional variable speed control allows for field adjustment and system balance. The unit shall be equipped with a wired and mounted safety disconnect device.

(Epoxy coating, roof curb and other accessories shall be listed in the fan schedule.)

Installation

Most models are shipped fully assembled and ready for installation. Always inspect equipment for transit damage before accepting delivery to assure a valid claim. Special handling and storage procedures are required if unit is to remain idle for a long time prior to installation.

Placement

All belt-driven units must be accessibly installed for maintenance of belts, bearings, motors and pulleys and routine cleaning.

Mounting

Satisfactory operation of roof ventilators requires mounting on adequately designed and constructed roof curbs. Prefabricated curbs for convenience in installation are available from ILG. Install with base of unit horizontal. Provide adequate caulking, flashing or other weatherproofing means. Duct connections are made below the unit.

Inspection

Check centrifugal wheel for free rotation.

Check belt for proper tension (UBCA).

Check bearings for proper and secure locking to drive shaft (UBCA).

Check motor and fan sheave faces for proper alignment (UBCA).

Check circuit phase, voltage and wiring connection against that shown on motor nameplate.

Check direction of fan rotation for proper air flow.

Check belt after one week of operation for proper tension (UBCA).

Maintenance

Units should be checked monthly for the first two or three months and periodically thereafter.

Cleaning

Units should be cleaned of grease and material buildup every three months or when necessary, depending on the condition of air being exhausted and frequency of use. Grease trough, drain and container should be checked and emptied as required to prevent grease overflow, as often as every one or two weeks with heavy grease applications such as char-broilers. Units should also be checked for eroded parts which should be replaced to avoid structural damage and possible failure.

Lubrication

Proper lubrication is the most important maintenance requirement. On UBCA units, fan bearings should be lubricated annually or more frequently based on usage and operating conditions. For best results, use a #2 consistency lithium based grease such as Shell Alvania #2 or equivalent lubricant. Motor bearings should be lubricated according to the motor manufacturer's instructions.

Adjustment of Variable Pitch Pulley and Belt (UBCA Only)

Variable pitch pulley may be adjusted within catalog RPM range to alter performance. However, adjustment beyond catalog RPM range may cause motor overload and possible premature motor failure. Pulley alignment and belt tension should be adjusted if necessary. Both motor and driven pulleys should be at right angles to the shafts, and the V-grooves should be aligned with each other. Inspection of drive components every 6 to 12 months is recommended.

WARNING



CAUTION

DO NOT INSTALL FAN WITH MOVING PARTS WITHIN 8 FEET OF FLOOR OR GRADE LEVEL WITHOUT A GUARD THAT COMPLIES WITH OSHA REGULATIONS. **DO NOT** USE UNLESS ELECTRICAL WIRING COMPLIES WITH ALL APPLICABLE CODES. **DO NOT** WIRE WITHOUT PROVIDING FOR A POWER SOURCE DISCONNECT AT THE FAN ITSELF. **DO NOT** SERVICE EXCEPT BY A QUALIFIED MAINTENANCE TECHNICIAN AND ONLY AFTER DISCONNECTING THE POWER SOURCE. FAILURE TO OBSERVE THESE PRECAUTIONS CAN RESULT IN SERIOUS INJURY OR DEATH.

To convert air performance (CFM and SP) and power (BHP) to metric units, multiply CFM x .000472 to obtain cubic meters per second (m³/s). Multiply SP x 248.36 to obtain pascals (Pa). Multiply BHP x .7457 to obtain kilowatts (kW).

Example: 3904 CFM x .000472 = 1.8427 m³/s
0.125 SP x 24.36 = 31.05 Pa
0.886 BHP x .7457 = 0.661 kW

UBCA/UDCA Options and Accessories

Grease Extraction Application Accessories

Prefabricated Roof Curbs

Roof curbs for grease extraction UBCA and UDCA models meet NFPA 96 system requirements for minimum PRV discharge height above the roof line. Curb height for sizes 18 and below is 20", and for sizes 20 and above is 18". Curbs with venting on two or four sides are also available. All curbs are insulated, feature a weather-resistant, continuous welded construction and provide convenience in installation of PRV units for both insulated and non-insulated roof decks.

Safety Disconnects

Safety disconnects cut power to motor for servicing of unit. A factory mounted and wired disconnect is an option for UBCA units with the UL 762 designation. The disconnect may either be interior with an external weather-proof junction box (all units), or external (units up to 2 hp only). Wiring is completed from the motor to the exterior box. Factory mounted and wired interior disconnect switches are standard for all UDCA models.

Grease Collector

Grease pans collect grease drained from the fan. An integral baffle contains the grease while allowing water to flow from the pan. The grease collector should be attached to the curb below the standard drain.

General Ventilation Accessories

Prefabricated Roof Curbs

Insulated roof curbs with weather-resistant continuous welded construction are available for convenience in installation for both insulated and non-insulated roof decks.

Safety Disconnects

Safety disconnects cut power to motor for servicing of unit. A disconnect switch is an accessory available on UBCA units used for general ventilation, and is shipped loose for field installation. An optional wiring harness is available to connect the motor to the switch at the internal junction box. Factory mounted and wired internal disconnect switches are standard for all UDCA models.

Backdraft Dampers

Gravity or motor operated backdraft dampers are available. They are aluminum construction and designed for installation in prefabricated roof curbs.

Birdguards

Wire birdguards are available to prevent entry of birds or other potentially damaging objects.

Speed Controller (UDCA models only)

Solid state speed controller provides capability to change performance and speed ranging from 50% to 100% of fan capacity. This permits adjustment for fine tuning and balancing the ventilation system (see performance tables).

General Options and Accessories

Hinged Base Kits

Hinged bases are specifically designed to provide easy access for cleaning and servicing the lower parts of UBCA and UDCA units.

Roof Handle

Aluminum handle facilitates removal of the roof. A roof handle is standard for units with the UL762 designation.

Special Motors

Two-speed, totally enclosed, energy efficient and explosion-proof motors for hazardous locations may be available for many models. Motor requirements may affect UL listings.

Protective Coatings

Fan units are not recommended for exhausting air of a corrosive nature. However, special protective coatings are available where units may be exposed to corrosive exterior conditions. Parts requiring painting are processed through the American Coolair five-stage pretreatment system prior to the application of any coatings to insure maximum finish adhesion. These parts use a thermosetting epoxy powder paint with an average thickness of 3 mils and baked at 400° F to a smooth, hard continuous finish. Consult your ILG Industries representative for available coatings.

UBCA Specification Checklist

- Units provide grease-laden vapor extraction and general exhaust with vertical discharge for low, medium and high air volumes, especially in commercial and institutional kitchens.
- Centrifugal design has advantages of compact, attractive appearance, quiet operation and performance against higher static pressures.
- Variable pitch belt drive allows for speed adjustment.
- Adjustable hinged motor bracket facilitates maintenance of belt tension.
- Weatherproof heavy duty aluminum housing and motor compartment cover resist corrosion, maintaining appearance.
- Deep-spun, overlapping, one-piece venturi/bottom outer housing minimizes noise, reduces air turbulence and improves efficiency.
- Aluminum centrifugal wheel is quiet, non-overloading, backward-inclined design and is computer balanced.
- Standard open drip-proof motor is out of the airstream for protection.
- The motor is mounted with the shaft up for convenient access to the variable pitch cast iron motor pulley.
- The motor compartment is cooled by a forced air ventilation system, extending motor life.
- Units have the UL Label for the removal of grease-laden vapors and fumes (UL 762), or for general ventilation (UL 705).
- AMCA Seal assures certified rating of air and sound performance.
- Heavy duty pillow-block bearings are self-aligning and relubricable.

Limited Warranty

In the sale of its products, American Coolair Corporation agrees to correct, by repairs or replacement, any defects in workmanship or material that may develop under proper and normal use during the period of one year from the date of shipment from the factory. Any product or part proving, upon American Coolair's examination, to be defective during limited warranty period will be repaired or replaced, at American Coolair's option, f.o.b. factory, without charge.

Deterioration or wear caused by chemicals, abrasive action or excessive heat shall not constitute defects.

Motors are guaranteed only to the extent of the manufacturer's warranty.

American Coolair's limited warranty does not apply to any of its products or parts that have been subject to accidental damage, misuse by the user, unauthorized alterations, improper installation or electrical wiring, or lack of proper lubrication or other service requirements as established by American Coolair.

Repairs or replacements provided under the above terms shall constitute fulfillment of all American Coolair's obligations with respect to limited warranty.

THE LIMITED WARRANTY STATED HEREIN IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, STATUTORY OR IMPLIED, INCLUDING WITHOUT LIMITATION THAT OF MERCHANTABILITY AND FITNESS.

NO LIABILITY FOR REINSTALLATION COST OR FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OF ANY NATURE IS ASSUMED OR SHALL BE IMPOSED UPON AMERICAN COOLAIR.



AMERICAN COOLAIR CORPORATION

UDCA Specification Checklist

- Units provide grease-laden vapor extraction and general exhaust with vertical discharge for low and medium air volumes, especially in commercial and institutional kitchens.
- Centrifugal design has advantages of compact, attractive appearance, quiet operation and performance against higher static pressures.
- Direct-drive has advantages of minimal maintenance and operating costs.
- Safety disconnect switch allows power to be cut off for servicing of unit.
- Weatherproof heavy duty aluminum housing and motor compartment cover resist corrosion, maintaining appearance.
- Deep-spun, overlapping, one-piece venturi/bottom outer housing minimizes noise, reduces air turbulence and improves efficiency.
- Aluminum centrifugal wheel is quiet, non-overloading, backward-inclined design and is computer balanced.
- Standard open motor is out of the airstream for protection.
- The motor compartment is cooled by a forced air ventilation system, extending motor life.
- Units have the UL Label for the removal of grease-laden vapors and fumes (UL 762).
- AMCA Seal assures certified rating of air and sound performance.

REPRESENTED BY:

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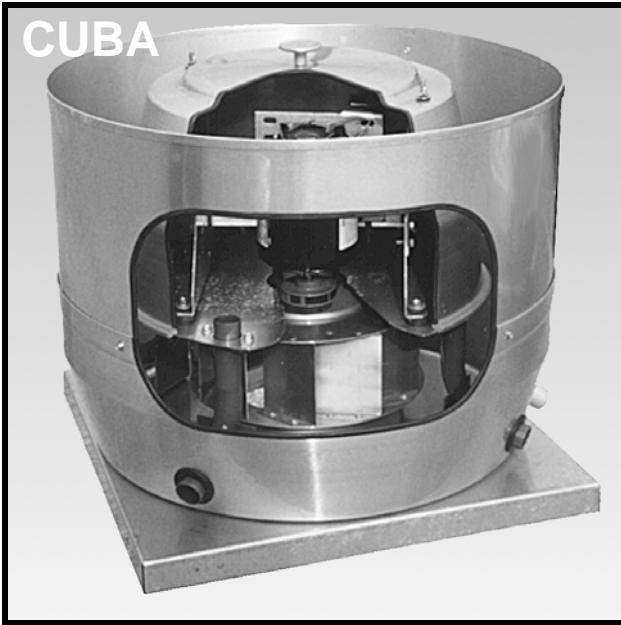
AMERICAN COOLAIR CORPORATION



Centrifugal Upblast Power Roof Ventilators

**TYPE CUBA - BELT DRIVE
TYPE CUDA - DIRECT DRIVE**

CUBA



Sizes 12 to 24
781 to 8850 CFM
Static Pressure to 2"
AMCA Licensed Ratings for
Sound and Air

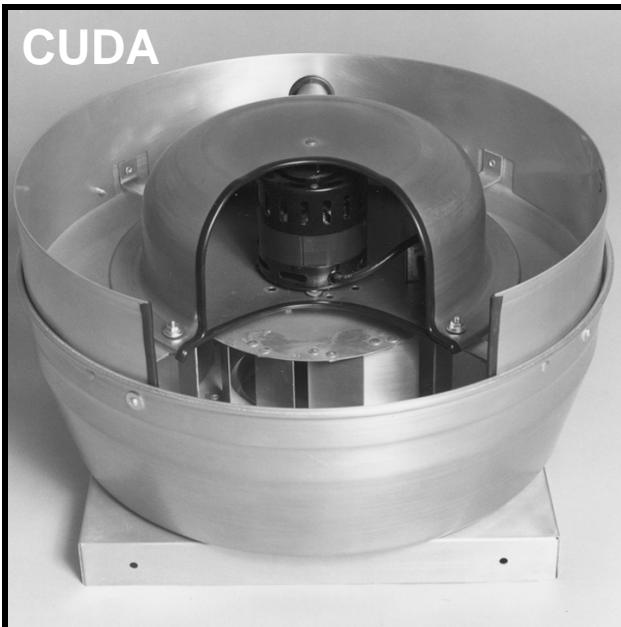
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CUDA



Sizes 06 to 20
133 to 4942 CFM
Static Pressure to 1"
AMCA Licensed Ratings for
Sound and Air

DIRECT DRIVE FANS

CUDA

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FEATURES

CUBA Units

Belt drive with adjustable motor pulley provides flexibility to match operating requirements.

Single bolt adjustment facilitates tensioning of belt.

Weather-resistant motor compartment cover of spun aluminum removes easily for access to motor and drive.

Out-of-airstream open drip-proof motors are isolated for protection from exhaust airstream.

Overlapping wheel and deep-spun venturi minimize noise and air turbulence, increasing efficiency.

Aluminum centrifugal wheel is a non-overloading, backward-inclined design and is computer balanced.

Permanently affixed wheel balance weights assure vibration-free operation.

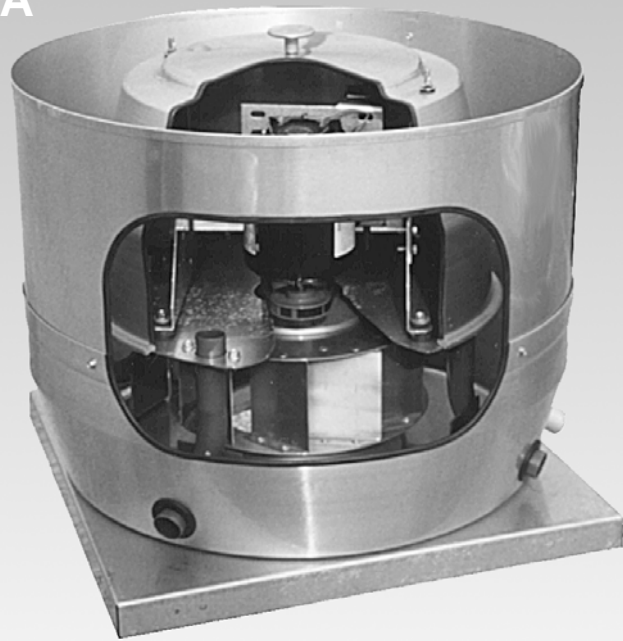
Wheel backplate fins cool the motor compartment, extending motor life.

Safety disconnect switch is optional.

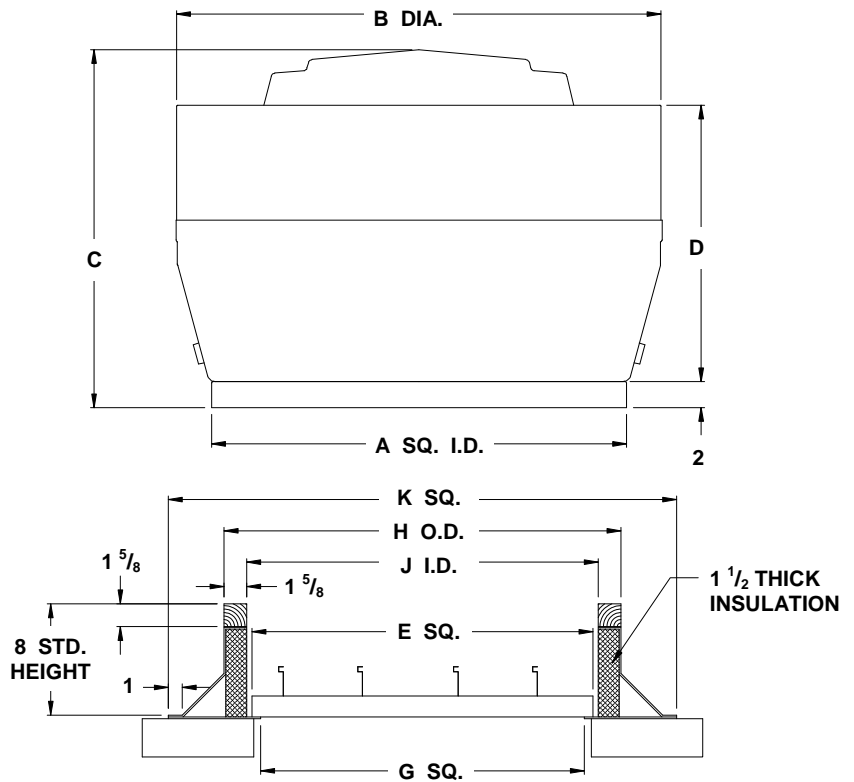
AMCA Seal assures certified rating of air and sound performance.

UL Listed for Standard 705 or Standard 762.

CUBA



CUBA Ventilator, Roof Curb, and Damper Dimensions

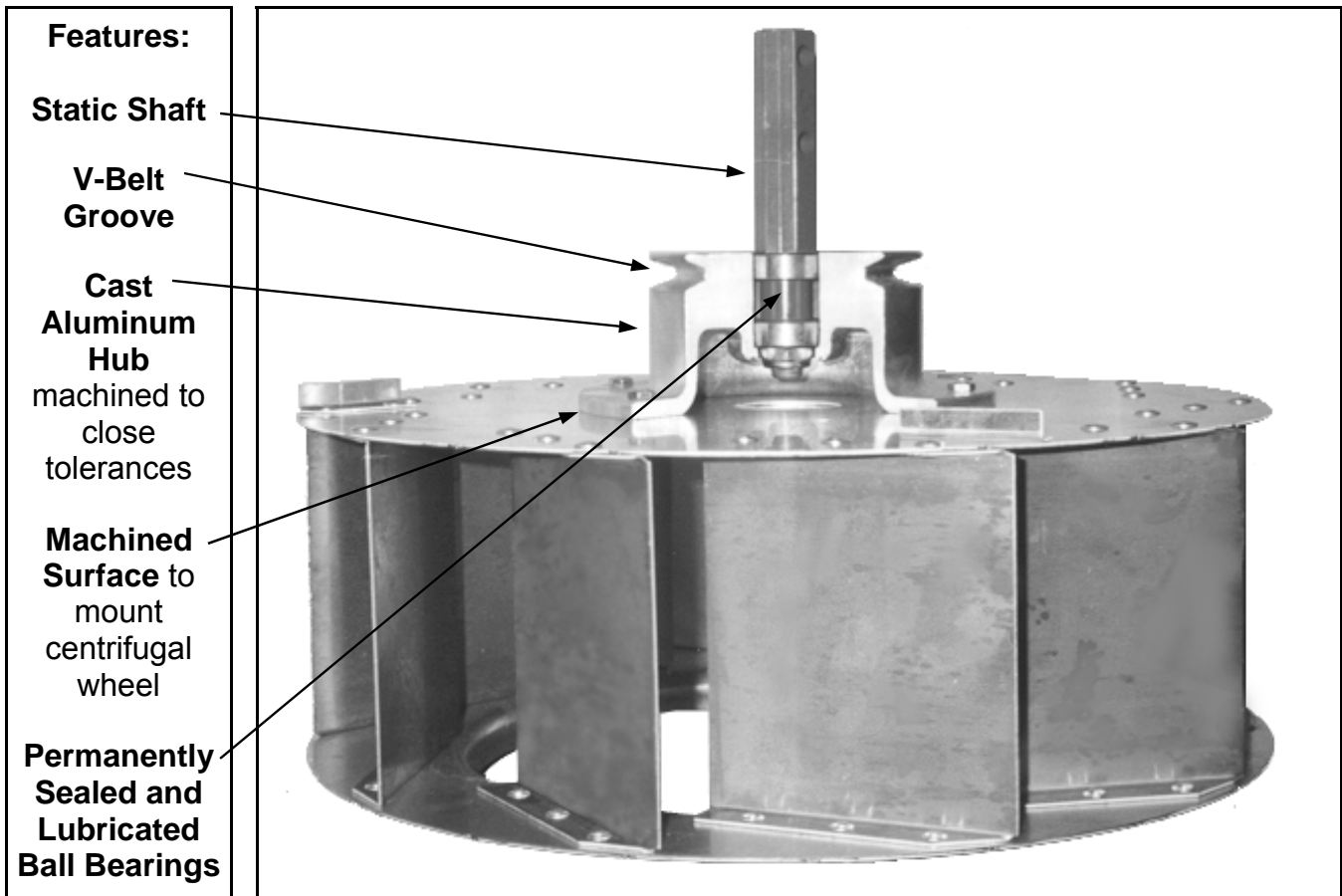
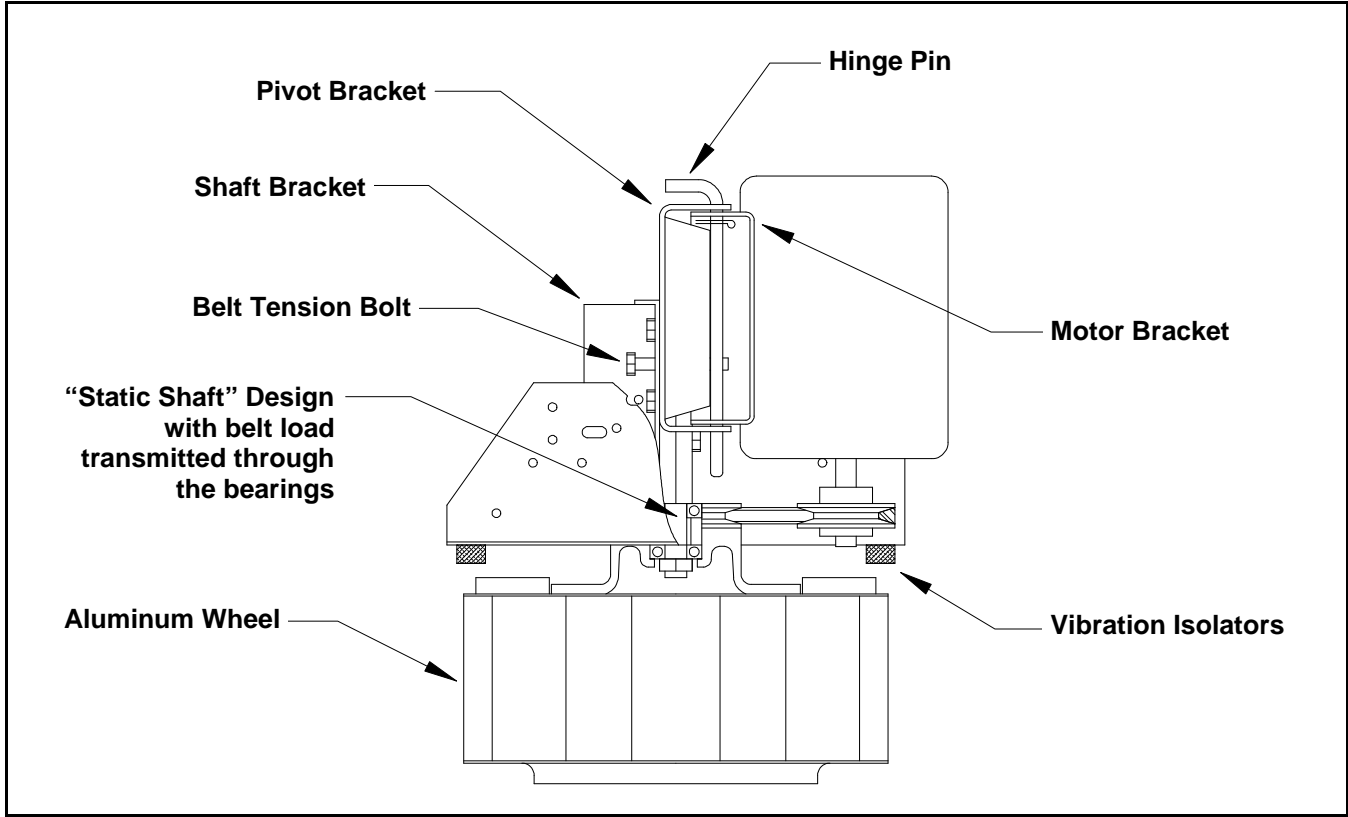


Size	Ventilator Dimensions				Roof Curb and Damper Dimensions				
	A	B	C	D	E	G	H	J	K
12-15	26	29 1/4	24 1/2	22	20 3/4	19 1/4	24 1/2	21 1/4	32 1/2
16-18	30	35 1/4	26 3/8	22	24 3/4	23 1/4	28 1/2	25 1/4	36 1/2
21	34	43 3/8	30	25 1/2	28 3/4	27 1/4	32 1/2	29 1/4	40 1/2
24	34	43 3/8	34 5/8	25 1/2	28 3/4	27 1/4	32 1/2	29 1/4	40 1/2

Dimensions in inches

ILG's "C-Drive"

Available Exclusively on CUBA Units Sizes 12 - 24



CUBA

Belt Drive Centrifugal Upblast Power Roof Ventilators

Applications

The CUBA units are quiet, dependable upblast power roof ventilators for the removal of grease-laden air from kitchen exhaust systems, and general ventilation applications where vertical discharge of exhaust air is required. Applications include virtually all types of commercial and institutional kitchens, such as restaurant and cafeteria, fast food, hospital, hotel and motel, bakery, delicatessen, school and military.

The advantages of a CUBA belt drive over a direct drive roof ventilator include quieter operation, adjustable performance to suit operating needs and extended service life using the "C-Drive" bearing arrangement.

The CUBA meets the rigorous requirements of Underwriters Laboratories Standard 762 and is so listed as being suitable for the extraction of grease-laden air and fumes from range exhaust hoods and commercial kitchen exhaust systems. When properly installed, the CUBA also meets the requirements of NFPA 96. It is particularly recommended for economical and efficient range hood ventilation where continuous operation under severe conditions may cause other power roof ventilators to fail.

Construction

CUBA models feature a housing of durable spun aluminum for optimum weather protection. The overlapping deep-spun venturi minimizes air turbulence, and increases efficiency.

The aluminum centrifugal wheel is a non-overloading, backward-inclined type, selected for low noise levels. Backplate fins draw cool air through the motor compartment. The wheel is secured to the machined aluminum "C-Drive" disc, and computer balanced on state-of-the-art equipment.

Neoprene vibration isolators to reduce noise and wear are standard.

Drive Mechanism

The belt driven CUBA utilizes a unique bearing/shaft arrangement that has been designated the "C-Drive". This "C-Drive" is patterned after American Coolair's unique static shaft drive design that has been in existence for over seventy years serving the general ventilation markets with reliable propeller products. This type of drive uses a captured bearing arrangement inside a cast aluminum disc assembly locked to a short, large-diameter shaft. The shaft is held stationary and the centrifugal wheel/disc assembly rotates on the shaft instead of the entire assembly rotating.

This design accomplishes several identifiable points of value. As a result of reduction of radial loading of the bearings, the calculated L10 bearing life exceeds 1,000,000 hours or an average bearing life of 5,000,000 hours. Most other manufacturers' turning shaft drive designs result in a cataloged average bearing life of 150,000-200,000 hours. Additionally, the machined surface of the "C-Drive" provides a rigid backplate for the centrifugal wheel. Electrical connections on the end of the motor face upwards making field connections rapid and simple. This compact drive assembly provides more room in the motor compartment area and the single bolt, V-belt adjustment makes for a very serviceable unit.

Motors

The standard motor for CUBA models is open drip-proof construction, located out of the airstream. Totally enclosed, energy efficient, two-speed and explosion-proof motors may also be available. All motor brands are recognized and serviced nationwide. Motor enclosure may affect UL Listing.



UL705 - E39944

Type CUBA ventilators are UL705 Listed by Underwriters Laboratory Inc. to US and Canadian safety standards.



UL762 - MH9847

Type CUBA ventilators are UL762 Listed by Underwriters Laboratory Inc. to US safety standards.



American Coolair Corporation, ILG Industries certifies that the Type CUBA units shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

Guide Specifications

Upblast power roof ventilators shall be of the CUBA centrifugal type as manufactured by ILG Industries of American Coolair Corporation (individual models to be listed in fan schedule). Units shall meet UL Standard 705 or 762 as required and shall bear the AMCA Certified Ratings Seal for air and sound performance. Housing and venturi inlet shall be one piece heavy gauge spun aluminum with wheel and venturi overlapping for efficient operation. Motor compartment cover shall be heavy gauge spun aluminum construction and easily removable for access to motor and drive. Base, motor compartment disc and support pipes shall be heavy gauge steel.

Drive construction shall be of the ILG "C-Drive" design consisting of static shaft/bearing arrangement mounted in a machined cast aluminum disc assembly. The disc assembly shall be mounted onto the backplate of the centrifugal wheel. The centrifugal wheel shall be heavy gauge aluminum with backward-inclined, non-overloading blades and be computer balanced.

Bearings shall have a calculated L10 bearing life in excess of 1,000,000 hours.

Motor shall be open drip-proof construction, NEMA design B with minimum service factor of 1.15. Adjustable motor pulley shall be provided to allow for field adjustment and system balance. Motor shall be mounted on a steel mounting bracket with single bolt adjustment. Motor shall be mounted with the shaft down to allow easy access to the electrical wiring terminal board/circuit box.

(Safety disconnect switch, backdraft damper, epoxy coating, roof curb and other accessories shall be listed in the fan schedule).

CUBA15 Performance Data

CFM at Static Pressure																			RPM Range				RPM	
0.00		.125		.250		.375		.500		.750		1.00		1.25		1.50		2.00		1/3	1/2	3/4		1
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone					
2188		2101		1967		1835		1722		1395														1119
0.27	10.1	0.29	9.4	0.31	9.5	0.32	9.2	0.33	8.5	0.33	8.2													
2280		2197		2077		1939		1835		1533														1166
0.31	10.8	0.33	10.2	0.35	10.3	0.36	10.1	0.37	9.3	0.38	9.1													
2370		2291		2183		2041		1940		1667		1361												1212
0.35	11.6	0.37	10.9	0.39	11.0	0.40	10.9	0.42	10.3	0.42	9.8	0.42	9.4											
2462		2386		2288		2148		2045		1804		1512												1259
0.39	12.5	0.41	11.8	0.43	11.8	0.45	11.8	0.46	11.3	0.48	10.5	0.47	10.0											
2552		2479		2388		2255		2147		1937		1649												1305
0.44	13.4	0.46	12.7	0.48	12.6	0.50	12.7	0.51	12.3	0.53	11.2	0.53	11.1											
2644		2574		2489		2365		2251		2062		1787		1511										1352
0.48	14.3	0.50	13.6	0.53	13.5	0.55	13.6	0.56	13.4	0.59	12.1	0.59	12.3	0.59	11.8									
2736		2668		2589		2476		2356		2179		1923		1664										1399
0.54	15.4	0.56	14.5	0.58	14.3	0.60	14.5	0.62	14.4	0.65	13.2	0.65	13.3	0.65	12.4									
2826		2761		2686		2583		2460		2286		2058		1802		1514								1445
0.59	16.3	0.61	15.6	0.63	15.3	0.66	15.4	0.68	15.5	0.71	14.3	0.72	14.0	0.72	13.7	0.70	14.0							
2917		2854		2784		2690		2569		2393		2194		1940		1693								1492
0.65	17.4	0.67	16.6	0.70	16.3	0.72	16.4	0.74	16.5	0.78	15.6	0.79	14.7	0.79	15.0	0.79	14.2							
3009		2948		2881		2795		2679		2498		2323		2077		1842								1539
0.72	18.4	0.74	17.6	0.76	17.3	0.78	17.3	0.81	17.5	0.85	16.9	0.87	15.7	0.87	16.2	0.87	15.2							
3099		3040		2976		2896		2788		2600		2442		2211		1981								1585
0.78	19.5	0.80	18.7	0.83	18.3	0.85	18.3	0.88	18.4	0.92	18.1	0.94	16.8	0.95	17.0	0.95	16.6							
3191		3134		3072		2998		2898		2704		2555		2349		2119								1632
0.85	21	0.88	19.8	0.90	19.3	0.93	19.3	0.95	19.4	1.00	19.3	1.03	18.1	1.04	17.7	1.03	17.9							
3281		3225		3166		3096		3004		2806		2662		2481		2252		1790						1678
0.93	22	0.95	21	0.98	20	1.00	20	1.03	21	1.08	21	1.11	19.4	1.13	18.5	1.12	19.1	1.11	18.7					

Performance shown is for Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances in the airstream.

Power ratings (BHP) do not include drive losses. Bearing losses are included.

The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation Type A: free inlet fan sone levels.

CUBA21 Performance Data

CFM at Static Pressure																		RPM Range					RPM		
0.00		.125		.250		.375		.500		.750		1.00		1.25		1.50		2.00		1/2	3/4	1		1 1/2	2
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone						
3857		3620		3383		3189		2931		2092															771
0.41	10.8	0.43	9.8	0.45	9.4	0.46	9.1	0.47	8.6	0.43	7.3														
4037		3812		3580		3390		3185		2485															807
0.47	11.6	0.49	10.7	0.51	10.2	0.52	10.0	0.54	9.6	0.52	8.6														
4222		4008		3783		3594		3415		2801															844
0.53	12.5	0.56	11.5	0.58	11.1	0.59	11.0	0.61	10.7	0.61	10.1														
4407		4203		3986		3797		3630		3091		2295													881
0.61	13.5	0.64	12.5	0.66	12.0	0.67	12.1	0.69	11.9	0.70	11.4	0.63	9.8												
4593		4397		4189		3999		3838		3383		2733													918
0.69	14.5	0.72	13.4	0.74	12.9	0.76	13.1	0.77	13.1	0.80	12.3	0.76	11.1												
4773		4585		4385		4196		4037		3662		3066													954
0.77	15.6	0.80	14.4	0.83	14.0	0.84	14.1	0.86	14.2	0.89	13.4	0.88	12.8												
4958		4778		4586		4399		4240		3918		3365		2645											991
0.86	16.7	0.90	15.6	0.92	15.1	0.94	15.1	0.96	15.3	0.99	14.7	0.99	14.3	0.91	12.6										
5143		4970		4785		4603		4443		4149		3653		3073											1028
0.96	17.8	1.00	16.7	1.03	16.2	1.05	16.2	1.07	16.4	1.10	15.9	1.11	15.5	1.07	14.2										
5403		5239		5064		4888		4727		4451		4065		3539		2824									1080
1.12	19.4	1.16	18.3	1.19	17.8	1.21	17.7	1.23	17.8	1.27	17.8	1.30	17.0	1.28	16.6	1.16	15.1								
5588		5430		5262		5090		4930		4660		4339		3833		3270									
1.24	20	1.28	19.5	1.31	18.9	1.33	18.7	1.35	18.9	1.39	19.0	1.43	18.2	1.42	17.9	1.35	16.6								1117
5773		5620		5459		5292		5133		4865		4586		4121		3631									
1.36	22	1.41	21	1.44	20	1.47	19.8	1.49	20	1.53	20	1.57	19.6	1.58	19.2	1.54	18.4								1154
5958		5810		5655		5493		5336		5069		4814		4415		3941		2338							
1.50	23	1.54	22	1.58	21	1.61	21	1.63	21	1.67	22	1.71	21	1.74	20	1.72	20	1.36	18.8						
6148		6005		5855		5699		5545		5277		5036		4708		4240		3006							
1.65	24	1.69	23	1.73	23	1.76	22	1.78	22	1.83	23	1.87	23	1.91	22	1.90	21	1.66	19.4						1229
6333		6194		6049		5898		5748		5479		5247		4969		4529		3503							
1.80	25	1.85	24	1.89	24	1.92	23	1.94	23	1.99	24	2.04	24	2.08	23	2.08	22	1.92	21						1266
6519		6384		6243		6097		5950		5682		5454		5209		4823		3914							
1.96	26	2.01	25	2.05	24	2.09	24	2.11	24	2.16	25	2.21	25	2.25	24	2.27	23	2.18	22						1303

Performance shown is for Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances in the airstream.

Power ratings (BHP) do not include drive losses. Bearing losses are included.

The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation Type A: free inlet fan sone levels.

CUBA24 Performance Data

CFM at Static Pressure																		RPM Range							RPM			
0.00		.125		.250		.375		.500		.750		1.00		1.25		1.50		2.00		Motor HP								
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/3	1/2	3/4	1	1 1/2	2	3		
4025		3669		3189		2398																				534		
0.27	7.2	0.29	6.8	0.29	6.3	0.28	6.0																					
4191		3851		3399		2794																					556	
0.30	7.8	0.32	7.4	0.33	6.9	0.32	6.5																					
4365		4040		3626		3121																						579
0.34	8.5	0.36	8.0	0.37	7.5	0.37	7.1																					
4531		4220		3844		3379																						601
0.38	9.1	0.41	8.7	0.42	8.1	0.42	7.7																					
4696		4399		4055		3606		2894																				623
0.43	9.7	0.45	9.4	0.46	8.8	0.46	8.3	0.45	8.1																			
4862		4577		4256		3820		3273																				645
0.48	10.4	0.50	10.1	0.51	9.5	0.51	9.0	0.51	8.7																			
5036		4763		4457		4039		3596																				668
0.53	11.2	0.56	10.8	0.57	10.3	0.57	9.7	0.57	9.3																			
5367		5115		4830		4469		4090																				712
0.64	12.7	0.67	12.4	0.68	11.9	0.69	11.3	0.69	10.8																			
5541		5298		5022		4698		4317																				735
0.70	13.6	0.74	13.3	0.75	12.8	0.76	12.2	0.76	11.7																			
5789		5559		5295		5013		4632		3638																		768
0.80	14.8	0.84	14.5	0.85	14.1	0.87	13.5	0.87	12.9	0.84	12.3																	
6129		5913		5665		5415		5069		4338																		813
0.95	16.4	1.00	16.2	1.01	15.8	1.03	15.3	1.03	14.7	1.03	14.0																	
6295		6085		5846		5603		5289		4610																		835
1.03	17.2	1.08	17.0	1.09	16.7	1.11	16.2	1.11	15.6	1.12	14.8																	
6468		6265		6033		5798		5515		4865		3631																858
1.12	18.0	1.17	17.9	1.19	17.6	1.20	17.1	1.21	16.5	1.22	15.7	1.13	15.2															
6807		6616		6399		6173		5937		5314		4482																903
1.30	19.7	1.36	19.6	1.38	19.4	1.39	18.9	1.41	18.3	1.41	17.3	1.38	16.8															
6980		6795		6585		6364		6141		5534		4834																926
1.41	21	1.46	21	1.49	20	1.50	19.9	1.52	19.3	1.52	18.1	1.51	17.5															
7146		6965		6762		6546		6332		5744		5128																948
1.51	22	1.57	22	1.60	21	1.60	21	1.62	20	1.63	18.9	1.63	18.2															
7320		7143		6947		6735		6528		5965		5402		4300														971
1.62	22	1.68	23	1.71	22	1.72	22	1.74	21	1.75	19.9	1.76	19.0	1.66	18.8													
7493		7321		7130		6924		6722		6191		5652		4742														994
1.74	23	1.80	24	1.84	24	1.85	23	1.86	23	1.87	21	1.89	19.8	1.82	19.5													
7659		7491		7306		7105		6906		6411		5875		5114														1016
1.86	24	1.92	24	1.96	24	1.97	24	1.99	24	2.00	22	2.02	21	1.98	20													
7832		7668		7489		7293		7098		6639		6100		5457														1039
1.99	25	2.05	25	2.09	26	2.11	25	2.12	25	2.15	23	2.15	22	2.14	21													
7998		7838		7663		7472		7280		6853		6312		5747		4656												1061
2.12	26	2.19	26	2.23	27	2.24	26	2.25	26	2.29	24	2.29	23	2.29	22	2.16	22											
8337		8184		8018		7838		7652		7271		6741		6262		5490												1106
2.40	28	2.47	29	2.52	29	2.54	29	2.55	28	2.59	26	2.58	25	2.60	24	2.54	23											
8684		8537		8380		8209		8030		7677		7191		6727		6164												1152
2.71	30	2.79	31	2.84	31	2.86	31	2.87	31	2.92	29	2.92	27	2.93	26	2.93	25											
8850		8706		8552		8386		8211		7865		7411		6940		6439												1174
2.87	31	2.95	32	3.00	33	3.03	33	3.04	32	3.08	31	3.09	28	3.10	27	3.11	26											

Performance shown is for Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances in the airstream. Power ratings (BHP) do not include drive losses. Bearing losses are included. The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation Type A: free inlet fan sone levels.

FEATURES

CUDA Units

Safety disconnect device is standard.

Direct drive assembly reduces maintenance and operating costs.

Line bore hub eliminates the need for a bushing, and has wheel puller provisions

Weather-resistant motor compartment cover of spun aluminum removes easily for access to motor and drive.

Out-of-airstream open motors are isolated for protection from exhaust airstream.

Overlapping wheel and deep-spun venturi minimize noise and air turbulence, increasing efficiency.

Aluminum centrifugal wheel is a non-overloading, backward-inclined design and is computer balanced.

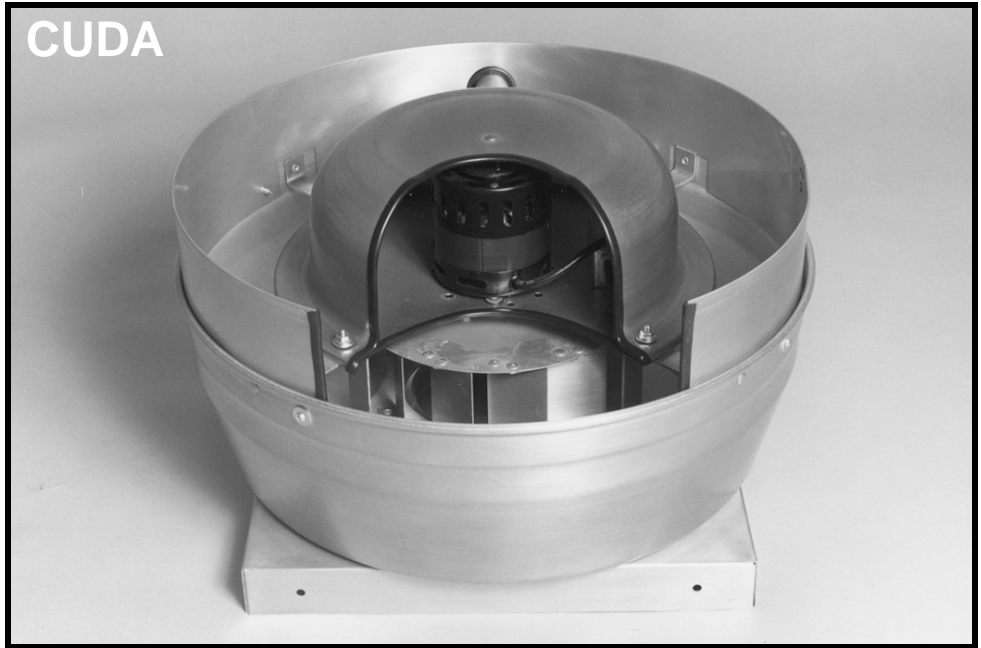
Permanently affixed wheel balance weights assure vibration-free operation.

Wheel backplate fins cool the motor compartment, extending motor life.

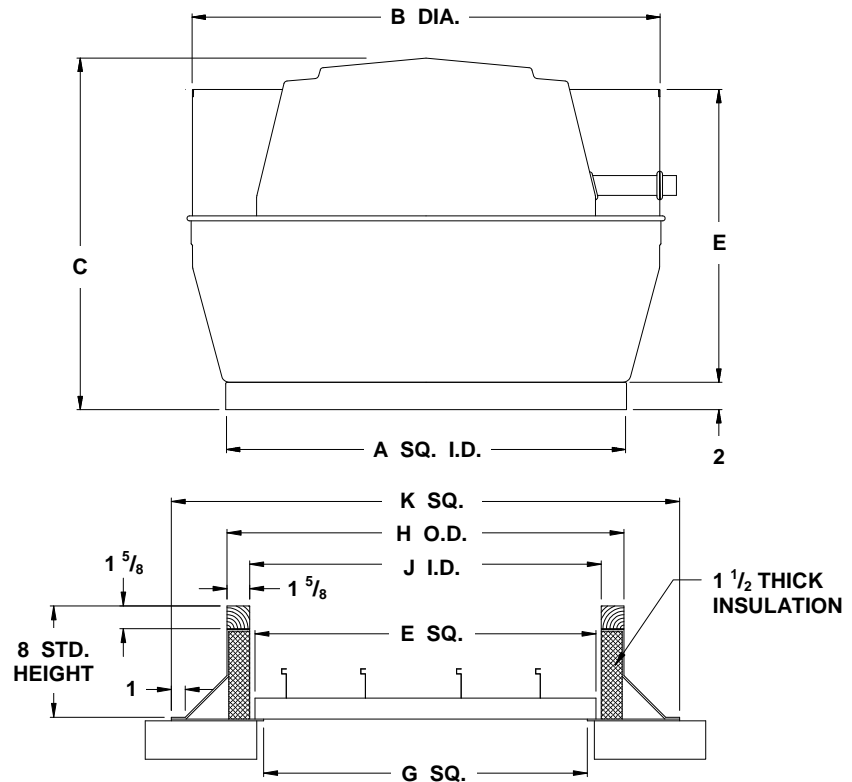
AMCA Seal assures certified rating of air and sound performance.

UL Listed for Standard 705.

CUDA



CUDA Ventilator, Roof Curb and Damper Dimensions



Unit	Ventilator Dimensions				Roof Curb and Damper Dimensions				
	A	B	C	D	E	G	H	J	K
06-10	18	23	14 1/8	11 1/8	12 3/4	11 1/4	16 1/2	13 1/4	24 1/2
12E10,12J16 13F11,13J15 15H10,15K15	26	29 1/4	19	22	20 3/4	19 1/4	24 1/2	21 1/4	32 1/2
12J17,13K17 15L17	26	29 1/4	24 1/4	22	20 3/4	19 1/4	24 1/2	21 1/4	32 1/2
16-20	30	35 1/4	26 3/8	22	24 3/4	23 1/4	28 1/2	25 1/4	36 1/2

Dimensions in inches

CUDA

Direct Drive Centrifugal Upblast Power Roof Ventilators

Applications

The CUDA units are quiet, dependable upblast power roof ventilators recommended for a wide range of general exhaust applications where low and medium ranges of air volume and pressure are specified. Applications include virtually all types of light manufacturing, commercial and institutional buildings such as shopping centers, hospitals, schools, hotels, office and apartment buildings, warehouses, airports, bus terminals and many others.

CUDA units are specified where vertical discharge of exhaust air is desired to eliminate interference with other equipment or activities in the building. They permit the direct upward venting of overheated air. CUDA units may be used with or without ducts.

The advantages of a CUDA direct drive over a belt drive roof ventilator include lower maintenance requirements, reduced risks of lower performance levels as a result of loosened belts, and lower operating costs.

Construction

CUDA models feature a housing of durable spun aluminum for optimum weather protection. The overlapping deep-spun venturi minimizes air turbulence and increases efficiency.

The aluminum centrifugal wheel is a non-overloading, backward-inclined type, selected for low noise levels. Backplate fins draw cool air through the motor compartment. The wheel is secured to the machined aluminum hub, and computer balanced on state-of-the-art equipment. The hub features a line bore, which eliminates the need for bushings.

Neoprene vibration isolators to reduce noise and wear and a safety disconnect device with a mounted and wired junction box are all standard.

Drive Mechanism

CUDA models have all the advantages of a direct drive assembly. There are no belts, bearings or pulleys to consume power or require maintenance.

Motors

The standard motor for CUDA models is open construction, located out of the airstream. Totally enclosed, energy efficient, two-speed and explosion-proof motors may also be available. All motor brands are recognized and serviced nationwide. Motor enclosure may affect UL Listing.



UL705 - E39944

Type CUDA ventilators are Listed by Underwriters Laboratory Inc. to US and Canadian safety standards.



American Coolair Corporation, ILG Industries certifies that the Type CUBA units shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

Guide Specifications

Upblast power roof ventilators shall be of the CUDA centrifugal type as manufactured by ILG Industries of American Coolair Corporation (individual models to be listed in fan schedule). Units shall meet UL Standard 705 and shall bear the AMCA Certified Ratings Seal for air and sound performance. Housing and venturi inlet shall be one piece heavy gauge spun aluminum with wheel and venturi overlapping for efficient operation. Motor compartment cover shall be heavy gauge spun aluminum construction and easily removable for access to motor.

Drive construction shall be of the direct drive design. The line bore hub shall be mounted onto the backplate of the centrifugal wheel. The centrifugal wheel shall be heavy gauge aluminum with backward-inclined, non-overloading blades and be computer balanced.

Motor shall be open construction, NEMA design B. Optional variable speed control on some models allows for field adjustment and system balance. The unit shall be equipped with a safety disconnect device.

(Backdraft damper, epoxy coating, roof curb and other accessories shall be listed in the fan schedule).

CUDA06 - CUDA10 Performance Data

CUDA06 CFM at Static Pressure														RPM RANGE OF SELECTED MODELS			RPM			
0.00		.125		.250		.375		.500		.625		.750		1.00		CUDA06A11		CUDA06C16	CUDA06E16	
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/25 HP	1/13 HP	1/10 HP
183																				550
0.01	0.6																			800
266		180																		950
0.01	2.3	0.01	1.3																	1100
315		251		141																1250
0.01	3.4	0.01	2.6	0.01	2.1															1400
365		309		235		133														1600
0.02	4.7	0.02	4.2	0.02	3.6	0.02	3.2													1650
415		364		315		226		137												
0.03	6.5	0.03	6.1	0.03	5.5	0.03	5.1	0.03	4.7											
465		420		377		320		234		155										
0.04	7.8	0.04	7.3	0.04	6.7	0.04	6.4	0.04	6.1	0.04	7.6									
531		493		453		415		360		283		218								
0.05	10.1	0.05	9.4	0.06	8.8	0.06	8.1	0.06	7.9	0.06	7.6	0.06	7.6							
548		511		471		436		388		315		248								
0.06	10.8	0.06	10.1	0.06	9.4	0.07	8.8	0.07	8.6	0.07	8.2	0.07	8.2							

CUDA08 CFM at Static Pressure														RPM RANGE OF SELECTED MODELS			RPM			
0.00		.125		.250		.375		.500		.625		.750		1.00		CUDA08A11		CUDA08C15	CUDA08E16	
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/25 HP	1/13 HP	1/10 HP
233																				550
0.00	0.5																			800
339		256																		950
0.01	2.2	0.01	1.3																	1100
402		332		222																1250
0.01	3.4	0.01	2.5	0.02	2.2															1400
466		408		342		209														1550
0.02	4.6	0.02	4.1	0.02	3.9	0.02	3.7													1600
530		480		424		342		215												
0.03	6.3	0.03	5.9	0.03	5.8	0.04	5.6	0.03	5.4											
593		549		498		452		360		244										
0.04	7.6	0.04	7.2	0.05	7.0	0.05	6.8	0.05	6.7	0.04	6.5									
657		617		574		529		480		390		289								
0.06	8.9	0.06	8.6	0.06	8.1	0.06	8.2	0.07	8.0	0.07	7.9	0.06	7.9							
678		639		599		553		512		431		343								
0.06	9.4	0.06	9.1	0.07	8.6	0.07	8.7	0.07	8.5	0.08	8.3	0.07	8.3							

CUDA10 CFM at Static Pressure														RPM RANGE OF SELECTED MODELS			RPM			
0.00		.125		.250		.375		.500		.625		.750		1.00		CUDA10A11		CUDA10C15	CUDA10E15	
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/25 HP	1/13 HP	1/10 HP
299																				550
0.00	0.2																			800
435		350																		950
0.01	1.8	0.01	1.1																	1100
517		450		344																1250
0.02	2.9	0.02	2.5	0.02	1.8															1400
598		546		472		355														1500
0.03	4.7	0.03	4.4	0.03	3.6	0.03	3.1													1550
680		637		575		501		386												
0.04	6.8	0.04	6.5	0.05	5.9	0.05	5.2	0.05	4.8											
762		725		673		616		540		434										
0.05	8.1	0.05	7.8	0.06	7.4	0.07	6.6	0.07	6.2	0.07	5.7									
816		783		737		684		625		542										
0.06	8.9	0.07	8.7	0.07	8.4	0.08	7.7	0.08	7.2	0.08	6.7									
843		811		768		717		663		590		495								
0.07	9.4	0.07	9.1	0.08	8.9	0.09	8.3	0.09	7.7	0.09	7.2	0.09	6.8							

Performance shown is for Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances in the airstream. The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation Type A: free inlet fan sone levels. AMCA Certified Ratings apply to the CUDA Roof Ventilator constant speed fans and not variable speed fans.

CUDA12 - CUDA13 Performance Data

CUDA12														CFM at Static Pressure						RPM RANGE OF SELECTED MODELS			RPM
0.00		.125		.250		.375		.500		.625		.750		1.00		CUDA12E10	CUDA12J16	CUDA12J17*					
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/8 HP	1/2 HP	1/2 HP			
566		393																	550				
0.01	1.8	0.01	1.3																				
669		531																	650				
0.02	2.7	0.02	2.7																				
772		657		510															750				
0.03	3.8	0.03	3.8	0.04	3.0																		
874		774		658		488													850				
0.04	5.0	0.05	4.9	0.05	4.5	0.05	3.8																
977		888		791		676													950				
0.06	6.1	0.06	5.9	0.07	6.0	0.07	5.2																
1054		972		885		784		654											1025				
0.07	6.9	0.08	6.8	0.09	7.0	0.09	6.4	0.09	5.7														
1183		1109		1035		951		858		740									1150				
0.10	8.4	0.11	8.2	0.12	8.4	0.12	8.3	0.13	7.6	0.13	7.0												
1337		1272		1207		1139		1061		980		884							1300				
0.15	10.2	0.16	10.0	0.17	10.2	0.17	10.5	0.18	10.1	0.19	9.4	0.19	8.9										
1492		1433		1374		1315		1253		1182		1109		926					1450				
0.20	12.4	0.21	12.1	0.22	12.3	0.23	12.6	0.24	12.7	0.25	12.3	0.26	11.7	0.26	10.7								
1646		1593		1540		1487		1432		1374		1310		1176					1600				
0.27	14.7	0.28	14.5	0.30	14.5	0.31	14.8	0.32	15.1	0.33	15.2	0.34	14.9	0.35	13.9								
1739		1688		1638		1588		1537		1484		1427		1302					1690				
0.32	16.3	0.33	16.0	0.35	16.0	0.36	16.3	0.37	16.6	0.38	16.9	0.39	16.8	0.41	15.8								
1775		1725		1676		1627		1577		1526		1471		1349					1725				
0.34	16.9	0.35	16.6	0.37	16.6	0.38	16.8	0.39	17.2	0.40	17.5	0.41	17.5	0.43	16.6								

CUDA13														CFM at Static Pressure						RPM RANGE OF SELECTED MODELS			RPM
0.00		.125		.250		.375		.500		.625		.750		1.00		CUDA13F11	CUDA13J15	CUDA13K17*					
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/5 HP	1/2 HP	3/4 HP			
763		566																	550				
0.02	1.9	0.02	1.0																				
936		784		580															675				
0.03	3.1	0.04	2.4	0.04	1.8																		
1109		977		845		641													800				
0.06	4.5	0.07	3.7	0.07	3.3	0.07	2.9																
1248		1129		1020		873		663											900				
0.08	5.6	0.09	4.9	0.10	4.6	0.10	4.2	0.10	3.8														
1387		1279		1180		1073		924		716									1000				
0.11	6.7	0.12	6.2	0.13	5.8	0.14	5.6	0.14	5.2	0.13	4.9												
1560		1463		1372		1287		1182		1048		888							1125				
0.16	8.3	0.17	8.0	0.19	7.5	0.20	7.4	0.20	7.1	0.20	6.7	0.19	6.4										
1733		1646		1562		1484		1405		1307		1186		821					1250				
0.22	10.2	0.24	9.9	0.25	9.4	0.26	9.1	0.27	9.1	0.27	8.8	0.27	8.4	0.24	7.8								
1872		1791		1712		1638		1567		1490		1393		1160					1350				
0.28	11.9	0.29	11.7	0.31	11.2	0.33	10.8	0.33	10.7	0.34	10.6	0.34	10.3	0.34	9.5								
2045		1971		1898		1829		1763		1698		1626		1436					1475				
0.36	13.6	0.38	13.4	0.40	13.0	0.42	12.5	0.43	12.2	0.44	12.2	0.44	12.1	0.45	11.5								
2184		2114		2046		1980		1916		1855		1794		1641					1575				
0.44	14.9	0.46	14.8	0.48	14.4	0.50	13.9	0.52	13.6	0.53	13.4	0.54	13.4	0.54	13.0								
2427		2363		2302		2241		2182		2126		2071		1958					1750				
0.61	17.5	0.63	17.4	0.65	17.1	0.67	16.6	0.69	16.2	0.71	15.9	0.72	15.8	0.74	15.7								

Performance shown is for Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances in the airstream. The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301.

Values shown are for installation Type A: free inlet fan sone levels

* - These models are not compatible with variable speed control

AMCA Certified Ratings apply to the CUDA Roof Ventilator constant speed fans and not variable speed fan:

CUDA15 - CUDA 20 Performance Data

CUDA15										CFM at Static Pressure						RPM RANGE OF SELECTED MODELS			RPM	
0.00		.125		.250		.375		.500		.625		.750		1.00		CUDA15H10	CUDA15K15	CUDA15L17*		
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/3 HP	3/4 HP	1 HP
1033		832																		550
0.03	2.7	0.04	1.7																	650
1221		1056		842																750
0.05	3.9	0.06	3.0	0.06	2.6															850
1409		1268		1110		885														950
0.08	5.1	0.09	4.3	0.10	3.8	0.10	3.5													1090
1596		1473		1342		1184		969												1150
0.12	6.4	0.13	5.7	0.14	5.2	0.14	5.0	0.14	4.6											1250
1784		1675		1560		1435		1280		1083										1350
0.17	7.9	0.18	7.1	0.19	6.8	0.20	6.4	0.20	6.3	0.20	5.9									1425
2047		1952		1854		1752		1640		1509		1347								1550
0.26	10.3	0.27	9.5	0.28	9.1	0.29	8.7	0.30	8.4	0.30	8.4	0.30	8.1							1725
2160		2070		1978		1882		1780		1666		1529								
0.30	11.4	0.32	10.6	0.33	10.2	0.34	9.9	0.35	9.5	0.35	9.4	0.36	9.3							
2348		2265		2181		2094		2004		1908		1800		1527						
0.39	13.3	0.40	12.6	0.42	12.2	0.43	11.9	0.44	11.5	0.45	11.2	0.46	11.2	0.45	10.8					
2535		2459		2382		2302		2220		2135		2044		1829						
0.49	14.9	0.51	14.2	0.52	13.7	0.54	13.4	0.55	13.1	0.56	12.8	0.57	12.5	0.58	12.5					
2676		2604		2531		2456		2379		2301		2218		2031						
0.57	16.2	0.59	15.5	0.61	14.9	0.63	14.6	0.64	14.3	0.65	14.0	0.66	13.8	0.68	13.6					
2911		2845		2778		2709		2640		2569		2496		2340						
0.74	18.4	0.76	17.6	0.78	17.1	0.80	16.8	0.82	16.5	0.83	16.3	0.84	16.0	0.86	15.5					
3240		3180		3120		3059		2998		2935		2872		2740						
1.02	22	1.04	21	1.06	21	1.09	20	1.11	19.8	1.12	19.6	1.14	19.4	1.17	18.8					

CUDA16										CFM at Static Pressure						RPM OF SELECTED MODELS			RPM	
0.00		.125		.250		.375		.500		.625		.750		1.00		CUDA16J8*	CUDA16L11*	CUDA16N17*		
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/2 HP	1 HP	2 HP
2187		2037		1884		1708		1523		1082										825
0.20	8.4	0.21	7.4	0.23	6.7	0.23	6.6	0.23	6.2	0.21	5.8									1160
3075		2967		2862		2755		2644		2517		2394		2125						
0.55	15.9	0.57	15.0	0.60	14.1	0.62	13.3	0.63	12.9	0.64	12.9	0.65	12.9	0.65	12.0					
4640		4568		4496		4426		4356		4286		4216		4072						
1.90	30	1.93	29	1.96	29	1.99	28	2.03	27	2.06	27	2.09	26	2.14	25					

CUDA18										CFM at Static Pressure						RPM OF SELECTED MODELS		RPM		
0.00		.125		.250		.375		.500		.625		.750		1.00		CUDA18J8*	CUDA18L11*			
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/2 HP	1 HP			
2919		2679		2550		2389		2194		1888		1422								825
0.30	9.8	0.33	8.6	0.34	8.4	0.36	8.0	0.36	7.6	0.34	7.0	0.31	6.6							1160
4104		3875		3765		3673		3580		3473		3350		3069						
0.85	18.6	0.88	17.1	0.91	16.4	0.93	16.1	0.96	16.0	0.98	15.5	0.99	15.0	0.99	14.3					

CUDA20										CFM at Static Pressure						RPM OF SELECTED MODEL	RPM			
0.00		.125		.250		.375		.500		.625		.750		1.00		CUDA20M11*				
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1-1/2 HP				
4942		4822		4702		4583		4461		4326		4169		3830						1160
1.28	22	1.33	19.9	1.36	19.0	1.39	19.2	1.41	19.6	1.43	19.4	1.44	18.9	1.46	18.8					

Performance shown is for Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances in the airstream. The sound ratings shown are loudness values in fan sones at 5 ft. (1.5m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation Type A: free inlet fan sone levels

* - These models are not compatible with variable speed control
 AMCA Certified Ratings apply to the CUDA Roof Ventilator constant speed fans and not variable speed fan:

Installation

All models are shipped fully assembled and ready for installation. Always inspect equipment for transit damage before accepting delivery to assure a valid claim. Special handling and storage procedures are required if unit is to remain idle for a long time prior to installation.

Placement

All belt-driven units must be accessibly installed for maintenance and servicing of belts, motors and pulleys.

Mounting

Satisfactory operation of upblast power roof ventilators requires mounting on adequately designed and constructed roof curbs. Prefabricated curbs for convenience in installation are available from ILG. Install with base of unit horizontal. Provide adequate caulking, flashing or other weather-proofing means.

Inspection

Check centrifugal wheel for free rotation.

Check belt for proper tension. (CUBA)

Check motor and fan sheave faces for proper alignment. (CUBA)

Check circuit phase, voltage and wiring connection against that shown on motor nameplate.

Check direction of fan rotation for proper air flow.

Check belt after one week of operation for proper tension. (CUBA)

Maintenance

Units should be checked monthly for the first two or three months and periodically thereafter.

Cleaning

Units should be cleaned of grease and material buildup every three months or when necessary, depending on the condition of air being exhausted and frequency of use. Grease trough, drain and container should be checked and emptied as required to prevent grease overflow, as often as every one or two weeks with heavy grease applications such as char-broilers. Units should also be checked for eroded parts which should be replaced to avoid structural damage and possible failure.

Lubrication

Fan bearings on CUBA models are permanently sealed and require **no** lubrication. Motor bearings should be lubricated according to the motor manufacturer's instructions.

Adjustment of Variable Pitch Pulley and Belt (CUBA)

Variable pitch pulley may be adjusted within catalog RPM range to alter performance. However, adjustment beyond catalog RPM range may cause motor overload and possible premature motor failure. Pulley alignment and belt tension should be adjusted if necessary. Both motor and driven pulleys should be at right angles to the shafts, and the V-grooves should be aligned with each other. Inspection of drive components every 6 to 12 months is recommended.

WARNING



CAUTION

DO NOT INSTALL FAN WITH MOVING PARTS WITHIN 8 FEET OF FLOOR OR GRADE LEVEL WITHOUT A GUARD THAT COMPLIES WITH OSHA REGULATIONS. **DO NOT** USE UNLESS ELECTRICAL WIRING COMPLIES WITH ALL APPLICABLE CODES. **DO NOT** WIRE WITHOUT PROVIDING FOR A POWER SOURCE DISCONNECT AT THE FAN ITSELF. **DO NOT** SERVICE EXCEPT BY A QUALIFIED MAINTENANCE TECHNICIAN AND ONLY AFTER DISCONNECTING THE POWER SOURCE. FAILURE TO OBSERVE THESE PRECAUTIONS CAN RESULT IN SERIOUS INJURY OR DEATH.

To convert air performance (CFM and SP) and power (BHP) to metric units, multiply CFM x .000472 to obtain cubic meters per second (m³/s). Multiply SP x 248.36 to obtain Pascals (Pa). Multiply BHP x .7457 to obtain Kilowatts (kW).

Example: 3904 CFM x .000472 = 1.8427 m³/s
0.125 SP x 248.36 = 31.05 Pa
0.886 BHP x .7457 = 0.661 kW

CUBA/CUDA Options and Accessories

Grease Extraction Application Accessories

Prefabricated Roof Curbs

Roof curbs for grease extraction CUBA models meet NFPA 96 system requirements for minimum PRV discharge height above the roof line. Curb height for sizes 18 and below is 20", and for sizes 20 and above is 18". Curbs with venting on two or four sides are also available. All curbs are insulated, feature a weather-resistant, continuous welded construction and provide convenience in installation of PRV units for both insulated and non-insulated roof decks.

Safety Disconnects

Safety disconnects cut power to motor for servicing of unit. A factory mounted and wired disconnect is an option for CUBA units with the UL 762 designation. The disconnect may either be interior with an external weather-proof junction box (all units), or external (units up to 2 hp only). Wiring is completed from the motor to the exterior box.

Grease Collector

Grease pans collect grease drained from the fan. An integral baffle contains the grease while allowing water to flow from the pan. The grease collector should be attached to the curb below the standard drain.

General Ventilation Accessories

Prefabricated Roof Curbs

Insulated roof curbs with weather-resistant, continuous welded construction are available for convenience in installation for both insulated and non-insulated roof decks.

Safety Disconnects

Safety disconnects cut power to motor for servicing of unit. A disconnect switch is an accessory available on CUBA units used for general ventilation. The switch is shipped loose for field installation and power source connection. An optional wiring harness is available to connect the motor to the switch at the internal junction box. A factory disconnect device with mounted and wired internal junction box is standard for all CUDA models.

Backdraft Dampers

Gravity or motor operated backdraft dampers are available. They are aluminum construction and designed for installation in prefabricated roof curbs.

Birdguards

Birdguards are available to prevent entry of birds or other potentially damaging objects.

General Options and Accessories

Hinged Base Kits

Hinged bases are specifically designed to provide easy access for cleaning and servicing the lower parts of CUBA units.

Roof Handle

Aluminum handle facilitates removal of the roof. Roof handles are standard for CUBA models with a UL762 designation.

Special Motors

Two-speed, totally enclosed, energy efficient and explosion-proof motors for hazardous locations may be available for many models. Motor requirements may affect UL Listings.

Protective Coatings

Fan units are not recommended for exhausting air of a corrosive nature. However, special protective coatings are available where units may be exposed to corrosive exterior conditions. Parts requiring painting are processed through the American Coolair five-stage pretreatment system prior to the application of any coatings to insure maximum finish adhesion. These parts use a thermosetting epoxy powder paint with an average thickness of 3 mils and baked at 400° F to a smooth, hard continuous finish. Consult your ILG Industries representative for available coatings.

Speed Controller (For selected CUDA models only)

Solid state speed controller provides capability to change performance and speed ranging from 50% to 100% of fan capacity. This permits adjustment for fine tuning and balancing the ventilation system (see performance tables for compatible models).

CUBA Specification Checklist

- Units provide grease-laden vapor extraction and general exhaust with vertical discharge for low to medium air volumes, especially in commercial and institutional kitchens.
- Centrifugal design has advantages of compact, attractive appearance, quiet operation and performance against higher static pressures.
- Variable pitch belt drive allows for speed adjustment.
- Adjustable hinged motor bracket with single bolt adjustment facilitates maintenance of belt tension.
- Weatherproof heavy duty spun aluminum housing and motor compartment cover resist corrosion, maintaining appearance.
- Deep-spun, overlapping, one-piece venturi/bottom outer housing minimizes noise, reduces air turbulence and improves efficiency.
- Unique "C-Drive" design reduces radial bearing loads, providing a calculated L10 bearing life of over 1,000,000 hours.
- Aluminum centrifugal wheel is quiet, non-overloading backward-inclined design and is computer balanced.
- Standard open drip-proof motor is out of the airstream for protection.
- The motor is mounted with the electrical terminal board up for convenient connection and servicing.
- The motor compartment is cooled by a forced air ventilation system, extending motor life.
- Units have the UL Label for the removal of grease-laden vapors and fumes (UL 762), or for general ventilation (UL 705).
- AMCA Seal assures certified rating of air and sound performance.
- Heavy duty neoprene isolators eliminate metal-to-metal contact, reducing vibration and sound.

Limited Warranty

In the sale of its products, American Coolair Corporation agrees to correct, by repairs or replacement, any defects in workmanship or material that may develop under proper and normal use during the period of one year from the date of shipment from the factory. Any product or part proving, upon American Coolair's examination, to be defective during limited warranty period will be repaired or replaced, at American Coolair's option, f.o.b. factory, without charge.

Deterioration or wear caused by chemicals, abrasive action or excessive heat shall not constitute defects.

Motors are guaranteed only to the extent of the manufacturer's warranty.

American Coolair's limited warranty does not apply to any of its products or parts that have been subject to accidental damage, misuse by the user, unauthorized alterations, improper installation or electrical wiring, or lack of proper lubrication or other service requirements as established by American Coolair.

Repairs or replacements provided under the above terms shall constitute fulfillment of all American Coolair's obligations with respect to limited warranty.

THE LIMITED WARRANTY STATED HEREIN IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, STATUTORY OR IMPLIED, INCLUDING WITHOUT LIMITATION THAT OF MERCHANTABILITY AND FITNESS.

NO LIABILITY FOR REINSTALLATION COST OR FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OF ANY NATURE IS ASSUMED OR SHALL BE IMPOSED UPON AMERICAN COOLAIR.



AMERICAN COOLAIR CORPORATION

CUDA Specification Checklist

- Units provide grease-laden vapor extraction and general exhaust with vertical discharge for low to medium air volumes in commercial, institutional and light manufacturing buildings.
- Centrifugal design has advantages of compact, attractive appearance, quiet operation and performance against higher static pressures.
- Direct-drive has advantages of minimal maintenance and operating costs.
- Safety disconnect device allows power to be cut off for servicing of unit.
- Weatherproof heavy duty spun aluminum housing and motor compartment cover resist corrosion, maintaining appearance.
- Deep-spun, overlapping, one-piece venturi/bottom outer housing minimizes noise, reduces air turbulence and improves efficiency.
- Aluminum centrifugal wheel is quiet, non-overloading, backward-inclined design and is computer balanced.
- Standard open motor is out of the airstream for protection.
- The motor compartment is cooled by a forced air ventilation system, extending motor life.
- Units have the UL Label for general ventilation (UL 705).
- AMCA Seal assures certified rating of air and sound performance.
- Heavy duty neoprene isolators eliminate metal-to-metal contact, reducing vibration and sound.
- Units are factory run and tested prior to shipment for dependable operation.

REPRESENTED BY:

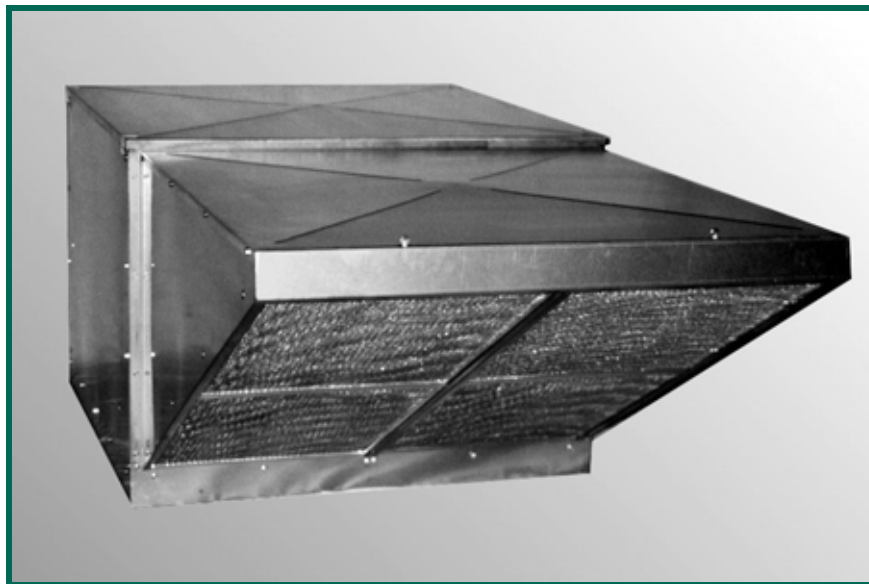
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Form No. 715-15-3 (February, 2001)



INDUSTRIES

AMERICAN COOLAIR CORPORATION



Centrifugal Filtered Supply Roof Ventilators

TYPE CFS - TYPE SIS

CFS

Centrifugal Filtered Supply Fans

Applications

The CFS Centrifugal Filtered supply fans with four (4) side inlets are designed for roof mounting on curbs to provide make-up filtered air to general ventilation systems.

Applications include a variety of commercial and industrial facilities as well as commercial and industrial kitchens.

Construction

Construction of the CFS power roof ventilators is mill galvanized steel throughout the unit.

The blower has a DIDW centrifugal wheel with forward curved blades finished in a matte zinc coating. The blower housing is constructed of galvanized steel. The blower features sealed and permanently lubricated ball bearings suitable for operation from -65 degrees to +250 degrees F (check motor capability). The blower is mounted to the fan housing using rubber isolation grommets.

Filters are 1" aluminum mesh, cleanable and held in place by a u-channel frame.

Access to the fan, motor, drive and filters is accomplished by removal of the top utilizing four (4) thumb screws.

A factory wired disconnect switch is an available option.

Drive Mechanism

CFS models have a V-belt drive with adjustable cast iron motor pulley for adjusting fan operating speed. Drive shaft is turned, ground and polished. Motor support is adjustable for proper belt tensioning.

Motors

NEMA standard open drip proof motors are pre-lubricated and located in the air stream. Other motors may be available. All motor brands are recognized and serviced nationwide. Motor enclosure required may affect UL Listing.



UL705 – E39944

Type CFS ventilators are Listed by Underwriters Laboratory Inc. to US and Canadian safety standards.



American Coolair Corporation, ILG Industries Division certifies that the Type CFS units shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and comply with the requirements of the AMCA Certified Ratings Program.

Guide Specifications

Filtered supply fans shall be of the CFS centrifugal type as manufactured by ILG Industries of American Coolair Corporation (individual models to be listed in fan schedule). Units shall bear the AMCA Certified Ratings Seal for air performance. Housing and frame of the fan are to be galvanized steel. The top of the unit is to be removable for access to the inside fan components, filters and drive. The blower is to be mounted to the fan housing using rubber isolation grommets.

Drive mechanism shall incorporate a V-belt drive with cast iron motor pulley. The centrifugal wheel shall be heavy gauge zinc-coated steel with forward-curved blades.

Motor shall be open drip-proof construction, NEMA design B with minimum service factor of 1.15. Adjustable motor pulley shall be provided to allow for field adjustment and system balance. Motor shall be mounted on an adjustable steel mounting bracket.

(Mounted and wired disconnect switch, backdraft damper, epoxy coating and other accessories shall be listed in the fan schedule.)

CFS 9 Performance Data

HP	CFM		Static Pressure							
			0.00	.125	.250	.375	.500	.625	.750	1.00
1/4 L	700	RPM		425	556					
		BHP		0.04	0.07					
	800	RPM		441	573					
		BHP		0.05	0.09					
	900	RPM		460	589	688				
		BHP		0.07	0.10	0.13				
	1000	RPM		482	603	705	787			
		BHP		0.08	0.12	0.16	0.18			
	1100	RPM		508	618	721	804	877		
		BHP		0.10	0.14	0.19	0.23	0.25		
	1200	RPM	437	536	635	735	821	894		
		BHP	0.09	0.13	0.16	0.22	0.27	0.30		
	1300	RPM	473	566	656	749	836	911	977	
		BHP	0.12	0.15	0.19	0.24	0.31	0.35	0.39	
	1400	RPM	510	598	678	765	850	927	994	1111
		BHP	0.15	0.19	0.22	0.27	0.34	0.40	0.45	0.51
	1500	RPM	546	630	703	784	865	941	1011	1128
		BHP	0.18	0.23	0.26	0.31	0.37	0.44	0.51	0.59
1600	RPM	583	663	730	805	881	955	1025	1145	
	BHP	0.22	0.27	0.31	0.44	0.42	0.48	0.56	0.68	
1/4 H	1700	RPM	619	697	759	827	899	970	1039	1162
		BHP	0.26	0.32	0.36	0.49	0.46	0.53	0.61	0.76
1/3	1800	RPM	655	730	789	852	919	987	1053	
		BHP	0.31	0.38	0.41	0.46	0.52	0.59	0.66	
	1900	RPM	692	764	820	878	941	1005	1069	
		BHP	0.37	0.44	0.48	0.52	0.58	0.65	0.72	
1/2	2000	RPM	728	798	852	906	964	1025	1086	
		BHP	0.43	0.51	0.55	0.59	0.65	0.72	0.79	
	2100	RPM	765	832	884	935	989	1046	1104	
		BHP	0.50	0.58	0.62	0.67	0.72	0.79	0.86	
	2200	RPM	801	866	917	965	1016			
		BHP	0.57	0.66	0.71	0.75	0.81			
3/4	2300	RPM	837	900	950	996				
		BHP	0.65	0.75	0.80	0.85				
	2400	RPM	874	935						
		BHP	0.74	0.84						

Performance shown is for installation type B: Free inlet, ducted outlet. Performance ratings include the effects of filters in the airstream.

Power rating (BHP) does not include transmission losses. Bearing losses are included.

CFS 10 Performance Data

HP	CFM		Static Pressure								
			0.00	.125	.250	.375	.500	.625	.750	1.00	1.25
1/4 L	600	RPM		355							
		BHP		0.03							
	800	RPM		383	499						
		BHP		0.05	0.08						
	1000	RPM		417	521	612	700				
		BHP		0.08	0.11	0.15	0.20				
	1200	RPM	340	454	552	635	711	785	857		
		BHP	0.07	0.11	0.15	0.20	0.24	0.29	0.38		
	1400	RPM	397	495	586	665	735	800	864		
		BHP	0.12	0.16	0.21	0.26	0.30	0.35	0.41		
1600	RPM	453	539	623	698	765	826	885	997		
	BHP	0.17	0.22	0.28	0.33	0.39	0.44	0.50	0.62		
1/4 H	1800	RPM	510	586	663	734	798	857	912	1016	1115
		BHP	0.25	0.29	0.36	0.42	0.48	0.55	0.61	0.73	0.87
1/3	2000	RPM	567	635	704	771	833	890	943	1042	1134
		BHP	0.34	0.39	0.45	0.53	0.60	0.67	0.74	0.87	1.01
1/2	2200	RPM	623	685	748	811	870	925	976	1071	1160
		BHP	0.45	0.50	0.57	0.66	0.74	0.81	0.88	1.03	1.19
3/4	2400	RPM	680	737	794	852	908	961	1011	1104	1189
		BHP	0.59	0.64	0.71	0.80	0.89	0.97	1.06	1.22	1.39
	2600	RPM	736	789	842	895	948	999	1047	1137	
		BHP	0.74	0.80	0.88	0.96	1.06	1.16	1.25	1.42	
1	2800	RPM	793	842	891	940	990	1038	1085	1172	
		BHP	0.93	0.99	1.07	1.15	1.26	1.36	1.47	1.68	
	3000	RPM	850	895	941	987	1033	1079	1124		
		BHP	1.15	1.21	1.29	1.38	1.48	1.59	1.71		
1 1/2	3200	RPM	906	949	992	1035	1078				
		BHP	1.39	1.46	1.54	1.63	1.73				

Performance shown is for installation type B: Free inlet, ducted outlet. Performance ratings include the effects of filters in the airstream.

Power rating (BHP) does not include transmission losses. Bearing losses are included.

CFS 12 Performance Data

HP	CFM		Static Pressure									
			0.00	.125	.250	.375	.500	.625	.750	1.00	1.25	1.50
1/4	1200	RPM			453							
		BHP			0.10							
	1400	RPM			466	551						
		BHP			0.13	0.16						
	1600	RPM		397	486	563	635					
		BHP		0.12	0.16	0.21	0.24					
	1800	RPM		422	509	579	647	711				
		BHP		0.16	0.21	0.25	0.30	0.35				
	2000	RPM		450	532	599	661	722	780			
		BHP		0.20	0.26	0.31	0.36	0.41	0.47			
	2200	RPM	401	480	555	623	680	736	792			
		BHP	0.20	0.26	0.32	0.38	0.43	0.49	0.55			
2400	RPM	428	511	578	646	702	754	806	906			
	BHP	0.26	0.32	0.38	0.45	0.51	0.58	0.64	0.77			
1/3	2600	RPM	474	544	604	669	726	776	823	918	1008	
		BHP	0.33	0.40	0.46	0.54	0.61	0.68	0.74	0.88	1.03	
1/2	2800	RPM	511	576	632	691	749	799	844	933	1019	1101
		BHP	0.41	0.48	0.55	0.63	0.71	0.79	0.86	1.01	1.15	1.29
	3000	RPM	547	609	662	715	772	822	867	950	1033	1112
		BHP	0.50	0.58	0.66	0.73	0.82	0.90	0.98	1.14	1.30	1.45
3/4	3200	RPM	583	643	692	741	794	845	891	971	1048	1125
		BHP	0.61	0.70	0.77	0.85	0.94	1.04	1.13	1.29	1.46	1.63
	3400	RPM	620	676	724	769	818	868	914	994	1067	1140
		BHP	0.73	0.83	0.91	0.99	1.08	1.18	1.28	1.46	1.63	1.82
1	3600	RPM	656	710	756	799	843	891	937	1017	1088	1157
		BHP	0.87	0.97	1.06	1.15	1.23	1.34	1.45	1.64	1.83	2.02
	3800	RPM	693	744	789	829	871	914	959	1041	1111	1176
		BHP	1.02	1.13	1.23	1.31	1.41	1.51	1.62	1.84	2.04	2.23
1 1/2	4000	RPM	729	778	821	861	899	940	982	1064	1134	
		BHP	1.19	1.30	1.41	1.51	1.60	1.71	1.82	2.05	2.26	
	4200	RPM	766	813	854	892	929	966	1006	1086		
		BHP	1.38	1.50	1.61	1.71	1.81	1.91	2.03	2.27		
	4400	RPM	802	847	888	924	960	995	1032			
		BHP	1.58	1.71	1.83	1.93	2.04	2.15	2.26			
2	4600	RPM	838	882	921	957	991					
		BHP	1.81	1.94	2.07	2.18	2.29					
	4800	RPM	875	917								
		BHP	2.06	2.20								

Performance shown is for installation type B: Free inlet, ducted outlet. Performance ratings include the effects of filters in the airstream.

Power rating (BHP) does not include transmission losses. Bearing losses are included.

CFS 15 Performance Data

HP	CFM		Static Pressure								
			0.00	.125	.250	.375	.500	.625	.750	1.00	1.25
1/4	1500	RPM		268							
		BHP		0.08							
	1800	RPM		283							
		BHP		0.11							
	2100	RPM		302	377						
		BHP		0.15	0.21						
	2400	RPM	270	325	392	454					
		BHP	0.16	0.21	0.28	0.34					
2700	RPM	304	350	409	468	521					
	BHP	0.23	0.28	0.35	0.43	0.51					
1/3	3000	RPM	338	378	429	483	535	582			
		BHP	0.32	0.37	0.44	0.53	0.62	0.70			
1/2	3300	RPM	371	407	452	500	549	596	638		
		BHP	0.43	0.48	0.59	0.64	0.74	0.84	0.93		
	3600	RPM	405	437	476	520	565	609	652		
		BHP	0.55	0.61	0.69	0.78	0.88	0.98	1.09		
3/4	3900	RPM	439	468	502	542	583	625	665	741	
		BHP	0.71	0.77	0.84	0.94	1.04	1.16	1.26	1.49	
1	4200	RPM	473	499	530	566	604	642	680	754	821
		BHP	0.88	0.94	1.02	1.12	1.23	1.34	1.46	1.70	1.95
	4500	RPM	506	531	559	591	626	661	697	768	834
		BHP	1.08	1.15	1.23	1.33	1.44	1.56	1.68	1.94	2.19
1 1/2	4800	RPM	540	563	589	617	649	682	716	783	848
		BHP	1.31	1.39	1.47	1.56	1.68	1.80	1.94	2.21	2.48
	5100	RPM	574	595	619	645	674	705	736	799	862
		BHP	1.58	1.65	1.74	1.84	1.95	2.08	2.21	2.49	2.79
2	5400	RPM	608	628	650	674	700	728	758	817	
		BHP	1.88	1.95	2.04	2.14	2.26	2.38	2.52	2.81	
	5700	RPM	641	661	681	703	727	753	781	837	
		BHP	2.20	2.29	2.38	2.48	2.59	2.72	2.87	3.17	
3	6000	RPM	675	693	712	733	755	779	805		
		BHP	2.57	2.65	2.74	2.86	2.97	3.10	3.25		
	6300	RPM	709	726	744	763	784				
		BHP	2.97	3.06	3.16	3.26	3.39				
	6600	RPM	742								
		BHP	3.41								

Performance shown is for installation type B: Free inlet, ducted outlet. Performance ratings include the effects of filters in the airstream.

Power rating (BHP) does not include transmission losses. Bearing losses are included.

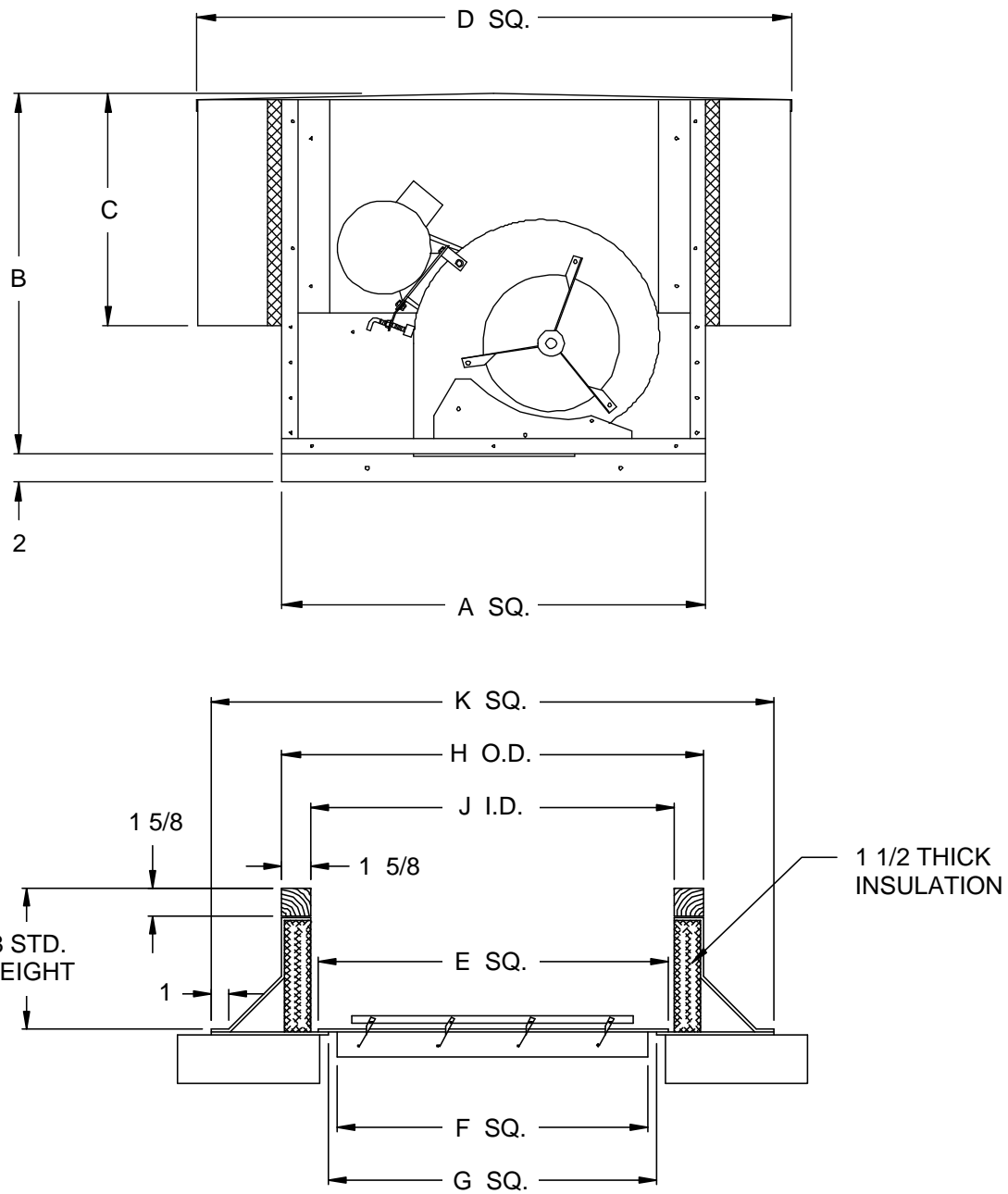
CFS 18 Performance Data

HP	CFM		Static Pressure									
			0.00	.125	.250	.375	.500	.625	.750	1.00	1.25	1.50
1/3	2800	RPM		299	360	415						
		BHP		0.22	0.31	0.39						
	3200	RPM		324	379	430	478					
		BHP		0.31	0.39	0.49	0.60					
	3600	RPM	291	350	401	448	493	535				
		BHP	0.31	0.41	0.50	0.61	0.72	0.84				
1/2	4000	RPM	323	376	425	469	510	550	588			
		BHP	0.43	0.53	0.64	0.75	0.87	1.00	1.13			
	4400	RPM	356	403	451	491	530	567	603	672		
		BHP	0.57	0.68	0.81	0.92	1.05	1.18	1.32	1.62		
3/4	4800	RPM	388	431	476	515	551	586	620	685		
		BHP	0.74	0.86	1.00	1.13	1.26	1.39	1.54	1.84		
1	5200	RPM	420	460	502	540	574	607	639	701	760	
		BHP	0.94	1.07	1.22	1.37	1.50	1.64	1.79	2.11	2.45	
1 1/2	5600	RPM	452	489	528	565	598	629	659	719	775	829
		BHP	1.17	1.31	1.47	1.63	1.78	1.92	2.07	2.42	2.77	3.13
	6000	RPM	485	519	555	591	623	653	681	738	792	844
		BHP	1.45	1.59	1.75	1.94	2.10	2.26	2.40	2.76	3.13	3.51
2	6400	RPM	517	549	582	616	648	677	705	758	810	860
		BHP	1.75	1.90	2.07	2.26	2.45	2.62	2.79	3.13	3.52	3.92
	6800	RPM	549	579	610	643	674	702	729	780	829	
		BHP	2.10	2.25	2.43	2.64	2.85	3.03	3.21	3.57	3.94	
3	7200	RPM	582	609	639	669	699	728	754	802	850	
		BHP	2.50	2.65	2.84	3.04	3.26	3.49	3.68	4.03	4.44	
	7600	RPM	614	640	668	697	725	753	779	826		
		BHP	2.93	3.10	3.29	3.52	3.73	3.97	4.18	4.57		
	8000	RPM	646	671	697	724	752	779	804	851		
		BHP	3.42	3.59	3.79	4.01	4.26	4.51	4.73	5.16		
5	8400	RPM	678	702	727	752	779	805	830			
		BHP	3.95	4.14	4.35	4.56	4.87	5.09	5.34			
	8800	RPM	711	733	757	781	806	831				
		BHP	4.56	4.73	4.95	5.18	5.44	5.71				
	9200	RPM	743	765	787							
		BHP	5.20	5.40	5.61							

Performance shown is for installation type B: Free inlet, ducted outlet. Performance ratings include the effects of filters in the airstream.

Power rating (BHP) does not include transmission losses. Bearing losses are included.

CFS and Roof Curb Dimensions



Unit Size	Ventilator Dimensions				Roof Curb and Damper Dimensions						Filters	
	A	B	C	D	E	F	G	H	J	K	Qty	Size
9-12	30	25 1/2	16 3/8	42 1/4	24 1/2	22	23 1/4	28 1/2	25 1/4	36 1/2	4	16 X 25
15, 18	42	29 1/2	20 3/8	52 1/2	36 1/2	34	35 1/4	40 1/2	37 1/4	48 1/2	4	20 X 25

Dimensions in inches

SIS (Single Inlet) Centrifugal Filtered Supply Fans

Applications

The SIS Centrifugal Filtered supply fans with single side inlet are designed for roof mounting on curbs to provide make-up filtered air to general ventilation systems.

Applications include a variety of commercial and industrial facilities as well as commercial and industrial kitchens.

Construction

Construction of the SIS power roof ventilators is mill galvanized steel throughout the unit.

The blower has a DIDW centrifugal wheel with forward curved blades finished in a matte zinc coating. The blower housing is constructed of galvanized steel. The blower features sealed and permanently lubricated ball bearings suitable for operation from -65 degrees to +250 degrees F (check motor capability). The blower is mounted to the fan housing using rubber isolation grommets.

Filters are 1" aluminum mesh, cleanable and held in place by a u-channel frame.

Access to the fan, motor and drive is accomplished by removal of the top utilizing four (4) zinc coated, quick release snap latches.

Access to the filters is accomplished by removal of the filter retainer, utilizing two (2) thumb screws.

A factory wired disconnect switch is an available option.

Drive Mechanism

SIS models have a V-belt drive with adjustable cast iron motor pulley for adjusting fan operating speed. Drive shaft is turned, ground and polished. Motor support is adjustable for proper belt tensioning.

Motors

NEMA standard open drip proof motors are pre-lubricated and located in the air stream. Other motors may be available. All motor brands are recognized and serviced nationwide. Motor enclosure required may affect UL Listing.



UL705 – E39944

Type SIS ventilators are Listed by Underwriters Laboratory Inc. to US and Canadian safety standards.



American Coolair Corporation, ILG Industries Division certifies that the Type SIS units shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and comply with the requirements of the AMCA Certified Ratings Program.

Guide Specifications

Single inlet filtered supply fans shall be of the SIS centrifugal type as manufactured by ILG Industries of American Coolair Corporation (individual models to be listed in fan schedule). Units shall bear the AMCA Certified Ratings Seal for air performance. Housing and frame of the fan are to be galvanized steel. The top of the unit is to be removable for access to the inside fan components and drive. The blower is to be mounted to the fan housing using rubber isolation grommets.

Drive mechanism shall incorporate a V-belt drive with cast iron motor pulley. The centrifugal wheel shall be heavy gauge zinc-coated steel with forward-curved blades.

Motor shall be open drip-proof construction, NEMA design B with minimum service factor of 1.15. Adjustable motor pulley shall be provided to allow for field adjustment and system balance. Motor shall be mounted on an adjustable steel mounting bracket.

(Mounted and wired disconnect switch, backdraft damper, epoxy coating and other accessories shall be listed in the fan schedule.)

SIS 9 Performance Data

HP	CFM		Static Pressure							
			0.00	.125	.250	.375	.500	.625	.750	1.00
1/4 L	700	RPM		459						
		BHP		0.05						
	800	RPM		479						
		BHP		0.06						
	900	RPM		512						
		BHP		0.08						
	1000	RPM	429	548	650					
		BHP	0.07	0.11	0.14					
	1100	RPM	472	583	668	776				
		BHP	0.09	0.14	0.16	0.22				
	1200	RPM	515	618	699	792	879			
		BHP	0.12	0.17	0.20	0.25	0.31			
1300	RPM	558	653	734	807	902	971			
	BHP	0.15	0.21	0.25	0.28	0.36	0.40			
1/4 H	1400	RPM	601	688	770	833	917	997	1058	
		BHP	0.19	0.25	0.30	0.32	0.39	0.47	0.51	
	1500	RPM	644	724	805	866	932	1016	1084	1184
		BHP	0.24	0.30	0.36	0.39	0.43	0.52	0.59	0.65
1/3	1600	RPM	686	761	840	901	957	1029	1106	
		BHP	0.29	0.35	0.42	0.46	0.48	0.56	0.66	
	1700	RPM	729	799	875	937	989	1047	1121	
		BHP	0.34	0.41	0.49	0.54	0.57	0.61	0.71	
1/2	1800	RPM	772	837	909	973	1024	1074	1134	
		BHP	0.41	0.47	0.56	0.63	0.66	0.69	0.76	
	1900	RPM	815	877	944	1008	1060	1106	1156	
		BHP	0.48	0.55	0.64	0.72	0.76	0.79	0.83	
	2000	RPM	858	916	980	1043				
		BHP	0.56	0.63	0.72	0.81				
3/4	2100	RPM	901	956	1016					
		BHP	0.65	0.72	0.81					
	2200	RPM	944	996						
		BHP	0.75	0.82						
	2300	RPM	987							
		BHP	0.85							

Performance shown is for installation type B: Free inlet, ducted outlet. Performance ratings include the effects of filters in the airstream.

Power rating (BHP) does not include transmission losses. Bearing losses are included.

SIS 10 Performance Data

HP	CFM		Static Pressure								
			0.00	.125	.250	.375	.500	.625	.750	1.00	1.25
1/4 L	800	RPM		403	522						
		BHP		0.04	0.07						
	1000	RPM		445	546	641	724				
		BHP		0.07	0.10	0.13	0.16				
	1200	RPM	388	485	584	665	745	818			
		BHP	0.08	0.10	0.14	0.17	0.21	0.25			
	1400	RPM	453	529	626	701	770	839	905		
		BHP	0.12	0.15	0.20	0.23	0.27	0.31	0.36		
1600	RPM	517	580	666	743	806	866	927	1043	1147	
	BHP	0.18	0.21	0.26	0.31	0.35	0.39	0.44	0.54	0.66	
1/4 H	1800	RPM	582	635	708	764	848	904	957	1064	1167
		BHP	0.26	0.28	0.33	0.40	0.45	0.50	0.54	0.64	0.76
1/3	2000	RPM	646	693	753	824	889	945	996	1091	1188
		BHP	0.36	0.38	0.42	0.49	0.56	0.62	0.68	0.77	0.89
1/2	2200	RPM	711	753	803	866	929	987	1037	1127	1215
		BHP	0.48	0.50	0.54	0.61	0.69	0.76	0.82	0.93	1.05
3/4	2400	RPM	776	813	857	911	970	1027	1079	1168	1249
		BHP	0.62	0.64	0.68	0.74	0.83	0.91	0.99	1.12	1.24
	2600	RPM	840	874	913	959	1013	1068	1119	1210	
		BHP	0.79	0.81	0.85	0.90	0.99	1.08	1.17	1.33	
1	2800	RPM	905	936	971	1012	1058	1109	1160	1252	
		BHP	0.99	1.01	1.04	1.10	1.17	1.27	1.37	1.56	
1 1/2	3000	RPM	969	999	1030	1066	1107	1153	1201		
		BHP	1.21	1.24	1.27	1.32	1.39	1.48	1.59		
	3200	RPM	1034	1061	1091	1132	1159	1200			
		BHP	1.48	1.50	1.53	1.58	1.64	1.73			

Performance shown is for installation type B: Free inlet, ducted outlet. Performance ratings include the effects of filters in the airstream.

Power rating (BHP) does not include transmission losses. Bearing losses are included.

SIS 12 Performance Data

HP	CFM		Static Pressure										
			0.00	.125	.250	.375	.500	.625	.750	1.00	1.25	1.50	
1/4	1200	RPM		407	505								
		BHP		0.08	0.12								
	1400	RPM		440	533	610	680						
		BHP		0.11	0.16	0.20	0.24						
	1600	RPM		478	561	636	702	763					
		BHP		0.16	0.20	0.25	0.30	0.35					
	1800	RPM	438	518	591	665	728	786	841				
		BHP	0.17	0.21	0.26	0.32	0.37	0.42	0.48				
	2000	RPM	487	561	625	693	756	812	865	963			
		BHP	0.23	0.28	0.32	0.39	0.45	0.51	0.57	0.70			
	1/3	2200	RPM	536	605	663	723	785	840	891	985		
			BHP	0.31	0.36	0.41	0.47	0.54	0.61	0.68	0.81		
1/2	2400	RPM	584	649	703	757	814	869	919	1010	1094	1175	
		BHP	0.40	0.46	0.51	0.57	0.64	0.72	0.80	0.94	1.09	1.24	
	2600	RPM	633	693	744	793	845	897	947	1037	1119	1195	
		BHP	0.51	0.57	0.63	0.69	0.76	0.84	0.92	1.09	1.25	1.40	
3/4	2800	RPM	681	738	787	833	879	928	976	1065	1145	1219	
		BHP	0.63	0.71	0.77	0.83	0.90	0.98	1.07	1.25	1.42	1.59	
	3000	RPM	730	784	830	873	916	960	1006	1094	1172	1245	
		BHP	0.78	0.86	0.93	0.99	1.06	1.14	1.23	1.43	1.61	1.79	
1	3200	RPM	779	830	874	915	955	995	1037	1122	1200	1272	
		BHP	0.95	1.03	1.11	1.15	1.24	1.32	1.41	1.61	1.82	2.01	
	3400	RPM	827	876	919	958	995	1032	1071	1152	1229		
		BHP	1.13	1.23	1.31	1.38	1.45	1.53	1.61	1.82	2.04		
1 1/2	3600	RPM	876	922	963	1001	1037	1072	1107	1182	1258		
		BHP	1.35	1.45	1.53	1.61	1.69	1.77	1.85	2.05	2.28		
	3800	RPM	925	968	1008	1044	1079	1112	1146				
		BHP	1.59	1.69	1.78	1.86	1.95	2.03	2.11				
2	4000	RPM	973	1015	1053	1088	1122						
		BHP	1.85	1.96	2.06	2.15	2.24						
	4200	RPM	1022	1062									
		BHP	2.14	2.26									

Performance shown is for installation type B: Free inlet, ducted outlet. Performance ratings include the effects of filters in the airstream.

Power rating (BHP) does not include transmission losses. Bearing losses are included.

SIS 15 Performance Data

HP	CFM		Static Pressure								
			0.00	.125	.250	.375	.500	.625	.750	1.00	1.25
1/4	1800	RPM		275							
		BHP		0.11							
	2100	RPM		294	366						
		BHP		0.15	0.21						
	2400	RPM	268	317	381						
		BHP	0.16	0.20	0.27						
2700	RPM	302	344	397	454						
	BHP	0.23	0.27	0.33	0.42						
1/3	3000	RPM	335	372	417	469					
		BHP	0.31	0.36	0.42	0.51					
1/2	3300	RPM	368	402	441	486	533				
		BHP	0.41	0.47	0.53	0.61	0.71				
	3600	RPM	402	432	466	506	549	592			
		BHP	0.54	0.59	0.66	0.74	0.84	0.95			
3/4	3900	RPM	435	463	493	528	567	607	646		
		BHP	0.68	0.74	0.81	0.89	0.99	1.10	1.22		
	4200	RPM	469	494	522	553	587	624	661	732	
		BHP	0.85	0.91	0.99	1.07	1.16	1.28	1.40	1.66	
1	4500	RPM	502	526	551	579	609	642	677	746	
		BHP	1.04	1.12	1.19	1.27	1.36	1.47	1.60	1.88	
1 1/2	4800	RPM	536	558	581	606	634	664	695	761	823
		BHP	1.27	1.34	1.42	1.50	1.60	1.71	1.83	2.12	2.41
	5100	RPM	569	590	611	635	660	687	715	777	837
		BHP	1.52	1.60	1.68	1.90	1.87	1.97	2.08	2.38	2.69
2	5400	RPM	603	622	642	664	687	711	738	794	852
		BHP	1.81	1.89	1.97	2.07	2.16	2.26	2.39	2.67	2.99
	5700	RPM	636	654	684	694	715	737	761	813	
		BHP	2.12	2.21	2.42	2.40	2.50	2.60	2.71	2.99	
3	6000	RPM	670	687	705	724	744	764	787	834	
		BHP	2.48	2.57	2.66	2.76	2.87	2.97	3.10	3.36	
	6300	RPM	703	719	736	754	773	792			
		BHP	2.87	2.96	3.05	3.16	3.27	3.38			
	6600	RPM	736	752							
		BHP	3.29	3.39							

Performance shown is for installation type B: Free inlet, ducted outlet. Performance ratings include the effects of filters in the airstream.

Power rating (BHP) does not include transmission losses. Bearing losses are included.

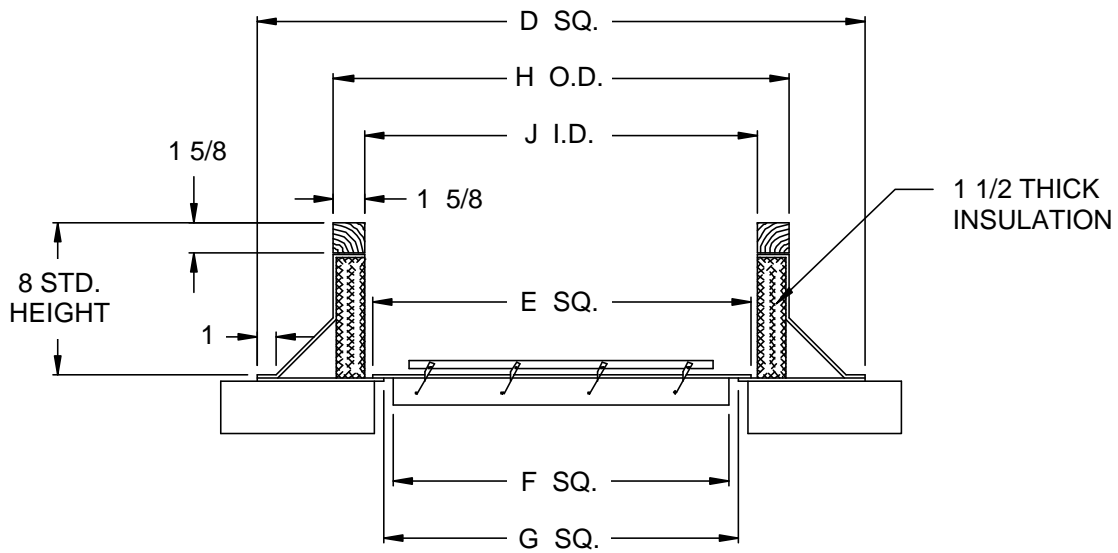
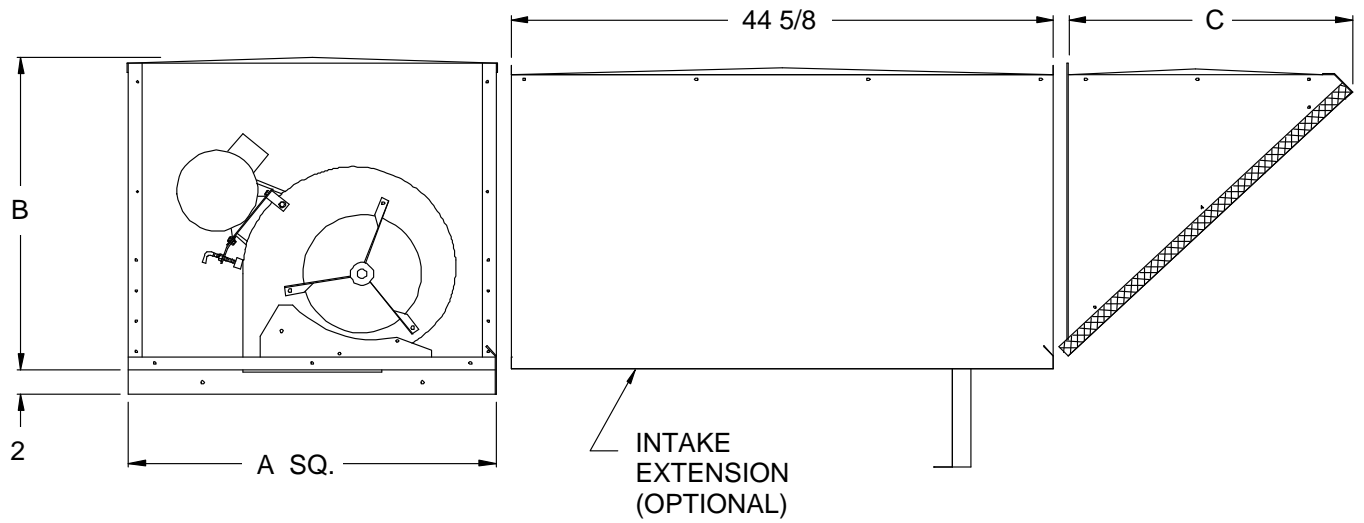
SIS 18 Performance Data

HP	CFM		Static Pressure									
			0.00	.125	.250	.375	.500	.625	.750	1.00	1.25	1.50
1/3	2800	RPM		313	378	436	485					
		BHP		0.23	0.32	0.42	0.53					
	3200	RPM		341	396	453	501	545	585			
		BHP		0.32	0.41	0.52	0.64	0.76	0.88			
	3600	RPM	304	370	420	470	519	562	601			
		BHP	0.31	0.43	0.54	0.65	0.77	0.91	1.04			
1/2	4000	RPM	338	400	446	490	536	579	618	687	751	
		BHP	0.43	0.57	0.68	0.80	0.93	1.07	1.22	1.51	1.82	
3/4	4400	RPM	372	431	473	513	554	596	635	704	766	823
		BHP	0.58	0.74	0.85	0.97	1.11	1.26	1.41	1.73	2.07	2.40
	4800	RPM	406	462	502	539	576	614	652	721	782	838
		BHP	0.75	0.94	1.06	1.18	1.33	1.48	1.64	1.98	2.34	2.70
1	5200	RPM	439	493	532	566	600	634	670	738	799	854
		BHP	0.94	1.17	1.30	1.43	1.58	1.73	1.90	2.25	2.64	3.02
1 1/2	5600	RPM	473	524	562	595	626	657	689	755	816	871
		BHP	1.18	1.42	1.58	1.72	1.86	2.24	2.19	2.56	2.96	3.37
	6000	RPM	507	556	592	624	654	683	712	773	833	888
		BHP	1.45	1.73	1.90	2.05	2.20	2.37	2.54	2.92	3.32	3.75
2	6400	RPM	541	587	623	654	682	710	737	792	850	
		BHP	1.77	2.06	2.26	2.43	2.58	2.75	2.93	3.30	3.73	
	6800	RPM	574	619	654	684	711	737	763	814	868	
		BHP	2.11	2.44	2.66	2.84	3.00	3.17	3.36	3.75	4.17	
3	7200	RPM	608	651	685	714	740	766	790	839	888	
		BHP	2.51	2.86	3.11	3.31	3.47	3.66	3.84	4.26	4.68	
	7600	RPM	642	683	716	744	770	795	818	864		
		BHP	2.95	3.32	3.60	3.81	4.00	4.20	4.38	4.79		
	8000	RPM	676	715	747	775	800	824	847			
		BHP	3.45	3.84	4.13	4.38	4.58	4.78	4.98			
5	8400	RPM	710	747	779	806	831	854	876			
		BHP	3.99	4.40	4.74	5.00	5.23	5.44	5.64			
	8800	RPM	743	780	810	837						
		BHP	4.58	5.03	5.37	5.67						
	9200	RPM	777	812								
		BHP	5.24	5.70								

Performance shown is for installation type B: Free inlet, ducted outlet. Performance ratings include the effects of filters in the airstream.

Power rating (BHP) does not include transmission losses. Bearing losses are included.

SIS and Roof Curb Dimensions



Unit Size	Ventilator Dim.			Roof Curb and Damper Dimensions						Filters	
	A	B	C	D	E	F	G	H	J	Qty	Size
9, 10	30	25 1/2	23 3/8	36 1/2	24 1/2	22	23 1/4	28 1/2	25 1/4	2	16 X 25
12	30	25 1/2	33 3/4	36 1/2	24 1/2	22	23 1/4	28 1/2	25 1/4	2	20 X 25
15, 18	42	29 1/2	42 3/4	48 1/2	36 1/2	34	35 1/4	40 1/2	37 1/4	4	20 X 25

Dimensions in inches

Installation

Most models are shipped fully assembled and ready for installation. Always inspect equipment for transit damage before accepting delivery to assure valid claim. Special handling and storing procedures are required if unit is to remain idle for an extended period of time before installation.

Placement: All units must be accessibly installed for maintenance and servicing of belts and bearings, and for routine cleaning.

Mounting: Satisfactory operation of ventilators requires mounting on adequately designed and constructed roof curbs. Pre-fabricated curbs for convenience in installation are available from ILG. Install with base of unit horizontal. Provide adequate caulking, flashing or other weatherproofing means. Duct connections are made below unit.

Inspection:

Check centrifugal wheel for free rotation.

Check belt for proper tension.

Check motor and fan sheave faces for proper alignment.

Check circuit phase, voltage and wiring connection against that shown on motor nameplate.

Check direction of fan rotation for proper air flow.


After one week of operation, check belt for proper tension.

Maintenance

Units should be checked and cleaned monthly for the first two or three months, and periodically thereafter.

Regular Inspection: Units should be cleaned of material build-up every three months or when necessary, depending on condition of air and frequency of use. Any eroded parts should be replaced to avoid structural damage and possible failure.

Belt Adjustment: Belt alignment and tension should be adjusted if necessary. Inspection every 6 to 12 months is recommended.

WARNING	CAUTION
	
<p>DO NOT INSTALL FAN WITH MOVING PARTS WITHIN 8 FEET OF FLOOR OR GRADE LEVEL WITHOUT A GUARD THAT COMPLIES WITH OSHA REGULATIONS. DO NOT USE UNLESS ELECTRICAL WIRING COMPLIES WITH ALL APPLICABLE CODES. DO NOT WIRE WITHOUT PROVIDING FOR A POWER SOURCE DISCONNECT AT THE FAN ITSELF. DO NOT SERVICE EXCEPT BY A QUALIFIED MAINTENANCE TECHNICIAN AND ONLY AFTER DISCONNECTING THE POWER SOURCE. FAILURE TO OBSERVE THESE PRECAUTIONS CAN RESULT IN SERIOUS INJURY OR DEATH.</p>	



AMERICAN COOLAIR CORPORATION

Options and Accessories

Pre-fabricated Roof Curbs

Insulated roof curbs with weather-proof continuous welded construction are available for both insulated and non-insulated roof decks.

Special Motors

Two-speed, totally enclosed, energy efficient and explosion-proof motors for hazardous locations may be available for many models. Motor requirements may affect UL Listing.

Backdraft Dampers

Gravity or motor operated backdraft dampers are available. They are aluminum construction and designed for installation in prefabricated roof curbs.

Safety Disconnects

Safety disconnects cut power to motor for servicing of unit. A disconnect switch is an option for CFS and SIS units and may be shipped loose for field installation or factory mounted and wired.

Protective Coatings

Fan units are not recommended for ventilating air of a corrosive nature. However, special protective coatings are available where units may be exposed to corrosive exterior conditions. Parts requiring painting are processed through the American Coolair five-stage pretreatment system prior to the application of any coatings to insure maximum finish adhesion. These parts use a thermosetting epoxy powder paint with an average thickness of 3 mils and baked at 400° F to a smooth, hard continuous finish. Consult your ILG Industries representative for available coatings.

Limited Warranty

In the sale of its products, American Coolair Corporation agrees to correct, by repairs or replacement, any defects in workmanship or material that may develop under proper and normal use during the period of one year from the date of shipment from the factory. Any product or part proving, upon American Coolair's examination, to be defective during limited warranty period will be repaired or replaced, at American Coolair's option, f.o.b. factory, without charge.

Deterioration or wear caused by chemicals, abrasive action or excessive heat shall not constitute defects.

Motors are guaranteed only to the extent of the manufacturer's warranty.

American Coolair's limited warranty does not apply to any of its products or parts that have been subject to accidental damage, misuse by the user, unauthorized alterations, improper installation or electrical wiring, or lack of proper lubrication or other service requirements as established by American Coolair.

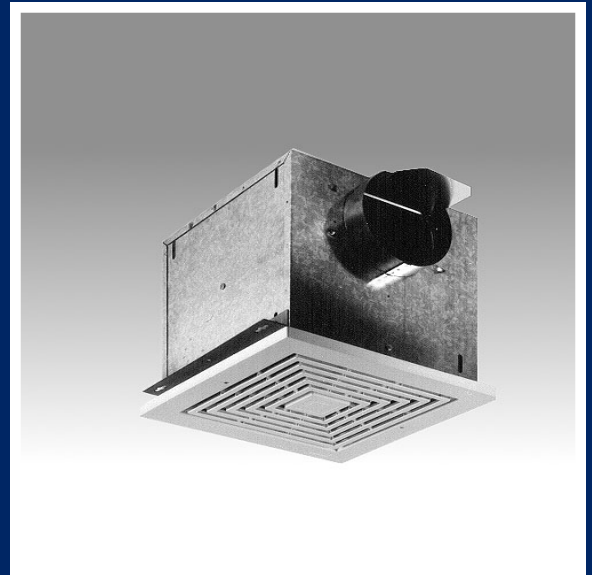
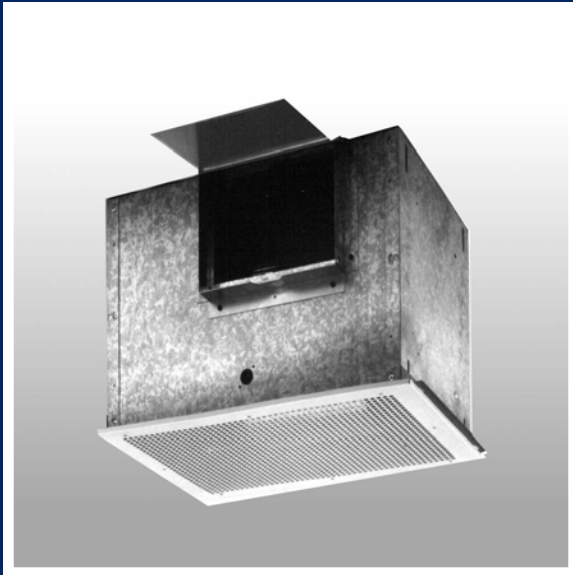
Repairs or replacements provided under the above terms shall constitute fulfillment of all American Coolair's obligations with respect to limited warranty.

THE LIMITED WARRANTY STATED HEREIN IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, STATUTORY OR IMPLIED, INCLUDING WITHOUT LIMITATION THAT OF MERCHANTABILITY AND FITNESS.

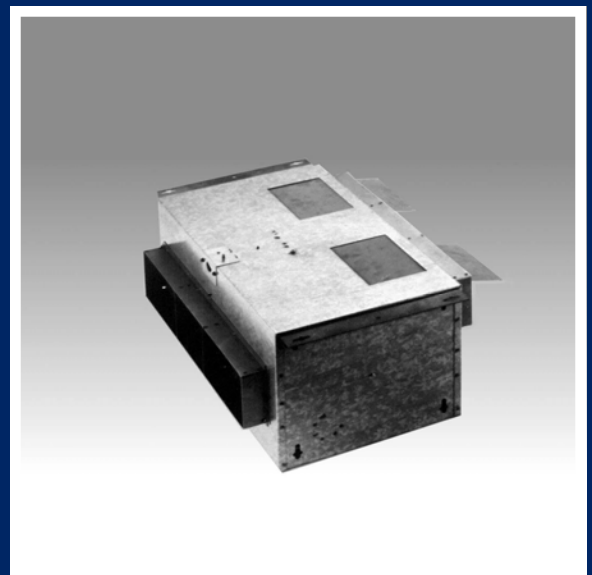
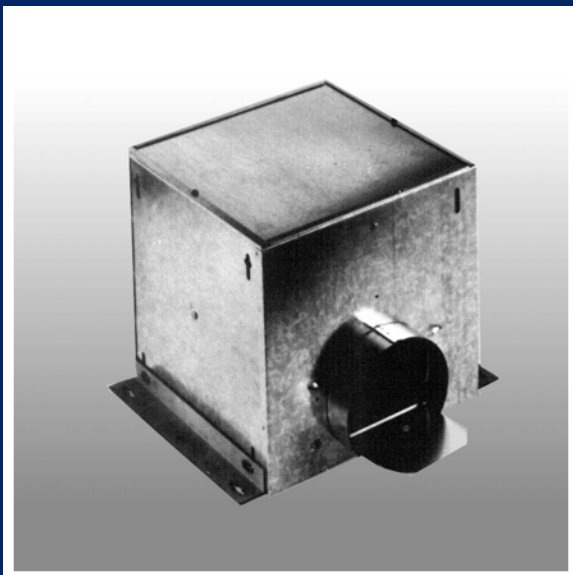
NO LIABILITY FOR REINSTALLATION COST OR FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OF ANY NATURE IS ASSUMED OR SHALL BE IMPOSED UPON AMERICAN COOLAIR.

REPRESENTED BY:

**AMERICAN COOLAIR CORPORATION
CENTRIFUGAL CEILING FANS**



**TYPE CF AND CFL
CEILING MOUNT - DIRECT DRIVE**



**TYPE IL
IN-LINE - DIRECT DRIVE**

Type IL In-Line Cabinet Ventilators

Quiet, high capacity

Coolair's® Cabinet Ventilators are perfect for large meeting rooms or institutional applications requiring up to 3850 CFM.

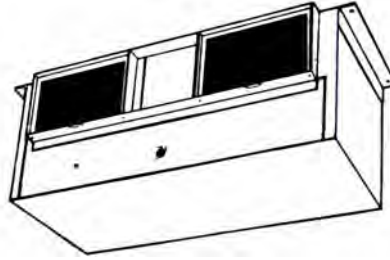
Our cabinet models are quiet-running, heavy duty, specification-grade ventilators. Permanently lubricated ball bearing motors are designed for continuous operation. Resilient motor mounts, acoustic insulation lining and our 20-gauge galvanized steel housing make them exceptionally quiet large air movers.

Cabinet Ventilators may be installed as either "straight thru" or "right angle" ventilators. Unique mounting brackets allow them to be installed quickly and easily in any of eight different positions.

Available Accessories:

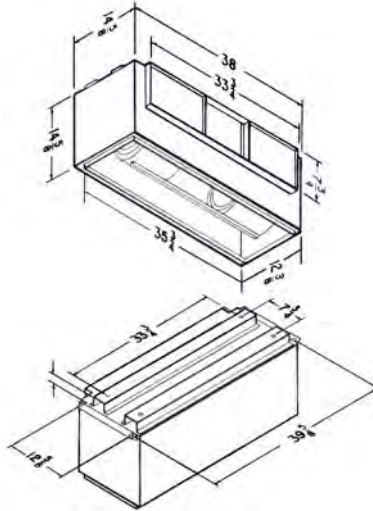
- Metal Grille Kits for ceiling applications
- Damper Kits with twin damper flaps prevent back drafts
- Vibration Damper Hangers (set of four required)

2000 CFM Cabinet Ventilator

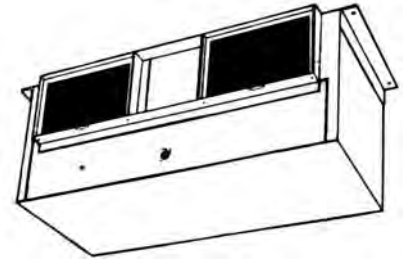


Model IL200

- 120 VAC
- Fits 7³/₄" x 33³/₄" duct
- Twin double-inlet blower wheels; 8" dia. x 7⁷/₈" deep
- Use Metal Grille Kit for ceiling applications
- Use Damper Kit for applications where unit will be ducted to outside-twin damper flaps prevent back drafts

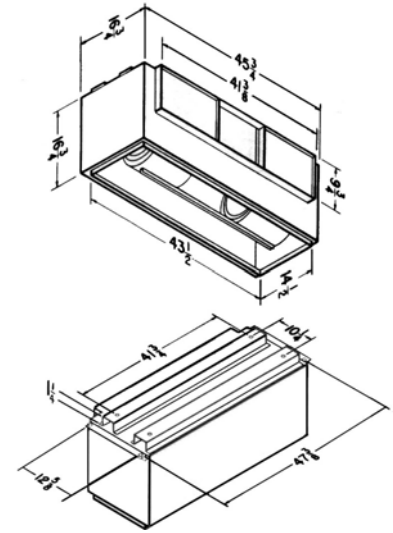


3500 CFM Cabinet Ventilator



Model IL350

- 240 VAC
- Fits 9³/₄" x 41³/₈" duct
- Twin double-inlet blower wheels; 9" dia. x 8³/₄" deep
- Use Metal Grille Kit for ceiling applications
- Use Damper Kit for applications where unit will be ducted to outside-twin damper flaps prevent back drafts



TYPE IL IN-LINE CABINET VENTILATORS

		CFM/SONES - AT STATIC PRESSURES (Ps - Inches of H ₂ O)													
MODEL NO.	NOMINAL VOLTAGE	0.0" Ps	.10" Ps	.125" Ps	.250" Ps	.375" Ps	.50" Ps	.625" Ps	.750" Ps	.875" Ps	1.0" Ps	NOMINAL RPM	AMPS @ 60 Hz	WATTS	
IL200	120 VAC	CFM St. Thr.	1891	1803	1791	1657	1508	1347	1165	808	284	965	5.8	590	
		SONES St. Thr.	10.3	9.8	9.4	9.0	8.6	9.1	8.9	7.0	6.7				
		CFM Rt. Ang.	2070	1931	1898	1769	1609	1424	1314	795	288				
		SONES Rt. Ang.	11.1	10.3	10.1	9.7	9.4	9.2	8.5	7.0	6.7				
IL350	240 VAC	CFM St. Thr.	3605	3498	3452	3278	3073	2893	2679	2429	2093	1693	1105	5.4	1204
		SONES St. Thr.	15.3	14.8	14.5	14.1	13.1	12.8	12.1	11.8	11.9	10.8			
		CFM Rt. Ang.	3868	3714	3696	3537	3356	3168	2951	2671	2384	2005			
		SONES Rt. Ang.	14.6	14.2	14.2	13.3	12.8	12.5	11.6	11.4	11.4	13.4			

Performance ratings do not include the effects of appurtenances (accessories). Speed (RPM) shown is nominal. Performance is based on actual speed of test. The sound ratings shown are loudness values in fan sones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation Type D: Ducted inlet, hemispherical sone levels. Ratings do not include the effect of duct end correction. Performance shown is for installation Type D: Ducted inlet, Ducted outlet.

Type CFL Ceiling Ventilators

The industry's best value
in super-quiet specification
grade ventilators.

Coolair's® Ceiling Mount Ventilators are designed to give quality conscious architects, design engineers, builders and specifiers the ultimate in heavy duty, quiet ventilation.

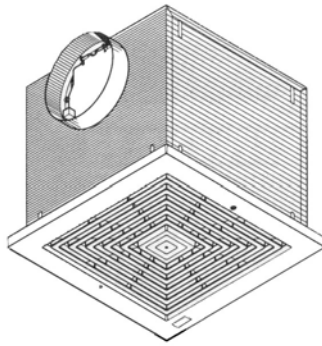
Available from 100 to 3500 CFM, all units use centrifugal blower wheels and low RPM motors on resilient mounts. Most have acoustic insulation inside a rugged, heavy duty housing for further sound reduction.

Perfect for offices, conference rooms, bathrooms, hospital rooms...anywhere quiet high-capacity ventilation is needed.

Their features include:

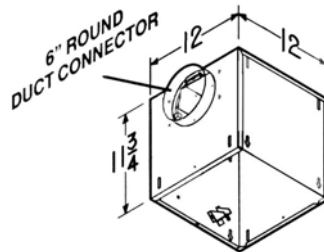
- Low RPM motors mounted on resilient mounts for quiet, vibration-free operation
- Motors designed for continuous operation-permanently lubricated
- Acoustic insulation inside rugged, heavy gauge galvanized steel housings
- May be installed in ceiling or wall (size permitting)
- Balanced blower wheels for extremely low sound levels
- Attractive, low profile grilles
- May be ducted horizontally, vertically or as an in-line blower

100 - 150 CFM Ceiling Mount Ventilators

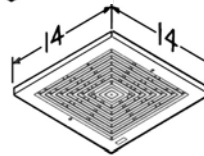


Models CFL10 & CFL15

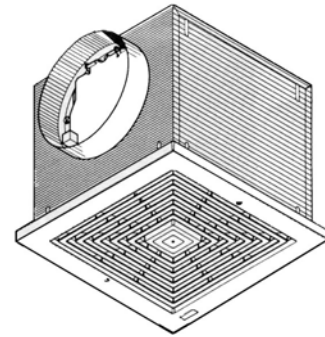
- 120 VAC
- 6" round duct connector
- Low profile white polymeric grille
- Single, impact resistant centrifugal blower wheel



Polymeric
Grille

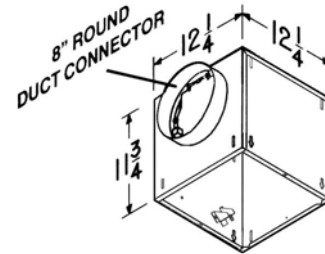


200 - 250 - 300 CFM Ceiling Mount Ventilators

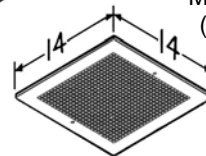


Models CFL20, CFL25 & CFL30

- 120 VAC
- 8" round duct connector
- Low profile white polymeric grille
- Single, impact resistant centrifugal blower wheel



Metal Grille
(optional)

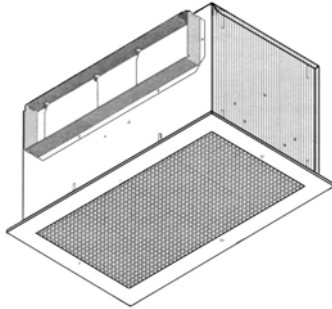


TYPE CFL CEILING VENTILATORS

CFM/SONES - AT STATIC PRESSURES (Ps - Inches of H ₂ O)														
MODEL NO.		0.0" Ps	.10" Ps	.125" Ps	.250" Ps	.375" Ps	.50" Ps	.625" Ps	.750" Ps	.875" Ps	1.0" Ps	NOMINAL RPM	AMPS @ 60 Hz	WATTS
CFL10	CFM Hor.	136	115	109	93	80	65	44	12			640	1.1	87
	SONES Hor.	0.5	0.8	0.9	1.3	1.8	2.3	3.0	3.2					
	CFM Ver.	138	117	112	94	80	67	46	13			650		
	SONES Ver.	0.7	0.9	1.0	1.3	1.8	2.2	2.8	3.0					
CFL15	CFM Hor.	181	161	157	141	132	124	114	94	62		710	1.3	100
	SONES Hor.	1.3	1.4	1.5	2.2	2.6	3.1	3.6	4.1	4.6				
	CFM Ver.	179	163	160	149	142	133	122	105	73	23	750		
	SONES Ver.	1.4	1.6	1.6	2.0	2.5	3.0	3.3	3.6	3.9	4.2			
CFL20	CFM Hor.	231	214	210	196	186	177	165	144	113	51	740	1.8	127
	SONES Hor.	1.6	1.8	1.7	2.3	2.9	3.5	4.1	4.9	5.3	5.3			
	CFM Ver.	224	210	207	197	187	179	167	144	99	41	760		
	SONES Ver.	1.5	1.8	2.0	2.3	2.7	3.4	4.0	4.5	5.1	5.2			
CFL25	CFM Hor.	272	261	259	250	242	233	218	201	165	99	830	2.1	166
	SONES Hor.	2.1	2.3	2.2	2.9	3.3	3.9	4.4	4.8	5.5	5.8			
	CFM Ver.	269	261	259	253	248	239	224	203	171	101	860		
	SONES Ver.	2.3	2.6	2.7	3.0	3.3	3.7	4.2	4.7	5.4	5.6			
CFL30	CFM Hor.	312	309	308	303	296	287	273	254	219	125	905	2.6	212
	SONES Hor.	2.8	2.9	2.9	3.3	3.5	3.9	4.3	4.7	5.1	5.6			
	CFM Ver.	319	314	313	306	299	288	274	251	219	120	940		
	SONES Ver.	2.6	2.9	3.0	3.4	3.6	3.9	4.4	4.7	5.0	5.5			

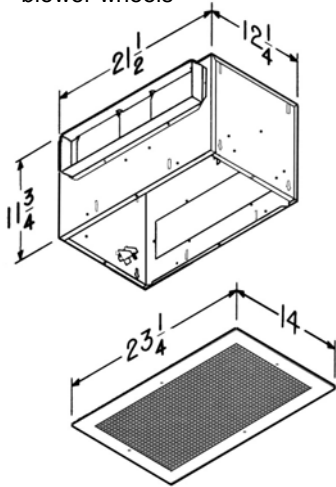
Performance ratings include the effects of inlet grille and back draft damper. Speed (RPM) shown is nominal. Performance is based on actual speed of test. The sound ratings shown are loudness values in fan sones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for Installation Type B: Free inlet hemispherical sone levels. Performance shown is for Installation Type B: Free inlet, Ducted outlet.

400 - 500 - 700 CFM
Ceiling Mount Ventilators

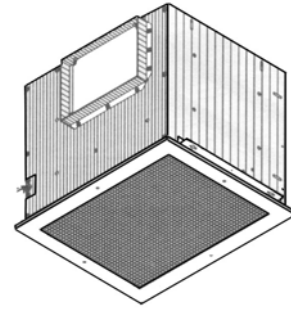


Models CFL40, CFL 50 & CFL70

- 120 VAC
- 4¹/₂" x 18¹/₂" duct connector
- Sturdy, low profile metal grille finished with painted white enamel
- Two impact resistant centrifugal blower wheels

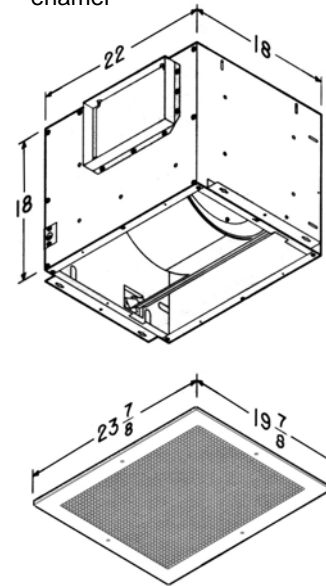


900 - 1500 CFM
Ceiling Mount Ventilators



Models CFL90 & CFL150

- 120 VAC
- 8" x 12" duct connector
- Sturdy, low profile metal grille finished with painted white enamel



TYPE CFL CEILING VENTILATORS

CFM/SONES - AT STATIC PRESSURES (Ps - Inches of H ₂ O)														
MODEL NO.		0.0" Ps	.10" Ps	.125" Ps	.250" Ps	.375" Ps	.50" Ps	.625" Ps	.750" Ps	.875" Ps	1.0" Ps	NOMINAL RPM	AMPS @ 60 Hz	WATTS
CFL40	CFM Hor.	480	442	434	388	344	299	229	182	114	33	735	1.4	146
	SONES Hor.	2.0	2.4	2.3	2.8	3.3	3.8	4.5	4.8	5.4	5.6			
	CFM Ver.	467	428	416	378	335	291	237	170	85	8	755		
	SONES Ver.	2.3	2.6	2.6	3.0	3.5	4.0	5.1	5.5	5.7	5.9			
CFL50	CFM Hor.	538	520	514	491	463	434	389	339	282	186	810	2.2	232
	SONES Hor.	3.0	3.1	3.3	3.6	4.0	4.4	5.0	5.7	6.2	6.7			
	CFM Ver.	539	517	512	481	451	418	367	319	247	137	865		
	SONES Ver.	2.9	3.1	3.2	3.4	3.8	4.2	4.8	5.9	6.3	6.4			
CFL70	CFM Hor.	722	704	701	667	640	607	571	534	453	333	960	2.9	313
	SONES Hor.	4.5	4.6	4.7	4.8	5.0	5.2	5.6	6.2	7.1	7.2			
	CFM Ver.	708	691	687	658	628	597	560	515	444	312	985		
	SONES Ver.	5.2	5.0	5.0	5.7	5.8	6.1	6.4	7.4	7.1	7.6			
CFL90	CFM Hor.	918	905	901	877	842	793	725	636	536	390	650	3.0	306
	SONES Hor.	3.8	4.0	4.1	4.0	4.2	4.3	4.4	4.9	4.6	5.3			
	CFM Ver.	909	892	885	850	807	756	695	568	440	282	650		
	SONES Ver.	3.8	3.4	3.4	3.5	3.6	3.7	3.9	4.2	4.3	4.4			
CFL150	CFM Hor.	1578	1526	1513	1438	1371	1285	1198	1103	1000	816	955	5.0	468
	SONES Hor.	8.6	8.4	8.4	8.1	7.5	7.0	6.7	6.2	5.8	5.8			
	CFM Ver.	1590	1519	1502	1423	1340	1259	1176	1069	954	689	955		
	SONES Ver.	8.5	8.4	8.4	8.1	7.9	7.5	7.2	7.1	6.9	6.5			

Performance ratings include the effects of inlet grille and back draft damper. Speed (RPM) shown is nominal. Performance is based on actual speed of test. The sound ratings shown are loudness values in fan sones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for Installation Type B: Free inlet hemispherical sone levels. Performance shown is for Installation Type B: Free inlet, Ducted outlet.

Type IL In-Line Ventilators

The industry's best value in super-quiet specification grade ventilators.

Coolair's® In-Line Ventilators are designed to give quality conscious architects, design engineers, builders and specifiers the ultimate in heavy duty, quiet ventilation.

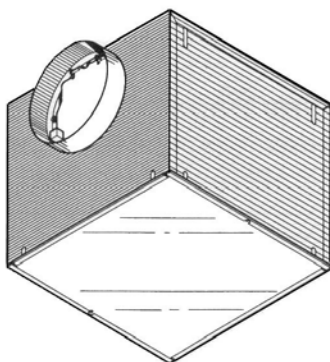
Available from 100 to 3500 CFM, all units use centrifugal blower wheels and low RPM motors on resilient mounts.

Perfect for offices, conference rooms, bathrooms, hospital rooms...anywhere quiet, high-capacity ventilation is needed.

Their features include:

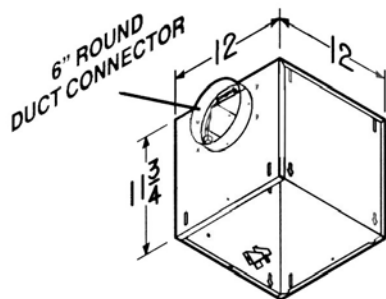
- Low RPM motors mounted on resilient mounts for quiet, vibration-free operation
- Motors designed for continuous operation-permanently lubricated
- May be installed in ceiling or wall (size permitting)
- Balanced blower wheels for extremely low sound levels
- Quiet built-in back draft dampers

100 - 150 CFM In-Line Ventilators

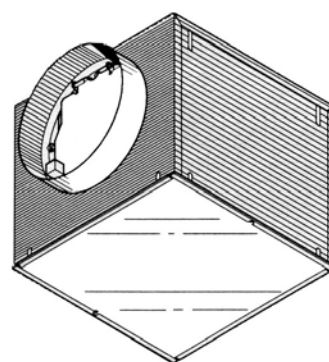


Models IL10 & IL15

- 120 VAC
- Two 6" round duct connectors
- Removable access panel
- Single, impact resistant centrifugal blower wheel
- Suitable for kitchen installation - no insulation inside housing

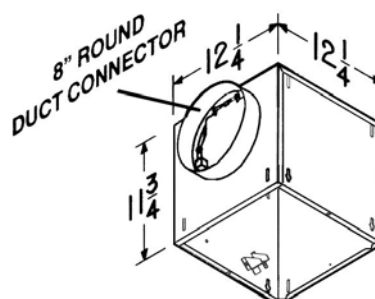


200 - 250 - 300 CFM In-Line Ventilators



Models IL20, IL25 & IL30

- 120 VAC
- Two 8" round duct connectors
- Removable access panel
- Single, impact resistant centrifugal blower wheel
- Suitable for kitchen installation - no insulation inside housing



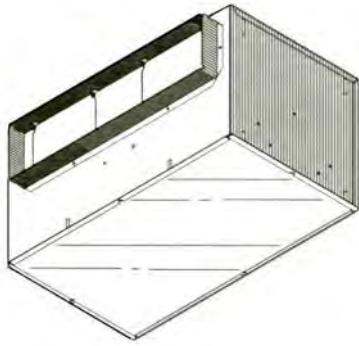
TYPE IL IN-LINE VENTILATORS

CFM/SONES - AT STATIC PRESSURES (Ps - Inches of H₂O)

MODEL NO.	NOMINAL VOLTAGE		0.0" Ps	.10" Ps	.125" Ps	.250" Ps	.375" Ps	.50" Ps	.625" Ps	.750" Ps	.875" Ps	1.0" Ps	NOMINAL RPM	AMPS @ 60 Hz	WATTS
IL10	120 VAC	CFM St. Thr.	121	108	106	97	93	86	70	44	17		760	1.1	87
		SONES St. Thr.	0.5	0.7	0.7	1.1	1.4	1.8	2.1	2.4	2.6				
IL15	120 VAC	CFM St. Thr.	153	148	147	140	134	125	111	91	54	18	920	1.3	100
		SONES St. Thr.	0.9	1.0	1.1	1.4	1.6	1.9	2.1	2.2	2.4	2.6			
IL20	120 VAC	CFM St. Thr.	205	196	195	190	185	175	158	135	96	47	865	1.8	127
		SONES St. Thr.	1.7	1.9	1.9	2.1	2.3	2.4	3.0	3.3	3.4	3.4			
IL25	120 VAC	CFM St. Thr.	248	245	245	241	235	224	208	183	141	84	1005	2.1	166
		SONES St. Thr.	2.0	2.3	2.3	2.6	2.8	3.2	3.4	3.6	3.9	3.8			
IL30	120 VAC	CFM St. Thr.	300	294	293	285	274	259	243	214	168	113	1145	2.6	212
		SONES St. Thr.	2.9	3.0	3.1	3.3	3.4	3.5	3.6	3.7	4.0	3.9			
		CFM Rt. Ang.	270	261	259	248	234	220	200	174	146	104	1285	2.6	212
		SONES Rt. Ang.	3.7	3.7	3.7	3.7	3.9	3.9	4.0	4.2	4.4	4.0			

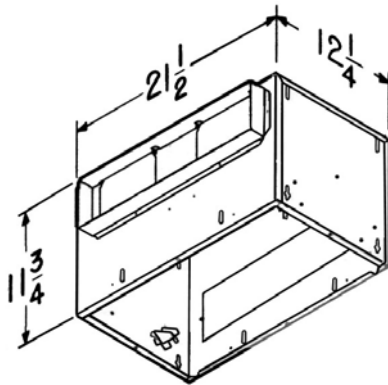
Performance ratings include the effects of back draft damper. Speed (RPM) shown is nominal. Performance is based on actual speed of test. The sound ratings shown are loudness values in fan sones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation Type D: Ducted inlet, hemispherical sone levels. Ratings do not include the effect of duct end correction. Performance ratings include the effects of 18 feet of round inlet duct and, if needed, a rectangular to round duct transition in the airstream. Performance shown is for Installation Type D: Ducted inlet, Ducted outlet.

400 - 500 - 700 CFM
In-Line Ventilators

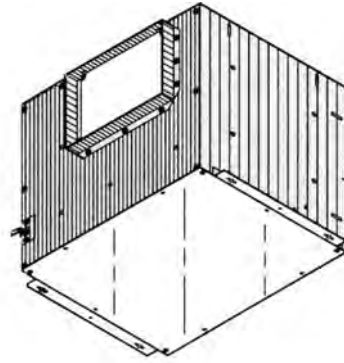


Models IL40, IL50 & IL70

- 120 VAC
- Two 4¹/₂" x 18¹/₂" duct connectors
- Removable access panel
- Two impact-resistant centrifugal blower wheels

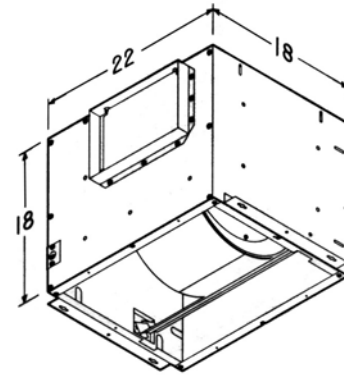


900 - 1500 CFM
In-Line Ventilators



Models IL90 & IL150

- 120 VAC
- Two 8" x 12" duct connectors
- Removable access panel
- Two impact-resistant centrifugal blower wheels



TYPE IL IN-LINE VENTILATORS

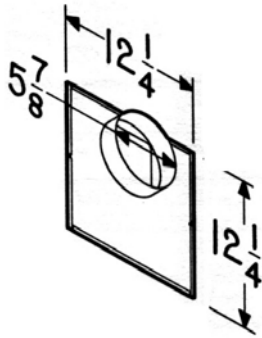
MODEL NO.	NOMINAL VOLTAGE		CFM/SONES - AT STATIC PRESSURES (Ps - Inches of H ₂ O)										NOMINAL RPM	AMPS @ 60 Hz	WATTS
			0.0" Ps	.10" Ps	.125" Ps	.250" Ps	.375" Ps	.50" Ps	.625" Ps	.750" Ps	.875" Ps	1.0" Ps			
IL40	120 VAC	CFM St. Thr.	450	415	406	360	313	271	223	167	90	6	775	1.4	146
		SONES St. Thr.	1.4	1.6	1.6	1.9	2.2	2.6	2.9	3.4	3.6	3.9			
IL50	120 VAC	CFM Rt. Ang.	442	415	408	372	336	296	239	193	111	28	875	1.4	146
		SONES Rt. Ang.	1.6	1.7	1.7	2.0	2.4	2.6	3.1	3.4	3.9	4.1			
IL50	120 VAC	CFM St. Thr.	546	526	519	496	472	447	407	364	306	232	890	2.2	232
		SONES St. Thr.	2.4	2.4	3.4	3.7	3.9	3.8	3.9	4.0	4.3	4.3			
IL70	120 VAC	CFM Rt. Ang.	528	516	513	494	470	446	415	389	334	247	990	2.2	232
		SONES Rt. Ang.	2.9	3.8	3.4	3.7	3.5	3.6	3.9	4.0	4.2	4.4			
IL70	120 VAC	CFM St. Thr.	704	686	681	656	631	604	575	533	480	412	1090	2.9	313
		SONES St. Thr.	3.6	3.8	3.7	3.9	4.0	4.2	4.3	4.4	4.7	5.0			
IL90	120 VAC	CFM Rt. Ang.	680	667	663	644	621	594	557	513	440	342	1205	2.9	313
		SONES Rt. Ang.	5.0	5.0	5.0	5.3	5.2	5.1	5.3	5.5	5.4	5.5			
IL90	120 VAC	CFM St. Thr.	930	902	894	853	807	754	685	587	442	300	810	3.0	306
		SONES St. Thr.	3.7	3.8	3.8	3.8	3.7	3.8	3.9	4.0	4.0	4.1			
IL150	120 VAC	CFM Rt. Ang.	795	778	772	743	709	668	613	527	432	291	755	3.0	306
		SONES Rt. Ang.	4.3	4.5	4.4	4.6	4.4	4.2	4.1	4.3	4.2	4.3			
IL150	120 VAC	CFM St. Thr.	1275	1228	1214	1152	1092	1029	958	871	764	631	1055	5.0	468
		SONES St. Thr.	6.8	6.8	6.7	6.5	6.3	6.0	6.0	6.0	6.0	6.1			
IL150	120 VAC	CFM Rt. Ang.	1160	1117	1106	1051	998	928	856	769	657	499	1020	5.0	468
		SONES Rt. Ang.	7.9	7.8	7.9	7.4	7.1	6.8	6.3	5.9	5.4	5.4			

Performance ratings include the effects of back draft damper. Speed (RPM) shown is nominal. Performance is based on actual speed of test. The sound ratings shown are loudness values in fan sones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation Type D: Ducted inlet, hemispherical sone levels. Ratings do not include the effect of duct end correction. Performance ratings include the effects of 18 feet of round inlet duct and, if needed, a rectangular to round duct transition in the airstream. Performance shown is for installation Type D: Ducted inlet, Ducted outlet.

ACCESSORIES APPLICATION CHART

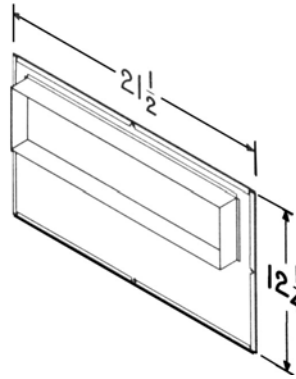
MODEL NO.	CEILING MOUNT MODELS							IN-LINE MODELS						
	CF670 CF800	CFL10 CFL15	CFL20 CFL25 CFL30	CFL40 CFL50	CFL70	CFL90	CFL150	IL10L IL15L	IL20L IL25L IL30L	IL40L IL50L IL70L	IL90L	IL150L	IL200L	IL350L
WALL MOUNTED CONTROLS														
CF/ILSC57W	X	X	X	X	X			X	X	X				
CF/ILSC59W	X	X	X	X	X	X	X	X	X	X	X	X		
CF/ILSC61W	X	X	X	X	X	X	X	X	X	X	X	X		
CF/ILSC72W	X	X	X	X	X	X	X	X	X	X	X	X	X	
CF/ILSC75V														X
ROOF CAPS														
CF/RC634M		X						X						
CF/RC634P		X	X					X	X					
CF/RC636P	X													
CF/RC644		X	X					X	X		X			
CF/RC437				X	X					X				
FLAT ROOF CAPS														
CF/FRC611		X	X					X	X					
CF/FRC611CM		X	X					X	X					
CF/FRC612		X	X	X	X	X	X	X	X	X	X	X		
CF/FRC612CM		X	X	X	X	X	X	X	X	X	X	X		
WALL CAPS														
CF/WC641		X						X						
CF/WC642	X													
CF/WC643			X						X					
CF/WC441				X	X					X				
CF/WC613						X	X				X	X		
IN-LINE ADAPTERS														
CF/A961L		X												
CF/A981L			X											
CF/A982L				X	X									
CF/A983L						X	X							
RADIATION DAMPERS														
CF/RD1		X	X											
CF/RD2				X	X									
CF/RD3						X	X							
METAL GRILL KIT														
MG1		X	X											
G102													X	
G103														X
DUCT TRANSITIONS														
CF/TRN423				X	X					X				
CF/TRN81212						X	X				X	X		
DAMPER KIT														
CF/D100													X	
CF/D101														X
VIBRATION DAMPENING ISOLATORS														
CF/V104													X	X

Accessories for Ceiling Mount and In-Line Ventilators



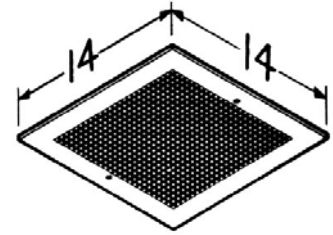
Model 961CFL In-Line Adapter Kit

- Galvanized steel
- Fits CFL10 & CFL15; 6" round duct intake
- Mounting hardware included



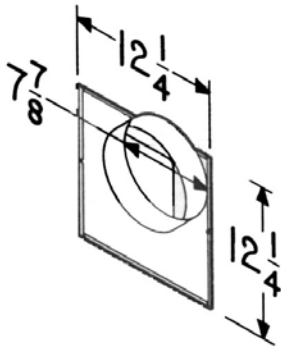
Model 982CFL In-Line Adapter Kit

- Galvanized steel
- Fits CFL40, CFL50 & CFL70; 4 1/2" x 18 1/2" duct intake
- Mounting hardware included



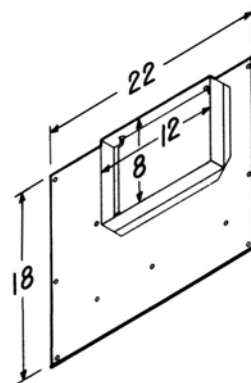
Model MG1 Metal Grille Kit

- Steel, painted white enamel
- Mounting screws included
- Fits CFL10-CFL30



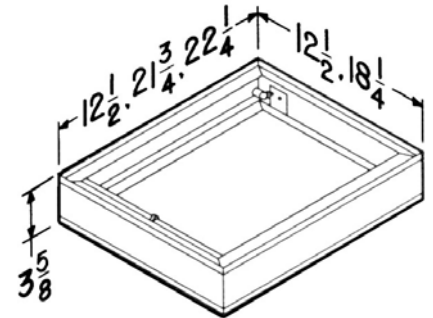
Model 981CFL In-Line Adapter Kit

- Galvanized steel
- Fits CFL20, CFL25 & CFL30; 8" round duct intake
- Mounting hardware included



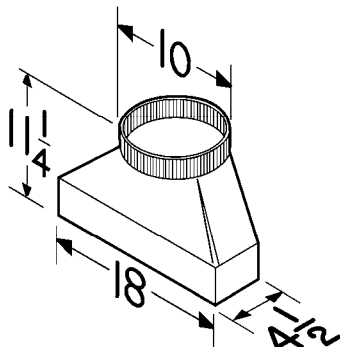
Model 983CFL In-Line Adapter Kit

- Galvanized steel
- Fits CFL90 & CFL150; 8" x 12" duct intake
- Mounting hardware included



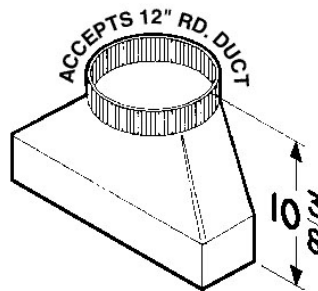
Model RD1, RD2 & RD3 Radiation Dampers

- UL Listed-classified for use in 1, 2 or 3 hour fire-rated ceilings
- Galvanized steel frame
- High temperature, non-asbestos, reinforced fiber thermal fabric
- 212° fusible link
- Stainless steel negator-type closure spring
- RD1 (12 1/2" x 12 1/2") fits CFL10-CFL30
- RD2 (21 3/4" x 12 1/2") fits CFL40-CFL70
- RD3 (22 1/4" x 18 1/4") fits CFL90 & CFL150



Model T423 Duct Transition

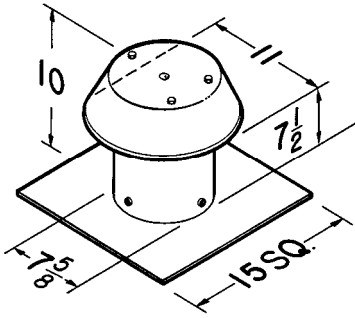
- Fits CFL/IL 40 - CFL/IL 70



Model T81212 Duct Transition

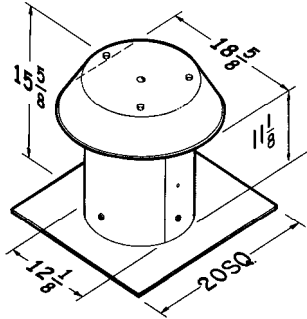
- Fits CFL/IL 90 & CFL/IL 150

Accessories for Ceiling Mount and In-Line Ventilators (cont.)



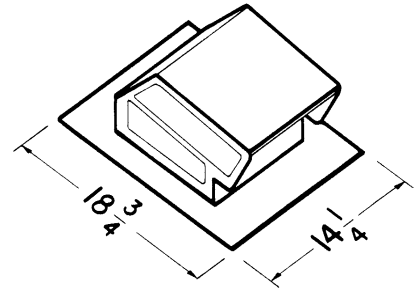
Model 611 Roof Cap

- For flat roof installation
- Aluminum finish
- For up to 8" round duct
- Fits CFL/IL 10, 15, 20, 25 & 30



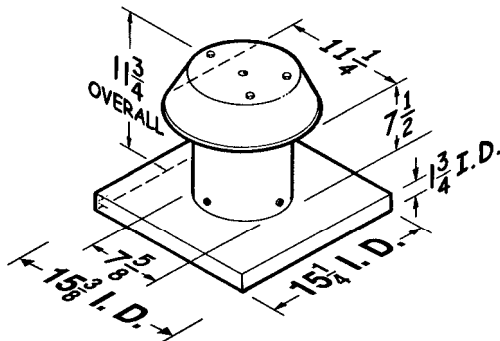
Model 612 Roof Cap

- For flat roof installation
- Aluminum finish
- For up to 12" round duct
- Fits CFL/IL through 150



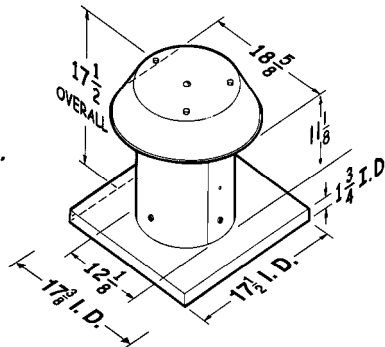
Model 634 Roof Cap

- For up to 3¹/₄" x 10" or up to 8" round duct
- Built-in backdraft damper
- Steel housing, black finish
- Fits CFL/IL 10, 15, 20, 25 & 30



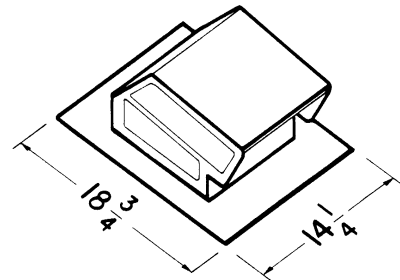
Model 611CM Roof Cap

- Same as Model 611 except for curb mount
- Fits CFL/IL 10, 15, 20, 25 & 30



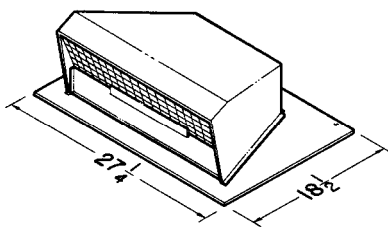
Model 612CM Roof Cap

- Same as Model 612 except for curb mount
- Fits CFL/IL through 150



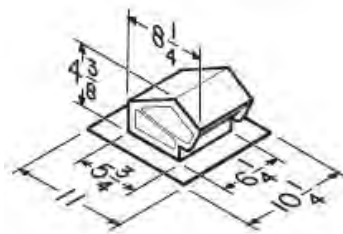
Model 634M Roof Cap

- Same as Model 634 except for 6" round duct
- Fits CFL/IL 10 & 15



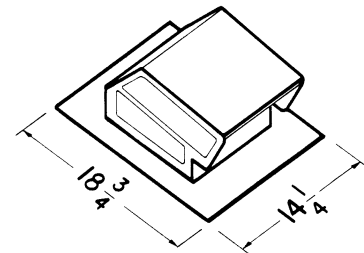
Model 437 Roof Cap

- High capacity design-up to 1200 cfm
- Built-in birdscreen
- Steel housing, black finish
- Fits CFL/IL 40, 50 & 70



Model 636P Roof Cap

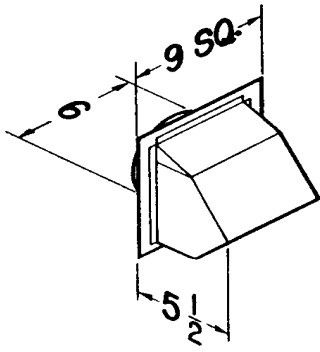
- 24 GA. CRCQ steel, black electrically-bonded epoxy finish
- Built-in backdraft damper and bird screen
- For 3" or 4" round duct
- Fits CF 670 & 800



Model 644 Roof Cap

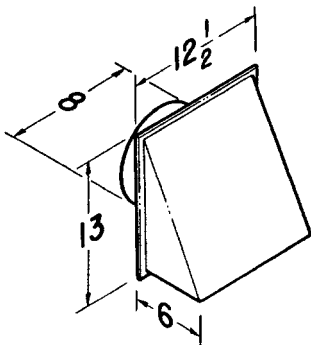
- Same as Model 634 except aluminum finish
- Fits CFL/IL 10, 15, 20, 25 & 30

Accessories for Ceiling Mount and In-Line Ventilators (cont.)



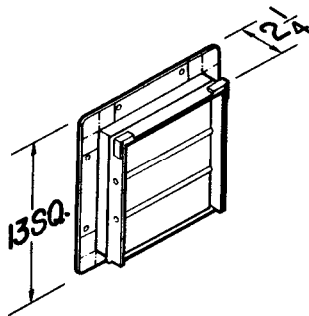
Model 641 Wall Cap

- Same as Model 611 except for 6" round duct
- Fits CFL/IL 10 & 15



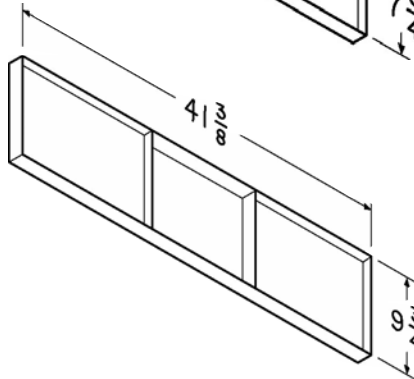
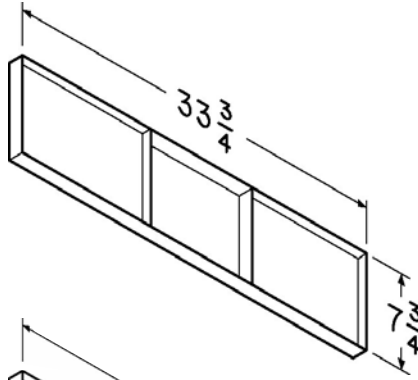
Model 643 Wall Cap

- Same as Model 613 except for 8" round duct
- Fits CFL/IL 20, 25 & 30



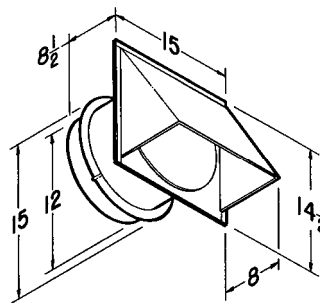
Model 441 Wall Cap

- For 10" round duct
- Steel with aluminum louvers
- Fits CFL/IL 40, 50 & 70



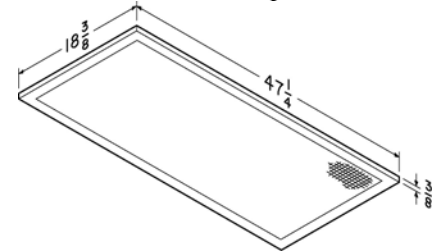
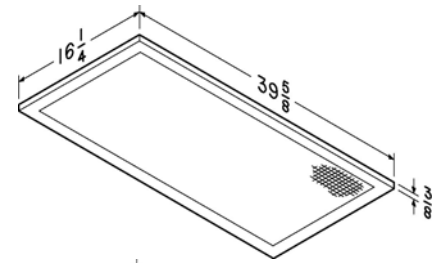
Model D100/D101 Damper Kits

- Twin damper flaps with mounting hardware
- Foam cushion and magnetic catch assures quiet and effective back draft prevention
- D100 fits IL 200
- D101 fits IL 350



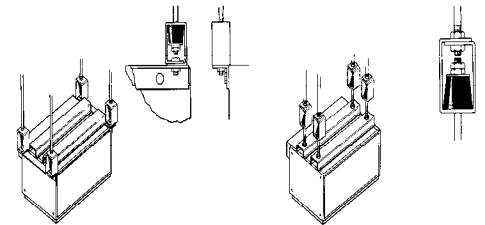
Model 613 Wall Cap

- For 12" round duct
- Built-in back draft damper
- Aluminum finish
- Fits CFL/IL 90 & 150



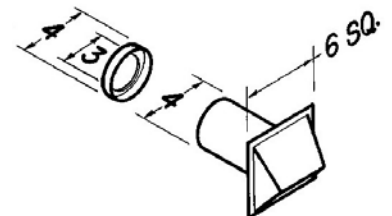
Model G102/G103 Metal Intake Grille

- Steel painted white metal grille
- Mounting hardware included
- G102 fits IL 200; G103 fits IL 350



Model V104 Dampening Hangers

- Heavy gauge steel with vibration dampening cushion
- Maximum load 75lbs/ea.
- For 3/8" threaded rod (by others)
- Four required for each ventilator
- Fits IL 200 & 350



Model 642 Wall Cap

- Built-in back draft damper
- Aluminum finish
- Fits CF 670 & 800



American Coolair Corporation, ILG Industries certifies that the models shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

To convert air performance (CFM and SP) and power (BHP) to metric units, multiply CFM x .000472 to obtain cubic meters per second (m³/s). Multiply SP x 248.36 to obtain pascals (Pa). Multiply BHP x .7457 to obtain kilowatts (kW).

Example: 3904 CFM x .000472 = 1.8427 m³/s
0.125 SP x 248.36 = 31.05 Pa
0.886 BHP x .7457 = 0.661 kW

Limited Warranty

In the sale of its products, American Coolair Corporation agrees to correct, by repairs or replacement, any defects in workmanship or material that may develop under proper and normal use during the period of one year from the date of shipment from the factory. Any product or part proving, upon American Coolair's examination, to be defective during limited warranty period will be repaired or replaced, at American Coolair's option, f.o.b. factory, without charge.

Deterioration or wear caused by chemicals, abrasive action or excessive heat shall not constitute defects.

American Coolair's limited warranty does not apply to any of its products or parts that have been subject to accidental damage, misuse by the user, unauthorized alterations, improper installation or electrical wiring, or lack of proper lubrication or other service requirements as established by American Coolair.

Repairs or replacements provided under the above terms shall constitute fulfillment of all American Coolair's obligations with respect to limited warranty.

THE LIMITED WARRANTY STATED HEREIN IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, STATUTORY OR IMPLIED, INCLUDING WITHOUT LIMITATION THAT OF MERCHANTABILITY AND FITNESS.

NO LIABILITY FOR REINSTALLATION COST OR FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OF ANY NATURE IS ASSUMED OR SHALL BE IMPOSED UPON AMERICAN COOLAIR.



INDUSTRIES

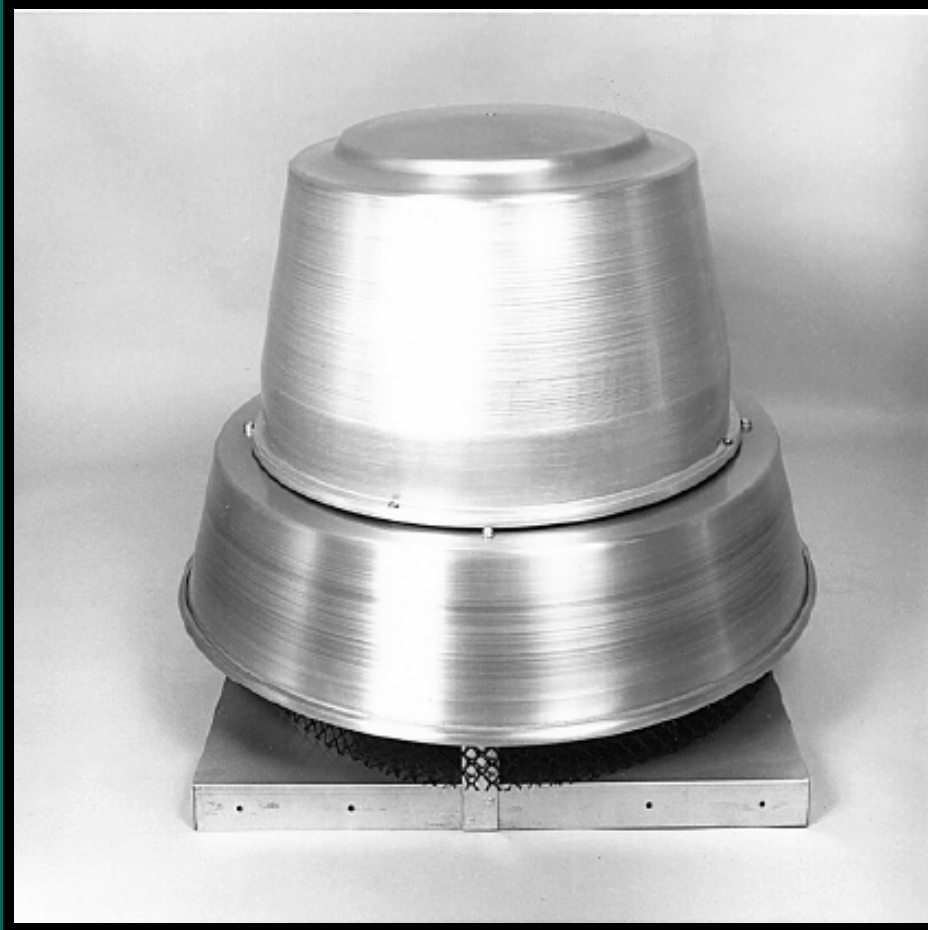
AMERICAN COOLAIR CORPORATION

REPRESENTED BY:

GENERAL OFFICE, JACKSONVILLE, FLORIDA 32203-2300 ~ (904) 389 3646 ~ FAX (904) 387 3449 ~ E-MAIL: fans@coolair.com
VANE AXIAL FANS ~ TUBE AXIAL FANS ~ PROPELLER FANS ~ POWER ROOF VENTILATORS ~ CENTRIFUGAL VENTILATORS
MEMBER OF AMCA



AMERICAN COOLAIR CORPORATION



Centrifugal Power Roof Ventilators

TYPE CRBCA - BELT DRIVE

TYPE CRBA - BELT DRIVE

TYPE CRDA - DIRECT DRIVE

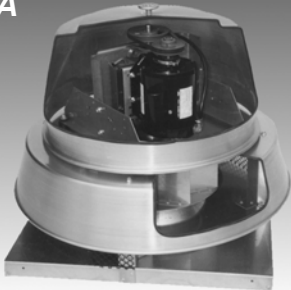
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CRBCA



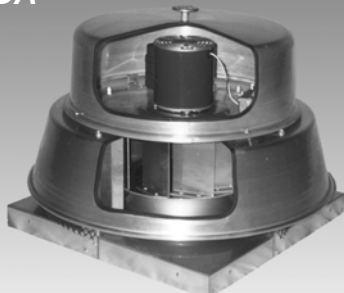
*Sizes 06 to 24
Flow rates from
185 to 10,328 CFM
and 2" Static Pressure*

CRBA



*Sizes 06 to 52
Flow rates from
185 to 43,962 CFM
and 2" Static Pressure*

CRDA



*Sizes 06 to 20
Flow rates from
162 to 5,730 CFM
and 1" Static Pressure*

BELT DRIVE FANS

CRBCA and CRBA

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STANDARD FEATURES

CRBCA, CRBA and CRDA Units

Weather-resistant aluminum motor compartment cover removes easily for access to motor and drives.

Out-of-airstream open motors are isolated for protection from exhaust airstream.

Aluminum centrifugal wheel is non-overloading, backward inclined design with state-of-the-art computerized balance.

Overlapping wheel and deep-spun venturi minimize noise and air turbulence, increasing efficiency.

Wheel balance weights are permanently affixed to assure vibration-free operation.

Wheel backplate fins cool the motor compartment, extending motor life.

Birdscreen is 1/2" galvanized mesh

AMCA Seal assures certified rating of air and sound performance.

UL Listed for Standard 705.

CRBCA and CRBA

Factory-wired disconnect switch is an available option.

Belt drive with adjustable motor pulley for flexibility to match operating requirements.

Hinged motor bracket with tensioning bolt(s) facilitates maintenance of belt tension.



CRDA

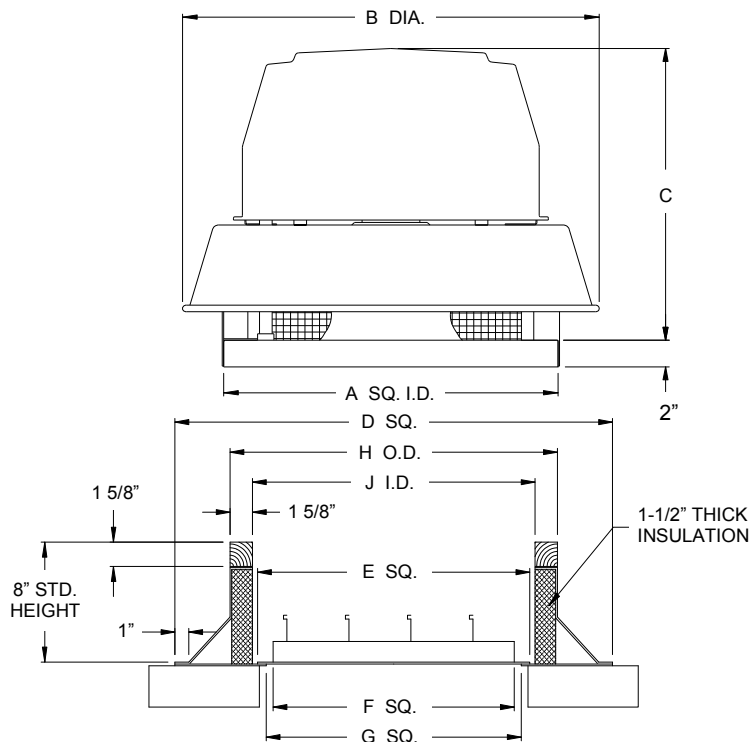
Factory-wired disconnect device for standard motors.

Direct-drive assembly reduces maintenance and operating costs.

Variable speed control available on some models.



CRBCA, CRBA and CRDA Ventilator, Roof Curb and Damper Dimensions



Unit	Ventilator Dimensions			Roof Curb and Damper Dimensions					
	A	B	C	D	E	F	G	H	J
CRBA & CRBCA 06, 08, 10	18	23 1/8	20 1/2	24 1/2	12 1/2	10	11 1/4	16 1/2	13 1/4
CRDA 06, 08, 10	18	23 1/8	12	24 1/2	12 1/2	10	11 1/4	16 1/2	13 1/4
CRBA & CRBCA 12, 13, 15 CRDA 12J17, 13K17 & 15L17	23	28 5/8	22 1/2	29 1/2	17 1/2	15	16 1/4	21 1/2	18 1/4
CRDA 12E10, 12J16, 13F11, 13J15, 15H10 & 15K15	23	28 5/8	16 1/2	29 1/2	17 1/2	15	16 1/4	21 1/2	18 1/4
CRBA, CRBCA & CRDA 16, 18, 20	30	35 1/2	24 5/8	36 1/2	24 1/2	22	23 1/4	28 1/2	25 1/4
CRBA & CRBCA 24	34	42 3/4	32 1/2	40 1/2	28 1/2	26	27 1/4	32 1/2	29 1/4
CRBA 30	40	50 1/4	36 3/4	46 1/2	34 1/2	32	33 1/4	38 1/2	35 1/4
CRBA 36	46	61 3/4	44 1/4	52 1/2	40 1/2	38	39 1/4	44 1/2	41 1/4
CRBA 44	56	71 1/4	49	62 1/2	50 1/2	48	49 1/4	54 1/2	51 1/4
CRBA 52	65	83 3/4	55 1/2	71 1/2	59 1/2	57	58 1/4	63 1/2	60 1/4

Dimensions in inches

CRBCA

Belt Drive Centrifugal Power Roof Ventilators

Applications

The CRBCA units are quiet, dependable power roof ventilators recommended for a wide range of general exhaust applications where low and medium ranges of air volume and pressure are specified. Applications include virtually all types of light manufacturing, commercial and institutional buildings such as shopping centers, hospitals, schools, hotels, office and apartment buildings, warehouses, airports, bus terminals and many others.

CRBCA units are specified where a roof-mounted location is desired to eliminate interference with other equipment or activities in the building. They permit the direct upward venting of air. CRBCA units may be used with or without ducts.

The advantages of a CRBCA belt-drive over a direct-drive roof ventilator include quieter operation and adjustable performance to meet operating needs.

Construction

CRBCA models feature a housing of durable spun aluminum for optimum weather protection. The overlapping deep-spun venturi minimizes air turbulence and increases efficiency.

The aluminum centrifugal wheel is a non-overloading, backward-inclined type, selected for low noise levels. Backplate fins draw cool air through the motor compartment. The wheel is secured to the machined aluminum "C-Drive" disc, and computer balanced on state-of-the-art equipment.

Neoprene vibration isolators to reduce noise and wear, and 1/2" galvanized mesh birdscreen are both standard.

Drive Mechanism

The belt driven CRBCA utilizes a unique bearing/shaft arrangement that has been designated the "C-Drive". This "C-Drive" is patterned after American Coolair's unique static shaft drive design that has been in existence for over eighty years, serving the general ventilation markets with reliable propeller products. This type of drive uses a captured bearing arrangement inside a cast aluminum disc assembly locked to a short, large diameter shaft. The shaft is held stationary and the centrifugal wheel/disc assembly rotates on the shaft instead of the entire assembly rotating.

As a result of reduction of radial loading of the bearings, the calculated L10 bearing life exceeds 1,000,000 hours or an average bearing life of 5,000,000 hours. Most other manufacturers' turning shaft drive designs result in cataloged average bearing life of 150,000-200,000 hours. Additionally, the machined surface of the "C-Drive" provides a rigid backplate for the centrifugal wheel. Electrical connections on the end of the motor face upwards making field connections rapid and simple. This compact drive assembly provides more room in the motor compartment area and the single bolt, V-belt adjustment makes for a very serviceable unit.

Motors

The standard motor for CRBCA models is open drip-proof construction, and located out of the airstream. Totally enclosed, energy efficient, two-speed and explosion-proof motors may also be available. All motor brands are recognized and serviced nationwide. Motor enclosure may affect UL Listing.



UL705 - E39944

Type CRBCA ventilators are Listed by Underwriters Laboratory Inc. to US and Canadian safety standards.



American Coolair Corporation, ILG Industries certifies that the Type CRBCA PRVs shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

Guide Specifications

Power Roof Ventilators shall be of the CRBCA centrifugal type as manufactured by ILG Industries of American Coolair Corporation (individual models to be listed in fan schedule). Units shall meet UL Standard 705 and shall bear the AMCA Certified Ratings Seal for air and sound performance. Base and venturi inlet shall be one piece heavy gauge spun aluminum or galvanized steel, with wheel and venturi overlapping for efficient operation. Motor compartment cover shall be heavy gauge aluminum construction and easily removable for access to motor and drive.

Drive construction shall be of the ILG "C-Drive" design consisting of static shaft/bearing arrangement mounted in a machined cast aluminum disc assembly. The disc assembly shall be mounted onto the backplate of the centrifugal wheel. The centrifugal wheel shall be heavy gauge aluminum with backward-inclined, non-overloading blades and be computer balanced.

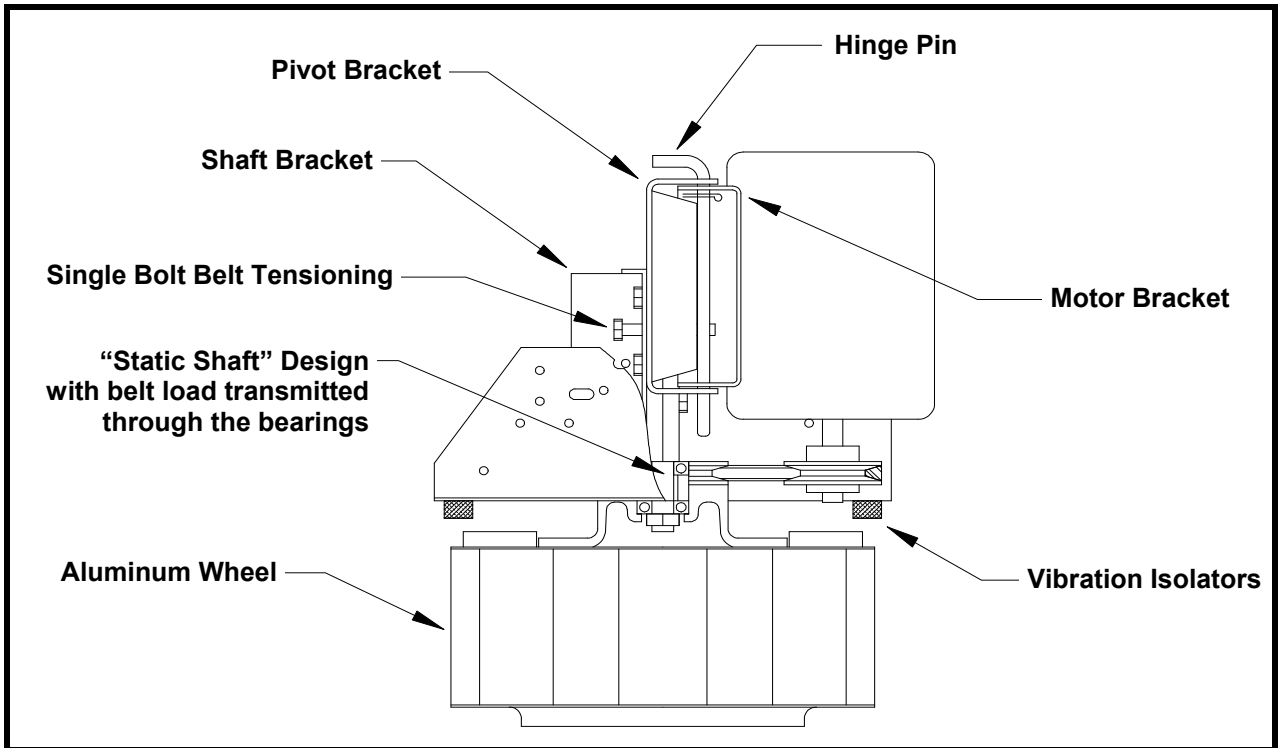
Bearings shall have a calculated L10 bearing life in excess of 1,000,000 hours.

Motor shall be open drip-proof construction, NEMA design B with minimum service factor of 1.15. Adjustable motor pulley shall be provided to allow for field adjustment and system balance. Motor shall be mounted on a hinged steel mounting bracket, utilizing a belt tensioning bolt. Motor shall be mounted with the shaft down to allow easy access to the electrical wiring terminal board/circuit box.

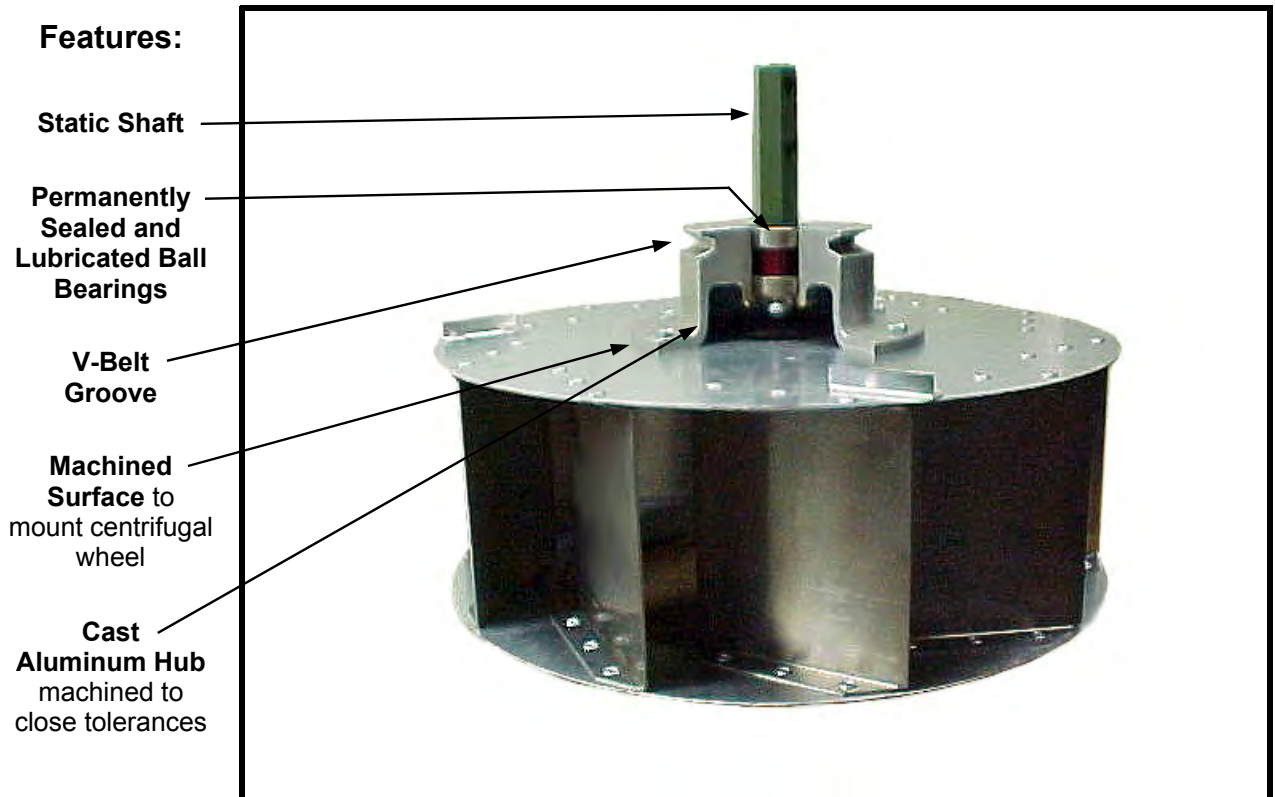
(Mounted and wired disconnect switch, backdraft damper, epoxy coating, roof curb and other accessories shall be listed in the fan schedule.)

ILG's "C-Drive"

Available Exclusively on CRBCA Units Sizes 06 - 24



ILG's "C-Drive" Wheel Assembly



CRBA

Belt Drive Centrifugal Power Roof Ventilators

Applications

The CRBA units are quiet, dependable power roof ventilators recommended for a wide range of general exhaust applications where low, medium and high ranges of air volume and pressure are specified. Applications include virtually all types of light manufacturing, commercial and institutional buildings such as shopping centers, hospitals, schools, hotels, office and apartment buildings, warehouses, airports, bus terminals and many others.

CRBA units are specified where a roof-mounted location is desired to eliminate interference with other equipment or activities in the building. They permit the direct upward venting of air. CRBA units may be used with or without ducts.

The advantages of a CRBA belt-drive over a direct-drive roof ventilator include quieter operation and adjustable performance to suit operating needs and availability of larger volume units.

Construction

CRBA models feature a housing of durable spun aluminum for optimum weather protection. The overlapping deep-spun venturi minimizes air turbulence and increases efficiency.

The aluminum centrifugal wheel is a non-overloading, backward-inclined type, selected for low noise levels. Backplate fins draw cool air through the motor compartment. The wheel is secured to the machined aluminum hub, and computer balanced on state-of-the-art equipment.

Neoprene vibration isolators to reduce noise and wear, and 1/2" galvanized mesh birdscreen are both standard.

Drive Mechanism

The belt driven CRBA utilizes a standard V-belt drive design with variable pitch cast iron pulley for adjusting fan speed. Drive shaft is turned, ground and polished. Motor support is adjustable for proper tensioning.

Bearings

Heavy duty pillow-block ball bearings with cast iron housing are self-aligning and relubricable.

Motors

The standard motor for CRBA models is open drip-proof construction, located out of the airstream. Totally enclosed, energy efficient, two-speed and explosion-proof motors may also be available. All motor brands are recognized and serviced nationwide. Motor enclosure may affect UL Listing.



UL705 - E39944

Type CRBA ventilators are Listed by Underwriters Laboratory Inc. to US and Canadian safety standards.



American Coolair Corporation, ILG Industries certifies that the Type CRBA PRVs shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

Guide Specifications

Power Roof Ventilators shall be of the CRBA centrifugal type as manufactured by ILG Industries of American Coolair Corporation (individual models to be listed in fan schedule). Units shall meet UL Standard 705 and shall bear the AMCA Certified Ratings Seal for air and sound performance. Base and venturi inlet shall be one piece heavy gauge spun aluminum or galvanized steel, with wheel and venturi overlapping for efficient operation. Motor compartment cover shall be heavy gauge aluminum construction and easily removable for access to motor and drive.

Drive mechanism shall incorporate a V-belt drive with cast iron motor pulley. Drive shaft shall be turned, ground and polished. The centrifugal wheel shall be heavy gauge aluminum with backward-inclined, non-overloading blades and be computer balanced.

Bearings shall be self-aligning and have fittings for relubrication.

Motor shall be open drip-proof construction, NEMA design B with minimum service factor of 1.15. Adjustable motor pulley shall be provided to allow for field adjustment and system balance. Motor shall be mounted on a hinged steel mounting bracket, utilizing belt tensioning bolt(s).

(Mounted and wired disconnect switch, backdraft damper, epoxy coating, roof curb and other accessories shall be listed in the fan schedule.)

CRBCA / CRBA 06-10 Performance Data

CRBCA06 / CRBA06																			CFM at Static Pressure				RPM Range				RPM
0.00		.125		.250		.375		.500		.625		.750		1.00		1.25		1.50		Motor HP							
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/5	1/4 L	1/4 M	1/4 H		
279		206																				CRBCA ONLY					846
0.01	1.5	0.01	0.8																								1041
343		289		216																							1135
0.02	2.9	0.02	2.5	0.02	1.9																						1360
374		325		263		185																					1646
0.03	3.7	0.03	3.2	0.03	2.8	0.03	2.3																				1789
448		406		362		308		240																			2076
0.04	5.6	0.05	5.1	0.05	4.8	0.05	4.3	0.05	4.0																		2219
542		505		475		435		391		342																	
0.08	8.6	0.08	8.2	0.09	7.8	0.09	7.6	0.09	7.0	0.09	6.6																
589		555		526		495		455		414		366															
0.10	10.4	0.11	10.0	0.11	9.5	0.11	9.5	0.11	9.2	0.12	8.4	0.11	8.1														
684		653		628		603		575		541		506		429													
0.16	14.4	0.16	14.0	0.17	13.6	0.17	13.3	0.18	13.4	0.18	13.0	0.18	12.2	0.18	11.5												
731		702		677		655		631		602		569		503		419											
0.20	16.0	0.20	15.6	0.20	15.3	0.21	14.9	0.21	15.0	0.22	14.8	0.22	14.7	0.22	13.4	0.21	12.9										

CRBCA08 / CRBA08																			CFM at Static Pressure				RPM Range				RPM
0.00		.125		.250		.375		.500		.625		.750		1.00		1.25		1.50		Motor HP							
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/5	1/4 L	1/4 M	1/4 H		
367		290																				CRBCA ONLY					846
0.01	1.6	0.01	1.3																								1041
451		393		321																							1135
0.02	3.2	0.02	2.9	0.03	2.8																						1360
492		439		376		280																					1646
0.03	4.0	0.03	3.7	0.03	3.7	0.03	3.4																				1789
590		545		499		444		373																			2076
0.04	6.1	0.05	5.8	0.05	5.7	0.06	5.6	0.06	5.4																		2219
714		676		640		601		555		508		439															
0.08	9.4	0.08	9.3	0.09	8.6	0.10	8.7	0.10	8.6	0.10	8.5	0.10	8.4														
776		741		708		674		634		592		547															
0.10	11.4	0.11	11.3	0.12	10.5	0.12	10.6	0.13	10.4	0.13	10.4	0.13	10.3														
900		870		841		813		783		750		714		638		515											
0.16	15.6	0.16	15.2	0.17	15.3	0.18	14.4	0.19	14.6	0.19	14.5	0.20	14.3	0.21	14.4	0.20	14.1										
962		934		907		880		853		824		792		723		645		485									
0.19	17.8	0.20	17.3	0.21	17.7	0.22	16.5	0.23	16.4	0.23	16.5	0.24	16.3	0.25	16.4	0.26	16.2	0.23	15.9								

CRBCA10 / CRBA10																			CFM at Static Pressure				RPM Range				RPM
0.00		.125		.250		.375		.500		.625		.750		1.00		1.25		1.50		Motor HP							
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/5	1/4 L	1/4 M	1/4 H		
487		384																				CRBCA ONLY					846
0.01	2.1	0.02	1.6																								1041
599		519		422																							1135
0.03	3.7	0.03	3.3	0.03	3.0																						1360
653		579		497		383																					1646
0.03	4.5	0.04	4.1	0.04	4.0	0.04	3.1																				1789
783		720		660		586		494																			2076
0.06	6.5	0.07	6.2	0.07	6.0	0.08	5.8	0.08	4.8																		2219
948		895		845		795		734		667		586															
0.10	9.6	0.11	9.5	0.12	9.1	0.13	9.0	0.13	8.9	0.14	8.3	0.14	7.1														
1,030		982		935		890		839		782		719		540													
0.13	11.5	0.14	11.4	0.15	11.0	0.16	10.8	0.17	10.7	0.17	10.5	0.18	9.8	0.17	8.1												
1,195		1,153		1,112		1,073		1,035		992		943		839		703											
0.21	15.6	0.22	15.6	0.23	15.4	0.24	14.9	0.25	14.8	0.26	14.7	0.27	14.6	0.27	13.7	0.27	11.5										
1,278		1,238		1,200		1,162		1,126		1,090		1,047		955		847		703									
0.26	17.8	0.27	17.4	0.28	17.3	0.29	16.8	0.30	16.8	0.31	16.7	0.32	16.7	0.33	16.4	0.34	14.7	0.33	12.8								

Performance shown is for Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories). Power rating (BHP) does not include transmission losses. Bearing losses are included. The sound ratings shown are loudness values in hemispherical sones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for Installation Type A: free inlet hemispherical sone levels.

CRBCA16 / CRBA16 Performance Data

CFM at Static Pressure																		RPM Range Motor HP						RPM			
0.00		.125		.250		.375		.500		.750		1.00		1.25		1.50		2.00		1/4	1/3	1/2	3/4		1	1 1/2	
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone						
2,170		2,034		1,862		1,683		1,427																		734	
0.15	7.3	0.17	6.4	0.19	5.9	0.20	5.4	0.20	4.8																		
2,279		2,152		1,992		1,823		1,620																		771	
0.18	7.8	0.20	7.0	0.21	6.6	0.23	6.1	0.23	5.6																		
2,385		2,265		2,116		1,954		1,780																		807	
0.20	8.5	0.22	7.8	0.24	7.3	0.26	6.8	0.27	6.4																		
2,495		2,381		2,242		2,086		1,930																		844	
0.23	9.2	0.26	8.6	0.28	8.1	0.29	7.7	0.30	7.2																		
2,604		2,496		2,367		2,217		2,070		1,634																881	
0.26	10.0	0.29	9.5	0.31	8.9	0.33	8.5	0.34	8.1	0.33	7.0																
2,713		2,610		2,489		2,347		2,206		1,853																918	
0.30	10.8	0.32	10.4	0.35	9.7	0.37	9.5	0.38	8.9	0.39	7.9																
2,820		2,721		2,607		2,473		2,336		2,029																954	
0.34	11.8	0.36	11.3	0.39	10.6	0.41	10.4	0.42	9.8	0.44	9.0																
2,929		2,834		2,727		2,601		2,467		2,191		1,659														991	
0.38	12.7	0.40	12.3	0.43	11.6	0.45	11.3	0.47	10.9	0.49	10.1	0.45	9.0														
3,039		2,947		2,845		2,727		2,598		2,341		1,958														1028	
0.42	13.6	0.45	13.4	0.47	12.5	0.50	12.2	0.52	11.9	0.54	11.1	0.54	10.0														
3,145		3,057		2,960		2,848		2,725		2,480		2,161														1064	
0.47	14.7	0.50	14.5	0.52	13.6	0.55	13.2	0.57	13.0	0.60	12.1	0.61	11.1														
3,254		3,170		3,077		2,972		2,854		2,617		2,340														1101	
0.52	15.7	0.55	15.6	0.58	14.8	0.60	14.2	0.62	14.1	0.66	13.1	0.68	12.4														
3,364		3,282		3,193		3,093		2,982		2,751		2,503		2,114												1138	
0.57	16.8	0.60	16.7	0.63	16.0	0.66	15.3	0.68	15.2	0.72	14.2	0.75	13.7	0.72	12.5												
3,470		3,391		3,306		3,211		3,105		2,880		2,651		2,333												1174	
0.63	17.9	0.66	17.9	0.69	17.2	0.72	16.3	0.74	16.2	0.79	15.3	0.81	14.8	0.81	13.7												
3,579		3,503		3,421		3,331		3,230		3,012		2,796		2,522												1211	
0.69	18.9	0.72	19.0	0.75	18.3	0.78	17.4	0.81	17.2	0.85	16.4	0.89	15.8	0.90	14.9												
3,689		3,615		3,536		3,449		3,354		3,143		2,936		2,693		2,325										1248	
0.75	19.7	0.79	19.8	0.82	19.2	0.85	18.3	0.88	17.9	0.93	17.4	0.96	16.5	0.98	16.0	0.95	14.8										
3,798		3,727		3,650		3,567		3,476		3,273		3,072		2,852		2,550										1285	
0.82	21	0.86	21	0.89	20	0.92	19.2	0.95	18.7	1.01	18.4	1.04	17.3	1.07	17.0	1.06	15.7										
3,905		3,835		3,761		3,681		3,595		3,399		3,202		2,998		2,736										1321	
0.89	21	0.93	21	0.96	21	1.00	20	1.03	19.5	1.08	19.3	1.13	18.1	1.16	17.8	1.17	16.9										
4,073		4,007		3,936		3,861		3,780		3,597		3,406		3,218		2,998										1378	
1.01	23	1.05	23	1.09	22	1.12	22	1.16	21	1.22	21	1.26	19.6	1.30	19.0	1.33	18.5										
4,182		4,118		4,050		3,977		3,899		3,725		3,537		3,355		3,154		2,484								1415	
1.10	23	1.14	24	1.17	23	1.21	23	1.24	22	1.31	21	1.36	21	1.40	19.8	1.43	19.5	1.35	17.7								
4,292		4,229		4,163		4,093		4,018		3,851		3,668		3,490		3,303		2,757								1452	
1.19	24	1.23	24	1.26	24	1.30	23	1.34	23	1.40	22	1.46	22	1.50	21	1.54	21	1.51	18.6								
4,401		4,340		4,276		4,208		4,136		3,975		3,798		3,623		3,447		2,973								1489	
1.28	25	1.32	25	1.36	25	1.40	24	1.43	24	1.50	23	1.56	23	1.61	22	1.65	21	1.66	19.6								

Performance shown is for Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories). Power rating (BHP) does not include transmission losses. Bearing losses are included. The sound ratings shown are loudness values in hemispherical sones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for Installation Type A: free inlet hemispherical sone levels.

CRBCA18 / CRBA18 Performance Data

CFM at Static Pressure																				RPM Range Motor HP						RPM	
0.00		.125		.250		.375		.500		.750		1.00		1.25		1.50		2.00		1/3	1/2	3/4	1	1 1/2	2		
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone						
2,754		2,627		2,440		2,247		1,974																		734	
0.22	8.9	0.24	7.9	0.26	7.3	0.28	6.8	0.29	6.0																		
2,893		2,778		2,598		2,422		2,190																		771	
0.25	9.6	0.28	8.7	0.30	8.1	0.32	7.6	0.33	7.1																		
3,028		2,923		2,749		2,586		2,389		1,758																807	
0.29	10.5	0.31	9.6	0.34	8.9	0.36	8.5	0.37	8.1	0.36	6.7																
3,167		3,070		2,904		2,750		2,577		2,061																844	
0.33	11.4	0.36	10.6	0.39	9.8	0.41	9.5	0.42	9.0	0.43	7.5																
3,305		3,216		3,058		2,911		2,753		2,308																881	
0.38	12.3	0.40	11.7	0.43	10.8	0.46	10.5	0.48	9.9	0.50	8.5																
3,444		3,360		3,213		3,070		2,923		2,531		1,886														918	
0.43	13.2	0.45	12.7	0.49	11.8	0.51	11.5	0.53	10.9	0.56	9.9	0.52	8.7														
3,579		3,500		3,364		3,222		3,085		2,738		2,223														954	
0.48	14.2	0.51	13.8	0.54	12.9	0.57	12.5	0.59	12.1	0.62	11.3	0.62	9.6														
3,718		3,643		3,519		3,378		3,247		2,940		2,494														991	
0.54	15.2	0.57	15.0	0.60	14.1	0.63	13.5	0.66	13.2	0.69	12.5	0.70	10.7														
3,857		3,785		3,673		3,533		3,408		3,128		2,731		2,128												1028	
0.60	16.2	0.63	16.1	0.66	15.4	0.70	14.7	0.72	14.5	0.76	13.6	0.79	12.0	0.74	11.1												
3,992		3,923		3,822		3,683		3,562		3,301		2,945		2,464												1064	
0.66	17.2	0.69	17.3	0.73	16.6	0.77	15.8	0.79	15.6	0.84	14.6	0.87	13.6	0.85	12.2												
4,131		4,065		3,972		3,837		3,718		3,474		3,158		2,741												1101	
0.73	18.3	0.77	18.6	0.80	18.0	0.84	17.0	0.87	16.8	0.92	15.8	0.96	15.3	0.96	13.4												
4,270		4,207		4,121		3,992		3,874		3,642		3,362		2,984		2,454										1138	
0.81	19.4	0.85	19.8	0.88	19.3	0.92	18.2	0.96	17.8	1.01	17.0	1.05	16.6	1.07	14.5	1.02	13.8										
4,405		4,344		4,264		4,143		4,025		3,803		3,547		3,202		2,766										1174	
0.89	20	0.93	21	0.96	20	1.00	19.2	1.04	18.7	1.10	18.0	1.14	17.4	1.17	15.8	1.15	14.6										
4,611		4,554		4,481		4,374		4,254		4,044		3,814		3,520		3,157										1229	
1.02	22	1.06	22	1.10	22	1.14	21	1.18	20	1.25	19.6	1.29	18.5	1.33	18.1	1.35	16.0										
4,750		4,694		4,626		4,528		4,409		4,204		3,987		3,725		3,388										1266	
1.12	22	1.15	23	1.19	23	1.24	22	1.28	21	1.35	21	1.40	19.4	1.44	19.3	1.47	17.2										
4,889		4,835		4,770		4,680		4,563		4,362		4,155		3,918		3,607		2,720								1303	
1.22	23	1.26	24	1.30	24	1.34	23	1.39	22	1.46	22	1.52	21	1.56	20	1.60	18.8	1.51	16.6								
5,028		4,976		4,914		4,831		4,719		4,519		4,322		4,101		3,820		3,068								1340	
1.32	25	1.36	25	1.41	25	1.45	24	1.50	23	1.58	22	1.64	22	1.69	21	1.73	20	1.70	17.5								
5,170		5,120		5,061		4,984		4,878		4,679		4,490		4,283		4,032		3,363								1378	
1.44	26	1.48	26	1.52	26	1.57	25	1.62	24	1.70	23	1.77	23	1.82	22	1.86	22	1.88	18.6								
5,309		5,260		5,204		5,132		5,033		4,834		4,651		4,455		4,228		3,618								1415	
1.56	27	1.60	27	1.64	27	1.69	26	1.74	25	1.83	24	1.90	24	1.96	23	2.00	23	2.06	19.7								
5,448		5,401		5,346		5,279		5,187		4,988		4,812		4,624		4,415		3,852								1452	
1.68	28	1.73	28	1.77	28	1.82	27	1.87	27	1.96	25	2.04	25	2.11	24	2.15	24	2.22	21								

Performance shown is for Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories).

Power rating (BHP) does not include transmission losses. Bearing losses are included.

The sound ratings shown are loudness values in hemispherical sones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA Standard 301.

Values shown are for Installation Type A: free inlet hemispherical sone levels.

CRBA30 Performance Data

CFM at Static Pressure																			RPM Range						RPM		
0.00		.125		.250		.375		.500		.750		1.00		1.25		1.50		2.00		Motor HP							
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/2	3/4	1	1 1/2	2		3	5
6,380		5,549		4,719																							400
0.33	6.0	0.34	5.3	0.35	4.8																						
7,034		6,283		5,505		4,588																					441
0.44	7.1	0.46	6.5	0.47	5.9	0.47	5.7																				
7,528		6,828		6,097		5,413		3,187																			472
0.54	8.1	0.56	7.4	0.57	6.9	0.58	6.6	0.50	6.5																		
8,325		7,693		7,042		6,398		5,696																			522
0.73	10.0	0.75	9.2	0.76	8.7	0.78	8.4	0.78	8.2																		
8,868		8,274		7,671		7,046		6,480																			556
0.88	11.5	0.90	10.7	0.92	10.1	0.93	9.7	0.95	9.5																		
9,474		8,918		8,358		7,771		7,221																			594
1.08	13.3	1.10	12.4	1.12	11.8	1.13	11.4	1.15	11.1																		
9,888		9,356		8,821		8,263		7,716		6,348																	620
1.22	14.5	1.25	13.7	1.27	13.1	1.28	12.6	1.30	12.3	1.30	12.0																
10,335		9,825		9,315		8,787		8,251		7,203																	648
1.40	15.6	1.42	14.8	1.44	14.1	1.46	13.6	1.48	13.3	1.50	13.0																
10,734		10,243		9,752		9,249		8,727		7,771																	673
1.57	16.6	1.59	15.8	1.61	15.1	1.63	14.6	1.65	14.2	1.68	13.9																
11,244		10,776		10,307		9,831		9,335		8,412		6,811															705
1.80	17.9	1.82	17.0	1.85	16.4	1.87	15.8	1.88	15.5	1.93	15.0	1.87	14.9														
11,802		11,356		10,910		10,460		9,993		9,082		8,104															740
2.08	19.3	2.11	18.4	2.13	17.8	2.16	17.2	2.17	16.8	2.22	16.3	2.23	16.1														
12,281		11,852		11,423		10,992		10,549		9,654		8,822		6,474													770
2.35	21	2.37	19.8	2.40	19.0	2.43	18.4	2.44	18.0	2.49	17.4	2.52	17.2	2.33	17.1												
12,807		12,396		11,985		11,572		11,152		10,284		9,497		8,296													803
2.66	22	2.68	21	2.72	21	2.75	19.8	2.76	19.3	2.81	18.7	2.86	18.4	2.82	18.3												
13,238		12,840		12,442		12,044		11,640		10,798		10,020		9,132													830
2.94	23	2.96	22	2.99	22	3.03	21	3.05	21	3.09	19.8	3.15	19.4	3.15	19.3												
13,668		13,283		12,898		12,512		12,123		11,311		10,534		9,777		7,950											857
3.23	25	3.26	24	3.29	23	3.33	22	3.35	22	3.39	21	3.45	21	3.48	20	3.33	20										
14,354		13,987		13,620		13,254		12,885		12,120		11,355		10,662		9,751											900
3.75	27	3.77	26	3.81	25	3.84	24	3.87	24	3.91	23	3.97	22	4.02	22	4.01	22										
14,992		14,641		14,290		13,939		13,586		12,863		12,118		11,432		10,738											940
4.27	29	4.29	28	4.33	27	4.37	26	4.40	26	4.44	25	4.49	24	4.56	24	4.59	24										
15,710		15,374		15,039		14,704		14,369		13,686		12,974		12,289		11,662		8,885									985
4.91	31	4.94	30	4.97	30	5.01	29	5.05	28	5.10	27	5.14	27	5.22	26	5.27	26	5.00	26								
16,156		15,830		15,504		15,179		14,853		14,192		13,503		12,824		12,204		10,388									1013
5.34	33	5.37	32	5.40	31	5.45	31	5.49	30	5.54	29	5.58	28	5.65	28	5.72	27	5.65	27								

Performance shown is for Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories). Power rating (BHP) does not include transmission losses. Bearing losses are included. The sound ratings shown are loudness values in hemispherical sones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for Installation Type A: free inlet hemispherical sone levels.

CRBA52 Performance Data

CFM at Static Pressure																	RPM Range Motor HP						RPM	
0.00		.125		.250		.375		.500		.750		1.00		1.25		1.50		1 ½	2	3	5	7 ½		10
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone							
17,671		14,598		9,727																				205
0.71	4.9	0.75	4.2	0.69	3.9																			
19,395		16,562		13,111																				225
0.93	5.9	0.98	5.3	0.97	4.8																			
21,119		18,509		15,810		10,531																		245
1.21	7.2	1.26	6.4	1.27	6.1	1.15	5.8																	
22,843		20,449		18,093		14,425																		265
1.53	8.6	1.59	7.7	1.62	7.3	1.56	7.0																	
24,567		22,371		20,154		17,404		12,676																285
1.90	10.2	1.96	9.1	2.01	8.7	1.99	8.5	1.83	8.0															
26,032		23,984		21,839		19,601		15,994																302
2.26	11.7	2.33	10.6	2.38	10.1	2.39	9.9	2.29	9.3															
28,446		26,602		24,570		22,735		20,222																330
2.95	14.5	3.02	13.1	3.09	12.5	3.12	12.3	3.09	12.1															
29,997		28,264		26,323		24,578		22,545		15,272														348
3.46	16.3	3.54	15.0	3.61	14.2	3.65	14.0	3.65	13.9	3.31	12.6													
31,463		29,820		27,974		26,267		24,519		18,742														365
3.99	18.2	4.07	16.8	4.15	16.0	4.21	15.7	4.23	15.6	4.01	14.4													
32,669		31,096		29,328		27,641		26,036		21,078														379
4.47	19.8	4.55	18.4	4.63	17.5	4.70	17.1	4.73	17.0	4.58	16.1													
34,307		32,816		31,154		29,492		27,994		23,907		16,647												398
5.17	22	5.26	21	5.35	19.7	5.42	19.1	5.47	19.0	5.39	18.4	4.86	17.0											
36,204		34,799		33,248		31,633		30,187		26,844		21,377												420
6.08	25	6.18	23	6.27	22	6.35	21	6.41	21	6.41	20	6.09	19.0											
38,272		36,949		35,507		33,967		32,538		29,691		25,323		18,344										444
7.18	27	7.28	25	7.38	24	7.47	23	7.54	23	7.61	22	7.40	21	6.72	20									
40,686		39,448		38,112		36,673		35,265		32,707		29,316		24,335		15,163								472
8.63	30	8.74	28	8.84	27	8.94	26	9.03	25	9.14	25	9.05	24	8.68	23	7.26	22							
42,669		41,492		40,233		38,877		37,503		35,045		32,229		28,097		22,273								495
9.95	32	10.07	30	10.18	29	10.28	28	10.38	28	10.51	27	10.52	27	10.25	26	9.60	24							
43,962		42,821		41,607		40,304		38,961		36,537		33,982		30,319		25,373								510
10.89	34	11.00	32	11.12	31	11.23	30	11.33	29	11.48	28	11.52	28	11.32	28	10.84	26							

Performance shown is for Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories). Power rating (BHP) does not include transmission losses. Bearing losses are included. The sound ratings shown are loudness values in hemispherical sones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for Installation Type A: free inlet hemispherical sone levels.

CRDA

Belt Drive Centrifugal Power Roof Ventilators

Applications

The CRDA units are quiet, dependable power roof ventilators recommended for a wide range of general exhaust applications where low and medium ranges of air volume and pressure are specified. Applications include virtually all types of light manufacturing, commercial and institutional buildings such as shopping centers, hospitals, schools, hotels, office and apartment buildings, warehouses, airports, bus terminals and many others.

CRDA units are specified where a roof-mounted location is desired to eliminate interference with other equipment or activities in the building. They permit the direct upward venting of air. CRDA units may be used with or without ducts.

The advantages of a CRDA direct-drive over a belt-drive roof ventilator include lower maintenance requirements, reduced risk of lower performance levels as a result of loosened belts, and lower operating costs.

Construction

CRDA models feature a housing of durable spun aluminum for optimum weather protection. The overlapping deep-spun venturi minimizes air turbulence and increases efficiency.

The aluminum centrifugal wheel is a non-overloading, backward-inclined type, selected for low noise levels. Backplate fins draw cool air through the motor compartment.

The wheel is secured to the machined aluminum hub, and computer balanced on state-of-the-art equipment. The hub features a line bore, which eliminates the need for bushings. Neoprene vibration isolators to reduce noise and wear, 1/2" galvanized mesh birdscreen and factory wired disconnect device are all standard features.

Drive Mechanism

CRDA models have all the advantages of a direct drive assembly. There are no belts, bearings or pulleys to consume power or require maintenance.

Motors

The standard motor for most CRDA models is open drip-proof construction and located out of the airstream. Totally enclosed, energy efficient, two-speed and explosion-proof motors may also be available. All motor brands are recognized and serviced nationwide. Motor enclosure may affect UL Listing.



UL705 - E39944

Type CRDA ventilators are Listed by Underwriters Laboratory Inc. to US and Canadian safety standards.



American Coolair Corporation, ILG Industries certifies that the Type CRDA PRVs shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

Guide Specifications

Power Roof Ventilators shall be of the CRDA centrifugal type as manufactured by ILG Industries of American Coolair Corporation (individual models to be listed in fan schedule). Units shall meet UL Standard 705 and shall bear the AMCA Certified Ratings Seal for air and sound performance. Base and venturi inlet shall be one piece heavy gauge spun galvanized steel, with wheel and venturi overlapping for efficient operation. Motor compartment cover shall be heavy gauge spun aluminum construction and easily removable for access to motor and drive.

Drive mechanism shall be of the direct-drive design. The line bore hub shall be mounted onto the backplate of the centrifugal wheel. The centrifugal wheel shall be heavy gauge aluminum with backward-inclined, non-overloading blades and be computer balanced.

Motor shall be open construction, NEMA design B. Optional variable speed control on some models allows for field adjustment and system balance. Motor shall be mounted with the shaft down to allow easy access to the electrical terminal board/circuit box.

Backdraft damper, epoxy coating, roof curb and other accessories shall be listed in the fan schedule.)

CRDA06 - CRDA10 Performance Data

CRDA06 CFM at Static Pressure																RPM RANGE OF SELECTED MODELS			RPM	
0.00		.125		.250		.375		.500		.625		.750		1.00		CRDA06A11	CRDA06C16	CRDA06E16		
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/25 HP	1/13 HP	1/10 HP
183																				550
0.01	0.5																			
266		187																		800
0.01	1.5	0.01	1.1																	
316		254		162																950
0.02	2.9	0.02	2.4	0.02	2.1															
366		315		250		163														1100
0.02	4.4	0.03	4.0	0.03	3.7	0.02	3.3													
416		371		318		252		174												1250
0.03	6.3	0.04	5.8	0.04	5.4	0.04	5.1	0.03	4.8											
465		424		383		331		262												1400
0.05	8.1	0.05	7.6	0.05	7.2	0.06	7.0	0.05	6.6											
532		494		462		420		375		316										1600
0.07	10.8	0.08	10.3	0.08	9.8	0.08	9.4	0.08	9.1	0.08	8.7									
548		512		481		442		398		348				283						1650
0.08	11.5	0.08	11.1	0.09	10.5	0.09	10.0	0.09	9.8	0.09	9.4	0.09	9.0							

CRDA08 CFM at Static Pressure																RPM RANGE OF SELECTED MODELS			RPM	
0.00		.125		.250		.375		.500		.625		.750		1.00		CRDA08A11	CRDA08C15	CRDA08E16		
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/25 HP	1/13 HP	1/10 HP
239																				550
0.01	0.5																			
347		267																		800
0.01	1.4	0.01	1.2																	
412		349		256																950
0.02	2.7	0.02	2.4	0.02	2.3															
477		426		360		224														1100
0.02	4.2	0.03	3.9	0.03	3.8	0.03	3.7													
542		497		444		381		205												1250
0.03	5.9	0.04	5.6	0.04	5.6	0.05	5.4	0.04	5.2											
607		566		524		471		409		237										1400
0.05	7.6	0.05	7.3	0.06	7.2	0.06	7.1	0.06	7.0	0.05	6.8									
672		634		599		554		505		446				303						1550
0.07	9.4	0.07	9.1	0.08	8.9	0.08	8.9	0.09	8.8	0.09	8.6	0.07	8.4							
694		657		624		581		534		482				393						1600
0.07	10.0	0.08	9.8	0.08	9.6	0.09	9.5	0.09	9.4	0.10	9.3	0.09	9.1							

CRDA10 CFM at Static Pressure																RPM RANGE OF SELECTED MODELS			RPM	
0.00		.125		.250		.375		.500		.625		.750		1.00		CRDA10A11	CRDA10C15	CRDA10E15		
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/25 HP	1/13 HP	1/10 HP
316																				550
0.01	0.2																			
460		350																		800
0.01	1.9	0.02	1.3																	
546		459		342																950
0.02	3.2	0.02	2.8	0.03	2.3															
633		557		471		342														1100
0.03	4.8	0.04	4.4	0.04	3.9	0.04	3.5													
719		651		582		498		357												1250
0.05	6.6	0.05	6.3	0.06	5.9	0.06	5.4	0.06	5.0											
805		744		687		617		537		405										1400
0.06	8.0	0.07	7.8	0.08	7.5	0.08	7.1	0.08	6.7	0.08	6.3									
863		805		752		691		621		538				226						1500
0.08	9.2	0.09	9.0	0.09	8.7	0.10	8.3	0.10	7.9	0.10	7.5	0.06	7.2							
891		836		784		727		661		586				474						1550
0.09	9.8	0.10	9.6	0.10	9.3	0.11	8.9	0.11	8.5	0.11	8.1	0.11	7.7							

Performance shown is for Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories).
 The sound ratings shown are loudness values in hemispherical sones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA Standard 301.
 Values shown are for Installation Type A: free inlet hemispherical sone levels.
 AMCA Certified Ratings apply to the CRDA Roof Ventilator constant speed fans and not variable speed fans.

CRDA12 - CRDA13 Performance Data

CRDA12 CFM at Static Pressure																RPM RANGE OF SELECTED MODELS			RPM
0.00		.125		.250		.375		.500		.625		.750		1.00		CRDA12E10	CRDA12J16	CRDA12J17*	
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/8 HP	1/2 HP	1/2 HP	
623		442																	550
0.01	1.3	0.02	0.7																650
736		593																	750
0.02	2.3	0.03	1.7																850
850		729		577															950
0.03	3.3	0.04	2.7	0.04	2.5														1025
963		856		737		557													1150
0.05	4.4	0.05	3.8	0.06	3.6	0.06	3.4												1300
1,076		981		882		762		530											1450
0.06	5.4	0.07	5.0	0.08	4.8	0.08	4.7	0.07	4.5										1600
1,161		1,074		984		879		747											1690
0.08	6.4	0.09	6.0	0.10	5.8	0.10	5.7	0.10	5.5										1725
1,303		1,225		1,145		1,062		964		843		566							
0.11	8.1	0.12	7.7	0.14	7.4	0.14	7.4	0.15	7.3	0.15	7.1	0.12	7.0						
1,473		1,405		1,334		1,264		1,186		1,100		1,002							
0.16	10.5	0.18	10.1	0.19	9.8	0.20	9.7	0.21	9.6	0.22	9.6	0.22	9.5						
1,643		1,582		1,519		1,455		1,392		1,322		1,244		1,057					
0.23	13.1	0.24	12.8	0.26	12.5	0.27	12.3	0.28	12.2	0.29	12.2	0.30	12.1	0.30	11.9				
1,813		1,758		1,701		1,643		1,586		1,529		1,464		1,322					
0.30	15.5	0.32	15.2	0.34	14.9	0.35	14.7	0.37	14.5	0.38	14.4	0.39	14.3	0.40	14.2				
1,915		1,863		1,809		1,755		1,700		1,647		1,590		1,460					
0.36	17.1	0.38	16.8	0.39	16.5	0.41	16.2	0.43	16.1	0.44	16.0	0.45	15.9	0.47	15.7				
1,955		1,904		1,851		1,798		1,744		1,692		1,637		1,512					
0.38	17.7	0.40	17.4	0.42	17.1	0.43	16.9	0.45	16.7	0.46	16.6	0.47	16.5	0.50	16.3				

CRDA13 CFM at Static Pressure																RPM RANGE OF SELECTED MODELS			RPM
0.00		.125		.250		.375		.500		.625		.750		1.00		CRDA13F11	CRDA13J15	CRDA13K17*	
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/5 HP	1/2 HP	3/4 HP	
833		635																	550
0.02	2.0	0.03	1.3																675
1,023		869		674															800
0.04	3.6	0.04	2.8	0.05	2.3														900
1,212		1,087		941		759													1000
0.06	5.0	0.07	4.4	0.08	3.9	0.08	3.6												1125
1,363		1,255		1,130		991		812											1250
0.08	6.2	0.10	5.9	0.11	5.4	0.11	5.0	0.11	4.7										1350
1,515		1,420		1,310		1,192		1,058		890									1475
0.12	7.7	0.13	7.4	0.14	7.0	0.15	6.6	0.15	6.2	0.15	6.0								1575
1,704		1,622		1,527		1,426		1,319		1,199		1,057							1750
0.17	9.8	0.18	9.5	0.19	9.2	0.20	8.8	0.21	8.4	0.22	8.1	0.21	7.8						
1,894		1,821		1,737		1,649		1,556		1,459		1,352		1,082					
0.23	12.2	0.25	12.0	0.26	11.7	0.27	11.4	0.28	11.0	0.29	10.6	0.30	10.3	0.29	9.7				
2,045		1,978		1,903		1,822		1,739		1,651		1,560		1,348					
0.29	14.3	0.31	14.1	0.32	13.9	0.34	13.5	0.35	13.2	0.36	12.9	0.37	12.5	0.37	11.9				
2,235		2,174		2,107		2,034		1,960		1,882		1,801		1,629					
0.37	16.6	0.39	16.4	0.42	16.2	0.43	15.9	0.44	15.6	0.46	15.3	0.47	15.0	0.48	14.5				
2,386		2,330		2,268		2,201		2,132		2,061		1,987		1,834					
0.45	18.3	0.48	18.2	0.50	18.1	0.52	17.8	0.53	17.5	0.54	17.1	0.56	16.8	0.59	16.3				
2,651		2,601		2,547		2,488		2,427		2,365		2,301		2,168					
0.62	22	0.65	22	0.67	22	0.70	22	0.72	21	0.73	21	0.74	21	0.78	20				

Performance shown is for Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories).
 The sound ratings shown are loudness values in hemispherical sones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA Standard 301.
 Values shown are for Installation Type A: free inlet hemispherical sone levels.
 * - These models are not compatible with variable speed control.
 AMCA Certified Ratings apply to the CRDA Roof Ventilator constant speed fans and not variable speed fans.

CRDA15 - CRDA 20 Performance Data

CRDA15 CFM at Static Pressure																RPM RANGE OF SELECTED MODELS			RPM	
0.00		.125		.250		.375		.500		.625		.750		1.00		CRDA15H11	CRDA15K15	CRDA15L17*		
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/3 HP	3/4 HP	1 HP
1,089		930																		550
0.04	2.4	0.04	1.9																	
1,286		1,169		1,015																650
0.06	3.9	0.07	3.2	0.08	3.1															
1,484		1,391		1,250		1,088														750
0.09	5.2	0.10	4.5	0.11	4.3	0.12	4.3													
1,682		1,609		1,493		1,378		1,194												850
0.13	6.8	0.15	6.2	0.16	5.9	0.17	5.8	0.18	5.7											
1,880		1,824		1,722		1,604		1,517		1,334										950
0.19	8.6	0.20	8.0	0.21	7.6	0.23	7.5	0.24	7.3	0.25	7.2									
2,177		2,134		2,053		1,966		1,860		1,785		1,677								1100
0.29	11.9	0.30	11.4	0.32	10.9	0.33	10.7	0.35	10.5	0.36	10.4	0.38	10.2							
2,276		2,237		2,163		2,079		1,984		1,897		1,824								1150
0.33	13.1	0.34	12.6	0.36	12.2	0.38	11.9	0.39	11.7	0.41	11.6	0.43	11.4							
2,474		2,439		2,379		2,301		2,224		2,128		2,056		1,868						1250
0.42	15.6	0.44	15.1	0.46	14.7	0.48	14.4	0.49	14.2	0.51	14.1	0.53	13.9	0.56	13.5					
2,672		2,641		2,593		2,521		2,450		2,375		2,284		2,161						1350
0.53	17.8	0.55	17.4	0.57	17.0	0.59	16.8	0.61	16.5	0.63	16.4	0.65	16.2	0.68	15.8					
2,820		2,791		2,750		2,685		2,617		2,549		2,471		2,333						1425
0.63	20	0.64	19.2	0.66	18.9	0.69	18.6	0.71	18.4	0.72	18.1	0.75	17.7	0.79	17.2					
2,969		2,941		2,904		2,847		2,782		2,718		2,652		2,501						1550
0.73	21	0.75	21	0.77	20	0.79	20	0.82	20	0.83	20	0.85	19.3	0.90	18.8					
3,414		3,391		3,363		3,325		3,273		3,216		3,160		3,046						1725
1.11	26	1.13	26	1.15	25	1.18	25	1.21	24	1.24	24	1.25	24	1.30	24					

CRDA16 CFM at Static Pressure																RPM OF SELECTED MODELS			RPM	
0.00		.125		.250		.375		.500		.625		.750		1.00		CRDA16J8*	CRDA16L11*	CRDA16N17*		
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/2 HP	1 HP	2 HP
2439		2321		2178		2018		1854		1621										825
0.22	8.3	0.24	7.6	0.26	7.2	0.27	6.9	0.28	6.2	0.28	5.9									
3429		3349		3262		3165		3057		2942		2830		2595						1160
0.60	16.8	0.64	15.8	0.67	15.2	0.69	14.9	0.72	14.4	0.74	14.1	0.76	14.0	0.79	12.2					
5173		5121		5067		5012		4954		4894		4830		4693						1750
2.08	31	2.12	30	2.17	29	2.22	29	2.26	28	2.31	28	2.35	28	2.43	27					

CRDA18 CFM at Static Pressure																RPM OF SELECTED MODELS		RPM		
0.00		.125		.250		.375		.500		.625		.750		1.00		CRDA18J8*	CRDA18L11*			
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/2 HP	1 HP	
3,095		2,995		2,824		2,666		2,482		2,233		1,915								825
0.31	11.7	0.33	10.8	0.36	10.5	0.38	9.7	0.40	9.6	0.41	8.9	0.40	8.5							
4,352		4,291		4,208		4,084		3,966		3,856		3,740		3,476						1160
0.86	23	0.89	22	0.93	21	0.97	21	1.01	21	1.04	21	1.06	19.3	1.10	19.9					

CRDA20 CFM at Static Pressure																RPM OF SELECTED MODEL	RPM			
0.00		.125		.250		.375		.500		.625		.750		1.00		CRDA20M11*				
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1-1/2 HP		
5,730		5,621		5,506		5,382		5,255		5,130		5,007		4,754						1160
1.45	34	1.49	28	1.54	25	1.59	24	1.64	24	1.67	24	1.68	23	1.73	22					

Performance shown is for Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories).
 The sound ratings shown are loudness values in hemispherical sones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA Standard 301.
 Values shown are for Installation Type A: free inlet hemispherical sone levels.
 * - These models are not compatible with variable speed control.
 AMCA Certified Ratings apply to the CRDA Roof Ventilator constant speed fans and not variable speed fans.

Installation

Most models are shipped fully assembled and ready for installation. Always inspect equipment for transit damage before accepting delivery to assure a valid claim. Special handling and storage procedures are required if unit is to remain idle for a long time prior to installation.

Placement

All belt-driven units must be accessibly installed for maintenance and servicing of belts, bearings, motors and pulleys. Horizontal operation only is recommended to assure satisfactory damper operation.

Mounting

Satisfactory operation of roof ventilators requires mounting on adequately designed and constructed roof curbs. Prefabricated curbs for convenience in installation are available from ILG. Install with base of unit horizontal. Provide adequate caulking, flashing or other weatherproofing means.

Inspection

Check centrifugal wheel for free rotation.
Check belt for proper tension (CRBCA & CRBA).
Check bearings for proper and secure locking to drive shaft (CRBA).
Check motor and fan sheave faces for proper alignment (CRBCA & CRBA).
Check circuit phase, voltage and wiring connection against that shown on motor nameplate.
Check direction of fan rotation for proper air flow.
After one week of operation, check belt for proper tension (CRBCA & CRBA).

Maintenance

Units should be checked monthly for the first two or three months and periodically thereafter. Units should be cleaned periodically and checked for eroded parts which should be replaced to avoid structural damage and possible failure. Proper lubrication is the most important maintenance requirement. CRBA units should be lubricated as necessary based on usage and operating conditions. "C-Drive" bearings on all CRBCA units are permanently sealed and require **no** lubrication. Motor bearings should be lubricated according to the motor manufacturer's instructions.

Adjustment of Variable Pitch Pulley and Belt (CRBCA & CRBA)

Variable pitch pulley may be adjusted within catalog RPM range to alter performance without motor overload. Pulley alignment and belt tension should be adjusted if necessary. Inspection every 6 to 12 months is recommended.

Options & Accessories

Prefabricated Roof Curbs

Insulated roof curbs with weather-resistant continuous welded construction are available for convenience in installation for both insulated and non-insulated roof decks.

Special Motors

Two-speed, totally enclosed, energy efficient and explosion-proof motors for hazardous locations may be available for many models. Motor requirements may affect UL Listing.

Backdraft Dampers

Gravity or motor operated backdraft dampers are available. They are aluminum construction and designed for installation in prefabricated roof curbs.

Safety Disconnects

Safety disconnects cut power to motor for servicing of unit. A disconnect device is standard on all CRDA units and an option for CRBA and CRBCA units. It may be shipped loose for field installation or factory mounted and wired.

Protective Coatings

Fan units are not recommended for exhausting air of a corrosive nature. However, special protective coatings are available where units may be exposed to corrosive exterior conditions. Parts requiring painting are processed through the American Coolair five-stage pretreatment system prior to the application of any coatings to insure maximum finish adhesion. These parts use a thermosetting epoxy powder paint with an average thickness of 3 mils and baked at 400°F to a smooth, hard continuous finish. Consult your ILG Industries representative for available coatings.

Roof Handle

Aluminum handle facilitates removal of roof.

WARNING



CAUTION

DO NOT INSTALL FAN WITH MOVING PARTS WITHIN 8 FEET OF FLOOR OR GRADE LEVEL WITHOUT A GUARD THAT COMPLIES WITH OSHA REGULATIONS. **DO NOT** USE UNLESS ELECTRICAL WIRING COMPLIES WITH ALL APPLICABLE CODES. **DO NOT** WIRE WITHOUT PROVIDING FOR A POWER SOURCE DISCONNECT AT THE FAN ITSELF. **DO NOT** SERVICE EXCEPT BY A QUALIFIED MAINTENANCE TECHNICIAN AND ONLY AFTER DISCONNECTING THE POWER SOURCE. FAILURE TO OBSERVE THESE PRECAUTIONS CAN RESULT IN SERIOUS INJURY OR DEATH.

To convert air performance (CFM and SP) and power (BHP) to metric units, multiply CFM x .000472 to obtain cubic meters per second (m³/s). Multiply SP x 248.36 to obtain pascals (Pa). Multiply BHP x .7457 to obtain kilowatts (kW).

Example: 3904 CFM x .000472 = 1.8427 m³/s
0.125 SP x 24.36 = 31.05 Pa
0.886 BHP x .7457 = 0.661 kW

CRBCA Specification Checklist

General exhaust units for low to medium air volumes in commercial, institutional and light manufacturing buildings. Centrifugal design with advantages of compact, attractive appearance, quiet operation and performance against higher static pressures. Variable pitch belt drive allows for speed adjustment. Hinged motor bracket with a belt tensioning bolt. Weatherproof heavy duty aluminum housing and motor compartment cover resist corrosion and maintain appearance. Deep-spun, overlapping, one-piece venturi minimizes noise, reduces air turbulence and improves efficiency. "C-Drive" design provides a calculated L10 bearing life in excess of 1,000,000 hours with its unique radial loading elimination design. Aluminum centrifugal wheel is quiet, non-overloading, backward-inclined design and is computer balanced. Standard open drip-proof motor is out of the airstream for protection. The motor's electrical connection terminal board is up for easy and convenient electrical connection and servicing. Positively cooled motor compartment with forced air ventilation system extends motor life. UL Label (UL 705) for general ventilation. Conduit raceway for ease in connecting to power supply. AMCA Seal assures certified rating of air and sound performance. Birdscreen prevents entry of birds or other potentially damaging objects. Heavy duty neoprene isolators eliminate metal-to-metal contact, reducing vibration and sound.

CRBA Specification Checklist

Units provide general exhaust of low, medium and high air volumes in commercial, institutional and light manufacturing buildings. Centrifugal design has advantages of compact, attractive appearance, quiet operation and performance against higher static pressures. Variable pitch belt drive allows for speed adjustment. Hinged motor bracket with belt tensioning bolt(s). Weatherproof heavy duty aluminum housing and motor compartment cover resist corrosion and maintain appearance. Deep-spun, overlapping, one-piece venturi minimizes noise, reduces air turbulence and improves efficiency. Centrifugal wheel is quiet, non-overloading, backward-inclined design and is computer balanced. Standard open drip-proof motor is out of the airstream for protection. The motor is mounted with the shaft up for convenient access to the variable pitch cast iron motor pulley. Motor compartment is cooled by a forced air ventilation system, extending motor life. UL Label (UL 705) for general ventilation. Conduit raceway allows for ease in connecting to power supply. AMCA Seal assures certified rating of air and sound performance. Birdscreen prevents entry of birds or other potentially damaging objects. Heavy duty neoprene isolators eliminate metal-to-metal contact, reducing vibration and sound. Heavy duty pillow-block bearings with cast iron housing are self-aligning and relubricable.

CRDA Specification Checklist

General exhaust units for low to medium air volumes in commercial, institutional and light manufacturing buildings. Centrifugal design with advantages of compact, attractive appearance, quiet operation and performance against higher static pressures. Spun aluminum housing for durable weather protection and attractive appearance. Direct-drive advantages of minimal maintenance and operating costs. Deep-spun, overlapping, one piece venturi minimizes noise, reduces air turbulence and improves efficiency. Aluminum centrifugal wheel is quiet, non-overloading, backward-inclined design and is computer balanced. Standard open motor is out of the airstream for protection. The motor's electrical connection terminal board is up for easy and convenient electrical connection and servicing. Positively cooled motor compartment with forced air ventilation system extends motor life. UL Label (UL 705) for general ventilation. Safety disconnect device enables cut-off of power to unit for servicing. Birdscreen prevents entry of birds or other potentially damaging objects. Factory run and tested prior to shipment for dependable operation. AMCA Seal assures certified rating of air and sound performance.

Limited Warranty

In the sale of its products, American Coolair Corporation agrees to correct, by repairs or replacement, any defects in workmanship or material that may develop under proper and normal use during the period of one year from the date of shipment from the factory. Any product or part proving, upon American Coolair's examination, to be defective during limited warranty period will be repaired or replaced, at American Coolair's option, f.o.b. factory, without charge.

Deterioration or wear caused by chemicals, abrasive action or excessive heat shall not constitute defects.

Motors are guaranteed only to the extent of the manufacturer's warranty.

American Coolair's limited warranty does not apply to any of its products or parts that have been subject to accidental damage, misuse by the user, unauthorized alterations, improper installation or electrical wiring, or lack of proper lubrication or other service requirements as established by American Coolair.

Repairs or replacements provided under the above terms shall constitute fulfillment of all American Coolair's obligations with respect to limited warranty.

THE LIMITED WARRANTY STATED HEREIN IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, STATUTORY OR IMPLIED, INCLUDING WITHOUT LIMITATION THAT OF MERCHANTABILITY AND FITNESS.

NO LIABILITY FOR REINSTALLATION COST OR FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OF ANY NATURE IS ASSUMED OR SHALL BE IMPOSED UPON AMERICAN COOLAIR.



AMERICAN COOLAIR CORPORATION

REPRESENTED BY:

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VANE AXIAL FANS ~ TUBE AXIAL FANS ~ PROPELLER FANS ~ POWER ROOF VENTILATORS ~ CENTRIFUGAL VENTILATORS
MEMBER OF AMCA

Form No. 725-15-4 (December, 2008)



TYPE - CW

CENTRIFUGAL WALL EXHAUST FANS

BELT & DIRECT DRIVE



DIVISION

AMERICAN COOLAIR
CORPORATION



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Founded in 1928, American Coolair Corporation is a manufacturer of axial, centrifugal, high temperature and mixed flow fans for commercial, industrial, and restaurant applications. American Coolair also produces ventilation and evaporative cooling systems for the poultry, swine, dairy, greenhouse and golf industries.

American Coolair products are fabricated in a 210,000 sq. ft. manufacturing complex by employees who value economy and efficiency. Each ventilation system and accessory is crafted with quality materials for durable wear and low maintenance.

American Coolair continues to design, manufacture, sell, and service ventilation products and accessories with one goal in mind: to remain the market leader by providing the best, most cost-efficient ventilation products available anywhere.



TYPE - CW WALL FAN PACKAGES

APPLICATION

Type-CW units are quiet, dependable centrifugal exhaust wall fans recommended for a wide range of general exhaust applications where low and medium ranges of air volume and pressure are specified. Applications include virtually all types of light manufacturing, commercial and institutional buildings such as shopping centers, hospitals, schools, hotels, office and apartment buildings, warehouses, airports, bus terminals and many others.

Type-CW units are specified where a wall-mounted location is desired to eliminate interference with other equipment or activities in the building. They permit the direct outward venting of overheated air. Type-CW units may be used with or without ducts.

LONG LASTING CONSTRUCTION

Type-CW models feature a housing of durable spun aluminum for optimum weather protection. The overlapping deep-spun venturi minimizes air turbulence and increases efficiency.

The aluminum centrifugal wheel is a non-overloading, backward-inclined type, selected for low noise level. All models are computer balanced on state-of-the-art equipment. Backplate fins draw cool air through the motor compartment, extending the life of the motor. Neoprene vibration isolators to reduce noise and wear, and a birdscreen are all standard.

DRIVE MECHANISMS

Type-CW models are available in both Belt Drive and Direct Drive configurations. Belt Drive models are available from 12 - 20 inches, and Direct Drive models are available from 6 - 20 inches.

More information on Belt Drive models can be found on pages 4 - 5.

More information on Direct Drive models can be found on pages 6 -7.

MOTORS

The standard motor for Type-CW units is an open construction motor, located out of the airstream. Totally enclosed, energy efficient, two-speed and explosion-proof motors may also be available. All motor brands are recognized and serviced nationwide. Motor enclosures may affect the UL Listing.

STANDARD FEATURES

- Weather-resistant motor compartment cover of spun aluminum removes easily for access to motor and drives
- Out-of-airstream open motors are isolated for protection from exhaust airstream
- Overlapping wheel and deep-spun venturi minimize noise and air turbulence, increasing efficiency
- Aluminum centrifugal wheel is a non-overloading, backward-inclined design and is computer balanced
- Permanently affixed wheel balance weights assure vibration-free operation
- Wheel backplate fins cool the motor compartment, extending the life of the motor
- Birdscreen is 1/2" x 1/2" galvanized wire mesh
- AMCA Seal assures certification of Sound and Air Performance
- UL Listed for Standard 705



American Coolair Corporation certifies that the Types CWBA and CWDA units shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA publication 311 and comply with the requirements of the AMCA Certified Ratings Program.



Types CWBA and CWDA ventilators are listed by Underwriters Laboratory Inc. to US and Canadian safety standards.



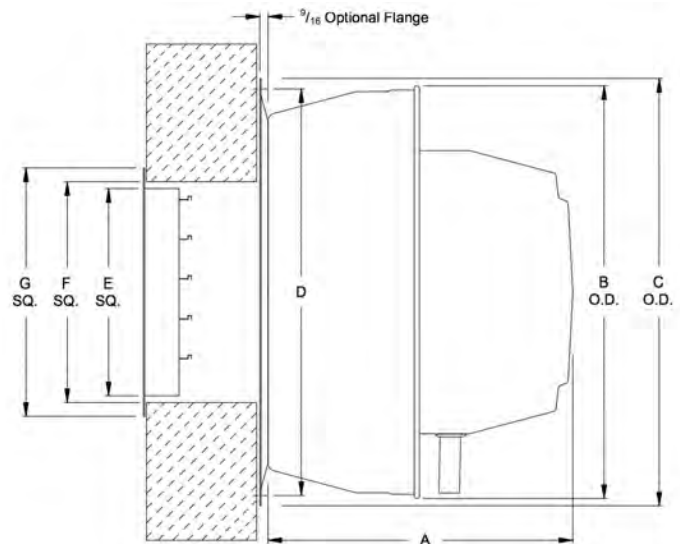
CWBA units provide general exhaust for low to medium air volumes in commercial, institutional and light manufacturing buildings. The centrifugal design has the advantages of a compact, attractive appearance with quiet performance against higher static pressure. The advantages of a CWBA Belt Drive unit include quieter operation, adjustable performance to suit operating needs, and extended service life using the 'C-Drive' bearing arrangement.

FEATURES

- Variable pitch pulley allows for speed adjustments
- Adjustable hinged motor bracket with single bolt adjustment facilitates maintenance of belt tension
- Weatherproof heavy duty aluminum housing and motor compartment cover resist corrosion and maintain appearance
- Deep-spun, overlapping, one-piece venturi minimizes noise, reduces air turbulence and improves efficiency
- Unique 'C-Drive' design reduces radial bearing loads, providing a calculated L10 bearing life in excess of 1,000,000 hours
- Aluminum centrifugal wheel's quiet, non-overloading, backward-inclined design is computer balanced
- Standard open drip-proof motor is isolated from the airstream for protection and efficiency
- Motor is mounted with the electrical terminal board facing outward for convenient electrical connection and servicing
- Motor compartment is cooled by a forced air ventilation system, extending motor life
- Heavy-duty neoprene isolators eliminate metal-to-metal contact, reducing vibration and sound
- Birdscreen prevents the entry of birds or other potentially damaging objects
- Units are factory tested prior to shipment for dependable operation
- UL Listed for Standard 705 (General Ventilation)
- AMCA licensed for Sound and Air Performance



DIMENSIONS



Model	Ventilator Dimensions				Damper Dimensions		
	A	B	C	D	E	F	G
12 - 15	22 1/8	29 7/8	31	29 1/2	15	15 3/4	17 1/2
16 - 20	24 3/8	35 7/8	36	34 1/2	22	22 3/4	24 1/2

Dimensions in Inches

DETAILS

- Available in sizes 12" - 20"
- Produces 711 - 5709 CFM
- Static Pressure to 2"



DRIVE MECHANISM

The belt driven CWBA utilizes the 'C-Drive', a unique bearing and shaft arrangement that increases value, efficiency and longevity. The 'C-Drive' is patterned after American Coolair's unique static shaft drive design that has been in existence for over 75 years, serving the general ventilation markets with reliable propeller products. This type of drive uses a captured bearing arrangement inside of a cast aluminum disc assembly locked to a short, large hex shaft.

The shaft is held stationary and the centrifugal wheel assembly rotates on the shaft instead of the entire assembly rotating.

The wheel is secured to the machined aluminum 'C-Drive' disc, and computer balanced on state-of-the-art equipment.

The result of this design is a reduction of radial loading of the bearings, increasing the calculated L10 bearing life to more than 1,000,000 hours, and average bearing life to 5,000,000 hours - more than 5 times the industry standard.

The machined surface of the 'C-Drive' also provides a rigid backplate for the centrifugal wheel. Electrical connections on the end of the motor face outwards, making field connections swift and simple.

The compact drive assembly provides more room in the motor compartment area and the single bolt, V-belt adjustment makes for a very serviceable unit. More information on the 'C-Drive' can be found below.

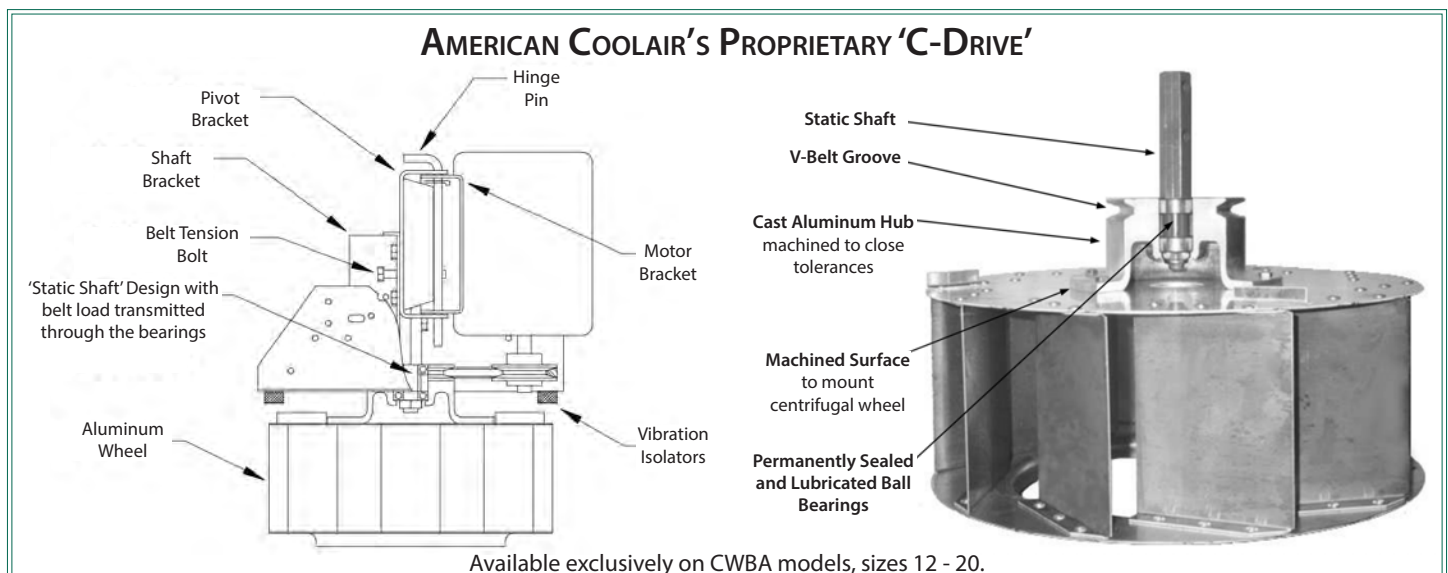
GUIDE SPECIFICATIONS

Wall mounted exhaust fans shall be of the CWBA centrifugal type as manufactured by ILG Industries of American Coolair Corporation (individual models to be listed in fan schedule). Units shall meet UL Standard 705 and shall bear the AMCA Certified Ratings Seal for Sound and Air Performance. Housing and venturi inlet shall be one piece heavy gauge spun aluminum with wheel and venturi overlapping for efficient operation. Motor compartment cover shall be heavy gauge spun aluminum construction and easily removable for access to motor and drive.

Drive construction shall be of the ILG 'C-Drive' design consisting of static shaft/bearing arrangement mounted in a machined cast aluminum disc assembly. The disc assembly shall be mounted onto the backplate of the centrifugal wheel. The centrifugal wheel shall be heavy gauge aluminum with backward-inclined, non-overloading blades and be computer balanced.

Bearings shall have a calculated L10 bearing life in excess of 1,000,000 hours. Motor shall be open drip-proof construction, NEMA design B with minimum service factor of 1.15. Adjustable motor pulley shall be provided to allow for field adjustment and system balance. Motor shall be mounted on a steel mounting bracket with single bolt adjustment. Motor shall be mounted with the shaft down to allow easy access to the electrical wiring terminal board/circuit box.

Safety disconnect switch, backdraft damper, epoxy coating, wall mounting flange and other accessories shall be listed in the fan schedule.





CWDA units provide general exhaust for low to medium air volumes in commercial, institutional and light manufacturing buildings. The centrifugal design has the advantages of a compact, attractive appearance with quiet performance against higher static pressure. The advantages of a CWDA Direct Drive unit include lower maintenance requirements, reduced risks of lower performance levels as a result of loose belts, and lower operating costs.

FEATURES

- Direct Drive configuration reduces maintenance and operating costs
- Safety disconnect device allows power to be turned off for unit service
- Weatherproof heavy-duty spun aluminum housing and motor compartment cover resist corrosion and maintain appearance
- Deep-spun, overlapping, one-piece venturi minimizes noise, reduces air turbulence and improves efficiency
- Aluminum centrifugal wheel's quiet, non-overloading, backward-inclined design is computer balanced for precision
- Standard open motor is isolated from the airstream for protection and efficiency
- Motor is mounted with the electrical terminal board facing outward for convenient electrical connection and servicing
- Motor compartment is cooled by a forced air ventilation system, extending motor life
- Heavy-duty neoprene isolators eliminate metal-to-metal contact, reducing vibration and sound
- Birdscreen prevents the entry of birds and other potentially damaging objects
- Units are factory tested prior to shipment for dependable operation
- UL Listed for Standard 705 (General Ventilation)
- AMCA licensed for Sound and Air Performance

DETAILS

- Available in sizes 6" - 20"
- Produces 133 - 4942 CFM
- Static Pressure to 1"



DRIVE MECHANISM

CWDA models have all of the advantages of a direct drive assembly. There are no belts, bearings or pulleys to consume power or maintain.

ENERGYSAVER SPEED CONTROLLABLE MOTOR

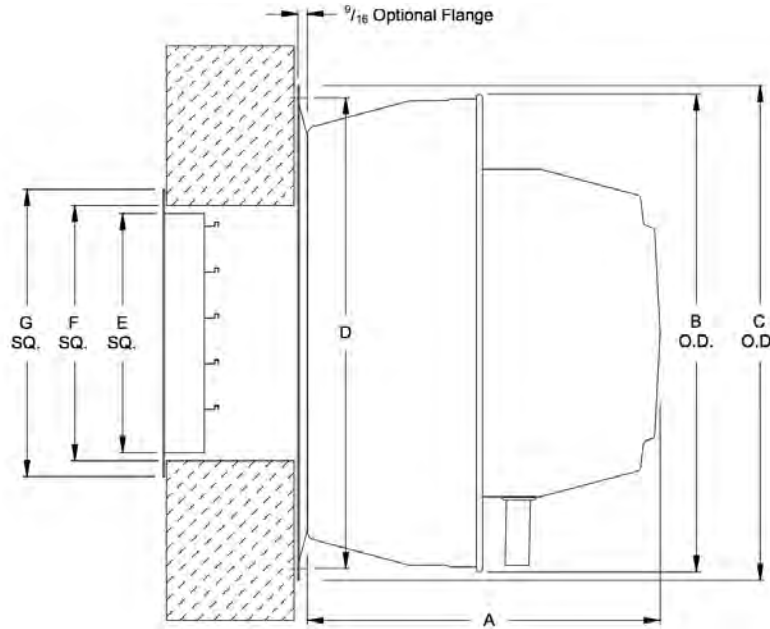
American Coolair is proud to introduce our new line of EnergySaver motors. These electronically controlled (EC) motors are controllable to 20% of nameplate speed and provide premium efficiency throughout their speed range. When compared to the standard permanent split capacitor (PSC) motors, EnergySaver motors can provide energy savings of 50% or more!

The dial speed controller for the EnergySaver motor can be specified and pre-wired at the factory, or packaged loose for remote field mounting. EnergySaver motors may also be specified for use with a variable pressure control (VPC). The VPC features a remotely mounted pressure sensor which is connected to the motor controller. Motor speed is then automatically adjusted based on the system status as indicated by the pressure sensor. Once set and tuned for the system, the VPC allows for fully automated ventilation control.

EnergySaver motors are available for CWDA06 - CWDA15.



DIMENSIONS



Model	Ventilator Dimensions				Damper Dimensions		
	A	B	C	D	E	F	G
06 - 10	12 1/8	23 3/4	25 1/4	24 1/8	10 1/4	10 3/4	13 1/2
12E10							
12J16							
13F11	17	29 7/8	31	29 1/2	14 1/4	14 3/4	17 1/2
13J15							
15H10							
15K15							
12J17							
13K17	22 1/8	29 7/8	31	29 1/2	14 1/4	14 3/4	17 1/2
15L17							
16 - 20	24 3/8	35 7/8	36	34 1/2	18 1/4	18 3/4	21 1/2

Dimensions in Inches

GUIDE SPECIFICATIONS

Wall mounted exhaust fans shall be of the CWDA centrifugal type as manufactured by ILG Industries of American Coolair Corporation (individual models to be listed in fan schedule). Units shall meet UL Standard 705 and shall bear the AMCA Certified Ratings Seal for Sound and Air Performance. Housing and venturi inlet shall be one piece heavy gauge spun aluminum with wheel and venturi overlapping for efficient operation. Motor compartment cover shall be heavy gauge spun aluminum construction and easily removable for access to motor.

Drive construction shall be of the direct drive design. The line bore hub shall be mounted onto the backplate of the centrifugal wheel. The centrifugal wheel shall be heavy gauge aluminum with backward-inclined, non-overloading blades and be computer balanced.

Motor shall be open construction, NEMA Design B. Optional variable speed control on some models allows for field adjustment and system balance. The unit shall be equipped with a safety disconnect device.

Backdraft damper, epoxy coating, wall mounting flange and other accessories shall be listed in the fan schedule.



CWBA 12

CFM at Static Pressure																		RPM Range Motor HP					RPM			
0.00		.125		.250		.375		.500		.750		1.00		1.25		1.50		2.00		1/4 L	1/4 H	1/3		1/2	3/4	
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone					
1101		1024		942		846		742																		1072
0.08	6.2	0.09	5.8	0.10	5.6	0.10	5.4	0.10	5.2																	
1150		1076		998		909		815																		1119
0.09	6.6	0.10	6.3	0.11	6.1	0.12	6.0	0.12	5.7																	
1198		1127		1053		971		881																		1166
0.11	7.2	0.11	6.8	0.12	6.6	0.13	6.6	0.13	6.3																	
1245		1177		1106		1030		943		711																1212
0.12	7.6	0.13	7.3	0.14	7.1	0.14	7.1	0.15	6.9	0.15	6.6															
1294		1228		1160		1088		1005		810																1259
0.13	8.2	0.14	7.9	0.15	7.7	0.16	7.7	0.17	7.5	0.17	7.1															
1341		1278		1212		1144		1067		895																1305
0.15	8.7	0.16	8.5	0.17	8.3	0.18	8.2	0.18	8.1	0.19	7.7															
1389		1328		1265		1201		1128		970																1352
0.16	9.3	0.17	9.1	0.18	8.9	0.19	8.8	0.20	8.8	0.21	8.3															
1437		1379		1318		1256		1188		1038		820														1399
0.18	9.9	0.19	9.7	0.20	9.6	0.21	9.4	0.22	9.4	0.23	9.0	0.23	8.7													
1485		1428		1369		1309		1246		1101		918														1445
0.20	10.6	0.21	10.4	0.22	10.2	0.23	10.0	0.24	10.1	0.25	9.7	0.25	9.3													
1533		1478		1422		1364		1303		1165		1007														1492
0.22	11.3	0.23	11.1	0.24	10.9	0.25	10.7	0.26	10.7	0.28	10.4	0.28	10.1													
1581		1528		1473		1418		1360		1227		1086		859												1539
0.24	11.9	0.25	11.7	0.27	11.5	0.28	11.3	0.29	11.2	0.30	11.2	0.31	10.9	0.30	10.7											
1628		1577		1524		1470		1414		1289		1156		962												1585
0.26	12.6	0.28	12.4	0.29	12.3	0.30	12.1	0.31	12.0	0.33	11.9	0.34	11.7	0.33	11.4											
1677		1627		1575		1523		1470		1351		1222		1059												1632
0.29	13.4	0.30	13.2	0.31	13.0	0.33	12.9	0.34	12.7	0.36	12.8	0.37	12.5	0.37	12.3											
1724		1675		1625		1575		1523		1410		1285		1144												1678
0.31	14.2	0.33	14.0	0.34	13.8	0.35	13.7	0.36	13.5	0.38	13.6	0.40	13.3	0.40	13.1											
1772		1725		1677		1627		1577		1470		1348		1221		1029										1725
0.34	15.0	0.35	14.9	0.37	14.6	0.38	14.6	0.39	14.3	0.41	14.3	0.43	14.1	0.43	14.0	0.43	13.6									
1821		1774		1727		1680		1631		1529		1410		1292		1128										1772
0.37	15.8	0.38	15.7	0.40	15.4	0.41	15.4	0.42	15.1	0.44	15.1	0.46	14.9	0.47	14.7	0.47	14.5									
1868		1823		1777		1731		1683		1585		1472		1357		1217										1818
0.40	16.5	0.41	16.3	0.43	16.1	0.44	16.1	0.45	15.8	0.48	15.7	0.50	15.6	0.51	15.3	0.51	15.2									
1916		1872		1828		1783		1737		1642		1534		1421		1298										1865
0.43	17.2	0.44	17.0	0.46	16.8	0.47	16.8	0.49	16.6	0.51	16.3	0.53	16.3	0.55	16.0	0.55	15.8									
1963		1921		1877		1833		1789		1697		1594		1483		1371										1911
0.46	17.8	0.48	17.7	0.49	17.4	0.51	17.4	0.52	17.3	0.55	17.0	0.57	16.9	0.59	16.7	0.59	16.5									
2012		1970		1928		1885		1841		1752		1655		1546		1440		1113								1958
0.50	18.5	0.51	18.4	0.53	18.2	0.54	18.1	0.56	18.0	0.58	17.6	0.61	17.6	0.63	17.4	0.63	17.2	0.62	16.8							
2060		2019		1978		1936		1894		1807		1714		1609		1505		1217								2005
0.54	19.3	0.55	19.1	0.57	18.9	0.58	18.8	0.60	18.7	0.62	18.3	0.65	18.3	0.67	18.1	0.68	17.9	0.67	17.5							
2107		2067		2027		1986		1945		1861		1771		1670		1568		1313								2051
0.57	20	0.59	19.9	0.60	19.6	0.62	19.4	0.64	19.4	0.66	18.9	0.69	19.0	0.71	18.8	0.73	18.6	0.73	18.2							

Performance certified is for Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories). Power ratings (BHP) do not include transmission losses. Bearing losses are included. The sound ratings shown are loudness values in fan sones at 5 ft. (1.5m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation Type A: free inlet hemispherical sone levels.



CWBA 13

CFM at Static Pressure																			RPM Range Motor HP				RPM		
0.00		.125		.250		.375		.500		.750		1.00		1.25		1.50		2.00		1/4	1/3	1/2		3/4	
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone				
1487		1385		1291		1199		1076																	1072
0.14	8.5	0.15	7.8	0.16	7.2	0.17	6.9	0.17	6.7																
1552		1454		1363		1277		1170		870															1119
0.16	9.4	0.17	8.6	0.18	8.0	0.19	7.7	0.20	7.4	0.19	6.9														1166
1617		1523		1435		1352		1259		997															1212
0.18	10.3	0.19	9.5	0.21	8.7	0.22	8.4	0.22	8.1	0.22	7.7														
1681		1590		1505		1425		1341		1104															1259
0.20	11.2	0.22	10.4	0.23	9.5	0.24	9.2	0.25	8.9	0.25	8.4														
1746		1659		1576		1498		1420		1205		877													1305
0.23	12.2	0.24	11.4	0.26	10.4	0.27	10.0	0.27	9.7	0.28	9.2	0.26	8.7												
1810		1726		1645		1569		1495		1301		1042													1352
0.25	13.3	0.27	12.4	0.28	11.3	0.30	10.9	0.30	10.6	0.31	10.1	0.30	9.6												
1875		1794		1715		1641		1570		1397		1165													
0.28	14.4	0.29	13.5	0.31	12.3	0.33	11.7	0.34	11.5	0.34	10.9	0.34	10.5												
1940		1861		1786		1713		1644		1488		1273		928											1399
0.31	15.2	0.33	14.4	0.34	13.2	0.36	12.4	0.37	12.2	0.38	11.6	0.38	11.2	0.34	10.7										
2004		1928		1854		1783		1716		1573		1373		1124											1445
0.34	15.9	0.36	15.1	0.37	14.0	0.39	13.1	0.41	12.8	0.42	12.3	0.42	11.9	0.40	11.5										
2069		1995		1924		1854		1789		1655		1472		1254											1492
0.38	16.6	0.39	15.8	0.41	14.8	0.43	13.9	0.44	13.5	0.46	13.0	0.46	12.6	0.45	12.3										
2134		2062		1993		1926		1861		1735		1569		1367		1058									1539
0.41	17.3	0.43	16.5	0.45	15.6	0.47	14.7	0.48	14.2	0.50	13.7	0.51	13.3	0.50	13.0	0.47	12.6								
2198		2128		2061		1995		1932		1810		1660		1469		1238									1585
0.45	18.0	0.47	17.3	0.49	16.4	0.51	15.5	0.52	14.9	0.55	14.5	0.56	14.0	0.55	13.6	0.53	13.4								
2263		2195		2129		2065		2003		1885		1750		1570		1367									1632
0.49	18.7	0.51	18.1	0.53	17.2	0.55	16.3	0.57	15.7	0.59	15.3	0.60	14.7	0.60	14.4	0.59	14.3								
2327		2261		2197		2134		2073		1958		1833		1666		1479									1678
0.54	19.5	0.55	18.8	0.57	18.0	0.59	17.1	0.61	16.4	0.64	16.0	0.66	15.5	0.66	15.3	0.65	15.0								
2392		2328		2265		2204		2145		2032		1915		1763		1585									1725
0.58	20	0.60	19.6	0.62	18.8	0.64	17.9	0.66	17.2	0.69	16.8	0.71	16.3	0.72	16.1	0.71	15.9								
2457		2395		2334		2274		2216		2105		1995		1856		1686		1191							1772
0.63	21	0.65	20	0.67	19.7	0.69	18.8	0.71	18.1	0.75	17.6	0.77	17.1	0.78	16.9	0.77	16.6	0.70	16.3						

Performance certified is for Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories). Power ratings (BHP) do not include transmission losses. Bearing losses are included. The sound ratings shown are loudness values in fan sones at 5 ft. (1.5m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation Type A: free inlet hemispherical sone levels.



CWBA 15

CFM at Static Pressure																				RPM Range Motor HP					RPM	
0.00		.125		.250		.375		.500		.750		1.00		1.25		1.50		2.00		1/4	1/3	1/2	3/4	1		
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone					
2013		1917		1817		1712		1597		1289															1072	
0.24	9.1	0.26	8.4	0.27	8.2	0.28	8.7	0.29	8.3	0.28	7.9															
2102		2009		1914		1815		1709		1437															1119	
0.28	9.8	0.29	9.1	0.31	8.9	0.32	9.3	0.32	9.4	0.33	8.7															
2190		2101		2010		1916		1817		1575		1249													1166	
0.31	10.5	0.33	9.8	0.34	9.5	0.35	9.7	0.36	10.4	0.37	9.6	0.37	9.5													
2276		2191		2104		2014		1920		1701		1403													1212	
0.35	11.2	0.37	10.5	0.38	10.2	0.40	10.4	0.41	11.3	0.42	10.4	0.41	10.3													
2364		2283		2199		2113		2024		1823		1556													1259	
0.39	12.0	0.41	11.2	0.43	11.0	0.44	11.1	0.45	11.9	0.46	11.4	0.46	11.2													
2451		2372		2291		2209		2124		1937		1698		1401											1305	
0.44	12.8	0.46	12.0	0.47	11.7	0.49	11.9	0.50	12.3	0.52	12.2	0.52	11.8	0.51	11.8											
2539		2463		2386		2306		2225		2049		1835		1559											1352	
0.49	13.7	0.51	12.9	0.53	12.6	0.54	12.7	0.55	12.9	0.57	13.2	0.58	12.5	0.57	12.4											
2627		2554		2479		2403		2325		2159		1963		1712		1421									1399	
0.54	14.6	0.56	13.8	0.58	13.5	0.60	13.6	0.61	13.8	0.63	14.2	0.64	13.3	0.63	13.1	0.63	13.0									
2714		2643		2570		2497		2421		2263		2082		1857		1588									1445	
0.60	15.5	0.62	14.7	0.64	14.4	0.65	14.4	0.67	14.6	0.69	15.0	0.70	14.1	0.70	13.8	0.70	13.7									
2802		2733		2663		2592		2520		2369		2200		1995		1744									1492	
0.66	16.5	0.68	15.7	0.70	15.3	0.72	15.3	0.73	15.5	0.76	15.8	0.77	15.1	0.78	14.6	0.77	14.5									
2890		2824		2756		2687		2617		2472		2314		2127		1897									1539	
0.72	17.5	0.74	16.7	0.76	16.3	0.78	16.3	0.80	16.5	0.83	16.6	0.84	16.0	0.85	15.4	0.84	15.3									
2977		2912		2846		2780		2712		2572		2422		2249		2040									1585	
0.79	18.6	0.81	17.7	0.83	17.2	0.85	17.2	0.87	17.4	0.90	17.5	0.92	17.0	0.93	16.3	0.93	16.1									
3065		3002		2939		2874		2808		2674		2531		2370		2179		1706							1632	
0.86	19.6	0.88	18.7	0.91	18.2	0.93	18.2	0.94	18.4	0.97	18.5	1.00	18.0	1.01	17.4	1.02	17.1	1.00	16.9							
3151		3090		3029		2966		2902		2772		2635		2484		2308		1865							1678	
0.93	21	0.96	19.7	0.98	19.3	1.00	19.2	1.02	19.3	1.05	19.5	1.08	18.9	1.10	18.4	1.11	18.0	1.09	17.9							

Performance certified is for Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories). Power ratings (BHP) do not include transmission losses. Bearing losses are included. The sound ratings shown are loudness values in fan sones at 5 ft. (1.5m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation Type A: free inlet hemispherical sone levels.



CWBA 16

CFM at Static Pressure																				RPM Range Motor HP					RPM	
0.00		.125		.250		.375		.500		.750		1.00		1.25		1.50		2.00		1/3	1/2	3/4	1	1 1/2		
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone					
2529		2399		2270		2131		1977		1587															954	
0.31	10.1	0.32	9.6	0.34	9.4	0.35	9.1	0.36	8.9	0.35	8.1															
2627		2501		2378		2247		2098		1780															991	
0.34	10.7	0.36	10.3	0.38	10.1	0.39	9.9	0.40	9.8	0.40	9.0															
2725		2604		2485		2362		2220		1938		1198													1028	
0.38	11.4	0.40	10.9	0.42	10.7	0.44	10.6	0.45	10.5	0.45	9.9	0.39	8.2													
2821		2703		2588		2471		2339		2073		1563													1064	
0.43	12.1	0.45	11.7	0.47	11.4	0.48	11.3	0.49	11.3	0.50	10.8	0.47	9.4													
2919		2805		2694		2581		2458		2200		1829													1101	
0.47	12.9	0.49	12.5	0.51	12.3	0.53	12.2	0.54	12.2	0.56	11.7	0.54	10.7													
3017		2907		2799		2691		2576		2322		2025	1208												1138	
0.52	13.7	0.54	13.4	0.56	13.1	0.58	13.0	0.60	13.0	0.62	12.6	0.61	11.8	0.52	9.7											
3113		3006		2901		2796		2687		2439		2185	1603												1174	
0.57	14.5	0.59	14.2	0.62	13.9	0.64	13.7	0.65	13.7	0.67	13.5	0.67	12.8	0.61	11.0											
3211		3107		3006		2904		2800		2560		2329	1915												1211	
0.63	15.4	0.65	15.1	0.67	14.9	0.70	14.7	0.71	14.6	0.74	14.5	0.74	13.8	0.71	12.5											
3309		3208		3109		3011		2911		2682		2461	2141	1339											1248	
0.69	16.3	0.71	16.1	0.73	15.8	0.76	15.6	0.78	15.5	0.80	15.5	0.81	15.0	0.79	13.9	0.69	11.6									
3407		3309		3213		3118		3021		2804		2586	2323	1746											1285	
0.75	17.2	0.77	17.0	0.80	16.7	0.82	16.5	0.84	16.4	0.87	16.5	0.89	16.0	0.88	15.2	0.80	13.1									
3502		3407		3314		3221		3128		2922		2704	2477	2058											1321	
0.82	18.1	0.84	17.9	0.86	17.6	0.89	17.4	0.91	17.2	0.94	17.3	0.96	17.0	0.96	16.3	0.91	14.8									
3600		3508		3417		3327		3236		3042		2824	2619	2295											1358	
0.89	19.1	0.91	18.9	0.94	18.6	0.96	18.4	0.98	18.2	1.02	18.3	1.04	18.0	1.05	17.4	1.02	16.2									
3698		3608		3520		3432		3344		3158		2945	2751	2486											1395	
0.96	20	0.99	19.9	1.01	19.7	1.04	19.4	1.06	19.2	1.10	19.3	1.13	19.2	1.14	18.6	1.12	17.6									
3850		3763		3678		3593		3509		3334		3133	2942	2733	1674										1452	
1.08	22	1.11	22	1.14	21	1.16	21	1.19	21	1.23	21	1.26	21	1.28	20	1.28	19.6	1.10	15.7							
3948		3863		3780		3697		3615		3447		3256	3063	2874	2066										1489	
1.17	23	1.19	23	1.22	22	1.25	22	1.28	22	1.32	22	1.36	22	1.38	22	1.38	21	1.26	17.6							
4048		3966		3885		3804		3724		3561		3380	3186	3009	2388										1527	
1.26	24	1.29	24	1.31	23	1.34	23	1.37	23	1.42	23	1.46	23	1.48	23	1.49	22	1.41	19.4							
4147		4066		3986		3908		3830		3671		3499	3307	3134	2627										1564	
1.36	25	1.38	24	1.41	24	1.44	24	1.47	24	1.52	23	1.56	24	1.59	24	1.60	23	1.55	21							
4245		4166		4088		4011		3935		3781		3616	3429	3257	2823										1601	
1.45	25	1.48	25	1.51	25	1.54	25	1.57	25	1.62	24	1.66	24	1.70	24	1.71	24	1.69	22							

Performance certified is for Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories). Power ratings (BHP) do not include transmission losses. Bearing losses are included. The sound ratings shown are loudness values in fan sones at 5 ft. (1.5m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation Type A: free inlet hemispherical sone levels.



CWBA 18

CFM at Static Pressure																				RPM Range Motor HP					RPM	
0.00		.125		.250		.375		.500		.750		1.00		1.25		1.50		2.00		1/2	3/4	1	1 1/2	2		
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone					
3248		3011		2893		2767		2612		2161															918	
0.42	11.3	0.44	10.3	0.46	10.1	0.48	9.9	0.49	9.5	0.48	8.6															
3375		3140		3024		2908		2764		2386		1658													954	
0.47	12.0	0.50	11.0	0.52	10.7	0.54	10.7	0.55	10.3	0.55	9.5	0.48	8.4													
3506		3272		3158		3049		2918		2590		2018													991	
0.53	12.8	0.56	11.8	0.58	11.5	0.60	11.4	0.61	11.1	0.62	10.5	0.57	9.3													
3637		3404		3292		3189		3068		2771		2285													1028	
0.59	13.5	0.62	12.6	0.64	12.3	0.66	12.2	0.68	12.0	0.69	11.4	0.66	10.4													
3764		3532		3421		3322		3211		2936		2521		1822											1064	
0.65	14.3	0.68	13.4	0.71	13.0	0.73	13.0	0.75	12.9	0.77	12.3	0.75	11.4	0.66	10.3											
3895		3664		3554		3458		3355		3099		2752		2198											1101	
0.72	15.1	0.76	14.2	0.78	13.8	0.80	13.8	0.83	13.8	0.85	13.3	0.84	12.5	0.77	11.3											
4026		3796		3687		3593		3497		3258		2958		2477		1554									1138	
0.80	15.9	0.83	15.0	0.86	14.6	0.88	14.6	0.91	14.7	0.94	14.3	0.94	13.6	0.88	12.5	0.73	11.5									
4153		3925		3815		3724		3633		3409		3137		2717		2097									1174	
0.88	16.8	0.91	15.9	0.94	15.4	0.96	15.5	0.99	15.6	1.03	15.2	1.03	14.6	1.00	13.6	0.90	12.5									
4284		4056		3948		3858		3771		3562		3310		2955		2449									1211	
0.96	17.7	1.00	16.8	1.03	16.3	1.05	16.4	1.08	16.5	1.12	16.3	1.13	15.7	1.11	14.8	1.03	13.7									
4479		4252		4144		4056		3974		3785		3555		3273		2845									1266	
1.10	19.1	1.14	18.1	1.17	17.7	1.20	17.7	1.22	17.9	1.27	17.8	1.29	17.3	1.29	16.6	1.23	15.5									
4610		4384		4276		4190		4109		3932		3715		3462		3087									1303	
1.20	20	1.24	19.1	1.27	18.7	1.30	18.7	1.33	18.8	1.38	18.8	1.41	18.3	1.41	17.7	1.37	16.8									
4741		4516		4408		4322		4244		4077		3871		3637		3320		2227							1340	
1.30	21	1.35	20	1.38	19.7	1.41	19.6	1.44	19.8	1.49	19.9	1.53	19.4	1.54	18.9	1.51	18.0	1.31	16.0							
4875		4652		4543		4459		4381		4223		4029		3810		3538		2651							1378	
1.42	22	1.46	21	1.49	21	1.53	21	1.56	21	1.61	21	1.65	21	1.67	20	1.66	19.3	1.50	17.1							
5006		4783		4675		4591		4515		4363		4182		3973		3731		2958							1415	
1.54	23	1.58	22	1.61	22	1.65	21	1.68	21	1.74	22	1.78	21	1.81	21	1.80	20	1.67	18.2							
5137		4915		4807		4723		4649		4502		4331		4132		3910		3219							1452	
1.66	24	1.71	23	1.74	23	1.77	22	1.81	22	1.87	23	1.92	22	1.95	22	1.95	21	1.85	19.4							
5268		5047		4939		4856		4782		4640		4479		4289		4081		3463							1489	
1.79	25	1.84	24	1.87	24	1.91	23	1.94	23	2.00	23	2.06	23	2.10	23	2.11	22	2.04	21							
5402		5183		5075		4991		4918		4780		4629		4448		4251		3708							1527	
1.93	26	1.98	25	2.02	25	2.05	24	2.09	24	2.15	24	2.21	24	2.25	24	2.27	23	2.23	22							

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CWBA 20

CFM at Static Pressure																		RPM Range Motor HP				RPM			
0.00		.125		.250		.375		.500		.750		1.00		1.25		1.50		2.00		3/4	1		1 1/2	2	
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone				
3753		3595		3438		3263		3045		2550		1543													
0.56	11.9	0.59	11.5	0.61	11.2	0.63	11.0	0.63	10.8	0.63	9.9	0.52	9.3											881	
3911		3759		3608		3447		3247		2803		2021													
0.64	12.8	0.67	12.4	0.69	12.2	0.70	12.0	0.72	11.8	0.72	10.9	0.64	10.2											918	
4064		3919		3773		3622		3440		3026		2416													
0.71	13.7	0.75	13.3	0.77	13.1	0.79	12.9	0.80	12.7	0.81	12.0	0.76	11.1											954	
4222		4082		3942		3799		3634		3240		2745		1816											
0.80	14.6	0.84	14.3	0.86	14.0	0.88	13.9	0.89	13.7	0.91	13.1	0.89	12.2	0.75	11.7									991	
4380		4244		4109		3973		3822		3448		3021		2279											
0.89	15.6	0.93	15.3	0.96	15.1	0.98	14.9	0.99	14.7	1.01	14.2	1.00	13.4	0.90	12.7									1028	
4533		4402		4272		4141		4000		3647		3262		2675											
0.99	16.5	1.03	16.3	1.06	16.1	1.08	15.9	1.10	15.7	1.12	15.3	1.12	14.5	1.05	13.7									1064	
4759		4634		4510		4386		4256		3937		3584		3140		2389									
1.15	18.0	1.19	17.8	1.22	17.6	1.24	17.4	1.26	17.2	1.29	16.9	1.30	16.3	1.27	15.4	1.14	14.8							1117	
4917		4796		4675		4556		4432		4137		3797		3410		2811									
1.26	19.1	1.31	18.9	1.34	18.6	1.37	18.4	1.39	18.3	1.42	18.0	1.43	17.5	1.42	16.6	1.33	15.9							1154	
5074		4957		4841		4724		4606		4333		4003		3656		3170									
1.39	20	1.43	19.9	1.47	19.7	1.50	19.6	1.52	19.4	1.55	19.0	1.57	18.7	1.57	17.9	1.52	17.1							1191	
5236		5123		5010		4897		4783		4529		4213		3890		3481									
1.53	21	1.57	21	1.61	21	1.64	21	1.67	21	1.70	20	1.73	19.9	1.73	19.2	1.70	18.3							1229	
5394		5284		5174		5064		4955		4716		4416		4107		3749		2466							
1.67	22	1.72	22	1.76	22	1.79	22	1.81	22	1.85	21	1.88	21	1.89	20	1.88	19.6	1.61	18.5					1266	
5551		5444		5338		5231		5125		4899		4618		4317		3994		2914							
1.82	23	1.87	23	1.91	23	1.94	23	1.97	23	2.01	22	2.05	22	2.06	22	2.06	21	1.84	19.4					1303	
5709		5605		5501		5398		5294		5078		4817		4523		4224		3324							
1.98	24	2.03	24	2.07	24	2.11	24	2.14	23	2.18	23	2.22	23	2.24	23	2.24	22	2.09	20					1340	

Performance certified is for Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories). Power ratings (BHP) do not include transmission losses. Bearing losses are included. The sound ratings shown are loudness values in fan sones at 5 ft. (1.5m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation Type A: free inlet hemispherical sone levels.



CWDA 06

CFM at Static Pressure																RPM RANGE OF SELECTED MODELS			RPM
0.00		.125		.250		.375		.500		.625		.750		1.00		CWDA06A11	CWDA06C16	CWDA06E16	
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/25 HP	1/13 HP	1/10 HP	
183																			550
0.00	0.6																		
266	180																		800
0.01	2.3	0.01	1.3																
315	251	141																	950
0.01	3.4	0.01	2.6	0.01	2.1														
365	309	235	133																1100
0.02	4.7	0.02	4.2	0.02	3.6	0.02	3.2												
415	364	315	226	137															1250
0.03	6.5	0.03	6.1	0.03	5.5	0.03	5.1	0.03	4.7										
465	420	377	320	234															1400
0.04	7.8	0.04	7.3	0.04	6.7	0.04	6.4	0.04	6.1										
531	493	453	415	360	283														1600
0.05	10.1	0.05	9.4	0.06	8.8	0.06	8.1	0.06	7.9	0.06	7.6								
548	511	471	436	388	315														1650
0.06	10.8	0.06	10.1	0.06	9.4	0.07	8.8	0.07	8.6	0.07	8.2								

CWDA 08

CFM at Static Pressure																RPM RANGE OF SELECTED MODELS			RPM
0.00		.125		.250		.375		.500		.625		.750		1.00		CWDA08A11	CWDA08C15	CWDA08E16	
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/25 HP	1/13 HP	1/10 HP	
233																			550
0.00	0.5																		
339	256																		800
0.01	2.2	0.01	1.3																
402	332	222																	950
0.01	3.4	0.01	2.5	0.02	2.2														
466	408	342	209																1100
0.02	4.6	0.02	4.1	0.02	3.9	0.02	3.7												
530	480	424	342	215															1250
0.03	6.3	0.03	5.9	0.03	5.8	0.04	5.6	0.03	5.4										
593	549	498	452	360	244														1400
0.04	7.6	0.04	7.2	0.05	7.0	0.05	6.8	0.05	6.7	0.04	6.5								
657	617	574	529	480	390														1550
0.06	8.9	0.06	8.6	0.06	8.1	0.06	8.2	0.07	8.0	0.07	7.9								
688	650	611	565	527	451	366													1625
0.06	9.8	0.07	9.4	0.07	8.8	0.07	8.9	0.08	8.7	0.08	8.6	0.08	8.5						

Performance certified is for Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories). The sound ratings shown are loudness values in fan sones at 5 ft. (1.5m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation Type A: free inlet hemispherical sone levels.

* These models are not compatible with variable speed control.

AMCA Certified Ratings apply to the CWDA Wall Ventilator constant speed fans and not variable speed fans.



CWDA 10

CFM at Static Pressure														RPM RANGE OF SELECTED MODELS			RPM		
.000		.125		.250		.375		.500		.625		.750		1.00		CWDA10A11		CWDA10C15	CWDA10E15
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/25 HP		1/13 HP	1/10 HP
299																			550
0.00	0.5																		
435		350																	800
0.01	1.8	0.01	1.1																
517		450		344															950
0.02	2.9	0.02	2.5	0.02	1.8														
598		546		472		355													1100
0.03	4.7	0.03	4.4	0.03	3.6	0.03	3.1												
680		637		575		501		386											1250
0.04	6.8	0.04	6.5	0.05	5.9	0.05	5.2	0.05	4.8										
762		725		673		616		540		434									1400
0.05	8.1	0.05	7.8	0.06	7.4	0.07	6.6	0.07	6.2	0.07	5.7								
816		783		737		684		625		542									1500
0.06	8.9	0.07	8.7	0.07	8.4	0.08	7.7	0.08	7.2	0.08	6.7								
857		826		784		734		681		613		523							1575
0.07	9.7	0.08	9.4	0.08	9.2	0.09	8.5	0.09	8.0	0.09	7.6	0.09	7.0						

CWDA 12

CFM at Static Pressure														RPM RANGE OF SELECTED MODELS			RPM		
.000		.125		.250		.375		.500		.625		.750		1.00		CWDA12E10		CWDA12J16	CWDA12J17*
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/8 HP		1/2 HP	1/2 HP
566		393																	550
0.01	1.8	0.01	1.3																
772		657		510															750
0.03	3.8	0.03	3.8	0.04	3.0														
874		774		658		488													850
0.04	5.0	0.05	4.9	0.05	4.5	0.05	3.8												
977		888		791		676													950
0.06	6.1	0.06	5.9	0.07	6.0	0.07	5.2												
1054		972		885		784		654											1025
0.07	6.9	0.08	6.8	0.09	7.0	0.09	6.4	0.09	5.7										
1183		1109		1035		951		858		740									1150
0.10	8.4	0.11	8.2	0.12	8.4	0.12	8.3	0.13	7.6	0.13	7.0								
1492		1433		1374		1315		1253		1182		1109		926					1450
0.20	12.4	0.21	12.1	0.22	12.3	0.23	12.6	0.24	12.7	0.25	12.3	0.26	11.7	0.26	10.7				
1739		1688		1638		1588		1537		1484		1427		1302					1690
0.32	16.3	0.33	16.0	0.35	16.0	0.36	16.3	0.37	16.6	0.38	16.9	0.39	16.8	0.41	15.8				
1775		1725		1676		1627		1577		1526		1471		1349					1725
0.34	16.9	0.35	16.6	0.37	16.6	0.38	16.8	0.39	17.2	0.40	17.5	0.41	17.5	0.43	16.6				

Performance certified is for Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories). The sound ratings shown are loudness values in fan sones at 5 ft. (1.5m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation Type A: free inlet hemispherical sone levels.
 *These models are not compatible with variable speed control.
 AMCA Certified Ratings apply to the CWDA Wall Ventilator constant speed fans and not variable speed fans.



CWDA 13

CFM at Static Pressure														RPM RANGE OF SELECTED MODELS			RPM		
0.00		.125		.250		.375		.500		.625		.750		1.00		CWDA13F11		CWDA13J15	CWDA13K17*
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/5 HP		1/2 HP	3/4 HP
763		566																	550
0.02	1.9	0.02	1.0																
936		784		580															675
0.03	3.1	0.04	2.4	0.04	1.8														
1109		977		845		641													800
0.06	4.5	0.07	3.7	0.07	3.3	0.07	2.9												
1387		1279		1180		1073		924		716									1000
0.11	6.7	0.12	6.2	0.13	5.8	0.14	5.6	0.14	5.2	0.13	4.9								
1560		1463		1372		1287		1182		1048		888							1125
0.16	8.3	0.17	8.0	0.19	7.5	0.20	7.4	0.20	7.1	0.20	6.7	0.19	6.4						
1733		1646		1562		1484		1405		1307		1186		821					1250
0.22	10.2	0.24	9.9	0.25	9.4	0.26	9.1	0.27	9.1	0.27	8.8	0.27	8.4	0.24	7.8				
2045		1971		1898		1829		1763		1698		1626		1436					1475
0.36	13.6	0.38	13.4	0.40	13.0	0.42	12.5	0.43	12.2	0.44	12.2	0.44	12.1	0.45	11.5				
2184		2114		2046		1980		1916		1855		1794		1641					1575
0.44	14.9	0.46	14.8	0.48	14.4	0.50	13.9	0.52	13.6	0.53	13.4	0.54	13.4	0.54	13.0				
2427		2363		2302		2241		2182		2126		2071		1958					1750
0.61	17.5	0.63	17.4	0.65	17.1	0.67	16.6	0.69	16.2	0.71	15.9	0.72	15.8	0.74	15.7				

CWDA 15

CFM at Static Pressure														RPM RANGE OF SELECTED MODELS			RPM		
0.00		.125		.250		.375		.500		.625		.750		1.00		CWDA15H11		CWDA15K15	CWDA15L17*
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/3 HP		3/4 HP	1 HP
1019		818																	550
0.03	2.7	0.04	1.7																
1204		1048		826															650
0.06	3.9	0.06	3.0	0.06	2.6														
1390		1260		1092		874													750
0.08	5.1	0.09	4.3	0.10	3.8	0.10	3.5												
1760		1660		1549		1411		1260		1071									950
0.17	7.9	0.18	7.1	0.20	6.8	0.20	6.4	0.20	6.3	0.20	5.9								
2038		1952		1862		1757		1636		1514		1353							1100
0.27	10.4	0.28	9.7	0.30	9.2	0.31	8.9	0.31	8.6	0.32	8.5	0.31	8.3						
2131		2048		1963		1868		1753		1640		1503		1152					1150
0.31	11.4	0.32	10.6	0.34	10.2	0.35	9.9	0.36	9.5	0.36	9.4	0.36	9.3	0.34	8.8				
2316		2240		2163		2081		1984		1877		1773		1502					1250
0.39	13.3	0.41	12.6	0.42	12.2	0.44	11.9	0.45	11.5	0.46	11.2	0.46	11.2	0.46	10.8				
2640		2574		2507		2438		2364		2280		2186		2001					1425
0.58	16.2	0.60	15.5	0.62	14.9	0.64	14.6	0.65	14.3	0.67	14.0	0.67	13.8	0.69	13.6				
2872		2811		2750		2687		2622		2552		2473		2301					1550
0.75	18.4	0.77	17.6	0.79	17.1	0.81	16.8	0.83	16.5	0.85	16.3	0.86	16.0	0.87	15.5				
3196		3142		3086		3031		2974		2915		2853		2708					1725
1.03	22	1.05	21	1.07	21	1.10	20	1.12	19.8	1.14	19.6	1.16	19.4	1.19	18.8				

Performance certified is for Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories). The sound ratings shown are loudness values in fan sones at 5 ft. (1.5m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation Type A: free inlet hemispherical sone levels.

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CWDA 16

CFM at Static Pressure														RPM OF SELECTED MODELS			RPM			
0.00		.125		.250		.375		.500		.625		.750		1.00		CWDA16J8*		CWDA16L11*	CWDA16N17*	
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/2 HP	1 HP	2 HP
2187		2037		1884		1708		1523		1082										
0.20	8.7	0.21	8.0	0.23	7.7	0.23	7.5	0.23	7.0	0.21	6.7									825
3075		2967		2862		2755		2644		2517		2394		2125						
0.55	18.3	0.57	17.3	0.60	16.6	0.62	16.1	0.63	15.8	0.64	15.5	0.65	14.7	0.65	14.0					1160
4640		4568		4496		4426		4356		4286		4216		4072						
1.90	34	1.93	33	1.96	32	1.99	32	2.03	31	2.06	30	2.09	30	2.14	29					1750

CWDA 18

CFM at Static Pressure														RPM OF SELECTED MODELS		RPM				
0.00		.125		.250		.375		.500		.625		.750		1.00			CWDA18J8*	CWDA18L11*		
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/2 HP	1 HP	
2919		2679		2550		2389		2194		1888		1422								
0.30	9.8	0.33	8.6	0.34	8.4	0.36	8.0	0.36	7.6	0.34	7.0	0.31	6.6							825
4104		3875		3765		3673		3580		3473		3350		3069						
0.85	18.6	0.88	17.1	0.91	16.4	0.93	16.1	0.96	16.0	0.98	15.5	0.99	15.0	0.99	14.3					1160

CWDA 20

CFM at Static Pressure														RPM OF SELECTED MODEL	RPM			
0.00		.125		.250		.375		.500		.625		.750		1.00		CWDA20M11*		
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1-1/2 HP
4942		4822		4702		4583		4461		4326		4169		3830				
1.28	22	1.33	20	1.36	19.0	1.39	19.2	1.41	19.6	1.43	19.4	1.44	18.9	1.46	18.8			

Performance certified is for Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories). The sound ratings shown are loudness values in fan sones at 5 ft. (1.5m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation Type A: free inlet hemispherical sone levels.

*These models are not compatible with variable speed control.

AMCA Certified Ratings apply to the CWDA Wall Ventilator constant speed fans and not variable speed fans.



This chart shows which options and accessories are available on American Coolair's Centrifugal Wall Exhaust Fans.

Descriptions of these options and accessories are available below.

Options & Accessories	CWBA	CWDA
Wall Mounting Flanges	✓	✓
Two-Speed Motors	Most Models	
Totally Enclosed Motors	Most Models	Select Models
EnergySaver Speed Controllable Motors		Sizes 06 - 15
Explosion-Proof Motors	✓	Select Models
Speed Controls		Most Models
Backdraft Dampers	✓	✓
Safety Disconnect Switches	✓	Standard
Specialty Protective Coatings	✓	✓

WALL MOUNTING FLANGES

Available for convenient installation, but not required to complete installation.

MOTORS

Many different and specialty motors may be available, including:

- Two-Speed
- Totally Enclosed
- Energy Efficient
- Explosion-Proof

Specialty motors may affect the fan's UL Listing. Check with your American Coolair Representative for more information and availability.

ENERGYSAVER SPEED CONTROLLABLE MOTOR

Electronically controlled (EC) motors are controllable to 20% of nameplate speed and provide premium efficiency throughout their speed range. When compared to the standard permanent split capacitor (PSC) motors, EnergySaver motors can provide energy savings of 50% or more. For more information see pg 6.

SPEED CONTROLS

Provide the capability to adjust speed and performance, ranging from 50 - 100% of fan capacity. Allows for fine adjustment when balancing and tuning.

BACKDRAFT DAMPERS

Recommended to prevent air flow through the fan when the power supply is turned off. Aluminum dampers are available as automatic (gravity-operated), or motor-operated for positive opening and closing.

SAFETY DISCONNECT DEVICES

Safety disconnects cut power to the motor for servicing. A disconnect device with a factory mounted and wired junction box is standard for all CWDA models. A disconnect switch is an available accessory for CWBA models, and can be factory mounted and wired, or shipped loose for field installation. An optional wiring harness is available to connect the motor to the switch at the internal junction box.

PROTECTIVE COATINGS

Special protective coatings are available for units that may be exposed to corrosive exterior conditions. All painted parts are processed through the American Coolair five-stage pre-treatment system prior to the application of any coatings to ensure maximum finish adhesion. American Coolair uses a thermosetting epoxy powder paint with an average 3mm thickness, baked at 400° F for a smooth, hard, continuous finish.



RECEIPT

Models are shipped fully assembled and ready for installation. Always inspect equipment for damage during shipping and transit before accepting the delivery to assure a valid claim. Special handling and storage procedures (page 20) are required if the unit is to remain idle for a long time prior to installation.

PLACEMENT

All belt-driven units must be installed for accessibility to belts, motors and pulleys for regular maintenance. Vertical wheel operation is recommended to assure satisfactory damper operation.

MOUNTING

Units must be mounted on adequately designed and constructed wall openings to ensure the satisfactory operation of wall mounted exhaust fans.

Wall mounting flanges are not required, but are available for convenience in installation.

Install the unit so that the base is positioned vertically. Provide adequate caulking, flashing or other weather-proofing measures.

INSPECTION

1. Check centrifugal wheel for free rotation
2. Check belt for proper tension
3. Check motor and fan sheave faces for proper alignment
4. Check circuit phase, voltage and wiring connection against that shown on the motor nameplate
5. Check the direction of fan rotation for proper air flow
6. Check the belt after one week of operation for proper tension

MAINTENANCE

Units should be checked monthly for the first two or three months, and periodically thereafter. Units should be cleaned periodically and checked for eroded parts. If eroded parts are found they should be replaced immediately to avoid structural damage to the unit or possible failure.

Proper motor lubrication is the most important maintenance requirement. Motor bearings should be lubricated according to the motor manufacturer's instructions.

American Coolair's C-Drive bearings are permanently sealed and will never require lubrication.

MORE INFORMATION

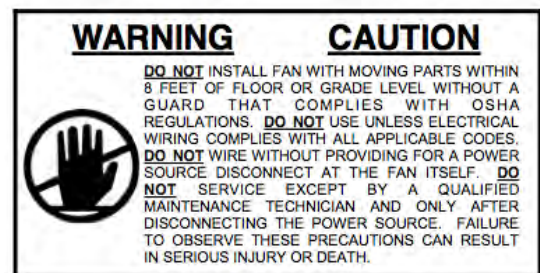
For more information on Installation, Operation and Maintenance, refer to the IOM Guide, Form 705-61 included in fan packaging or found online at www.americancoolair.com.

ADJUSTMENT OF VARIABLE PITCH PULLEY & BELT FOR BELT DRIVE MODELS

Variable pitch pulleys may be adjusted within catalog RPM range to alter performance without overloading the motor.

Adjustment beyond the catalog RPM range is not recommended as it may cause the motor to overload and fail prematurely.

Pulley alignment and belt tension should be checked every 6 to 12 months and adjusted if necessary.





AIR VOLUME CALCULATION

RECOMMENDED METHOD : RATE OF AIR VELOCITY

This method will provide adequate air movement to produce personnel comfort, not just minimum ventilation.

$$CFM = H \times W \times V$$

CFM is air volume in cubic feet per minute

H is the height of the building (ft.)

W is the width of the building (ft.)

V is the desired velocity (see table) (ft./min.)

Velocity Table	
Length of Building	Velocity
Up to 100'	150 ft./min
100' to 200'	200 ft./min
200' to 300'	250 ft./min
300' +	250 ft./min + booster fans

Example: Laundry 100' long by 30' wide by 15' high. Air is to be pulled through the 100' length.

$$CFM = 15' \times 30' \times 150 \text{ ft./min.} = 67,500 \text{ cu ft./min.}$$

METRIC CONVERSIONS

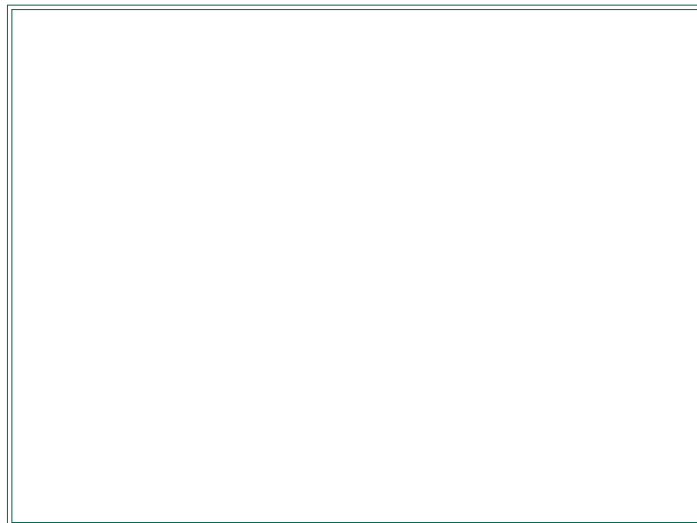
- Multiply CFM x .000472 to obtain cubic meters per second (CMS).
- Multiply SP x 248.36 to obtain Pascals (Pa).
- Multiply BHP x .7457 to obtain Kilowatts (kW).

EXAMPLE

$$3904 \text{ CFM} \times .000472 = 1.8427 \text{ CMS}$$

$$0.125 \text{ SP} \times 248.36 = 31.05 \text{ Pa}$$

$$0.886 \text{ BHP} \times .7457 = 0.661 \text{ kW}$$



LIMITED WARRANTY

In the sale of its products, American Coolair Corporation agrees to correct, by repairs or replacement, any defects in workmanship or material that may develop under proper and normal use during the period of one year from the date of shipment from the factory. Any product or part proving, upon American Coolair's examination, to be defective during limited warranty period will be repaired or replaced, at American Coolair's option, f.o.b. factory, without charge. Deterioration or wear caused by chemicals, abrasive action or excessive heat shall not constitute defects. Motors are guaranteed only to the extent of the manufacturer's warranty. American Coolair's limited warranty does not apply to any of its products or parts that have been subject to accidental damage, misuse by the user, unauthorized alterations, improper installation or electrical wiring, or lack of proper lubrication or other service requirements as established by American Coolair. Repairs or replacements provided under the above terms shall constitute fulfillment of all American Coolair's obligations with respect to limited warranty. THE LIMITED WARRANTY STATED HEREIN IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, STATUTORY OR IMPLIED, INCLUDING WITHOUT LIMITATION THAT OF MERCHANTABILITY AND FITNESS. NO LIABILITY FOR RE-INSTALLATION COST OR FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OF ANY NATURE IS ASSUMED OR SHALL BE IMPOSED UPON AMERICAN COOLAIR.



DIVISION

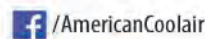
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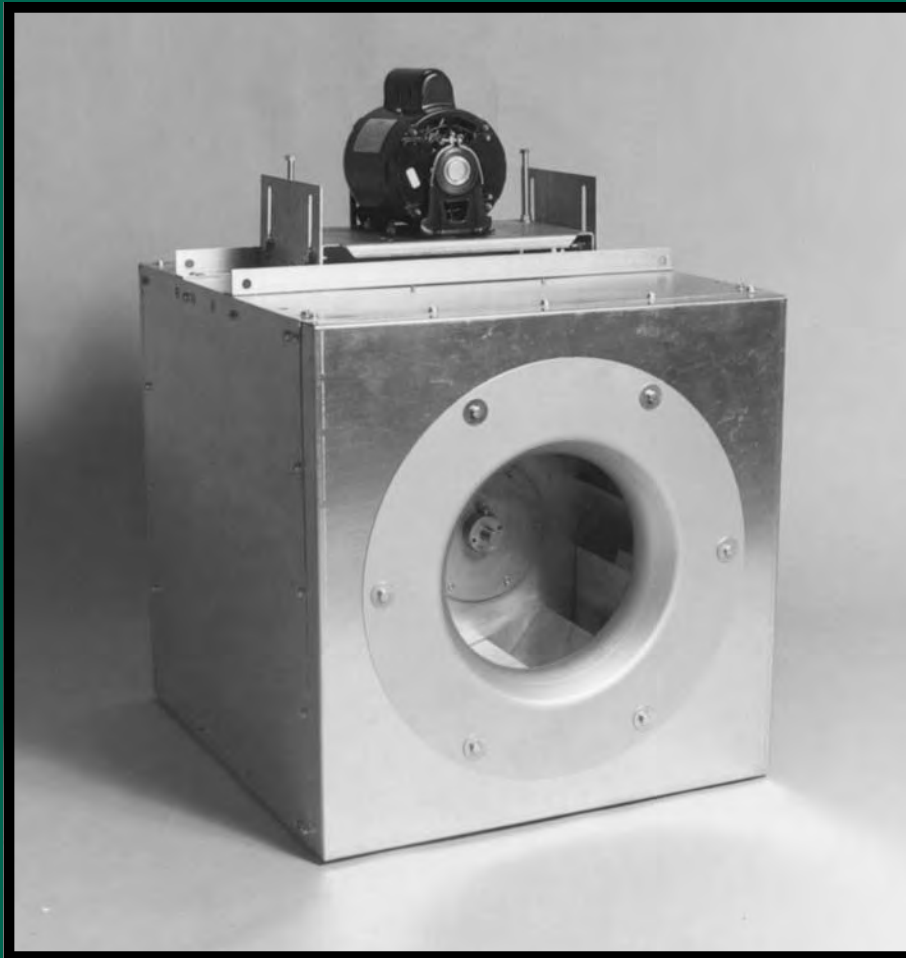


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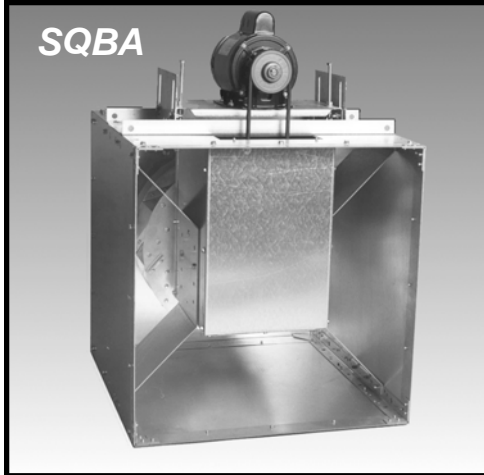
AMERICAN COOLAIR CORPORATION



Square In-Line Centrifugal Fans

**TYPE SQBA - BELT DRIVE
TYPE SQDA - DIRECT DRIVE**

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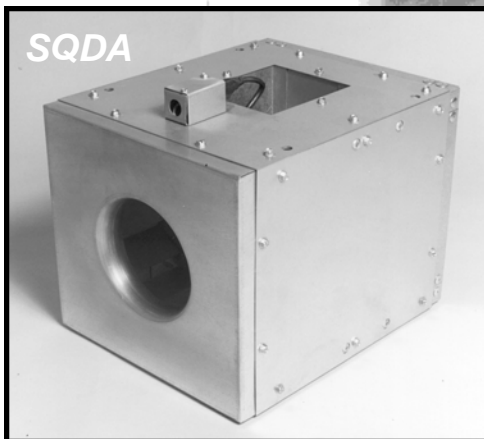


*Sizes 06 to 44
Flow rates from
115 to 31,491 CFM
and 3" Static Pressure*

BELT DRIVE FANS

SQBA

- Dimensional Data 3
- Fan Description 4
- Performance - 06 5
- Performance - 08 5
- Performance - 10 6
- Performance - 12 7
- Performance - 13 8
- Performance - 15 9
- Performance - 16 10
- Performance - 18 11
- Performance - 20 12
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*Sizes 06 to 18
Flow rates from
175 to 4,014 CFM
and 1.25" Static Pressure*

DIRECT DRIVE FANS

SQDA

- Dimensional Data 3
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STANDARD FEATURES

SQBA AND SQDA UNITS

Rigid internal cross bracing system properly supports drive.

Out-of-airstream open drip-proof motors are isolated for protection from exhaust airstream.

Three side panels are removable for total access to internal components.

Aluminum centrifugal wheel is a non-overloading, backward-inclined design and is computer balanced.

Overlapping wheel and deep-spun venturi minimize noise and air turbulence, increasing efficiency.

Permanently affixed wheel balance weights assure vibration-free operation.

Galvanized outer skin protects against corrosion and matches common duct material.

AMCA Seal assures certified rating of air and sound performance.

UL Listed for Standard 705.

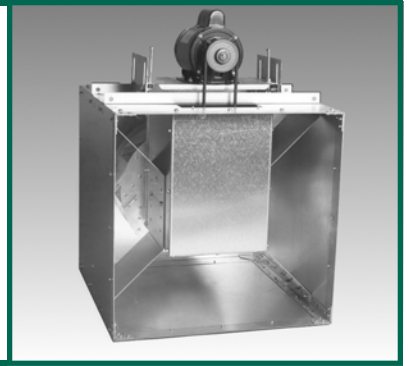
SQBA

Safety disconnect switch is an available option.

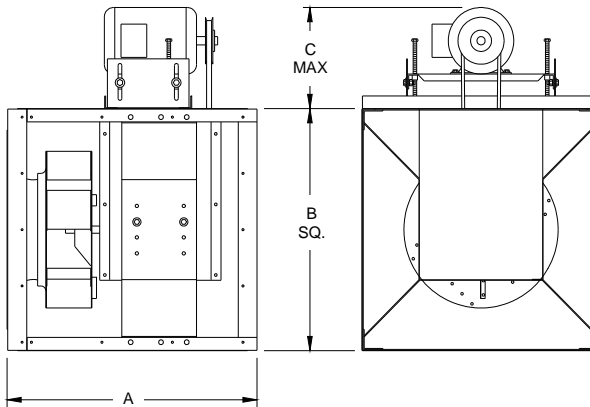
Belt drive with adjustable motor pulley for flexibility to match operating requirements.

Heavy duty pillow-block ball bearings with cast iron housing are self-aligning and relubricable.

Adjustable motor base facilitates maintenance of belt tension.



SQBA Dimensions



SIZE	A	B	C
06-10	17	14	10 ³ / ₄
12	25 ³ / ₄	18	16 ⁵ / ₈
13	26 ³ / ₈	20	16 ⁵ / ₈
15	27 ⁷ / ₈	23	16 ⁵ / ₈
16	27 ³ / ₈	25 ¹ / ₂	16 ⁵ / ₈
18	27 ¹ / ₄	28 ¹ / ₂	16 ⁵ / ₈
20	28 ³ / ₄	30 ¹ / ₂	16 ⁵ / ₈
24	36 ⁵ / ₈	36 ¹ / ₂	16 ³ / ₄
30	39 ¹ / ₄	45 ¹ / ₂	17 ⁵ / ₈
36	42 ⁵ / ₈	56	17 ⁵ / ₈
44	46 ⁷ / ₈	68	17 ⁵ / ₈

Dimensions in inches

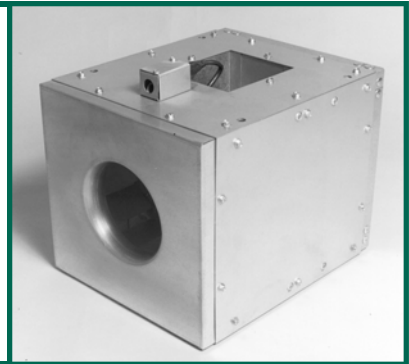
SQDA

Disconnect device with factory mounted and wired junction box is standard.

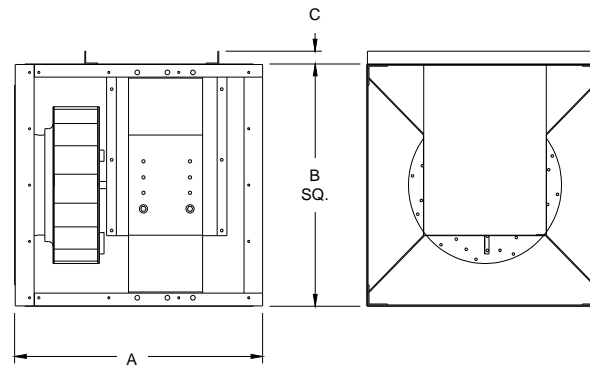
Direct-drive assembly reduces maintenance and operating costs.

Variable speed control is available on most models.

Drive compartment isolates motor from airstream.



SQDA Dimensions



SIZE	A	B	C
06-10	17	14	--
12	25 ³ / ₄	18	1 ³ / ₈
13	26 ³ / ₈	20	1 ³ / ₈
15	27 ⁷ / ₈	23	1 ³ / ₈
16	27 ³ / ₈	25 ¹ / ₂	1 ³ / ₈
18	27 ¹ / ₄	28 ¹ / ₂	1 ³ / ₈

Dimensions in inches

SQBA

Belt Drive Square In-Line Fans

Applications

The SQBA units are quiet, dependable in-line centrifugal fans recommended for a wide range of general exhaust applications where low, medium and high ranges of air volume and pressure are specified, in both ducted and non-ducted ventilation systems. Applications include virtually all types of light manufacturing, commercial and institutional buildings such as shopping centers, hospitals, schools, hotels, office and apartment buildings, warehouses, airports, bus terminals and many others.

Designed for easy positioning and quick installation, the versatile Square In-Line can be located inside equipment rooms, in ceiling spaces or as parts of O.E.M. equipment.

The advantages of an SQBA belt-drive unit over a direct-drive in-line fan include quieter operation, adjustable performance to suit operating needs and availability of larger volume units.

Construction

SQBA models feature a housing of durable mill galvanized outer "skin" over a rigid frame which is designed to provide an attractive finish, yet be a rigid unit to resist severe installation and handling conditions commonly encountered. Three of the four sides of the unit are removable, providing access to the internal parts for inspection and maintenance without disturbing the framework.

The overlapping deep-spun venturi minimizes air turbulence and increases efficiency. The aluminum centrifugal wheel is a non-overloading, backward-inclined type, selected for low noise levels. The wheels are computer balanced on state-of-the-art equipment.

The SQBA wheel is secured to a machined aluminum hub with a line bore, which eliminates the need for bushings.

Drive Mechanism

The SQBA utilizes a standard V-belt drive design with variable pitch cast iron motor pulley for adjusting fan speed. The drive shaft is turned, ground and polished. All components are out of the airstream. The motor support is adjustable for proper tensioning.

Bearings

Heavy duty pillow-block bearings with cast iron housing are self-aligning and relubricable.

Motors

The standard motor for SQBA models is open drip-proof construction, located out of the airstream. Totally enclosed, energy efficient, two-speed and explosion-proof motors may also be available. Motor enclosure may affect UL Listing. All motor brands are recognized and serviced nationwide.



Type SQBA ventilators are Listed by Underwriters Laboratory Inc. to US and Canadian safety standards.



American Coolair Corporation, ILG Industries certifies that the Type SQBA PRVs shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

Guide Specifications

Duct mounted square in-line fans shall be of the SQBA centrifugal type as manufactured by ILG Industries of American Coolair Corporation (individual models to be listed in fan schedule). Units shall bear the AMCA Certified Ratings Seal for air and sound performance. Housing and rigid frame of the fans to be galvanized steel, with wheel and venturi overlapping for efficient operation. Three sides of the unit are to be removable for access to the inside fan components and drive.

Drive mechanism shall incorporate a V-belt drive with cast iron motor pulley. Drive shaft shall be turned, ground and polished. The centrifugal wheel shall be heavy gauge aluminum with backward-inclined, non-overloading blades and be computer balanced.

Bearings shall be self-aligning and have fittings for relubrication.

Motor shall be open drip-proof construction, NEMA design B with minimum service factor of 1.15. Adjustable motor pulley shall be provided to allow for field adjustment and system balance. Motor shall be mounted on an adjustable steel mounting bracket. Motor shall be mounted to allow easy access to the cast iron variable pitch drive pulley.

(Safety disconnect switch, backdraft damper, epoxy coating and other accessories shall be listed in the fan schedule.)

SQBA06-SQBA08 Performance Data

SQBA06																	CFM at Static Pressure			RPM Range			RPM		
0.00		.125		.250		.375		.500		.625		.750		1.00		1.25		1.50		Motor HP					
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/4 D1	1/4 D2	1/4 D3	
267		203		113																					986
0.02	3.3	0.02	2.6	0.02	2.1																				1085
294		237		168																					1171
0.02	4.0	0.02	3.4	0.02	3.0																				1294
317		267		206		115																			1417
0.03	4.8	0.03	4.3	0.03	3.8	0.02	3.4																		1479
351		309		252		187																			1602
0.03	5.9	0.03	5.5	0.03	5.1	0.03	4.7																		1787
384		349		294		246		173																	1848
0.04	6.9	0.05	6.4	0.05	6.1	0.05	5.7	0.05	5.4																1971
401		369		316		270		208																	2095
0.05	7.4	0.05	7.0	0.05	6.6	0.05	6.2	0.05	5.9																
434		406		358		314		269																	
0.06	8.5	0.06	8.2	0.07	7.9	0.07	7.4	0.07	7.1																
484		461		422		378		341		299															
0.09	10.3	0.09	10.0	0.09	9.8	0.09	9.4	0.09	9.0	0.09	8.8														
501		479		443		399		362		325															
0.10	11.0	0.10	10.7	0.10	10.5	0.10	10.1	0.10	9.7	0.10	9.4														
534		514		483		442		405		371		333													
0.12	12.4	0.12	12.1	0.12	11.9	0.12	11.7	0.12	11.2	0.12	10.9	0.12	10.7												
568		549		523		485		448		415		383													
0.14	14.1	0.14	13.8	0.15	13.6	0.15	13.5	0.15	13.2	0.15	12.7	0.15	12.4												

SQBA08																	CFM at Static Pressure			RPM Range			RPM		
0.00		.125		.250		.375		.500		.625		.750		1.00		1.25		1.50		Motor HP					
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/4 D1	1/4 D2	1/4 D3	
369		316		223																					986
0.02	3.4	0.02	3.0	0.02	2.8																				1085
406		359		293																					1171
0.02	4.2	0.02	3.9	0.02	3.6																				1294
439		395		344		238																			1417
0.03	5.1	0.03	4.9	0.03	4.5	0.03	4.2																		1479
485		446		404		337																			1602
0.04	6.2	0.04	6.1	0.04	5.7	0.04	5.5																		1787
531		495		457		412		334																	1848
0.05	7.2	0.05	7.1	0.05	6.8	0.05	6.5	0.05	6.3																1971
554		520		484		445		379		267															2095
0.05	7.8	0.05	7.7	0.06	7.3	0.06	7.1	0.06	7.0	0.06	6.8														
600		568		536		502		456		388															
0.07	9.0	0.07	8.8	0.07	8.6	0.07	8.3	0.08	8.2	0.08	8.0														
669		641		613		582		552		508		448													
0.09	11.0	0.10	10.9	0.10	10.6	0.10	10.3	0.10	10.1	0.11	10.0	0.11	9.8												
692		665		638		608		579		543		488		305											
0.10	11.7	0.11	11.6	0.11	11.3	0.11	11.1	0.12	10.8	0.12	10.7	0.12	10.5	0.10	10.2										
738		712		687		661		632		604		564		446											
0.13	13.3	0.13	13.4	0.13	13.2	0.13	12.8	0.14	12.5	0.14	12.3	0.15	12.0	0.14	11.7										
785		760		736		712		686		660		631		538		383									
0.15	15.1	0.15	15.2	0.16	15.0	0.16	14.7	0.16	14.4	0.17	14.1	0.17	13.9	0.18	13.6	0.16	13.3								

Performance certified is for Type B: free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories). Power ratings (BHP) do not include transmission losses. Bearing losses are included. The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. Values sh are for installation Type B: free inlet fan sone levels.

SQBA10 Performance Data

CFM at Static Pressure																RPM Range				RPM					
0.00		.125		.250		.375		.500		.625		.750		1.00		1.25		1.50			Motor HP				
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone		BHP	Sone	1/4 D1	1/4 D2	1/4 D3
452		376		312																					986
0.02	3.7	0.02	3.6	0.02	3.2																				
475		403		351																					1035
0.02	4.1	0.02	4.0	0.03	3.6																				
497		431		378																					1085
0.02	4.5	0.03	4.4	0.03	4.1																				
520		458		402																					1134
0.03	4.9	0.03	4.8	0.03	4.6																				
537		478		419		303																			1171
0.03	5.2	0.03	5.2	0.04	5.0	0.03	4.5																		
565		511		449		407																			1232
0.03	5.9	0.04	5.9	0.04	5.6	0.04	5.1																		
593		542		480		445																			1294
0.04	6.4	0.04	6.4	0.05	6.2	0.05	5.8																		
621		573		511		475		355																	1355
0.04	6.9	0.05	6.9	0.05	6.9	0.06	6.5	0.05	6.2																
650		604		544		505		465																	1417
0.05	7.6	0.05	7.6	0.06	7.6	0.06	7.3	0.07	6.9																
678		635		578		536		505																	1479
0.06	8.2	0.06	8.2	0.07	8.2	0.07	8.0	0.08	7.7																
706		664		612		566		537		446															1540
0.06	8.8	0.07	8.9	0.08	8.9	0.08	8.9	0.09	8.4	0.08	8.2														
735		695		647		597		567		534															1602
0.07	9.6	0.08	9.6	0.08	9.6	0.09	9.7	0.09	9.3	0.10	9.0														
762		724		680		628		597		570		441													1663
0.08	10.2	0.09	10.3	0.09	10.3	0.10	10.5	0.10	10.1	0.11	9.7	0.10	9.6												
791		754		713		660		627		602		561													1725
0.09	10.9	0.10	11.0	0.10	10.9	0.11	11.1	0.11	10.9	0.12	10.4	0.12	10.2												
819		784		745		694		657		632		605													1787
0.10	11.6	0.11	11.7	0.11	11.7	0.12	11.7	0.13	11.6	0.13	11.2	0.14	10.8												
847		813		776		728		688		662		638													1848
0.11	12.3	0.12	12.4	0.12	12.4	0.13	12.4	0.14	12.4	0.14	12.0	0.15	11.6												
876		843		807		763		720		692		669		491											1910
0.12	13.0	0.13	13.1	0.14	13.1	0.14	13.1	0.15	13.1	0.16	12.8	0.16	12.4	0.15	11.9										
904		872		838		797		752		722		699		622											1971
0.14	13.7	0.14	13.8	0.15	13.8	0.16	13.8	0.16	13.8	0.17	13.6	0.18	13.2	0.18	12.6										
932		901		869		831		785		752		729		679											2033
0.15	14.4	0.15	14.6	0.16	14.6	0.17	14.5	0.18	14.6	0.18	14.5	0.19	14.0	0.20	13.3										
961		931		899		864		819		784		759		716											2095
0.16	15.3	0.17	15.4	0.18	15.5	0.18	15.4	0.19	15.4	0.20	15.3	0.21	15.0	0.22	14.1										
989		959		929		896		853		815		789		748		586									2156
0.18	16.2	0.18	16.3	0.19	16.4	0.20	16.4	0.21	16.3	0.22	16.2	0.22	15.9	0.23	15.0	0.22	14.5								
1017		989		959		928		888		848		820		779		715									2218
0.19	17.1	0.20	17.2	0.21	17.3	0.22	17.4	0.23	17.3	0.23	17.0	0.24	16.8	0.25	16.0	0.26	15.3								
1045		1018		989		959		923		881		851		809		764		500							2280
0.21	18.1	0.22	18.2	0.22	18.3	0.23	18.4	0.24	18.3	0.25	18.1	0.26	17.8	0.27	16.9	0.28	16.1	0.23	15.8						
1073		1047		1019		990		956		915		882		838		800		604							2341
0.23	19.1	0.23	19.2	0.24	19.3	0.25	19.4	0.26	19.4	0.27	19.2	0.28	18.8	0.29	18.0	0.30	17.0	0.28	16.7						

Performance certified is for Type B: free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories)
 Power ratings (BHP) do not include transmission losses. Bearing losses are included.
 The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation Type B: free inlet fan sone levels.

SQBA12 Performance Data

CFM at Static Pressure																				RPM Range Motor HP						RPM	
.125		.250		.375		.500		.750		1.00		1.50		2.00		2.50		3.00		1/4	1/3	1/2	3/4	1	1 1/2		
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone						
985		889		788		661																				1078	
0.10	6.5	0.11	6.2	0.11	6.2	0.11	6.0																				
1042		953		860		746																				1132	
0.11	7.1	0.12	6.7	0.13	6.9	0.13	6.6																				
1155		1080		993		904		682																		1240	
0.15	8.5	0.16	7.9	0.17	8.1	0.17	8.0	0.17	7.4																		
1211		1142		1058		976		769																		1294	
0.16	9.3	0.18	8.6	0.19	8.7	0.19	8.8	0.19	8.3																		
1323		1261		1186		1111		937		736																1402	
0.21	10.8	0.22	10.2	0.23	10.0	0.24	10.3	0.25	9.9	0.24	9.1																
1378		1318		1249		1175		1017		826																1455	
0.23	11.7	0.25	11.1	0.26	10.7	0.27	10.9	0.28	10.7	0.27	10.2																
1434		1376		1312		1239		1093		911																1509	
0.26	12.6	0.27	12.0	0.28	11.4	0.29	11.6	0.31	11.6	0.30	11.1																
1489		1433		1373		1303		1166		995																1563	
0.28	13.3	0.30	12.8	0.31	12.1	0.32	12.2	0.34	12.4	0.34	11.8																
1545		1490		1434		1367		1236		1079																1617	
0.31	14.1	0.33	13.6	0.34	13.0	0.36	12.9	0.37	13.1	0.38	12.7																
1601		1547		1494		1431		1304		1161		812														1671	
0.34	14.8	0.36	14.4	0.38	13.9	0.39	13.7	0.41	13.9	0.42	13.5	0.40	12.2														
1656		1603		1553		1494		1370		1238		916														1725	
0.38	15.6	0.39	15.2	0.41	14.7	0.43	14.5	0.45	14.7	0.46	14.5	0.45	13.1														
1711		1660		1611		1557		1435		1312		1007														1779	
0.41	16.6	0.43	16.1	0.45	15.6	0.46	15.3	0.49	15.5	0.50	15.4	0.49	14.3														
1767		1716		1669		1618		1499		1384		1092														1833	
0.45	17.5	0.47	17.1	0.49	16.5	0.50	16.1	0.53	16.3	0.55	16.4	0.54	15.4														
1822		1772		1727		1678		1564		1453		1177														1887	
0.49	18.3	0.51	18.0	0.53	17.5	0.55	17.1	0.57	17.0	0.59	17.3	0.60	16.4														
1932		1884		1841		1797		1692		1586		1344		1063												1995	
0.57	20	0.60	19.9	0.62	19.5	0.64	19.0	0.67	18.6	0.69	19.0	0.71	18.3	0.69	16.9												
1987		1939		1896		1854		1754		1650		1424		1152												2048	
0.62	21	0.64	21	0.66	20	0.68	19.9	0.72	19.4	0.74	19.8	0.77	19.3	0.75	18.3												
2042		1995		1953		1912		1818		1714		1501		1238												2102	
0.67	22	0.69	22	0.71	21	0.74	21	0.77	20	0.80	21	0.83	20	0.82	19.5												
2097		2050		2009		1969		1880		1778		1576		1323												2156	
0.72	23	0.74	23	0.77	22	0.79	22	0.83	21	0.86	21	0.89	22	0.89	21												
2152		2106		2065		2027		1942		1842		1649		1407		1151										2210	
0.77	24	0.80	24	0.82	23	0.85	23	0.89	22	0.92	22	0.96	23	0.96	22	0.94	20										
2207		2162		2121		2084		2003		1906		1719		1491		1246										2264	
0.83	25	0.86	25	0.88	25	0.90	24	0.95	23	0.98	23	1.03	24	1.04	22.6	1.02	22										
2261		2217		2178		2140		2063		1970		1788		1574		1334										2318	
0.89	26	0.92	26	0.94	26	0.97	25	1.01	24	1.05	24	1.10	25	1.11	24	1.10	23										
2383		2340		2302		2266		2195		2111		1936		1749		1522		1292								2438	
1.03	28	1.06	28	1.09	28	1.11	28	1.16	27	1.20	26	1.26	27	1.29	26	1.29	26	1.26	24								
2446		2404		2366		2331		2262		2183		2010		1835		1619		1398								2500	
1.11	30	1.14	30	1.17	29	1.19	29	1.25	28	1.29	27	1.35	28	1.39	28	1.39	27	1.37	26								
2510		2469		2431		2396		2330		2255		2086		1919		1716		1499								2563	
1.20	31	1.23	31	1.25	31	1.28	30	1.34	29	1.38	28	1.45	29	1.50	29	1.50	28	1.48	27								

Performance certified is for Type B: free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories).

Power ratings (BHP) do not include transmission losses. Bearing losses are included.

The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation Type B: free inlet fan sone levels.

SQBA15 Performance Data

CFM at Static Pressure																			RPM Range Motor HP						RPM		
.125		.250		.375		.500		.750		1.00		1.50		2.00		2.50		3.00		1/3	1/2	3/4	1	1½		2	
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone						
2042		1942		1837		1712		1410																		1119	
0.27	12.1	0.29	11.2	0.31	10.7	0.32	9.9	0.32	8.7																		
2136		2040		1942		1827		1548		1210																1166	
0.30	13.0	0.32	12.1	0.34	11.6	0.35	10.8	0.37	9.6	0.36	8.9																
2228		2135		2042		1937		1678		1378																1212	
0.34	13.9	0.36	13.0	0.38	12.5	0.39	11.9	0.41	10.5	0.41	9.9																
2322		2232		2144		2046		1807		1528																1259	
0.38	14.8	0.40	13.9	0.42	13.4	0.44	12.9	0.46	11.5	0.46	11.0																
2413		2326		2241		2150		1929		1666																1305	
0.42	15.8	0.44	14.8	0.46	14.3	0.48	14.1	0.51	12.6	0.51	12.2																
2507		2422		2340		2255		2050		1803																1352	
0.46	16.8	0.49	15.8	0.51	15.2	0.53	15.1	0.56	13.8	0.57	13.4																
2600		2518		2438		2357		2167		1936																1399	
0.51	17.8	0.53	16.9	0.56	16.2	0.58	16.1	0.61	15.1	0.63	14.5																
2784		2706		2631		2557		2390		2188		1713														1492	
0.61	19.8	0.64	18.9	0.67	18.3	0.69	18.0	0.73	17.7	0.76	16.7	0.77	16.0														
2876		2800		2728		2656		2499		2311		1862														1539	
0.67	21	0.70	20	0.73	19.3	0.76	19.0	0.80	19.0	0.83	17.8	0.84	17.3														
2967		2893		2822		2752		2604		2427		2001														1585	
0.73	22	0.76	21	0.79	20	0.82	19.9	0.87	20.3	0.90	19.0	0.92	18.7														
3059		2987		2918		2850		2709		2543		2139		1632												1632	
0.80	23	0.83	22	0.86	21	0.89	21	0.94	22	0.97	20	1.01	20	0.98	19.1												
3150		3079		3011		2946		2810		2654		2271		1825												1678	
0.87	24	0.90	23	0.93	22	0.96	22	1.01	23	1.05	22	1.09	21	1.09	21												
3291		3223		3158		3094		2966		2823		2472		2065												1750	
0.98	26	1.01	25	1.04	24	1.08	24	1.14	24	1.18	24	1.23	23	1.24	23												
3383		3317		3253		3191		3067		2931		2600		2211												1797	
1.06	27	1.09	27	1.12	26	1.16	25	1.22	25	1.27	26	1.33	24	1.34	24												
3569		3505		3444		3385		3268		3144		2848		2492		2097										1892	
1.23	29	1.27	29	1.30	28	1.34	27	1.40	27	1.46	28	1.53	26	1.57	26	1.57	25										
3661		3599		3539		3480		3366		3248		2967		2627		2253										1939	
1.32	30	1.36	30	1.39	29	1.43	28	1.50	28	1.56	28	1.64	26	1.68	27	1.69	26										
3753		3692		3633		3576		3464		3350		3084		2759		2401		1924								1986	
1.42	31	1.46	31	1.49	30	1.53	29	1.60	28	1.67	29	1.76	27	1.80	27	1.81	27	1.75	26								
3846		3787		3729		3673		3564		3453		3200		2891		2547		2155									2034
1.52	32	1.56	32	1.60	31	1.64	30	1.71	29	1.78	30	1.88	29	1.93	28	1.95	28	1.94	27								

Performance certified is for Type B: free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories).

Power ratings (BHP) do not include transmission losses. Bearing losses are included.

The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation Type B: free inlet fan sone levels.

SQBA16 Performance Data

CFM at Static Pressure																RPM Range					RPM				
.125		.250		.375		.500		.750		1.00		1.50		2.00		2.50		3.00		Motor HP					
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/2	3/4	1	1½	2	
1991	1868	1730	1495																					807	
0.20	9.6	0.21	8.6	0.23	7.8	0.23	7.6																		
2096	1973	1858	1644																						844
0.23	10.5	0.24	9.4	0.26	8.5	0.26	8.3																		
2202	2078	1974	1794																						881
0.26	11.4	0.27	10.3	0.29	9.3	0.30	8.9																		
2307	2182	2084	1945	1483																					918
0.29	12.1	0.31	11.2	0.32	10.1	0.33	9.5	0.32	8.9																
2410	2284	2189	2076	1682																					954
0.32	12.9	0.34	12.1	0.36	11.0	0.37	10.2	0.37	9.6																
2515	2388	2295	2198	1841																					991
0.36	13.9	0.38	13.0	0.40	11.8	0.41	11.0	0.42	10.3																
2620	2493	2400	2311	1991	1447																				1028
0.40	14.8	0.42	14.0	0.44	12.8	0.45	11.8	0.47	11.0	0.43	10.3														
2722	2595	2502	2418	2136	1740																				1064
0.44	15.7	0.46	15.0	0.48	13.9	0.50	12.7	0.52	11.8	0.50	11.0														
2827	2701	2607	2526	2289	1939																				1101
0.48	16.6	0.51	16.0	0.53	15.0	0.55	13.7	0.58	12.7	0.57	12.0														
2931	2806	2711	2632	2434	2100																				1138
0.53	17.6	0.56	17.0	0.58	16.1	0.60	14.9	0.63	13.7	0.64	13.1														
3033	2909	2813	2735	2562	2247																				1174
0.58	18.6	0.61	18.0	0.63	17.2	0.65	16.1	0.69	14.8	0.70	14.3														
3137	3014	2917	2840	2683	2395																				1211
0.64	19.6	0.67	19.1	0.69	18.2	0.71	17.4	0.75	16.1	0.77	15.5														
3240	3120	3022	2944	2798	2546																				1248
0.69	21	0.72	20	0.75	19.4	0.78	18.7	0.82	17.3	0.84	16.1														
3344	3225	3127	3049	2908	2698	1996																			1285
0.76	22	0.79	21	0.82	21	0.84	20	0.88	18.8	0.92	17.9	0.87	16.8												
3497	3382	3283	3204	3069	2905	2335																			1340
0.85	23	0.89	23	0.92	23	0.95	22	0.99	21	1.03	19.8	1.03	18.8												
3603	3490	3392	3311	3179	3033	2506																			1378
0.93	25	0.96	25	0.99	24	1.02	24	1.07	23	1.11	21	1.13	20												
3706	3596	3497	3416	3284	3151	2659																			1415
1.00	26	1.04	26	1.07	26	1.10	26	1.15	24	1.19	23	1.23	22												
3809	3701	3603	3521	3390	3263	2808	2032																		1452
1.08	28	1.12	28	1.15	28	1.18	27	1.24	26	1.28	25	1.33	23	1.20	23										
3911	3806	3708	3626	3494	3374	2957	2347																		1489
1.16	30	1.20	30	1.24	30	1.27	29	1.33	28	1.37	27	1.43	25	1.36	25										
4017	3913	3817	3734	3602	3485	3112	2593																		1527
1.25	31	1.29	31	1.33	31	1.36	31	1.42	30	1.47	28	1.54	26	1.51	25										
4119	4018	3922	3839	3706	3592	3265	2774																		1564
1.34	32	1.38	32	1.42	32	1.46	32	1.52	31	1.57	29	1.65	27	1.64	26										
4221	4122	4028	3944	3810	3699	3411	2935																		1601
1.44	33	1.48	33	1.52	33	1.56	33	1.62	32	1.68	30	1.76	28	1.77	27										
4323	4226	4133	4050	3915	3804	3547	3087	2396																	1638
1.54	34	1.58	34	1.62	34	1.66	34	1.73	33	1.78	32	1.88	29	1.91	28	1.76	28								
4428	4333	4242	4158	4022	3912	3676	3240	2707																	1676
1.65	35	1.69	35	1.73	35	1.77	35	1.84	34	1.90	33	2.00	30	2.04	30	1.96	29								

Performance certified is for Type B: free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories)

Power ratings (BHP) do not include transmission losses. Bearing losses are included.

The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation Type B: free inlet fan sone levels.

SQBA18 Performance Data

CFM at Static Pressure																				RPM Range Motor HP						RPM	
.125		.250		.375		.500		.750		1.00		1.50		2.00		2.50		3.00		1/2	3/4	1	1½	2	3		
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone						
2423		2252		2031		1807																				734	
0.23	6.6	0.25	6.3	0.27	5.8	0.27	5.4																				
2561		2403		2202		1984																				771	
0.26	7.2	0.28	6.9	0.30	6.6	0.31	6.1																				
2695		2546		2364		2155																				807	
0.30	7.9	0.32	7.5	0.34	7.2	0.36	6.7																				
2831		2690		2526		2329		1939																		844	
0.34	8.5	0.36	8.2	0.39	8.0	0.40	7.5	0.41	6.8																		
2967		2833		2683		2500		2126																		881	
0.38	9.3	0.41	8.9	0.43	8.7	0.45	8.3	0.47	7.4																		
3103		2975		2836		2668		2305																		918	
0.43	10.0	0.46	9.7	0.48	9.4	0.51	9.1	0.53	8.1																		
3235		3111		2982		2828		2477		2122																954	
0.48	10.7	0.51	10.3	0.54	10.1	0.56	9.9	0.59	8.9	0.59	8.4																
3369		3251		3128		2987		2652		2324																991	
0.53	11.5	0.56	11.1	0.59	10.9	0.62	10.6	0.66	9.7	0.67	9.0																
3504		3390		3273		3143		2826		2507																1028	
0.59	12.3	0.62	11.9	0.66	11.7	0.68	11.5	0.73	10.7	0.75	9.7																
3635		3524		3412		3291		2993		2680																1064	
0.65	13.1	0.69	12.7	0.72	12.4	0.75	12.3	0.80	11.6	0.82	10.7																
3769		3662		3554		3440		3163		2857																1101	
0.72	13.9	0.76	13.5	0.79	13.2	0.82	13.1	0.88	12.6	0.91	11.6																
3902		3799		3695		3587		3329		3033																1138	
0.79	14.8	0.83	14.4	0.87	14.1	0.90	13.9	0.96	13.5	1.00	12.7																
4032		3932		3832		3729		3488		3202		2632														1174	
0.86	15.6	0.91	15.2	0.94	14.9	0.98	14.7	1.04	14.3	1.09	13.6	1.10	12.2														
4230		4134		4039		3942		3723		3458		2923														1229	
0.99	16.8	1.03	16.3	1.07	16.0	1.11	15.8	1.18	15.4	1.24	14.8	1.27	13.3														
4364		4270		4177		4084		3878		3628		3104														1266	
1.08	17.5	1.12	17.0	1.17	16.7	1.20	16.5	1.28	16.2	1.34	15.7	1.39	14.2														
4497		4406		4316		4225		4030		3795		3282														1303	
1.17	18.3	1.22	17.8	1.26	17.5	1.30	17.2	1.38	16.9	1.45	16.5	1.52	15.2														
4629		4541		4453		4365		4180		3959		3459		2943												1340	
1.27	19.1	1.32	18.6	1.37	18.2	1.41	18.0	1.49	17.7	1.56	17.3	1.64	16.2	1.63	15.1												
4766		4680		4594		4509		4331		4124		3640		3164												1378	
1.38	20	1.43	19.5	1.48	19.1	1.52	18.8	1.60	18.5	1.68	18.1	1.78	17.1	1.79	15.9												
4898		4814		4731		4648		4477		4282		3814		3355												1415	
1.49	21	1.54	20	1.59	20	1.64	19.7	1.72	19.3	1.80	19.0	1.92	18.1	1.94	16.8												
5031		4949		4868		4787		4622		4437		3988		3536												1452	
1.61	22	1.66	21	1.71	21	1.76	21	1.85	20	1.93	19.8	2.06	19.1	2.10	17.7												
5163		5083		5004		4925		4765		4590		4160		3715		3227										1489	
1.73	23	1.79	22	1.84	22	1.89	22	1.98	21	2.06	21	2.21	20.0	2.26	18.7	2.22	18.1										
5263		5185		5107		5029		4873		4704		4289		3849		3406										1517	
1.83	23	1.88	23	1.94	23	1.99	22	2.08	22	2.17	21	2.32	20.7	2.39	19.5	2.38	18.6										
5402		5326		5250		5174		5023		4861		4468		4036		3619										1556	
1.97	24	2.03	24	2.08	24	2.14	23	2.23	23	2.32	22	2.49	22	2.57	20.7	2.58	19.5										
5538		5463		5389		5315		5168		5013		4639		4216		3810										1594	
2.11	25	2.17	25	2.23	24	2.29	24	2.39	24	2.48	23	2.65	23	2.75	22	2.78	21										
5677		5604		5532		5460		5316		5166		4813		4400		4000		3549								1633	
2.27	26	2.33	26	2.39	25	2.45	25	2.55	25	2.65	24	2.83	24	2.95	23	2.99	22	2.93	21								

Performance certified is for Type B: free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories).

Power ratings (BHP) do not include transmission losses. Bearing losses are included.

The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation Type B: free inlet fan sone levels.

SQBA24 Performance Data

CFM at Static Pressure																				RPM Range							RPM
.125		.250		.375		.500		.750		1.00		1.25		1.50		2.00		2.50		Motor HP							
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1/2	3/4	1	1½	2	3	5	
4389		4038		3538																						567	
0.34	6.6	0.36	6.1	0.38	5.5																						
4830		4504		4146		3413																				616	
0.43	7.6	0.46	7.2	0.48	6.7	0.47	6.0																				
5055		4737		4413		3878																				641	
0.49	8.2	0.51	7.8	0.53	7.4	0.54	6.7																				
5813		5518		5248		4947		3292																		726	
0.70	10.5	0.72	10.1	0.75	9.7	0.78	9.2	0.73	8.0																		
6256		5972		5717		5458		4598																		776	
0.85	11.9	0.88	11.5	0.91	11.1	0.94	10.7	0.96	9.4																		
6513		6235		5986		5741		5049		2849																805	
0.95	12.8	0.97	12.4	1.00	12.0	1.04	11.6	1.08	10.4	0.92	9.9																
6997		6731		6492		6265		5738		4553																860	
1.16	14.6	1.18	14.2	1.21	13.8	1.24	13.4	1.31	12.4	1.27	11.1																
7261		7000		6766		6546		6068		5203																890	
1.28	15.6	1.31	15.1	1.33	14.7	1.37	14.4	1.44	13.5	1.45	12.1																
7533		7278		7048		6834		6390		5707																921	
1.42	16.6	1.44	16.1	1.47	15.7	1.51	15.4	1.58	14.6	1.62	13.3																
7805		7555		7329		7120		6700		6132		4803														952	
1.57	17.6	1.59	17.1	1.62	16.7	1.65	16.3	1.73	15.5	1.78	14.4	1.70	13.2														
8067		7823		7601		7395		6993		6499		5567														982	
1.72	18.5	1.74	18.1	1.77	17.6	1.81	17.2	1.88	16.5	1.95	15.4	1.93	14.1														
8338		8099		7881		7679		7291		6848		6123		4200												1013	
1.89	19.5	1.91	19.0	1.94	18.6	1.97	18.2	2.05	17.5	2.13	16.6	2.14	15.2	1.93	14.5												
8661		8428		8214		8016		7642		7240		6667		5484												1050	
2.10	21	2.12	20	2.15	19.7	2.18	19.3	2.27	18.6	2.35	17.9	2.39	16.7	2.31	15.4												
8896		8667		8457		8261		7895		7515		7015		6124												1077	
2.27	22	2.29	21	2.32	21	2.35	20	2.43	19.5	2.52	18.8	2.58	17.7	2.55	16.3												
9131		8906		8699		8506		8147		7783		7337		6614												1104	
2.44	23	2.46	22	2.49	22	2.52	21	2.61	20	2.69	19.7	2.77	18.8	2.77	17.4												
9365		9145		8941		8750		8397		8047		7639		7034												1131	
2.63	23	2.64	23	2.67	22	2.71	22	2.79	21	2.88	21	2.96	19.8	2.99	18.6												
9600		9383		9182		8994		8646		8307		7929		7407												1158	
2.82	24	2.84	24	2.86	23	2.90	23	2.98	22	3.07	22	3.16	21	3.21	19.7												
9895		9683		9486		9301		8959		8631		8280		7833		5626										1192	
3.07	26	3.09	25	3.12	24	3.15	24	3.23	23	3.33	23	3.42	22	3.49	21	3.27	19.0										
10112		9903		9708		9526		9188		8867		8530		8124		6460										1217	
3.27	26	3.29	26	3.31	25	3.35	25	3.43	24	3.53	23	3.62	23	3.70	22	3.61	19.8										
10337		10131		9940		9760		9426		9111		8787		8413		7059										1243	
3.48	27	3.50	27	3.53	26	3.56	26	3.64	25	3.74	24	3.84	24	3.93	23	3.92	21										
10553		10351		10162		9984		9654		9344		9030		8680		7523										1268	
3.70	28	3.71	28	3.74	27	3.77	27	3.85	26	3.95	25	4.06	25	4.15	24	4.20	22										
10770		10571		10384		10208		9881		9576		9271		8939		7928										1293	
3.92	29	3.94	29	3.96	28	3.99	28	4.08	27	4.17	26	4.28	26	4.38	25	4.47	23										
10994		10798		10614		10440		10117		9817		9519		9203		8307		5775								1319	
4.16	30	4.18	30	4.20	29	4.23	29	4.32	28	4.41	27	4.52	27	4.62	26	4.75	24	4.33	23								
11210		11017		10836		10664		10344		10047		9756		9452		8643		6713								1344	
4.40	31	4.42	31	4.44	30	4.47	30	4.56	29	4.65	28	4.76	28	4.87	27	5.02	25	4.77	24								

Performance certified is for Type B: free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories).

Power ratings (BHP) do not include transmission losses. Bearing losses are included.

The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation Type B: free inlet fan sone levels.

SQBA44 Performance Data

CFM at Static Pressure																RPM Range							RPM							
.125		.250		.375		.500		.625		.750		1.00		1.25		1.50		2.00		Motor HP										
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	1	1½	2	3	5	7½	10				
10597		8532																									245			
0.58	4.8	0.61	4.2																									265		
11737		10036																										288		
0.72	5.7	0.76	4.9																									302		
13031		11523		9227																								330		
0.91	6.9	0.97	5.9	0.99	5.7																							348		
13813		12378		10614																								365		
1.04	7.6	1.11	6.7	1.14	6.2																							379		
15370		14034		12659		10299																						398		
1.34	9.1	1.42	8.4	1.46	7.5	1.49	7.4																					416		
16366		15074		13818		12195																						444		
1.57	10.0	1.65	9.5	1.71	8.5	1.75	8.1																					472		
17305		16044		14866		13510		10780																				494		
1.80	11.1	1.89	10.6	1.96	9.7	2.00	9.0	1.98	9.0																			515		
18079		16837		15707		14480		12716																				537		
2.01	11.9	2.10	11.7	2.18	10.7	2.22	9.8	2.27	9.6																			566		
19126		17907		16828		15713		14354		11332																		580		
2.32	13.1	2.41	12.9	2.51	12.1	2.55	11.2	2.60	10.7	2.52	10.8																	603		
20118		18915		17874		16832		15663		14014																			623	
2.65	14.2	2.74	14.2	2.84	13.5	2.90	12.5	2.94	11.9	3.00	11.7																			
21660		20476		19477		18515		17506		16327																				
3.22	16.0	3.29	16.1	3.41	15.6	3.50	14.8	3.55	14.0	3.60	13.5																			
23201		22031		21063		20155		19239		18252		15279																		
3.86	17.8	3.93	17.9	4.05	17.6	4.16	17.0	4.23	16.2	4.28	15.5	4.39	15.2																	
24410		23248		22300		21424		20558		19658		17404																		
4.43	19.3	4.48	19.4	4.61	19.2	4.73	18.7	4.82	17.9	4.88	17.2	5.00	16.5																	
25565		24408		23474		22622		21794		20951		19020																		
5.03	21	5.06	21	5.18	21	5.32	20	5.43	19.7	5.50	18.9	5.61	17.9																	
26773		25623		24701		23869		23072		22274		20546		18086																
5.70	22	5.72	23	5.84	23	5.98	22	6.11	22	6.20	21	6.31	19.7	6.46	19.3															
28366		27222		26311		25501		24735		23982		22420		20541																
6.69	24	6.68	25	6.79	25	6.94	24	7.08	24	7.20	23	7.34	22	7.48	21															
29135		27994		27088		26285		25532		24796		23293		21568		18941														
7.21	25	7.18	26	7.29	26	7.43	25	7.58	25	7.71	24	7.88	23	8.00	22	8.14	22													
30394		29260		28361		27571		26834		26122		24696		23145		21144														
8.11	27	8.06	27	8.15	27	8.30	27	8.46	27	8.61	26	8.81	25	8.93	24	9.11	23													
31491		30362		29467		28685		27960		27266		25893		24446		22724														
8.96	28	8.89	29	8.97	29	9.11	29	9.28	28	9.43	28	9.67	27	9.81	26	9.96	25													

Performance certified is for Type B: free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories). Power ratings (BHP) do not include transmission losses. Bearing losses are included. The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation Type B: free inlet fan sone levels.

SQDA

Direct Drive Square In-Line Fans

Applications

The SQDA units are quiet, dependable in-line centrifugal fans recommended for a wide range of general exhaust applications where low to medium ranges of air volume and pressure are specified, in both ducted and non-ducted ventilation systems. Applications include virtually all types of light manufacturing, commercial and institutional buildings such as shopping centers, hospitals, schools, hotels, office and apartment buildings, warehouses, airports, bus terminals and many others.

Designed for easy positioning and quick installation, the versatile Square In-Line can be located inside equipment rooms, in ceiling spaces or as parts of O.E.M. equipment.

The advantages of a SQDA direct-drive over a belt-drive in-line unit include lower maintenance requirements, reduced risks of lower performance levels as a result of loosened belts, and lower operating costs.

Construction

SQDA models feature a housing of durable mill galvanized outer "skin" over a rigid frame which is designed to provide an attractive finish, yet be a rigid unit to resist severe installation and handling conditions commonly encountered. Three of the four sides of the unit are removable, providing access to the internal parts for inspection and maintenance without disturbing the framework.

The overlapping deep-spun venturi minimizes air turbulence and increases efficiency. The aluminum centrifugal wheel is a non-overloading, backward-inclined type, selected for low noise levels. Backplate fins draw cool air through the motor compartment. The wheels are computer balanced on state-of-the-art equipment.

The SQDA wheel is secured to a machined aluminum hub with a line bore, which eliminates the need for bushings.

Drive Mechanism

SQDA models have all the advantages of a direct-drive assembly. There are no belts, bearings or pulleys to consume power or require maintenance.

Motors

The standard motor for most SQDA models is open construction, located out of the airstream. Totally enclosed, energy efficient, two-speed and explosion-proof motors may also be available. Motor enclosure may affect UL Listing. All motor brands are recognized and serviced nationwide.



Type SQDA ventilators are Listed by Underwriters Laboratory Inc. to US and Canadian safety standards.



American Coolair Corporation, ILG Industries certifies that the Type SQDA PRVs shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

Guide Specifications

Duct mounted square in-line fans shall be of the SQDA centrifugal type as manufactured by ILG Industries of American Coolair Corporation (individual models to be listed in fan schedule). Units shall bear the AMCA Certified Ratings Seal for air and sound performance. Housing and rigid frame of the fans to be galvanized steel, with wheel and venturi overlapping for efficient operation. Three sides of the unit are to be removable for access to the inside fan components and drive.

Drive construction shall be of the direct-drive design. The line bore hub shall be mounted onto the backplate of the centrifugal wheel. The centrifugal wheel shall be heavy gauge aluminum with backward -inclined, non-overloading blades and be computer balanced.

Motor shall be open construction, NEMA design B. The unit shall be equipped with a safety disconnect device. Optional variable speed control on most models allows for field adjustment and system balance.

(Backdraft damper, epoxy coating and other accessories shall be listed in the fan schedule.)

SQDA06 - SQDA12 Performance Data

SQDA06																Motor HP	Speed Controllable	RPM
CFM at Static Pressure																		
0.00		.125		.250		.375		.500		.625		.750		1.00		1.25		
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	
298		242		175														
0.02	4.2	0.02	3.6	0.02	3.1													
434		406		358		313		268										
0.06	8.5	0.06	8.2	0.07	7.9	0.07	7.4	0.07	7.1									
447		421		375		331		289										
0.07	9.0	0.07	8.7	0.07	8.4	0.07	7.9	0.07	7.6									
474		450		409		365		327		282								
0.08	9.9	0.08	9.6	0.09	9.4	0.09	9.0	0.09	8.6	0.09	8.4							

SQDA08																Motor HP	Speed Controllable	RPM
CFM at Static Pressure																		
0.00		.125		.250		.375		.500		.625		.750		1.00		1.25		
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	
412		365		303														
0.02	4.3	0.02	4.0	0.03	3.8													
580		548		514		479		425										
0.06	8.5	0.06	8.3	0.07	8.0	0.07	7.7	0.07	7.7									
609		577		546		512		470										
0.07	9.3	0.07	9.1	0.07	8.8	0.08	8.5	0.08	8.5									
655		626		598		566		534		485								
0.09	10.6	0.09	10.5	0.09	10.2	0.10	9.9	0.10	9.7	0.10	9.6							

SQDA10																Motor HP	Speed Controllable	RPM
CFM at Static Pressure																		
0.00		.125		.250		.375		.500		.625		.750		1.00		1.25		
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	
504		439		385														
0.02	4.6	0.03	4.5	0.03	4.2													
688		645		590		546		516										
0.06	8.4	0.06	8.4	0.07	8.4	0.08	8.3	0.08	7.9									
722		681		632		583		554										
0.07	9.3	0.07	9.3	0.08	9.3	0.09	9.3	0.09	8.9									
802		766		726		674		639		614		581						
0.10	11.2	0.10	11.3	0.11	11.2	0.11	11.3	0.12	11.2	0.12	10.7	0.13	10.5					

SQDA12																Motor HP	Speed Controllable	RPM
CFM at Static Pressure																		
0.00		.125		.250		.375		.500		.625		.750		1.00		1.25		
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	
1022		928		826		713												
0.07	6.3	0.09	5.9	0.09	5.7	0.10	5.5											
1721		1656		1603		1553		1494		1430		1370		1238		1078		
0.36	15.9	0.38	15.6	0.39	15.2	0.41	14.7	0.43	14.5	0.44	14.6	0.45	14.7	0.46	14.5	0.46	14.0	
1746		1682		1630		1580		1523		1460		1400		1273		1117		
0.37	16.3	0.39	16.1	0.41	15.6	0.43	15.1	0.44	14.9	0.45	14.9	0.47	15.1	0.48	14.9	0.48	14.4	

Performance certified is for Type B: free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories).
 The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301.
 Values shown are for installation Type B: free inlet fan sone levels.

SQDA13 - SQDA18 Performance Data

SQDA13																CFM at Static Pressure			Motor HP	Speed Controllable	RPM
0.00		.125		.250		.375		.500		.625		.750		1.00		1.25					
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone				
1594		1503		1407		1304		1189										1/5	Yes	1125	
0.16	9.6	0.17	8.8	0.19	8.3	0.20	7.9	0.20	7.7									3/4	No	1750	
2479		2422		2363		2303		2242		2178		2114		1976		1825					
0.60	19.8	0.62	19.1	0.64	18.5	0.66	18.0	0.68	17.6	0.70	17.4	0.72	17.2	0.75	16.9	0.77	16.7				
2479		2422		2363		2303		2242		2178		2114		1976		1825		1	Yes (ESM)	1750	
0.60	19.8	0.62	19.1	0.64	18.5	0.66	18.0	0.68	17.6	0.70	17.4	0.72	17.2	0.75	16.9	0.77	16.7				

SQDA15																CFM at Static Pressure			Motor HP	Speed Controllable	RPM
0.00		.125		.250		.375		.500		.625		.750		1.00		1.25					
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone				
2065		1954		1850		1737		1600		1443								1/3	Yes	1075	
0.22	12.7	0.24	11.3	0.26	10.4	0.27	10.0	0.28	9.0	0.29	8.4							1	Yes (ESM)	1575	
3026		2947		2873		2801		2731		2659		2581		2402		2195					
0.69	23	0.72	22	0.75	21	0.78	20	0.81	20	0.83	20	0.85	20	0.88	18.8	0.90	18.5				
3314		3242		3173		3107		3043		2978		2912		2765		2595		1	No	1725	
0.91	26	0.94	25	0.97	25	1.00	24	1.03	23	1.06	23	1.09	24	1.14	23	1.16	22				

SQDA16																CFM at Static Pressure			Motor HP	Speed Controllable	RPM
0.00		.125		.250		.375		.500		.625		.750		1.00		1.25					
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone				
2226		2042		1919		1794		1568										1/2	No	825	
0.19	10.4	0.21	10.1	0.23	9.0	0.24	8.2	0.24	7.9									1	No	1140	
3077		2937		2812		2717		2638		2556		2442		2108		1540					
0.51	18.0	0.53	17.7	0.56	17.0	0.58	16.1	0.60	14.9	0.62	14.2	0.64	13.8	0.64	13.2	0.58	12.5				

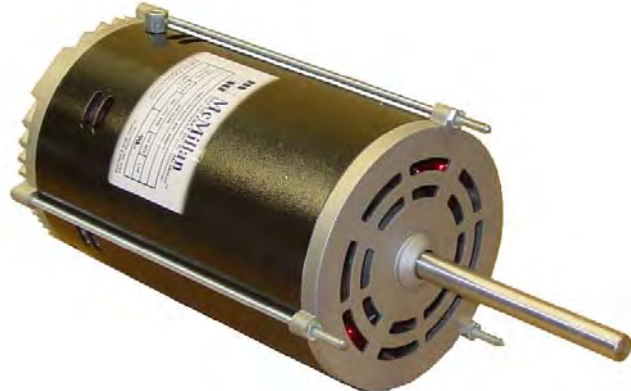
SQDA18																CFM at Static Pressure			Motor HP	Speed Controllable	RPM
0.00		.125		.250		.375		.500		.625		.750		1.00		1.25					
BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone	BHP	Sone				
2905		2761		2616		2444		2240		2041		1830						1/2	No	825	
0.28	8.9	0.32	8.2	0.34	7.9	0.36	7.6	0.38	7.1	0.39	6.7	0.38	6.5					1	No	1140	
4014		3910		3806		3703		3595		3475		3338		3042		2757					
0.75	15.4	0.79	14.8	0.83	14.4	0.87	14.1	0.90	13.9	0.94	13.8	0.97	13.6	1.01	12.7	1.02	11.9				

Performance certified is for Type B: free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances (accessories). The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installation Type B: free inlet fan sone levels.

EnergySaver Motors

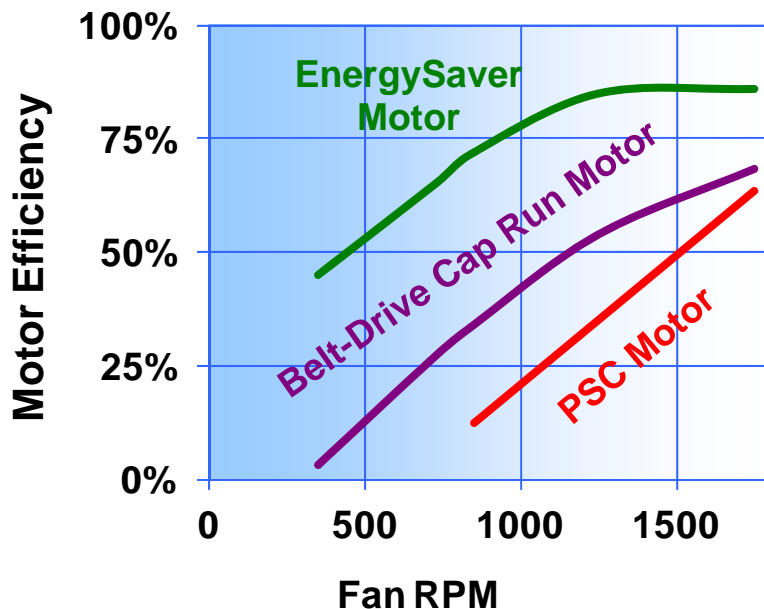
American Coolair is proud to introduce our new line of *EnergySaver* motors. These electronically commutated (EC) motors are controllable to 20% of nameplate speed and provide premium efficiency throughout their speed range.

When compared to the standard permanent split capacitor (PSC) motors, *EnergySaver* motors can provide energy savings of 50% or more! Each *EnergySaver* motor comes standard with a manual speed controller on the unit. An optional dial speed controller can be specified and shipped loose for remote field mounting.



Most *EnergySaver* motors may also be specified for use with either a variable pressure control (VPC) or variable temperature control (VTC). The VPC features a remotely mounted pressure sensor which is connected to the motor controller. Motor speed is then automatically adjusted based on the system status as indicated by the pressure sensor. Once set and tuned for the system, the VPC allows for fully automated ventilation control. The VTC connects the motor to a thermostat to control the fan speed based on air temperature.

EnergySaver motors are available for SQDA06 - SQDA15.



Data based on Size 12 fans using 1/2 HP, 1750 RPM motors

- Available on SQDA 06-15
- Electronically commutated, super-efficient motors
- Standard manual or optional automated speed control from 100% down to 20% of motor nameplate speed
- Up to 50% in energy savings

Installation

Most SQBA and SQDA in-line centrifugal fans are shipped fully assembled and ready for installation. Always inspect equipment for transit damage before accepting delivery to assure a valid claim. Special handling and storage procedures are required if unit is to remain idle for a long time prior to installation.

Placement

For convenience in wiring and service, it is recommended that the fans be installed so that the motor is easily accessible. In addition, belt-driven units should be accessibly installed for maintenance and servicing of belts, bearings, and pulleys.

Mounting

SQBA and SQDA in-line centrifugal fans may be mounted in any orientation within a system of ductwork. All fans should be rigidly mounted in such a manner that the unit is adequately supported by either the ductwork or by ceiling/floor supports.

The SQBA and SQDA units are designed with slip-fit duct connectors as standard. Flexible duct connections or transition pieces may be used in mounting the fan. However, make sure that proper duct design is maintained so as not to obstruct airflow. For ease of installation, mounting flanges and round duct connectors are available. See pages 22-23.

Inspection

- **Check centrifugal wheel** for free rotation.
- **Check belt** for proper tension. (SQBA)
- **Check bearings** for proper and secure locking to drive shaft. (SQBA)
- **Check motor and fan sheave faces** for proper alignment. (SQBA)
- **Check circuit phase, voltage and wiring connection** against that shown on motor nameplate.
- **Check direction of fan rotation** for proper air flow.
- **After one week of operation, check belt** for proper tension. (SQBA)

Maintenance

Units should be checked monthly for the first two or three months and periodically thereafter. On all SQBA and SQDA units, three of the four side panels are removable for ease in cleaning and maintenance.

Cleaning and Adjustment

Units should be cleaned periodically to remove accumulated dust, dirt, and other foreign matter which may collect on the blades or other parts. Fans should be checked for eroded parts which should be replaced to avoid structural damage and possible failure.

On belt drive units, belt wear, tension, and alignment should be checked. Note that belt and/or pulley misalignment will cause excessive belt wear and premature failure. This check of the drive components should be made frequently during the first 24-48 hours of the fan's operation.

Lubrication

Proper lubrication is the most important maintenance requirement. Fan bearings on belt drive units should be lubricated annually or more frequently depending on usage and operating conditions. For best results, use a #2 consistency lithium base grease such as Shell Alvania #2 lubricant or equivalent.

Motor bearings should be lubricated according to the motor manufacturer's instructions.

Adjustment of Variable Pitch Pulley and Belt (SQBA)

Variable pitch pulley may be adjusted within catalog RPM range to alter performance. However, adjustment beyond catalog RPM range may cause motor overload and possible premature motor failure. Pulley alignment and belt tension should be adjusted if necessary. Inspection every 6 to 12 months is recommended.

WARNING



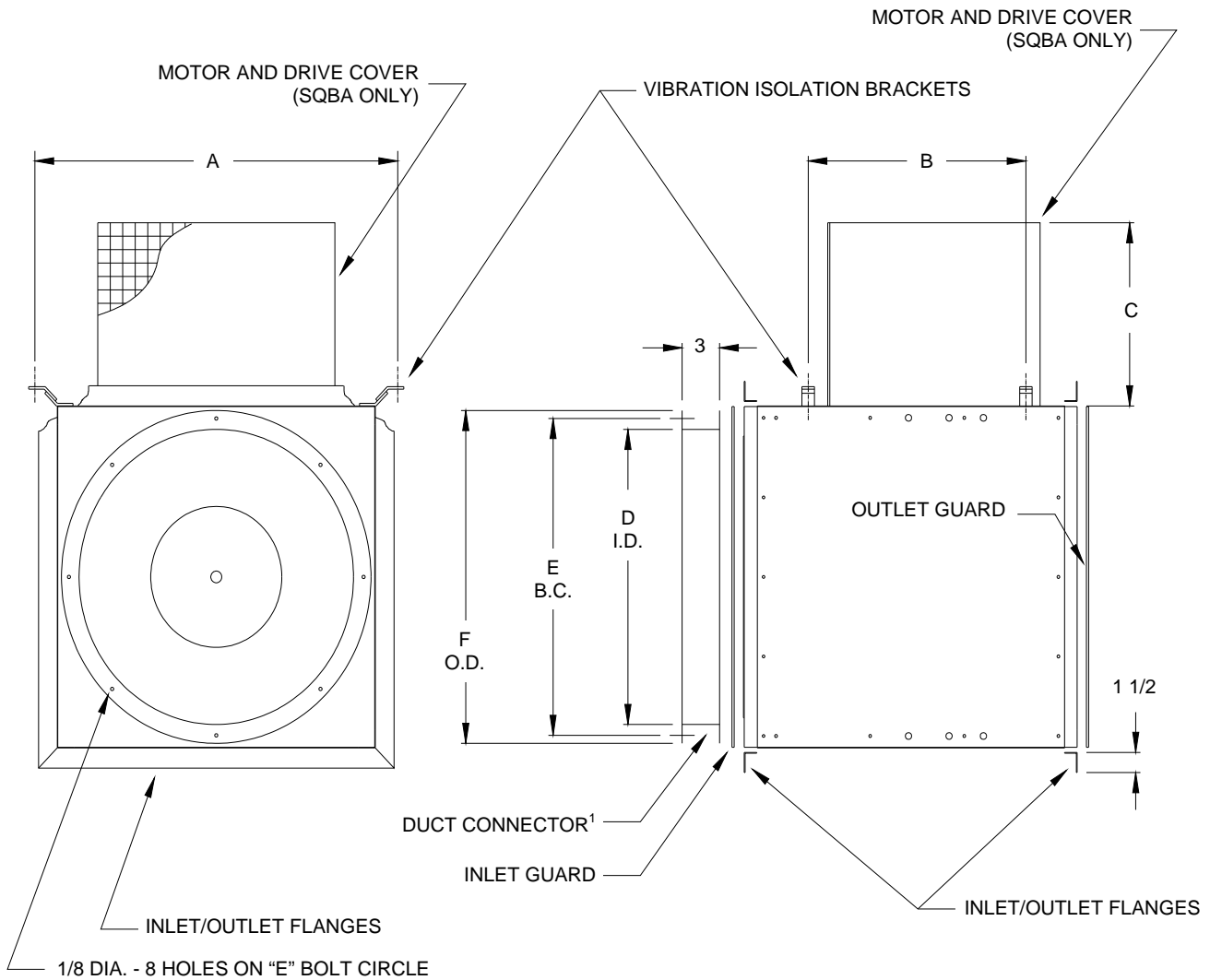
CAUTION

DO NOT INSTALL FAN WITH MOVING PARTS WITHIN 8 FEET OF FLOOR OR GRADE LEVEL WITHOUT A GUARD THAT COMPLIES WITH OSHA REGULATIONS. **DO NOT** USE UNLESS ELECTRICAL WIRING COMPLIES WITH ALL APPLICABLE CODES. **DO NOT** WIRE WITHOUT PROVIDING FOR A POWER SOURCE DISCONNECT AT THE FAN ITSELF. **DO NOT** SERVICE EXCEPT BY A QUALIFIED MAINTENANCE TECHNICIAN AND ONLY AFTER DISCONNECTING THE POWER SOURCE. FAILURE TO OBSERVE THESE PRECAUTIONS CAN RESULT IN SERIOUS INJURY OR DEATH.

To convert air performance (CFM and SP) and power (BHP) to metric units, multiply CFM x .000472 to obtain cubic meters per second (m³/s). Multiply SP x 248.36 to obtain pascals (Pa). Multiply BHP x .7457 to obtain kilowatts (kW).

Example: 3904 CFM x .000472 = 1.8427 m³/s
0.125 SP x 248.36 = 31.05 Pa
0.886 BHP x .7457 = 0.661 kW

SQBA and SQDA Accessory Details



Unit	A	B	C ²	D ¹	E ¹	F ¹
SQDA06, SQDA08, SQDA10	17 5/8	10	—	—	—	—
SQBA06, SQBA08, SQBA10	17 5/8	10	11 3/4	—	—	—
SQBA12, SQDA12	21 9/16	17 13/16	17 3/4	—	—	—
SQBA13, SQDA13	23 9/16	17 7/16	17 3/4	—	—	—
SQBA15, SQDA15	26 9/16	18 13/16	17 3/4	18	19 5/8	20 13/16
SQBA16, SQDA16	29 1/16	17 7/16	17 3/4	22	23 5/8	24 13/16
SQBA18, SQDA18	32 1/16	18 13/16	17 3/4	22	23 5/8	24 13/16
SQBA20	34 1/16	19 3/4	17 3/4	22	23 5/8	24 13/16
SQBA24	40	26 3/4	18 3/4	26	27 5/8	28 13/16
SQBA30	49	29 7/16	18 3/4	36	37 11/16	38 7/8
SQBA36	59 1/2	32 13/16	18 3/4	36	37 11/16	38 7/8
SQBA44	71 1/2	37 1/4	18 3/4	45	46 11/16	47 7/8

1 -- The duct connector accessory is not available on unit sizes 13 and smaller.
 2 -- Motor and drive cover dimensions apply to type SQBA fans only.

SQBA and SQDA Options and Accessories

Inlet and Outlet Flanges

Heavy gauge galvanized steel flanges are available to simplify duct attachment.

Inlet and Outlet Guards

Both inlet and outlet guards are available to prevent the entry of foreign material into the fan.

Special Motors

Two-speed, totally enclosed, energy efficient and explosion-proof motors for hazardous locations may be available for many models. Motor enclosure may affect UL listing.

Energy Saver (electronically commutated) motors are available for SQDA fans, sizes 06 through 15. These motors are controllable to 20% of nameplate speed and provide premium efficiency throughout their speed range. For more information see Pg. 20.

Backdraft Dampers

Gravity or motor operated backdraft dampers are available. They are aluminum construction and designed for duct installation.

Drive Guard

A heavy gauge steel and PVC coated wire mesh guard is available to protect the drive components on SQBA units.

Protective Coatings

Fan units are not recommended for exhausting air of a corrosive nature. However, special protective coatings are available where units may be exposed to corrosive conditions. Parts requiring painting are processed through the American Coolair five-stage pretreatment system prior to the application of any coatings to insure maximum finish adhesion. These parts use a thermosetting epoxy powder paint with an average thickness of 3 mils and baked at 400° F to a smooth, hard continuous finish. Consult your ILG Industries representative for available coatings.

Vibration Isolators

Vibration isolators reduce sound and vibration transmission to the fan support structure. Isolators are available in spring type for hanging installations, and rubber-in-shear type for bottom mounting.

Duct Connector

Round duct connector is available on some SQBA and SQDA units to accommodate round duct attachment.

Variable Inlet Vanes

Variable Inlet Vanes (VIV) are available for controlling air flow in an efficient manner.

Internal Insulation

One inch thick insulation on the interior of the fan housing for both sound attenuation and prevention of condensation.

Safety Disconnects

Safety disconnects cut power to motor for servicing of unit. A disconnect switch is an accessory available on SQBA units, and is shipped loose for field installation. An optional wiring harness is available to connect the motor to the switch at the junction box. All SQDA units have a disconnect device with a factory mounted and wired junction box as standard.

Motor and Drive Cover

Combination motor cover and drive guard made of heavy gauge galvanized steel and PVC coated wire is available to protect both the motor and drive components on SQBA units.

Speed Controller (for select SQDA models only)

Solid state speed controller provides capability to change performance and speed ranging from 50% to 100% of fan capacity. This permits adjustment for fine tuning and balancing the ventilation system (see performance tables).

SQBA Specification Checklist

- General in-line units for low, medium, and high ranges of air volume and pressure in commercial, institutional, and light manufacturing buildings.
- Centrifugal design with advantages of compact, attractive appearance, quiet operation, and performance against higher static pressures.
- Variable pitch motor pulley allows for speed adjustment.
- Motor base is adjustable to provide proper belt tension and alignment.
- Galvanized steel exterior over galvanized steel frame provides a high degree of rigidity.
- Deep-spun, overlapping, one-piece venturi minimizes noise, reduces air turbulence and improves efficiency.
- Aluminum centrifugal wheel is quiet, non-overloading, backward-inclined design and is computer balanced.
- Standard open drip-proof motor is out of the airstream for protection.
- Heavy duty pillow-block bearings with cast iron housing are self-aligning and relubricable.
- AMCA Seal assures certified rating of sound and air performance.

SQDA Specification Checklist

- General in-line units for low to medium ranges of air volume and pressure in commercial, institutional, and light manufacturing buildings.
- Centrifugal design with advantages of compact, attractive appearance, quiet operation, and performance against higher static pressures.
- Direct-drive advantages of minimal maintenance and operating costs.
- Galvanized steel exterior over galvanized steel frame provides a high degree of rigidity.
- Deep-spun, overlapping, one piece venturi minimizes noise, reduces air turbulence, and improves efficiency.
- Aluminum centrifugal wheel is quiet, non-overloading, backward-inclined design and is computer balanced.
- Standard open motor is out of the airstream for protection.
- Safety disconnect device allows power to be cut for servicing of the unit.
- Fans are factory run and tested prior to shipment to ensure dependable operation.
- AMCA Seal assures certified rating of sound and air performance.

Limited Warranty

In the sale of its products, American Coolair Corporation agrees to correct, by repairs or replacement, any defects in workmanship or material that may develop under proper and normal use during the period of one year from the date of shipment from the factory. Any product or part proving, upon American Coolair's examination, to be defective during limited warranty period will be repaired or replaced, at American Coolair's option, f.o.b. factory, without charge.

Deterioration or wear caused by chemicals, abrasive action or excessive heat shall not constitute defects.

Motors are guaranteed only to the extent of the manufacturer's warranty. American Coolair's limited warranty does not apply to any of its products or parts that have been subject to accidental damage, misuse by the user, unauthorized alterations, improper installation or electrical wiring, or lack of proper lubrication or other service requirements as established by American Coolair.

Repairs or replacements provided under the above terms shall constitute fulfillment of all American Coolair's obligations with respect to limited warranty.

THE LIMITED WARRANTY STATED HEREIN IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, STATUTORY OR IMPLIED, INCLUDING WITHOUT LIMITATION THAT OF MERCHANTABILITY AND FITNESS.

NO LIABILITY FOR REINSTALLATION COST OR FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OF ANY NATURE IS ASSUMED OR SHALL BE IMPOSED UPON AMERICAN COOLAIR.



AMERICAN COOLAIR CORPORATION

REPRESENTED BY:

JACKSONVILLE, FLORIDA 32203-2300 ~ P.O. BOX 2300 ~ (904) 389 3646 ~ FAX (904) 387 3449 ~ E-MAIL – info@coolair.com ~ WEBSITE - coolair.com
VANE AXIAL FANS ~ TUBE AXIAL FANS ~ PROPELLER FANS ~ POWER ROOF VENTILATORS ~ CENTRIFUGAL VENTILATORS
MEMBER OF AMCA





Type RIBA & RIDA Centrifugal Duct Fans



Application

Type RIBA and RIDA fans are suited to meet your ducted fan needs both economically and efficiently. They are designed to operate reliably in most environments.

Construction

The fan housing and motor supports are made of heavy gauge steel plate for maximum strength and durability. The overlapping deep-spun venturi minimizes air turbulence and increases efficiency.

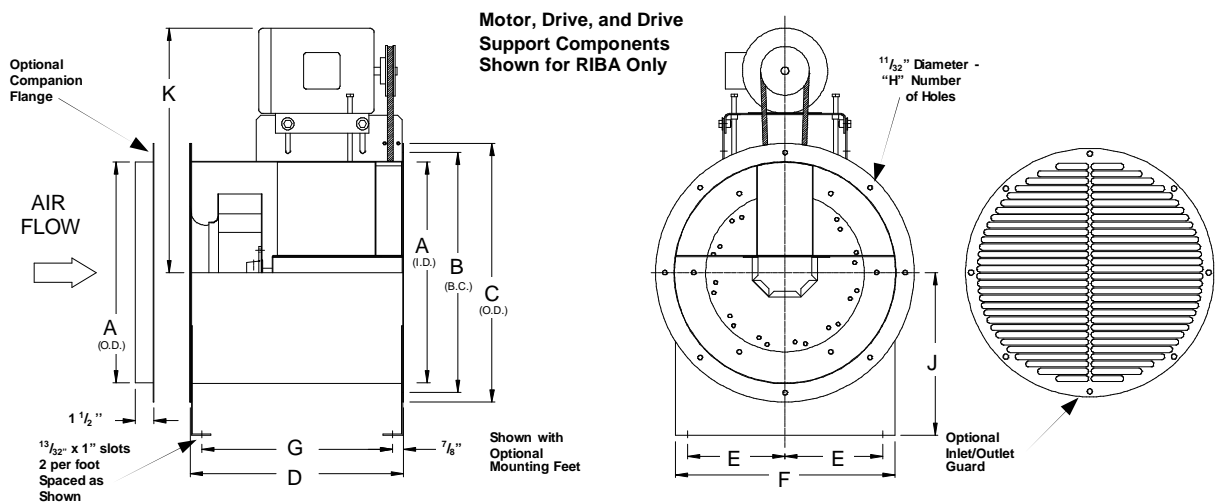
The aluminum centrifugal wheel is a non-overloading, backward-inclined type, selected for low noise levels.

Painted parts are coated with epoxy to provide a protective coating rated excellent for hardness, impact resistance, adhesion and chemical resistance. Contact factory for protective coating options.

Drive mechanism

BELT DRIVE: Available in sizes 06 to 15. Belt driven models are designed for quieter operation and lower initial cost. They use standardly available 1750 RPM motors.

DIRECT DRIVE: Available in sizes 06 to 15. Direct driven models require less maintenance, offer longer operating life, and reduce operating costs.



Fan Model	A	B	C	D	E	F	G	H	J	K	Casing Gauge	Outlet Area Sq. Ft.
RIBA06-10	16 1/8	17 3/8	18 1/4	16 1/2	5 15/16	13 7/8	14 3/4	8	11 5/16	20	14	1.42
RIBA12-15	24 1/8	25 1/2	26 1/2	20 3/4	6 1/4	14 1/2	19	12	16 5/16	27	14	3.17
RIDA06-10	16 1/8	17 3/8	18 1/4	14	5 15/16	13 7/8	12 1/4	8	11 5/16	—	14	1.42
RIDA12-15	24 1/8	25 1/2	26 1/2	18	6 1/4	14 1/2	16 1/4	12	16 5/16	—	14	3.17

Dimensions in inches

RIBA Performance Ratings

Item No.	Cubic Feet Per Minute (CFM) at Static Pressure ¹									Fan Model	Fan Size	Motor HP	Fan RPM	MAX BHP ²	Sone Rating ³
	0"	1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/2"	2"						
1	374	336	296	261	---	---	---	---	---	RIBA06GD1	06	1/4	1417	0.05	6.9
2	472	443	409	378	351	291	---	---	---	RIBA06GD2					
3	553	529	502	472	446	400	348	---	---	RIBA06GD3					
4	618	597	574	547	521	477	436	---	---	RIBA06GD4					
5	518	489	466	424	---	---	---	---	---	RIBA08GD1	08	1/4	1417	0.06	7.1
6	654	629	610	592	565	---	---	---	---	RIBA08GD2					
7	766	744	727	711	696	646	---	---	---	RIBA08GD3					
8	856	835	819	805	791	760	707	---	---	RIBA08H					
9	633	583	534	507	---	---	---	---	---	RIBA10GD1	10	1/4	1417	0.07	7.7
10	798	759	719	679	655	---	---	---	---	RIBA10GD2					
11	936	902	869	834	800	759	---	---	---	RIBA10GD3					
12	1,046	1,015	985	955	924	872	841	---	---	RIBA10H					
13	1,458	1,389	1,317	1,241	1,158	957	---	---	---	RIBA12G	12	1/4	1402	0.23	10.9
14	1,626	1,563	1,500	1,433	1,364	1,203	1,013	---	---	RIBA12H					
15	1,850	1,796	1,740	1,683	1,625	1,499	1,351	---	---	RIBA12J					
16	2,130	2,083	2,035	1,986	1,937	1,834	1,723	1,456	---	RIBA12K					
17	2,299	2,255	2,211	2,166	2,120	2,027	1,929	1,701	1,432	RIBA12L	1	2210	0.92	24	
18	2,666	2,628	2,590	2,552	2,513	2,434	2,353	2,181	1,980	RIBA12M	1 1/2	2563	1.44	31	
19	1,601	1,514	1,419	1,315	1,199	901	---	---	---	RIBA13G	13	1/4	1186	0.21	9.9
20	1,819	1,744	1,663	1,576	1,483	1,267	983	---	---	RIBA13H					
21	2,037	1,969	1,899	1,824	1,745	1,571	1,364	---	---	RIBA13J					
22	2,328	2,270	2,209	2,146	2,080	1,939	1,783	1,392	---	RIBA13K					
23	2,620	2,568	2,514	2,459	2,403	2,283	2,155	1,861	1,482	RIBA13L	1	1941	0.93	23	
24	3,026	2,981	2,936	2,889	2,841	2,742	2,638	2,411	2,150	RIBA13M	1 1/2	2242	1.44	30	
25	2,002	1,903	1,794	1,673	1,536	---	---	---	---	RIBA15H	15	1/3	1119	0.30	9.7
26	2,335	2,251	2,161	2,065	1,960	1,718	---	---	---	RIBA15J					
27	2,669	2,596	2,520	2,439	2,353	2,165	1,946	---	---	RIBA15K					
28	2,920	2,853	2,784	2,712	2,636	2,473	2,290	---	---	RIBA15L					
29	3,215	3,155	3,093	3,028	2,962	2,820	2,665	2,303	---	RIBA15M	1 1/2	1797	1.24	22	
30	3,639	3,586	3,532	3,476	3,419	3,299	3,171	2,887	2,549	RIBA15N	2	2034	1.80	27	

RIDA Performance Ratings

Item No.	Cubic Feet Per Minute (CFM) at Static Pressure ¹									Fan Model	Fan Size	Motor HP	Fan RPM	MAX BHP ²	Sone Rating ³
	0"	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"	1"	1 1/4"						
1	311	271	---	---	---	---	---	---	---	RIDA06H11	06	1/3	1180	0.03	4.3
2	465	428	410	389	357	317	288	---	---	RIDA06F17					
3	429	389	343	---	---	---	---	---	---	RIDA08H11	08	1/3	1180	0.03	4.9
4	642	617	589	558	528	495	443	---	---	RIDA08F17					
5	574	511	431	---	---	---	---	---	---	RIDA10H11	10	1/3	1180	0.04	5.7
6	859	816	774	731	680	602	526	---	---	RIDA10F17					
7	1223	1135	1046	952	832	---	---	---	---	RIDA12H11	12	1/3	1180	0.13	8.0
8	1813	1754	1695	1636	1576	1515	1452	1304	---	RIDA12J17					
9	1557	1462	1355	1240	1121	977	---	---	---	RIDA13H11	13	1/3	1150	0.18	8.2
10	2370	2309	2245	2179	2109	2035	1960	1806	1643	RIDA13K17					
11	2028	1930	1821	1700	1565	1413	---	---	---	RIDA15H11	15	1/3	1125	0.31	9.3
12	3110	3047	2982	2914	2844	2770	2693	2526	2344	RIDA15L17					

1 — Performance ratings shown are for Installation Type B : Free inlet, Ducted outlet.

2 — Maximum Brake Horsepower (BHP) within the catalog performance range. BHP does not include drive losses.

3 — The sound ratings shown are loudness values in fan sones at 5 ft. (1.5m) in a hemispherical free field calculated per AMCA Standard 301.

Values shown are for Installation Type B: free inlet fan sone levels. The sound ratings shown are at 0" static pressure.

NOTE: BHP and sone values at most static pressures listed is less than that shown, in some cases substantially less. For specific BHP and sound values at individual static pressure points contact your American Coolair representative.

MXF & MXFD

MIXED FLOW DUCT FANS

BELT & DIRECT DRIVE



DIVISION

AMERICAN COOLAIR
CORPORATION

TYPES MXF | MXFD
MIXED FLOW DUCT FANS

MXF Belt Drive Model Overview.....3

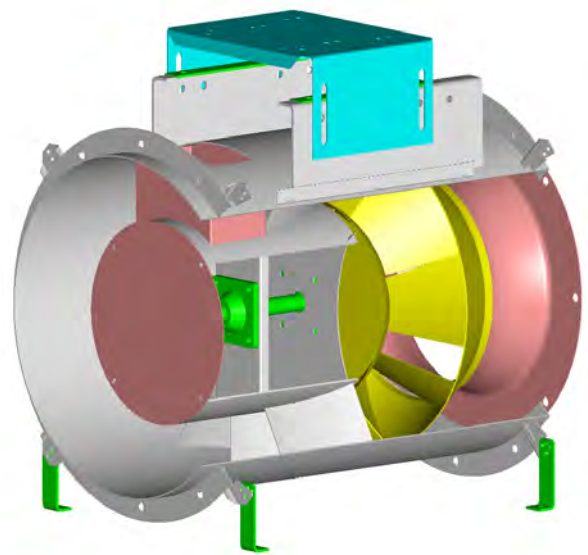
MXF Belt Drive Performance Specifications & Ratings.....4

MXFD Direct Drive Model Overview.....5

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Options & Accessories.....7

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APPLICATION

Type MXF mixed flow fans are a unique hybrid design, combining the volume flow capabilities of an axial fan with the pressure capabilities of a centrifugal fan. These fans are suited to meet your ducted fan needs both economically and efficiently. They are designed to operate reliably in all environments including elevated temperature or contaminated air.

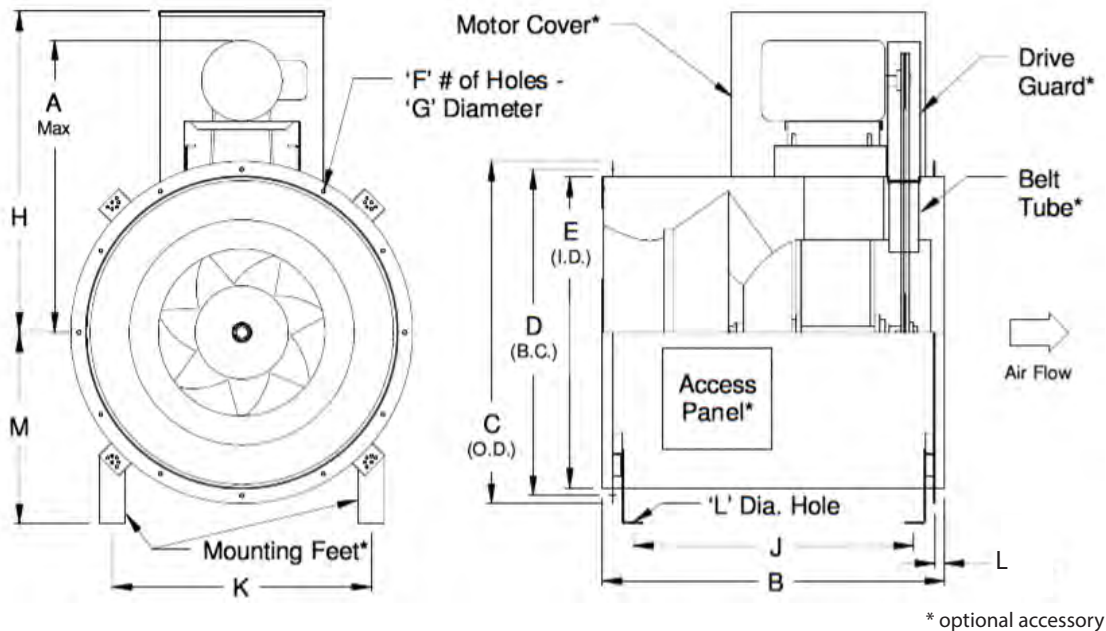
CONSTRUCTION

The fan housing and motor supports are made of heavy gauge steel plate for maximum strength and durability. The mixed-flow wheel is heavy gauge welded steel. Both the housing and wheel are coated with epoxy to provide a protective coating rated excellent for hardness, impact resistance, adhesion and chemical resistance. Contact factory for other protective coating options.

DRIVE MECHANISM | BELT DRIVE

Available in sizes 9 to 43. Belt driven models are designed for quieter operation and lower initial cost. All models use standardly available motors.

MXF DRAWING & DIMENSIONS



Size	A	B	C	D	E	F	G	H	J	K	L	Access Panel
9	18 3/4	18 3/4	14 13/16	13 1/8	12 1/8	8	3/8	19 1/8	12 9/16	13	1 1/4	4 x 6 3/8
13	21 5/8	20 3/4	18 13/16	17 3/8	16 1/8	8	3/8	22 3/8	14 9/16	15 7/8	1 1/4	5 x 7
18	29 7/8	30 1/8	23 15/16	22 5/8	21 1/8	8	3/8	30 1/8	23 9/16	19 7/16	1 1/2	6 x 9
21	32	32	27 15/16	25 7/8	24 1/8	12	9/16	32 3/4	25 1/8	21 11/16	1 1/2	7 x 10 1/2
27	37	38	34 3/16	32 1/8	30 1/8	16	9/16	37	28 7/16	27 7/16	1 1/2	8 x 13 1/8
32	40 5/8	42 1/2	40 1/2	38 1/8	36 1/8	16	9/16	42 3/16	32 15/16	31 11/16	1 1/2	10 x 15 3/4
38	45 7/16	47 3/8	46 3/4	44 3/16	42 1/8	24	9/16	46 1/16	37 13/16	35 15/16	1 1/2	10 x 18 3/8
43	48 11/16	53 1/2	53	50 1/2	48 1/8	24	9/16	49 11/16	44 1/8	40 3/16	1 1/2	10 x 21

dimensions in inches

MXF PERFORMANCE SPECIFICATIONS & RATINGS

Fan Size	0" S.P.		0.5" S.P.		1" S.P.		1.5" S.P.		2" S.P.		2.5" S.P.		3" S.P.		4" S.P.		5" S.P.		Motor HP	RPM	Max Sones
	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP			
9	1,112	0.17	994	0.22	844	0.25													1/4	2,955	15.2
	1,203	0.22	1,094	0.27	968	0.31	790	0.33											1/3	3,196	17.2
	1,377	0.33	1,283	0.38	1,181	0.43	1,055	0.47	892	0.50									1/2	3,658	21
	1,579	0.49	1,498	0.56	1,412	0.62	1,319	0.67	1,203	0.72	1,062	0.75							3/4	4,196	28
	1,740	0.66	1,667	0.73	1,590	0.80	1,509	0.86	1,419	0.92	1,308	0.97	1,180	1.00					1	4,623	32
	1,989	0.98	1,926	1.07	1,860	1.15	1,792	1.22	1,720	1.29	1,642	1.36	1,551	1.41	1,331	1.50			1 1/2	5,286	40
13	2,514	0.31	2,245	0.41	1,919	0.50													1/2	2,271	16.4
	2,822	0.44	2,587	0.55	2,311	0.66	1,996	0.75											3/4	2,549	20
	3,069	0.56	2,856	0.69	2,611	0.81	2,336	0.91	2,016	1.00									1	2,772	23
	3,533	0.86	3,350	1.01	3,149	1.14	2,925	1.27	2,683	1.39	2,413	1.50							1 1/2	3,191	28
	3,893	1.15	3,728	1.31	3,551	1.47	3,357	1.61	3,146	1.75	2,923	1.88	2,677	2.00					2	3,516	33
	4,446	1.72	4,304	1.90	4,152	2.08	3,991	2.25	3,819	2.42	3,635	2.58	3,443	2.73	3,018	3.00			3	4,016	41
18	4,008	0.47	3,583	0.63	3,026	0.75													3/4	1,470	14.5
	4,329	0.59	3,943	0.77	3,462	0.91	2,769	1.00											1	1,588	16.4
	4,954	0.88	4,623	1.09	4,238	1.27	3,770	1.41	3,106	1.50									1 1/2	1,817	20
	5,452	1.17	5,156	1.41	4,822	1.61	4,434	1.78	3,967	1.93	3,289	2.00							2	2,000	24
	6,251	1.77	5,996	2.04	5,718	2.29	5,410	2.51	5,062	2.70	4,663	2.87	4,159	3.00					3	2,293	30
	7,399	2.93	7,186	3.26	6,960	3.57	6,719	3.85	6,458	4.11	6,175	4.34	5,866	4.56	5,117	4.93			5	2,714	40
8,555	4.53	8,372	4.91	8,181	5.28	7,981	5.62	7,771	5.95	7,548	6.25	7,311	6.53	6,788	7.04	6,171	7.50	7 1/2	3,138	51	
21	5,333	0.61	4,805	0.83	4,102	1.00													1	1,323	13.6
	6,014	0.87	5,558	1.12	5,004	1.34	4,231	1.50											1 1/2	1,492	16.7
	6,574	1.14	6,162	1.42	5,684	1.66	5,084	1.87	4,222	2.00									2	1,631	19.9
	7,521	1.71	7,167	2.03	6,773	2.33	6,322	2.59	5,772	2.82	5,041	2.98	4,006	2.96					3	1,866	24
	8,924	2.86	8,630	3.24	8,314	3.60	7,971	3.95	7,591	4.26	7,160	4.54	6,647	4.79	5,199	5.00			5	2,214	31
	10,206	4.28	9,951	4.71	9,681	5.14	9,396	5.54	9,091	5.93	8,762	6.29	8,401	6.62	7,525	7.20	6,298	7.50	7 1/2	2,532	38
11,383	5.93	11,155	6.42	10,918	6.90	10,669	7.36	10,409	7.81	10,133	8.24	9,840	8.64	9,182	9.38	8,371	10.00	10	2,824	46	
27	8,395	0.93	7,482	1.25	6,268	1.50													1 1/2	1,019	15.0
	9,112	1.18	8,280	1.54	7,285	1.84	5,640	2.00											2	1,106	17.3
	10,431	1.78	9,714	2.19	8,920	2.56	7,900	2.86	6,330	3.00									3	1,266	22
	12,367	2.96	11,770	3.46	11,133	3.92	10,437	4.35	9,590	4.71	8,412	4.95	6,899	4.97					5	1,501	28
	14,163	4.45	13,646	5.02	13,103	5.56	12,531	6.08	11,910	6.56	11,189	6.98	10,260	7.30					7 1/2	1,719	35
	15,580	5.92	15,112	6.55	14,626	7.16	14,117	7.74	13,583	8.29	13,006	8.81	12,345	9.27	10,528	9.91			10	1,891	40
17,953	9.06	17,548	9.79	17,133	10.50	16,704	11.19	16,260	11.86	15,800	12.50	15,315	13.11	14,205	14.20	12,698	14.99	15	2,179	54	
32	11,865	1.22	10,544	1.67	8,531	2.00													2	814	15.0
	13,469	1.78	12,336	2.30	10,918	2.74	8,583	3.00											3	924	18.8
	16,005	2.99	15,075	3.62	14,021	4.19	12,704	4.67	10,730	5.00									5	1,098	25
	18,293	4.47	17,491	5.19	16,613	5.87	15,627	6.48	14,406	7.02	12,693	7.41	10,636	7.50					7 1/2	1,255	30
	20,116	5.94	19,391	6.74	18,612	7.50	17,765	8.20	16,811	8.84	15,620	9.42	14,035	9.84					10	1,380	35
	23,031	8.91	22,403	9.84	21,741	10.73	21,038	11.57	20,287	12.36	19,464	13.10	18,511	13.78	15,868	14.82	12,356	14.82	15	1,580	44
25,407	11.97	24,840	12.99	24,249	13.98	23,629	14.93	22,977	15.84	22,286	16.71	21,539	17.52	19,703	18.99	17,144	19.98	20*	1,743	54	
38	14,780	1.20	12,538	1.72	8,658	2.00													2	626	17.5
	17,189	1.88	15,379	2.51	12,826	3.00													3	728	24
	20,045	2.98	18,558	3.73	16,664	4.40	14,173	4.87	10,382	4.91									5	849	31
	22,949	4.48	21,682	5.34	20,181	6.14	18,337	6.84	16,044	7.34	12,838	7.46							7 1/2	972	38
	25,263	5.97	24,127	6.92	22,832	7.83	21,300	8.66	19,497	9.35	17,271	9.85	14,319	9.97					10	1,070	44
	28,947	8.98	27,969	10.08	26,895	11.14	25,692	12.15	24,316	13.09	22,759	13.89	20,983	14.53	16,066	14.96			15	1,226	58
31,827	11.94	30,945	13.15	29,994	14.32	28,955	15.46	27,802	16.55	26,514	17.55	25,091	18.43	21,623	19.73	16,751	19.72	20	1,348	72	
34,306	14.95	33,491	16.25	32,624	17.53	31,692	18.77	30,678	19.97	29,562	21.12	28,337	22.18	25,549	23.90	21,826	25.00	25*	1,453	86	
43	20,106	1.76	17,439	2.52	13,142	3.00													3	575	17.0
	23,777	2.92	21,662	3.83	18,747	4.61	14,508	4.99											5	680	23
	27,239	4.39	25,453	5.44	23,214	6.42	20,291	7.16	16,315	7.50									7 1/2	779	29
	30,001	5.86	28,407	7.03	26,512	8.14	24,148	9.11	21,210	9.76	17,275	10.00							10	858	35
	34,337	8.79	32,969	10.13	31,426	11.42	29,620	12.65	27,476	13.72	24,951	14.49	21,879	14.99					15	982	45
	37,799	11.73	36,568	13.20	35,215	14.64	33,690	16.04	31,937	17.34	29,920	18.45	27,614	19.29	21,515	19.97			20	1,081	54
40,946	14.91	39,817	16.51	38,597	18.08	37,254	19.61	35,752	21.08	34,054	22.44	32,145	23.59	27,562	25.17	20,500	24.92	25*	1,171	62	

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- Performance certified is for Installation Type B: free inlet, ducted outlet. Performance does not include the effects of appurtenances (accessories).
- The sound ratings shown are loudness values in hemispherical sones at 1.5m (5 ft.) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for Installation Type B: free inlet hemispherical sone levels.
- To convert air performance (CFM and SP) and power (BHP) to metric units, multiply CFM x .000472 to obtain cubic meters per second (m³/s). Multiply SP x 248.36 to obtain pascals (Pa). Multiply BHP x .7457 to obtain kilowatts (kW).
- All MXF9 and MXF13 models use a 3450 RPM motor with a maximum 145T frame size.
- * These models use fixed pitch pulleys.

APPLICATION

Type MXFD mixed flow fans are a unique hybrid design, combining the volume flow capabilities of an axial fan with the pressure capabilities of a centrifugal fan. These fans are suited to meet your ducted fan needs both economically and efficiently. They are designed to operate reliably in most environments including contaminated air.

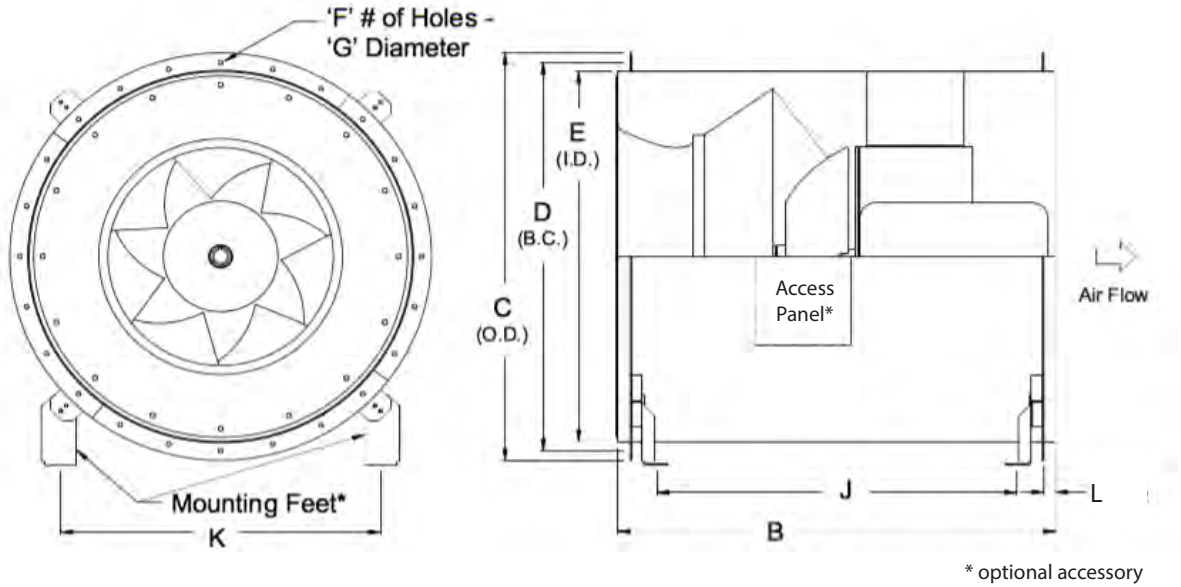
CONSTRUCTION

The fan housing and motor supports are made of heavy gauge steel plate for maximum strength and durability. The mixed-flow wheel is heavy gauge welded steel. Both the housing and wheel are coated with epoxy to provide a protective coating rated excellent for hardness, impact resistance, adhesion and chemical resistance. Contact factory for other protective coating options.

DRIVE MECHANISM | DIRECT DRIVE

Available in sizes 13 to 43. Direct driven models require less maintenance, offer longer operating life, and reduce operating costs.

MXFD DRAWING & DIMENSIONS



Size	B	C	D	E	F	G	J	K	L	Access Panel
13	20 3/4	18 13/16	17 3/8	16 1/8	8	3/8	14 9/16	15 7/8	1 1/4	5 x 7
18	31 1/8	23 15/16	22 5/8	21 1/8	8	3/8	24 9/16	19 7/16	1 1/2	6 x 9
21	30 1/2	27 15/16	25 7/8	24 1/8	12	9/16	23 13/16	21 11/16	1 1/2	7 x 10 1/2
27	38	34 3/16	32 1/8	30 1/8	16	9/16	28 5/8	27 7/16	1 1/2	8 x 13 1/8
32	44	40 1/2	38 1/8	36 1/8	16	9/16	34 5/8	31 11/16	1 1/2	10 x 15 3/4
38	51 7/8	46 3/4	44 3/16	42 1/8	24	9/16	42 1/2	35 15/16	1 1/2	10 x 18 3/8
43	55	53	50 1/2	48 1/8	24	9/16	45 5/8	40 3/16	1 1/2	10 x 21

dimensions in inches

MXFD PERFORMANCE SPECIFICATIONS & RATINGS

Fan Size	0" S.P.		0.5" S.P.		1" S.P.		1.5" S.P.		2" S.P.		2.5" S.P.		3" S.P.		4" S.P.		5" S.P.		Motor HP	RPM	Max Sones
	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP			
13	1,960	0.15	1,590	0.22	1,034	0.27													1/3	1,770	10.6
	3,875	1.14	3,710	1.30	3,531	1.45	3,336	1.60	3,124	1.73	2,899	1.86	2,651	1.98	1,960	2.05			2	3,500	33
18	4,839	0.82	4,500	1.03	4,101	1.19	3,608	1.33	2,857	1.40									1 1/2	1,775	19.7
	9,474	6.15	9,309	6.57	9,139	6.98	8,962	7.38	8,778	7.76	8,587	8.11	8,386	8.45					7 1/2	3,475	61
	9,542	6.28	9,378	6.71	9,210	7.12	9,034	7.52	8,852	7.90	8,663	8.27	8,464	8.60	8,035	9.22	7,559	9.78	10	3,500	62
21	7,054	1.41	6,673	1.71	6,242	1.98	5,731	2.22											2	1,750	22
	7,175	1.49	6,802	1.79	6,381	2.07	5,887	2.31	5,256	2.51	4,367	2.61							3	1,780	23
27	9,681	1.42	8,903	1.80	8,012	2.13													2	1,175	24
	14,583	4.86	14,082	5.44	13,557	6.01	13,005	6.54	12,415	7.04	11,748	7.50	10,919	7.87					7 1/2	1,770	36
32	16,909	3.53	16,034	4.19	15,058	4.80	13,910	5.34	12,278	5.78									5	1,160	27
	25,800	12.53	25,242	13.57	24,662	14.58	24,054	15.55	23,415	16.48	22,741	17.36	22,015	18.20	20,272	19.71	17,829	20.82	20	1,770	55
38	20,777	3.32	19,353	4.10	17,577	4.80	15,304	5.34	11,995	5.56									5	880	33
	27,861	8.01	26,841	9.06	25,712	10.08	24,428	11.04	22,945	11.91	21,260	12.63	19,237	13.18					15	1,180	53
43	30,945	6.44	29,407	7.64	27,603	8.79	25,388	9.82	22,672	10.57	19,217	10.99							10	885	37
	41,086	15.06	39,961	16.67	38,746	18.24	37,411	19.78	35,918	21.26	34,231	22.63							20	1,175	62
	41,435	15.45	40,321	17.07	39,118	18.66	37,801	20.21	36,331	21.71	34,674	23.10	32,815	24.30	28,385	25.96	22,005	26.06	25	1,185	63

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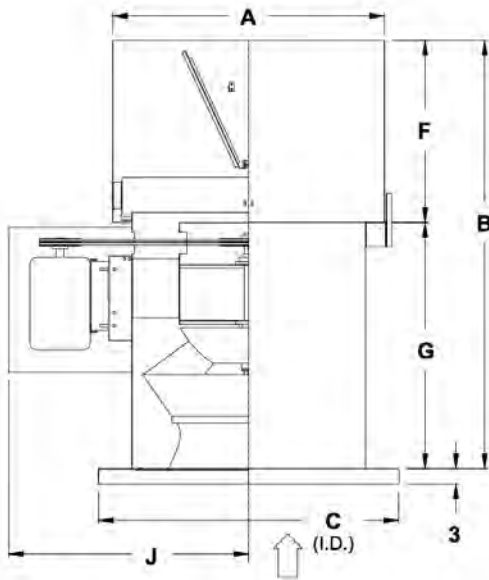
Motor Cover

available for MXF only

The painted steel housing encloses motor and drives on belt drive models. The cover is open on the motor pulley end to allow for ventilation of motor.

PRV Kit

Permanently converts the MXF to an upblast Power Roof Ventilator. The kit includes a curb cap for roof mounting, and an exhaust shroud suitable for all-weather operation, and a belt tube. Must be factory assembled. Drawing and dimensions below.



PRV Kit Dimensions

Size	A	B		C*	F	G		J
		MXF	MXFD			MXF	MXFD	
9	16	30 3/8	-	26	12 1/2	17 7/8	-	19 1/8
13	20	34 3/8	34 3/8	30	14 1/2	19 7/8	19 7/8	22 3/8
18	25	46	47	35	17	29	30	30 1/8
21	32	57 3/16	55 11/16	38	27 5/8	29 9/16	28 1/16	32 11/16
27	38	69 1/8	69 1/8	44	32 1/2	36 5/8	36 5/8	37 1/8
32	44	71	69 1/2	50	32 1/2	38 1/2	37	42 1/8
38	50	82 3/8	86 7/8	56	37 3/8	45	49 1/2	46 1/8
43	56	88 3/8	89 7/8	62	37 3/8	51	52 1/2	49 3/4

Access Panel

This removable panel allows limited access to fan for inspection and cleaning of fan interior.

Inlet/Outlet Guard

Guards prevent the entry of foreign material into the fan. Guards consist of 1" x 1" wire mesh. PVC Coated 1/2" x 1" material may be specified where OSHA guarding is specified.

Belt Tube

available for MXF only

The painted steel belt tube isolates the drive components from the airstream. Due to positive pressures on the motor shaft side of the MXF fan, either a Belt Tube or Drive Guard accessory (see below) is recommended to minimize air leakage.

Mounting Feet

When necessary to support fan weight from floor or ceiling, Mounting Feet should be specified.

Safety Disconnect Switch

This switch is designed to mount near the fan and serve as a safety disconnect from the power supply.

Drive Guard

available for MXF only

This guard keeps personnel and foreign objects away from the rotating motor sheave and belts. Drive guard is standard on fans without a belt tube, and optional on fans ordered with a belt tube.

Limited Warranty

In the sale of its products, American Coolair Corporation agrees to correct, by repairs or replacement, any defects in workmanship or material that may develop under proper and normal use during the period of one year from date of shipment from factory. Any product or part proving, upon American Coolair's examination, to be defective during limited warranty period will be repaired or replaced, at American Coolair's option, f.o.b. factory, without charge.


Deterioration or wear caused by chemicals, abrasive action or excessive heat shall not constitute defects.

Motors are guaranteed only to the extent of manufacturer's warranty.

American Coolair's limited warranty does not apply to any of its products or parts that have been subject to accidental damage, misuse by the user, unauthorized alterations, improper installation or electrical wiring, or lack of proper lubrication or other service requirements established by American Coolair.

Repairs or replacements provided under the above terms shall constitute fulfillment of all American Coolair's obligations with respect to limited warranty. THE LIMITED WARRANTY STATED HEREIN IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, STATUTORY OR IMPLIED, INCLUDING WITHOUT LIMITATION THAT OF MERCHANTABILITY AND FITNESS.

NO LIABILITY FOR REINSTALLATION COST OR FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OF ANY NATURE IS ASSUMED OR SHALL BE IMPOSED UPON AMERICAN COOLAIR.

WARNING	CAUTION
	<p>DO NOT INSTALL FAN WITH MOVING PARTS WITHIN 8 FEET OF FLOOR OR GRADE LEVEL WITHOUT A GUARD THAT COMPLIES WITH OSHA REGULATIONS. DO NOT USE UNLESS ELECTRICAL WIRING COMPLIES WITH ALL APPLICABLE CODES. DO NOT WIRE WITHOUT PROVIDING FOR A POWER SOURCE DISCONNECT AT THE FAN ITSELF. DO NOT SERVICE EXCEPT BY A QUALIFIED MAINTENANCE TECHNICIAN AND ONLY AFTER DISCONNECTING THE POWER SOURCE. FAILURE TO OBSERVE THESE PRECAUTIONS CAN RESULT IN SERIOUS INJURY OR DEATH.</p>



DIVISION


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Member AMCA

Ventilating Sets



Type VSBC – Backward Inclined

Type VSFC – Forward Curved

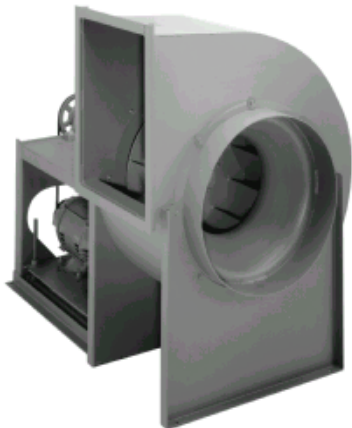
Type VSAC – Airfoil

Type VSFCJ, VSDDF, VSBCJ – Junior Vent Sets

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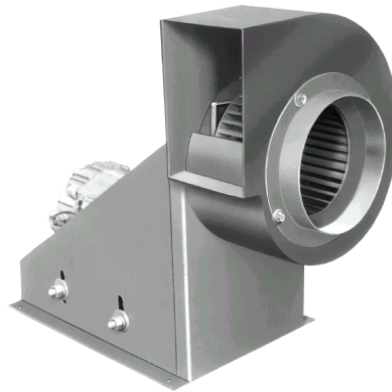
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Ventilating Sets



**Sizes 12" to 36"
Flow rate from
688 to 29,108 CFM
and 8" static pressure**

Junior Ventilating Sets



**Sizes 6" to 10"
Flow rate from
260 to 2127CFM
and 5" static pressure**

Standard Construction Features— Class I and II

Type VSBC, VSFC, VSAC

Standard design features common to all Class I and Class II fans:

Shaft

- AISI 1045, turned, ground and polished for accuracy.
- Designed to provide first critical speed of at least 1.43 times the maximum class speed.

Bearings

Heavy duty grease lubricated pillow block bearings selected for minimum average life (AFBMA L-50) of at least 200,000 hours at maximum class speed.

Drives

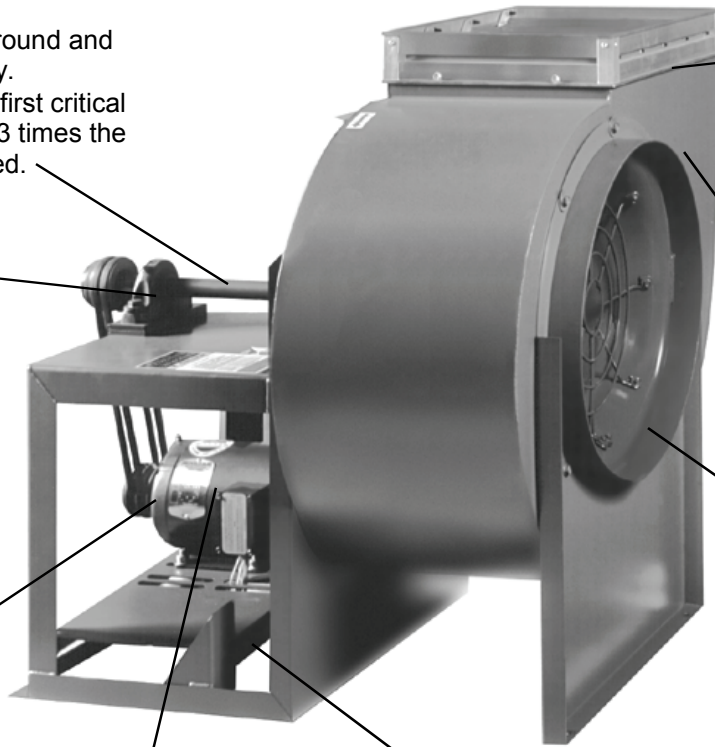
Adjustable or fixed pitch, 1.2 or 1.5 service factor V-belt drives with cast iron sheaves, and V-belts designed to be oil and heat resistant, and to dissipate static electricity.

Motor

Available in various sizes, voltages, enclosures, and efficiencies to meet the needs of any application.

Motor/Bearing Pedestal (Class I Shown)

Large open motor compartment allows complete access to motor and motor base for quick and easy servicing and belt tension adjustment.



Shutter

Optional discharge gravity shutter.

Housing

- Rugged, all-welded construction.
- Rotatable to eight standard discharge positions.

Inlet Cone

Deep spun cone, aerodynamically designed for smooth air entry into the wheel, shown here with optional inlet screen

Construction Features

CLASS I	CLASS II
Rotatable to Size 36	Rotatable to Size 36
Static Pressures to 5"	Static Pressures to 8"
Capacities to 26,000 CFM	Capacities to 33,000 CFM
Wheel Dia. 12-1/4" to 36-1/2"	Wheel Dia. 12-1/4" to 36-1/2"
Temperatures to 500°F	Temperatures to 600°F
Maximum Motor Frame Size 256T (20HP)	Maximum Motor Frame Size 326T (50HP)
Full AMCA Class Rated Performance	Full AMCA Class Rated Performance

Certification



American Coolair certifies that the type VSBC fans shown on pages 8 through 11 and VSAC fans shown on pages 16 through 19 are licensed to bear the AMCA Seal for Sound and Air. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings program.



American Coolair certifies that the type VSFC fans shown on pages 12 through 15 are licensed to bear the AMCA Seal for Air. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and comply with the requirements of the AMCA Certified Ratings program.



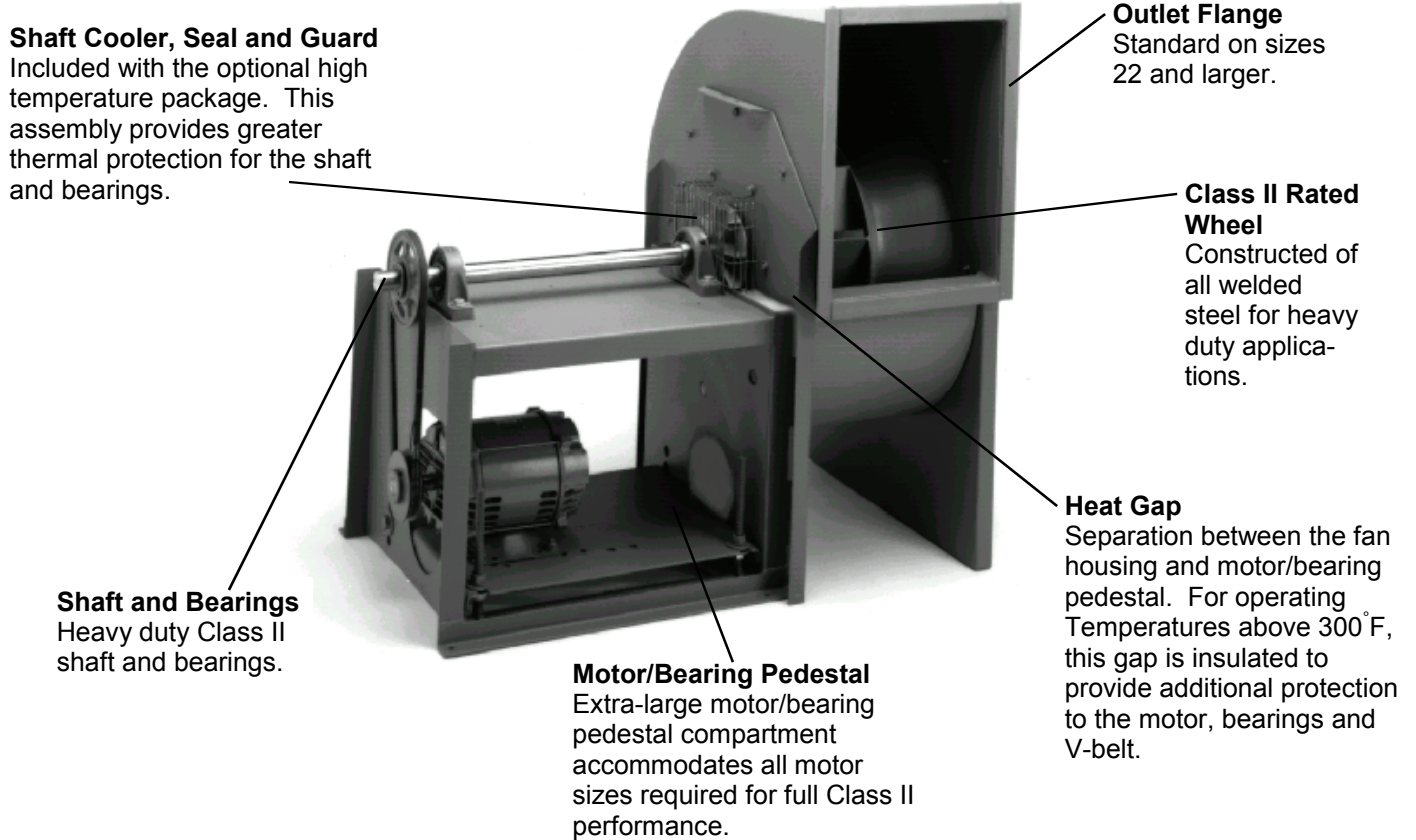
For sound performance see Eng. Bulletin 2002-10.

Bulletin illustrations cover the general appearance of American Coolair Corporation products at the time of publication and we reserve the right to make changes in design and construction at any time without notice.

Class II Construction Features

Type VSBC, VSFC, VSAC

In addition to the standard design features, the Class II vent sets are also equipped with the following features:



Wheel Selection



ALUMINUM BC
(Backward Inclined)

Wheels for VSBC Class I sizes 12 through 27 are constructed of riveted aluminum. For operating temperatures over 250°F, a welded steel wheel is provided.



STEEL BC
(Backward Inclined)

Wheels for VSBC Class I sizes 30 through 36, as well as all VSBC Class II sizes, are constructed of welded steel.



STEEL FC
(Forward Curved)

All VSFC fans are equipped with riveted steel wheels

In addition to the above configurations, American Coolair Corporation offers VSAC airfoil vent sets in sizes 12 through 36 with welded airfoil wheels. See pages 16 through 19 for performance.

Accessories

Weather Cover

An easily removable weather cover is available for either Class I or Class II fans. The weather cover provides complete protection for the motor, fan bearings, and V-belt drive. If an OSHA-style belt guard is specified on vent sets, a weather cover will be supplied.



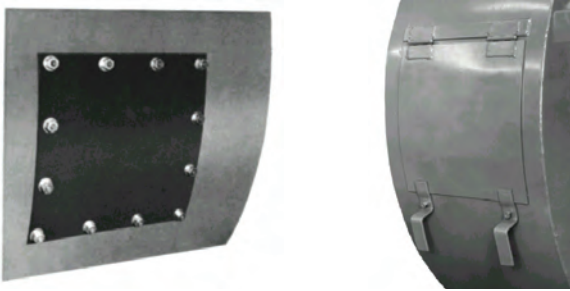
Outlet Shutters

Interconnected blade-style shutters, of either gravity or motor operated type. Fabricated with die-formed and felted edges, they are noiseless in operation and completely weatherproof. For volume control, heavy duty center-pivoted dampers can be installed at the discharge of these ventilating sets.



Access Doors

Two type of access doors are available: bolted or quick-opening. Access doors are specified where examination and cleaning of the fan interior is required.



Belt Guard

Standard belt guards are of the open back style, and are readily removable for belt or pulley adjustments. For OSHA-style belt guards, see notes on weather cover.

Additional Accessories

- Inlet flange
- Outlet flange
- Drain connection
- Disconnect switch
- Vibration isolation pads
- Rails and hangers
- Inlet screen
- Outlet screen

UL 705 and UL 762

Model VSBC fans are available with optional UL705 and UL762 packages.



These optional packages include:

UL705 Package

- Weather cover with oversized cooling slots
- UL705 label

UL762 Package

- Weather cover with oversized cooling slots
- Bolted access door
- Drain connection
- Backplate fins
- UL762 label

UL762 is available in upblast and top angular up discharge only. For UL762, grease pans, disconnect switches, stacks or fan platforms are not included. Fans must be installed per local codes and NFPA 96. Most ODP and TEFC motors are available. American Coolair Corporation reserves the right to specify motor suppliers.

Optional Construction

High Temperature Construction

Standard fan design options are available to handle airstream temperatures to 600°F. Consult your American Coolair representative for applications over 600°F. High temperature operating limits and necessary modifications are shown in Table 1.

Table 1. High Temperature Construction Requirements

TEMPERATURE (F)	WHEEL MATERIAL	BEARING LUBRICATION	OTHER REQUIREMENTS
-20° TO 250°F	Riveted Aluminum on 12-27 VSBC Class I. All others Steel	Grease	Standard Fan
251° TO 300°F	Steel	Grease	Standard Fan
301° TO 500°F	Steel	High Temperature Grease	Shaft cooler, Shaft Seal, Expansion & Non-Expansion Bearings; Class II; Insulated Heat Gap
501° TO 600°F Class II Only	Steel	High Temperature Grease	Shaft cooler, Shaft Seal, Expansion & Non-Expansion Bearings; High Temperature Aluminum Paint, Insulated Heat Gap

When selecting the performances at elevated temperatures and altitudes, refer to the method used in engineering bulletin 2002-10 page 11.

Spark Resistant Construction

AMCA TYPE	FAN CONSTRUCTION
A	All Airstream Parts are Aluminum (Wheel, Housing, and Shaft Seal). Limited to 250°F.
B	Aluminum Wheel And Rubbing Plate. Limited to 250°F.
C	To 250°F - 12 to 27 VSBC Class I: Aluminum Wheel and Rubbing Plate.
	251° To 500°F - 12 to 27 VSBC Class I & II: Steel Wheel, Aluminum Inlet Cone and Rubbing Plate.
	All others to 500°F - Aluminum Inlet Cone and Rubbing Plate.

NOTES:

- Bearings shall be placed outside the airstream.
- The user shall electrically ground all fan parts.
- The use of the above standard in no way implies a guarantee of safety for any level of spark resistance. "Spark resistant construction also does not protect against ignition of explosive gases caused by catastrophic failure or from any airstream material that may be present in the system."

Engineering Data

Derating Factors For High Temperature

Fan operation at high temperature adversely affects the strength of fan wheels. As a result, the maximum safe speed (RPM) of the fan from Table 3 must be derated by the temperature factor from Table 2.

Example: Maximum safe speed at 400°F for a size 24 VSBC Class II steel wheel = 0.95 x 2033 = 1931 RPM (2033 RPM is maximum RPM at 70°F).

Table 2. Derating Factors for High Temperature

TEMPERATURE (°F)	ALUMINUM	STANDARD STEEL	STAINLESS STEEL
70	1.00	1.000	1.00
200	1.00	0.980	0.95
250	1.00	0.970	0.93
300	-	0.960	0.91
400	-	0.950	0.88
500	-	0.900	0.84
600	-	0.860	0.81

Table 3. Maximum RPM at 70°F

SIZE	VSBC		VSFC		VSAC	
	CLASS I	CLASS II	CLASS I	CLASS II	CLASS I	CLASS II
12	3167	4119	1559	1871	3990	5205
13	2874	3738	1415	1698	3265	4259
15	2587	3364	1273	1528	3260	4252
16	2352	3058	1157	1389	2673	3487
18	2118	2729	1046	1256	2294	2902
20	1932	2490	955	1146	2093	2648
22	1737	2238	858	1030	1881	2381
24	1577	2033	780	935	1708	2162
27	1397	1803	707	849	1558	1999
30	1257	1623	637	764	1402	1799
33	1143	1475	579	694	1275	1636
36	995	1283	523	628	1071	1388

Table 4. Bare Fan Weights (lb)

SIZE	CLASS I	CLASS II
12	121	133
13	139	153
15	162	178
16	198	218
18	220	242
20	287	316
22	348	383
24	453	498
27	507	559
30	662	728
33	758	834
36	940	1034

Performance Data

VSBC12

Outlet Area - 0.86 ft² Wheel Dia. - 12.25 Inches Tip Speed - 3.21 x RPM Max. BHP = 0.076 (RPM/1000)³

CFM	OV	0.25"		0.5"		1"		1.5"		2"		3"		4"		5"		6"		7"		8"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
688	800	869	0.05	1044	0.08	1335	0.17																
860	1000	994	0.07	1152	0.12	1413	0.21	1642	0.31														
1032	1200	1123	0.11	1271	0.16	1512	0.26	1720	0.37	1911	0.49												
1204	1400	1256	0.15	1397	0.21	1622	0.32	1816	0.45	1992	0.58	2317	0.87										
1376	1600	1396	0.20	1525	0.27	1738	0.40	1922	0.54	2088	0.68	2390	0.98	2671	1.33								
1548	1800	1539	0.27	1655	0.34	1861	0.49	2035	0.64	2193	0.79	2480	1.12	2741	1.48	2989	1.87						
1720	2000	1685	0.36	1790	0.43	1988	0.60	2154	0.76	2305	0.93	2578	1.27	2827	1.65	3059	2.05	3283	2.48	3500	2.94		
1892	2200	1834	0.46	1929	0.54	2116	0.72	2277	0.90	2421	1.08	2683	1.45	2922	1.84	3144	2.26	3355	2.71	3559	3.18	3758	3.67
2064	2400	1984	0.58	2072	0.66	2245	0.86	2403	1.06	2542	1.25	2794	1.65	3023	2.06	3238	2.50	3440	2.96	3633	3.44	3821	3.95
2236	2600	2135	0.72	2216	0.81	2377	1.01	2531	1.23	2667	1.44	2909	1.87	3131	2.31	3337	2.77	3533	3.25	3719	3.75	3898	4.27
2408	2800	2287	0.88	2363	0.98	2512	1.19	2659	1.42	2793	1.66	3028	2.11	3243	2.58	3442	3.06	3631	3.56	3812	4.08	3985	4.61
2580	3000	2439	1.07	2511	1.17	2650	1.40	2789	1.64	2921	1.89	3151	2.38	3358	2.88	3552	3.39	3735	3.90	3910	4.44	4079	5.00
2752	3200	2593	1.28	2660	1.39	2791	1.63	2922	1.88	3049	2.15	3276	2.68	3477	3.20	3665	3.74	3843	4.28	4013	4.83		
2924	3400	2746	1.52	2810	1.64	2934	1.89	3057	2.15	3179	2.43	3402	2.99	3599	3.55	3781	4.11	3955	4.69				
3096	3600	2901	1.79	2961	1.92	3078	2.17	3194	2.45	3310	2.74	3530	3.34	3723	3.93	3901	4.52	4070	5.12				
3268	3800	3055	2.09	3123	2.22	3224	2.49	3334	2.78	3444	3.08	3658	3.71	3849	4.34	4023	4.96						

MAXIMUM RPM: Class I - 3167 Class II - 4119 Selections above 4000 RPM not recommended. Consult factory.

VSBC13

Outlet Area - 1.05 ft² Wheel Dia. - 13.50 Inches Tip Speed - 3.53 x RPM Max. BHP = 0.124 (RPM/1000)³

CFM	OV	0.25"		0.5"		1"		1.5"		2"		3"		4"		5"		6"		7"		8"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
840	800	791	0.06	949	0.10	1213	0.20																
1050	1000	905	0.09	1048	0.14	1285	0.25	1491	0.38														
1260	1200	1022	0.13	1157	0.19	1375	0.32	1563	0.45	1736	0.60												
1470	1400	1144	0.18	1272	0.25	1475	0.40	1651	0.54	1811	0.70	2105	1.06										
1680	1600	1272	0.25	1388	0.33	1582	0.49	1748	0.65	1899	0.83	2172	1.20	2426	1.62								
1890	1800	1403	0.33	1508	0.42	1695	0.60	1851	0.78	1995	0.97	2254	1.37	2490	1.80	2715	2.28						
2100	2000	1537	0.44	1631	0.53	1810	0.73	1960	0.93	2097	1.14	2344	1.56	2570	2.02	2780	2.50	2982	3.03	3178	3.58		
2310	2200	1672	0.56	1758	0.66	1927	0.88	2073	1.10	2203	1.32	2441	1.78	2657	2.26	2858	2.77	3048	3.30	3233	3.87	3413	4.48
2520	2400	1809	0.71	1888	0.82	2045	1.05	2188	1.29	2314	1.53	2542	2.02	2750	2.53	2944	3.06	3126	3.62	3301	4.20	3472	4.82
2730	2600	1946	0.88	2020	1.00	2165	1.24	2304	1.51	2428	1.77	2647	2.29	2848	2.83	3035	3.39	3212	3.97	3380	4.57	3542	5.21
2940	2800	2085	1.09	2154	1.21	2289	1.47	2422	1.75	2543	2.03	2756	2.59	2950	3.16	3131	3.75	3302	4.35	3466	4.98	3622	5.64
3150	3000	2224	1.32	2289	1.45	2415	1.72	2541	2.02	2660	2.32	2868	2.92	3056	3.53	3231	4.14	3397	4.78	3555	5.42	3708	6.10
3360	3200	2364	1.58	2425	1.72	2544	2.00	2662	2.31	2777	2.64	2982	3.28	3164	3.92	3335	4.58	3496	5.24	3649	5.91		
3570	3400	2505	1.88	2562	2.02	2674	2.32	2785	2.64	2895	2.98	3098	3.68	3276	4.35	3441	5.04	3598	5.74				
3780	3600	2646	2.21	2700	2.36	2806	2.68	2910	3.01	3015	3.36	3214	4.10	3389	4.82	3550	5.54	3703	6.27				
3990	3800	2787	2.58	2838	2.74	2939	3.07	3038	3.41	3138	3.78	3331	4.56	3504	5.32	3661	6.08						

MAXIMUM RPM: Class I - 2874 Class II - 3738

VSBC15

Outlet Area - 1.29 ft² Wheel Dia. - 15.00 Inches Tip Speed - 3.93 x RPM Max. BHP = 0.211 (RPM/1000)³

CFM	OV	0.25"		0.5"		1"		1.5"		2"		3"		4"		5"		6"		7"		8"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1032	800	710	0.08	853	0.13	1091	0.25																
1290	1000	812	0.11	941	0.17	1154	0.31	1341	0.47														
1548	1200	917	0.16	1038	0.23	1235	0.39	1405	0.56	1561	0.74												
1806	1400	1026	0.22	1141	0.31	1325	0.49	1483	0.67	1627	0.86	1893	1.31										
2064	1600	1140	0.31	1245	0.40	1420	0.60	1570	0.80	1706	1.01	1952	1.48	2181	1.99								
2322	1800	1257	0.41	1352	0.51	1521	0.74	1662	0.96	1791	1.19	2026	1.68	2238	2.21	2441	2.80						
2580	2000	1377	0.53	1462	0.65	1624	0.90	1759	1.14	1882	1.39	2106	1.91	2309	2.47	2499	3.08	2682	3.72	2858	4.41		
2838	2200	1498	0.69	1576	0.81	1728	1.08	1860	1.35	1978	1.62	2192	2.18	2387	2.77	2568	3.40	2740	4.06	2907	4.76	3070	5.51
3096	2400	1621	0.87	1692	1.00	1834	1.28	1963	1.58	2077	1.88	2283	2.48	2470	3.10	2645	3.76	2809	4.44	2967	5.17	3121	5.93
3354	2600	1744	1.08	1811	1.22	1942	1.52	2067	1.85	2178	2.17	2376	2.81	2557	3.47	2726	4.15	2886	4.87	3037	5.62	3183	6.39
3612	2800	1868	1.32	1930	1.47	2052	1.79	2172	2.14	2282	2.49	2474	3.18	2649	3.88	2812	4.60	2966	5.34	3114	6.12	3255	6.92
3870	3000	1993	1.60	2051	1.76	2165	2.10	2279	2.46	2386	2.84	2574	3.58	2743	4.32	2902	5.08	3051	5.86	3194	6.66	3331	7.49
4128	3200	2118	1.92	2173	2.09	2280	2.44	2387	2.82	2491	3.22	2676	4.02	2840	4.80	2994	5.61	3139	6.42	3278	7.25		
4386	3400	2244	2.29	2295	2.46	2397	2.83	2497	3.22	2597	3.65	2779	4.49	2940	5.33	3089	6.17	3231	7.03				
4644	3600	2370	2.69	2419	2.88	2515	3.26	2609	3.67	2704	4.11	2884	5.02	3041	5.90	3186	6.78	3324	7.68				
4902	3800	2496	3.14	2543	3.34	2634	3.74	2724	4.17	2814	4.62	2988	5.57	3144	6.51	3286	7.44						

MAXIMUM RPM: Class I - 2587 Class II - 3364

Performance is for installation Type B & D: Free or ducted inlet, ducted outlet.
 Power rating (bhp) does not include belt drive losses.
 Performance ratings do not include the effects of appurtenances in the airstream.

Class I fans are shown non-shaded.
 Class II fans are shown shaded.

Performance Data

VSBC16

Outlet Area - 1.57 ft² Wheel Dia. - 16.50 Inches Tip Speed - 4.32 x RPM Max. BHP = 0.339 (RPM/1000)³

CFM	OV	0.25"		0.5"		1"		1.5"		2"		3"		4"		5"		6"		7"		8"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1256	800	648	0.09	777	0.15	992	0.30																
1570	1000	741	0.14	858	0.21	1051	0.38	1220	0.57														
1884	1200	837	0.20	947	0.29	1125	0.47	1279	0.68	1421	0.90												
2198	1400	937	0.27	1041	0.38	1208	0.59	1351	0.81	1482	1.05	1722	1.59										
2512	1600	1041	0.37	1137	0.49	1295	0.73	1431	0.98	1554	1.24	1778	1.80	1985	2.42								
2826	1800	1149	0.50	1234	0.63	1387	0.90	1516	1.17	1633	1.45	1845	2.05	2038	2.70	2222	3.40						
3140	2000	1258	0.66	1335	0.79	1482	1.10	1604	1.39	1716	1.70	1919	2.33	2103	3.01	2275	3.74	2441	4.53	2601	5.36		
3454	2200	1369	0.84	1440	0.99	1577	1.32	1697	1.65	1803	1.98	1998	2.66	2174	3.37	2339	4.14	2495	4.94	2646	5.80	2793	6.69
3768	2400	1481	1.06	1546	1.22	1674	1.57	1791	1.94	1894	2.29	2081	3.03	2250	3.78	2409	4.57	2559	5.41	2702	6.29	2841	7.21
4082	2600	1594	1.33	1654	1.49	1773	1.86	1887	2.26	1987	2.65	2167	3.43	2331	4.23	2484	5.06	2629	5.93	2766	6.84	2899	7.79
4396	2800	1707	1.63	1764	1.81	1874	2.19	1983	2.62	2082	3.04	2256	3.88	2415	4.73	2563	5.61	2702	6.50	2836	7.45	2964	8.42
4710	3000	1822	1.97	1874	2.16	1977	2.57	2080	3.01	2177	3.47	2348	4.37	2501	5.28	2645	6.20	2780	7.14	2910	8.12	3035	9.13
5024	3200	1936	2.37	1986	2.57	2083	3.00	2179	3.46	2273	3.95	2441	4.91	2590	5.87	2730	6.85	2862	7.84	2987	8.84		
5338	3400	2051	2.81	2098	3.03	2190	3.48	2280	3.95	2370	4.46	2536	5.50	2682	6.52	2817	7.54	2945	8.58				
5652	3600	2166	3.31	2211	3.54	2298	4.01	2383	4.50	2469	5.04	2631	6.13	2774	7.21	2906	8.29	3031	9.38				
5966	3800	2282	3.87	2324	4.11	2407	4.60	2488	5.11	2569	5.66	2727	6.82	2869	7.97	2997	9.09						

MAXIMUM RPM: Class I - 2352 Class II - 3058

VSBC18

Outlet Area - 1.92 ft² Wheel Dia. - 18.25 Inches Tip Speed - 4.78 x RPM Max. BHP = 0.552 (RPM/1000)³

CFM	OV	0.25"		0.5"		1"		1.5"		2"		3"		4"		5"		6"		7"		8"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1536	800	569	0.10	695	0.17																		
1920	1000	651	0.15	757	0.24	951	0.42	1126	0.64														
2304	1200	741	0.22	831	0.32	1002	0.53	1160	0.76	1306	1.02												
2688	1400	835	0.31	914	0.42	1066	0.66	1208	0.91	1342	1.19												
3072	1600	933	0.43	1003	0.55	1138	0.81	1267	1.09	1391	1.39	1621	2.03										
3456	1800	1032	0.57	1096	0.71	1217	1.00	1335	1.30	1449	1.62	1663	2.30	1864	3.06								
3840	2000	1133	0.75	1191	0.91	1302	1.22	1409	1.55	1514	1.88	1714	2.61	1903	3.40	2081	4.24	2252	5.15				
4224	2200	1235	0.96	1288	1.13	1391	1.48	1489	1.83	1586	2.20	1773	2.96	1950	3.78	2120	4.67	2282	5.60	2437	6.58		
4608	2400	1338	1.22	1387	1.40	1482	1.78	1573	2.16	1663	2.55	1838	3.36	2005	4.22	2165	5.13	2320	6.11	2469	7.13	2612	8.18
4992	2600	1441	1.51	1487	1.71	1576	2.12	1661	2.53	1744	2.94	1908	3.81	2066	4.71	2218	5.66	2365	6.67	2507	7.72	2645	8.81
5376	2800	1545	1.85	1588	2.07	1671	2.50	1751	2.94	1829	3.39	1982	4.30	2132	5.25	2276	6.25	2416	7.28	2553	8.38	2685	9.51
5760	3000	1650	2.25	1689	2.47	1768	2.94	1843	3.41	1917	3.88	2061	4.86	2202	5.85	2340	6.89	2473	7.97	2604	9.09		
6144	3200	1754	2.69	1792	2.94	1865	3.43	1937	3.93	2007	4.43	2143	5.46	2276	6.51	2407	7.59	2535	8.72	2660	9.88		
6528	3400	1859	3.19	1895	3.46	1964	3.98	2032	4.50	2099	5.04	2227	6.12	2354	7.23	2479	8.36	2601	9.53	2720	10.73		
6912	3600	1965	3.76	1998	4.03	2064	4.59	2129	5.15	2192	5.71	2315	6.85	2435	8.01	2554	9.20	2670	10.40				
7296	3800	2070	4.39	2102	4.68	2165	5.26	2226	5.85	2287	6.45	2404	7.64	2518	8.85	2631	10.09						

MAXIMUM RPM: Class I - 2118 Class II - 2729

VSBC20

Outlet Area - 2.30 ft² Wheel Dia. - 20.00 Inches Tip Speed - 5.24 x RPM Max. BHP = 0.872 (RPM/1000)³

CFM	OV	0.25"		0.5"		1"		1.5"		2"		3"		4"		5"		6"		7"		8"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1840	800	519	0.12	634	0.21																		
2300	1000	593	0.18	690	0.28	868	0.51	1027	0.77														
2760	1200	675	0.27	758	0.38	914	0.63	1058	0.91	1191	1.22												
3220	1400	761	0.37	833	0.51	971	0.78	1102	1.09	1224	1.42												
3680	1600	849	0.51	914	0.66	1037	0.97	1155	1.30	1268	1.66	1479	2.44										
4140	1800	940	0.68	998	0.85	1109	1.20	1217	1.56	1321	1.94	1517	2.76	1700	3.66								
4600	2000	1031	0.89	1085	1.08	1186	1.46	1284	1.85	1380	2.25	1563	3.12	1735	4.07	1899	5.09	2054	6.17				
5060	2200	1124	1.15	1173	1.35	1267	1.77	1357	2.19	1445	2.62	1616	3.54	1778	4.53	1933	5.59	2081	6.71	2223	7.89		
5520	2400	1218	1.45	1263	1.67	1350	2.12	1433	2.58	1515	3.05	1675	4.02	1828	5.05	1975	6.15	2116	7.32	2252	8.54	2383	9.81
5980	2600	1312	1.80	1354	2.04	1435	2.53	1513	3.02	1589	3.52	1739	4.55	1883	5.64	2022	6.78	2157	7.99	2287	9.25	2413	10.56
6440	2800	1407	2.21	1446	2.47	1522	2.99	1595	3.52	1666	4.05	1806	5.14	1943	6.28	2075	7.48	2203	8.72	2328	10.03	2449	11.39
6900	3000	1502	2.68	1538	2.95	1610	3.51	1679	4.07	1746	4.64	1878	5.81	2007	7.00	2133	8.25	2255	9.54	2374	10.88	2490	12.28
7360	3200	1597	3.21	1631	3.50	1699	4.10	1764	4.69	1828	5.30	1952	6.52	2074	7.78	2194	9.08	2311	10.43	2425	11.82		
7820	3400	1692	3.81	1725	4.12	1789	4.75	1851	5.38	1911	6.02	2029	7.31	2145	8.65	2259	10.00	2371	11.40	2480	12.84		
8280	3600	1788	4.48	1819	4.81	1879	5.47	1938	6.14	1996	6.82	2108	8.18	2218	9.57	2327	11.00	2434	12.45				
8740	3800	1884	5.23	1913	5.58	1971	6.28	2027	6.98	2082	7.69	2189	9.12	2294	10.58	2398	12.08						

MAXIMUM RPM: Class I - 1932 Class II - 2490

Performance is for installation Type B & D: Free or ducted inlet, ducted outlet.
 Power rating (bhp) does not include belt drive losses.
 Performance ratings do not include the effects of appurtenances in the airstream.

Class I fans are shown non-shaded.
 Class II fans are shown shaded.

Performance Data

VSBC22

Outlet Area - 2.85 ft² Wheel Dia. - 22.25 Inches Tip Speed - 5.83 x RPM Max. BHP = 1.49 (RPM/1000)³

CFM	OV	0.25"		0.5"		1"		1.5"		2"		3"		4"		5"		6"		7"		8"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2280	800	466	0.15	570	0.26																		
2850	1000	533	0.23	621	0.35	780	0.63	923	0.95														
3420	1200	607	0.33	681	0.47	822	0.78	951	1.13	1071	1.52												
3990	1400	685	0.46	749	0.63	874	0.97	991	1.35	1101	1.76												
4560	1600	764	0.63	822	0.82	933	1.21	1039	1.62	1140	2.05	1330	3.02										
5130	1800	846	0.85	898	1.06	998	1.49	1094	1.93	1188	2.40	1364	3.42	1528	4.53								
5700	2000	928	1.11	976	1.34	1067	1.81	1155	2.29	1241	2.79	1405	3.87	1560	5.04	1707	6.30	1847	7.64				
6270	2200	1012	1.43	1055	1.68	1139	2.19	1220	2.71	1300	3.26	1453	4.39	1599	5.61	1738	6.92	1871	8.31	1999	9.78		
6840	2400	1096	1.80	1136	2.07	1214	2.63	1289	3.20	1363	3.78	1506	4.98	1644	6.27	1775	7.62	1902	9.06	2024	10.57	2142	12.15
7410	2600	1181	2.24	1218	2.53	1291	3.13	1361	3.74	1429	4.36	1564	5.64	1693	6.98	1818	8.40	1939	9.89	2056	11.46	2169	13.08
7980	2800	1266	2.75	1301	3.06	1369	3.71	1435	4.36	1499	5.02	1625	6.38	1747	7.78	1866	9.27	1981	10.81	2093	12.43	2202	14.12
8550	3000	1351	3.32	1384	3.67	1448	4.35	1510	5.05	1571	5.76	1689	7.20	1805	8.68	1918	10.22	2028	11.83	2135	13.50		
9120	3200	1437	3.99	1468	4.35	1528	5.08	1587	5.82	1644	6.56	1756	8.09	1866	9.66	1973	11.25	2078	12.93	2180	14.64		
9690	3400	1523	4.73	1552	5.11	1609	5.89	1665	6.68	1720	7.47	1825	9.07	1929	10.72	2032	12.40	2132	14.13	2230	15.92		
10260	3600	1609	5.57	1637	5.98	1691	6.79	1744	7.62	1796	8.46	1897	10.15	1995	11.87	2093	13.64	2189	15.43				
10830	3800	1696	6.50	1722	6.93	1773	7.79	1824	8.67	1874	9.55	1970	11.33	2064	13.14	2157	14.98						

MAXIMUM RPM: Class I - 1737 Class II - 2238

VSBC24

Outlet Area - 3.45 ft² Wheel Dia. - 24.50 Inches Tip Speed - 6.41 x RPM Max. BHP = 2.40 (RPM/1000)³

CFM	OV	0.25"		0.5"		1"		1.5"		2"		3"		4"		5"		6"		7"		8"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2760	800	423	0.18	517	0.31																		
3450	1000	484	0.27	563	0.42	708	0.76	838	1.15														
4140	1200	551	0.40	618	0.57	746	0.95	863	1.37	972	1.84												
4830	1400	621	0.56	680	0.76	793	1.18	899	1.63	999	2.13												
5520	1600	693	0.77	746	0.99	846	1.46	943	1.96	1035	2.49	1207	3.65										
6210	1800	767	1.03	815	1.28	905	1.79	993	2.33	1078	2.90	1238	4.13	1388	5.49								
6900	2000	842	1.34	885	1.62	968	2.19	1048	2.77	1126	3.38	1276	4.69	1416	6.10	1550	7.63	1677	9.25				
7590	2200	917	1.72	957	2.03	1034	2.65	1107	3.28	1180	3.94	1319	5.32	1452	6.80	1578	8.38	1699	10.07	1815	11.84		
8280	2400	994	2.18	1031	2.51	1101	3.17	1170	3.87	1237	4.57	1367	6.02	1492	7.58	1612	9.23	1727	10.97	1838	12.80	1945	14.71
8970	2600	1071	2.71	1105	3.06	1171	3.79	1235	4.53	1297	5.28	1419	6.82	1537	8.46	1651	10.18	1760	11.97	1867	13.88	1969	15.83
9660	2800	1148	3.32	1180	3.70	1242	4.48	1301	5.26	1360	6.07	1474	7.71	1586	9.43	1694	11.22	1798	13.07	1900	15.04	1999	17.08
10350	3000	1225	4.01	1255	4.42	1313	5.25	1370	6.10	1425	6.96	1532	8.70	1638	10.49	1741	12.37	1840	14.30	1938	16.33	2032	18.41
11040	3200	1303	4.81	1331	5.25	1386	6.13	1440	7.04	1492	7.94	1593	9.78	1693	11.67	1791	13.62	1886	15.64	1979	17.73		
11730	3400	1381	5.71	1408	6.18	1460	7.12	1510	8.06	1560	9.03	1656	10.97	1751	12.97	1844	15.00	1935	17.09	2024	19.26		
12420	3600	1459	6.72	1484	7.21	1534	8.21	1582	9.21	1629	10.22	1721	12.27	1810	14.35	1899	16.48	1986	18.65				
13110	3800	1538	7.85	1561	8.36	1608	9.41	1654	10.46	1699	11.53	1787	13.69	1872	15.87	1957	18.11						

MAXIMUM RPM: Class I - 1577 Class II - 2033

VSBC27

Outlet Area - 4.19 ft² Wheel Dia. - 27.00 Inches Tip Speed - 7.07 x RPM Max. BHP = 4.05 (RPM/1000)³

CFM	OV	0.25"		0.5"		1"		1.5"		2"		3"		4"		5"		6"		7"		8"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3352	800	380	0.22	457	0.36	592	0.72																
4190	1000	437	0.33	504	0.50	621	0.89	726	1.33														
5028	1200	498	0.48	557	0.69	661	1.11	755	1.59	843	2.12												
5866	1400	561	0.68	614	0.91	709	1.40	795	1.92	875	2.48	1026	3.75										
6704	1600	627	0.93	674	1.20	761	1.75	840	2.32	914	2.91	1051	4.21	1184	5.74								
7542	1800	693	1.24	736	1.54	816	2.15	890	2.78	959	3.43	1088	4.82	1206	6.32	1324	8.05	1449	10.16				
8380	2000	761	1.63	800	1.96	874	2.63	943	3.33	1007	4.02	1128	5.49	1241	7.08	1346	8.77	1452	10.68	1564	12.93		
9218	2200	829	2.08	865	2.45	934	3.19	998	3.94	1059	4.70	1174	6.30	1280	7.95	1381	9.72	1476	11.58	1572	13.64	1672	15.99
10056	2400	898	2.63	932	3.04	995	3.83	1056	4.65	1113	5.47	1222	7.17	1323	8.93	1419	10.77	1511	12.72	1598	14.74	1686	16.95
10894	2600	968	3.28	999	3.71	1058	4.57	1115	5.45	1169	6.33	1272	8.14	1369	10.02	1461	11.95	1549	13.97	1633	16.07	1714	18.25
11732	2800	1038	4.02	1066	4.47	1122	5.41	1176	6.35	1227	7.29	1325	9.22	1418	11.22	1506	13.26	1590	15.36	1671	17.53	1750	19.82
12570	3000	1108	4.87	1135	5.36	1187	6.36	1238	7.37	1287	8.38	1380	10.42	1469	12.53	1553	14.68	1634	16.88	1712	19.14	1788	21.49
13408	3200	1178	5.83	1203	6.35	1253	7.42	1301	8.50	1348	9.58	1437	11.75	1521	13.95	1602	16.21	1681	18.56	1756	20.91		
14246	3400	1248	6.91	1272	7.47	1320	8.62	1365	9.75	1409	10.88	1495	13.19	1576	15.53	1654	17.90	1729	20.32	1802	22.81		
15084	3600	1319	8.14	1342	8.74	1387	9.94	1430	11.14	1472	12.34	1554	14.77	1632	17.22	1707	19.72	1779	22.23				
15922	3800	1390	9.51	1412	10.14	1454	11.39	1495	12.65	1536	13.94	1614	16.48	1689	19.05	1762	21.70						

MAXIMUM RPM: Class I - 1397 Class II - 1803

Performance is for installation Type B & D: Free or ducted inlet, ducted outlet.
 Power rating (bhp) does not include belt drive losses.
 Performance ratings do not include the effects of appurtenances in the airstream.

Class I fans are shown non-shaded.
 Class II fans are shown shaded.

Performance Data

VSBC30

Outlet Area - 5.17 ft² Wheel Dia. - 30.00 Inches Tip Speed - 7.85 x RPM Max. BHP = 6.86 (RPM/1000)³

CFM	OV	0.25"		0.5"		1"		1.5"		2"		3"		4"		5"		6"		7"		8"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
4136	800	342	0.27	411	0.45	533	0.89																
5170	1000	393	0.41	453	0.62	558	1.09	653	1.64														
6204	1200	448	0.59	501	0.84	595	1.38	680	1.96	758	2.61												
7238	1400	505	0.84	552	1.12	638	1.73	715	2.36	787	3.05	923	4.63										
8272	1600	564	1.15	606	1.47	684	2.15	756	2.86	823	3.60	946	5.20	1065	7.08								
9306	1800	624	1.53	662	1.90	734	2.65	801	3.44	863	4.24	979	5.94	1085	7.79	1192	9.95	1304	12.53				
10340	2000	685	2.01	720	2.42	786	3.24	848	4.09	906	4.96	1015	6.78	1117	8.75	1212	10.84	1307	13.18	1408	15.98		
11374	2200	746	2.57	778	3.02	840	3.93	898	4.86	953	5.80	1056	7.76	1152	9.81	1242	11.98	1329	14.31	1415	16.84	1505	19.75
12408	2400	808	3.24	838	3.74	895	4.72	950	5.73	1002	6.76	1099	8.84	1190	11.00	1277	13.29	1359	15.67	1438	18.18	1517	20.90
13442	2600	871	4.04	898	4.56	952	5.64	1003	6.71	1052	7.81	1145	10.05	1232	12.36	1314	14.73	1394	17.24	1470	19.85	1543	22.55
14476	2800	933	4.94	959	5.51	1010	6.68	1058	7.84	1104	8.99	1192	11.37	1276	13.84	1355	16.36	1430	18.92	1504	21.64	1575	24.46
15510	3000	996	5.99	1021	6.61	1068	7.84	1114	9.09	1158	10.33	1242	12.87	1321	15.43	1397	18.09	1470	20.82	1540	23.59	1609	26.51
16544	3200	1060	7.20	1083	7.85	1127	9.15	1171	10.49	1212	11.79	1293	14.49	1369	17.22	1442	20.02	1512	22.87	1580	25.79		
17578	3400	1123	8.53	1145	9.23	1187	10.62	1228	12.02	1268	13.43	1345	16.27	1418	19.15	1488	22.08	1556	25.08	1621	28.12		
18612	3600	1187	10.05	1207	10.77	1247	12.24	1286	13.72	1324	15.21	1398	18.21	1468	21.23	1536	24.33	1601	27.44				
19646	3800	1250	11.71	1270	12.50	1308	14.05	1345	15.60	1382	17.20	1452	20.32	1520	23.52	1585	26.75						

MAXIMUM RPM: Class I - 1257 Class II - 1623

VSBC33

Outlet Area - 6.26 ft² Wheel Dia. - 33.00 Inches Tip Speed - 8.64 x RPM Max. BHP = 11.05 (RPM/1000)³

CFM	OV	0.25"		0.5"		1"		1.5"		2"		3"		4"		5"		6"		7"		8"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
5008	800	311	0.33	374	0.54	484	1.07																
6260	1000	357	0.49	412	0.75	508	1.33	594	1.99														
7512	1200	407	0.72	455	1.02	541	1.67	618	2.37														
8764	1400	459	1.01	502	1.36	580	2.09	650	2.86	716	3.70	839	5.60										
10016	1600	513	1.39	551	1.78	622	2.60	688	3.47	748	4.35	860	6.30	968	8.56								
11268	1800	567	1.85	602	2.30	668	3.22	728	4.16	785	5.14	890	7.19	987	9.45	1083	12.02	1186	15.19				
12520	2000	623	2.43	655	2.93	715	3.93	771	4.96	824	6.01	923	8.21	1015	10.57	1102	13.13	1188	15.95	1280	19.34		
13772	2200	679	3.12	708	3.66	764	4.77	817	5.89	867	7.04	960	9.39	1047	11.86	1130	14.53	1208	17.31	1286	20.37	1368	23.89
15024	2400	735	3.93	762	4.52	814	5.72	864	6.95	911	8.18	1000	10.72	1082	13.32	1161	16.09	1236	18.99	1308	22.04	1379	25.29
16276	2600	792	4.89	817	5.53	866	6.84	912	8.13	957	9.47	1041	12.17	1120	14.96	1195	17.84	1267	20.85	1336	24.00	1403	27.31
17528	2800	849	6.00	873	6.70	918	8.08	962	9.49	1004	10.89	1084	13.77	1160	16.75	1232	19.81	1301	22.95	1367	26.17	1432	29.61
18780	3000	906	7.26	929	8.02	972	9.52	1013	11.01	1053	12.51	1129	15.56	1202	18.73	1271	21.95	1337	25.23	1401	28.61	1463	32.10
20032	3200	964	8.72	985	9.51	1025	11.08	1065	12.71	1103	14.31	1176	17.56	1245	20.86	1311	24.23	1375	27.70	1437	31.25		
21284	3400	1022	10.36	1041	11.17	1080	12.88	1117	14.57	1153	16.26	1223	19.70	1290	23.22	1353	26.73	1415	30.38	1474	34.05		
22536	3600	1079	12.16	1098	13.06	1135	14.86	1170	16.64	1205	18.46	1271	22.04	1335	25.71	1397	29.48	1456	33.25				
23788	3800	1137	14.19	1155	15.14	1190	17.04	1224	18.94	1257	20.84	1321	24.65	1382	28.47	1441	32.37						

MAXIMUM RPM: Class I - 1143 Class II - 1475

VSBC36

Outlet Area - 7.66 ft² Wheel Dia. - 36.50 Inches Tip Speed - 9.56 x RPM Max. BHP = 19.42 (RPM/1000)³

CFM	OV	0.25"		0.5"		1"		1.5"		2"		3"		4"		5"		6"		7"		8"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
6128	800	271	0.38	326	0.65	430	1.27																
7660	1000	312	0.57	359	0.89	445	1.58	527	2.37														
9192	1200	357	0.84	397	1.20	472	1.99	543	2.86	610	3.77												
10724	1400	404	1.19	439	1.60	505	2.48	567	3.41	628	4.44	744	6.63										
12256	1600	453	1.65	483	2.09	542	3.07	598	4.09	653	5.20	758	7.57	859	10.14								
13788	1800	502	2.21	529	2.70	582	3.77	633	4.89	683	6.08	779	8.62	871	11.33	961	14.26						
15320	2000	552	2.91	577	3.46	625	4.61	671	5.82	717	7.09	805	9.79	890	12.68	972	15.70	1053	18.93				
16852	2200	603	3.76	625	4.34	669	5.58	712	6.90	754	8.26	836	11.14	915	14.20	992	17.44	1066	20.75	1139	24.23	1215	28.13
18384	2400	654	4.76	674	5.38	715	6.73	754	8.11	793	9.58	869	12.62	943	15.85	1015	19.26	1085	22.79	1153	26.39	1221	30.22
19916	2600	705	5.94	724	6.62	761	8.02	798	9.52	835	11.10	906	14.34	975	17.72	1042	21.26	1108	24.97	1173	28.83	1236	32.73
21448	2800	756	7.29	774	8.03	809	9.54	843	11.10	877	12.75	944	16.20	1009	19.76	1073	23.51	1135	27.37	1196	31.37	1256	35.49
22980	3000	808	8.86	824	9.62	857	11.24	889	12.89	921	14.63	984	18.27	1045	22.00	1106	25.94	1165	29.99	1222	34.09	1279	38.39
24512	3200	859	10.62	875	11.46	906	13.17	936	14.91	966	16.73	1025	20.53	1083	24.47	1140	28.53	1197	32.81	1252	37.15		
26044	3400	911	12.63	926	13.52	955	15.32	984	17.18	1012	19.07	1068	23.06	1123	27.20	1177	31.44	1231	35.86	1283	40.32		
27576	3600	963	14.89	977	15.82	1005	17.74	1032	19.67	1059	21.67	1112	25.83	1164	30.15	1216	34.64	1266	39.11				
29108	3800	1015	17.40	1028	18.37	1054	20.35	1080	22.39	1106	24.51	1157	28.87	1206	33.33	1255	37.97						

MAXIMUM RPM: Class I - 995 Class II - 1283

Performance is for installation Type B & D: Free or ducted inlet, ducted outlet.
 Power rating (bhp) does not include belt drive losses.
 Performance ratings do not include the effects of appurtenances in the airstream.

Class I fans are shown non-shaded.
 Class II fans are shown shaded.

Performance Data

VSFC12

Outlet Area - 0.86 ft² Wheel Dia. - 12.25 Inches Tip Speed - 3.21 x RPM

CFM	OV	0.25"		0.5"		1"		1.5"		2"		2.5"		3"		3.5"		4"		4.5"		5"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
688	800	435	0.05																				
860	1000	461	0.08	604	0.13																		
1032	1200	492	0.11	623	0.17																		
1204	1400	530	0.15	649	0.21	853	0.36																
1376	1600	572	0.21	680	0.28	871	0.43	1041	0.60														
1548	1800	620	0.28	714	0.35	894	0.52	1050	0.70														
1720	2000	673	0.37	753	0.44	921	0.62	1071	0.81	1207	1.02												
1892	2200	728	0.47	795	0.55	952	0.74	1095	0.95	1224	1.16	1348	1.40										
2064	2400	784	0.60	840	0.67	984	0.88	1121	1.10	1247	1.33	1363	1.57	1476	1.82								
2236	2600	842	0.76	891	0.83	1020	1.04	1151	1.27	1271	1.51	1384	1.77	1490	2.03	1595	2.31	1700	2.61				
2408	2800	900	0.94	944	1.01	1059	1.22	1182	1.46	1299	1.72	1408	1.99	1511	2.26	1609	2.55	1706	2.85	1803	3.16		
2580	3000	958	1.14	998	1.21	1100	1.42	1216	1.69	1328	1.95	1434	2.23	1534	2.52	1629	2.82	1720	3.12	1811	3.44		
2752	3200	1017	1.37	1054	1.45	1143	1.65	1252	1.93	1360	2.21	1462	2.50	1559	2.80	1653	3.12	1741	3.43	1826	3.75		
2924	3400	1076	1.63	1111	1.72	1190	1.91	1292	2.20	1393	2.50	1492	2.80	1586	3.11	1677	3.44	1764	3.77	1847	4.10		
3096	3600	1136	1.93	1168	2.02	1240	2.21	1332	2.50	1428	2.81	1524	3.13	1616	3.46	1703	3.79	1788	4.13	1870	4.49		
3268	3800	1196	2.27	1226	2.35	1292	2.55	1374	2.83	1466	3.15	1557	3.49	1647	3.83	1732	4.17	1814	4.53				

MAXIMUM RPM: Class I - 1559 Class II - 1871

VSFC13

Outlet Area - 1.05 ft² Wheel Dia. - 13.50 Inches Tip Speed - 3.53 x RPM

CFM	OV	0.25"		0.5"		1"		1.5"		2"		2.5"		3"		3.5"		4"		4.5"		5"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
840	800	395	0.07																				
1050	1000	419	0.10	548	0.16																		
1260	1200	448	0.14	566	0.20																		
1470	1400	482	0.19	590	0.26	774	0.43																
1680	1600	520	0.25	618	0.34	791	0.53	945	0.74														
1890	1800	565	0.34	650	0.43	812	0.63	954	0.85														
2100	2000	613	0.45	685	0.54	837	0.76	973	1.00	1096	1.25												
2310	2200	663	0.58	723	0.67	865	0.91	995	1.16	1112	1.42	1223	1.70										
2520	2400	715	0.74	765	0.83	895	1.08	1019	1.35	1133	1.63	1238	1.92	1340	2.23	1442	2.56						
2730	2600	767	0.93	811	1.02	928	1.28	1046	1.56	1155	1.85	1258	2.17	1353	2.48	1447	2.82	1542	3.18				
2940	2800	820	1.15	860	1.24	964	1.50	1075	1.80	1180	2.11	1279	2.44	1373	2.78	1461	3.12	1548	3.48	1637	3.87		
3150	3000	874	1.41	910	1.49	1001	1.75	1106	2.07	1208	2.40	1303	2.74	1394	3.09	1480	3.45	1562	3.82	1644	4.20		
3360	3200	927	1.69	961	1.79	1041	2.03	1139	2.37	1236	2.71	1329	3.07	1417	3.44	1501	3.82	1582	4.21	1659	4.60		
3570	3400	982	2.02	1013	2.12	1084	2.36	1175	2.70	1267	3.07	1357	3.44	1442	3.82	1524	4.22	1603	4.62	1678	5.03		
3780	3600	1036	2.38	1065	2.49	1129	2.72	1212	3.07	1299	3.45	1386	3.84	1469	4.24	1548	4.65	1625	5.07				
3990	3800	1090	2.79	1118	2.90	1177	3.14	1251	3.48	1334	3.88	1416	4.28	1497	4.69	1574	5.11	1649	5.55				

MAXIMUM RPM: Class I - 1415 Class II - 1698

VSFC15

Outlet Area - 1.29 ft² Wheel Dia. - 15.00 Inches Tip Speed - 3.93 x RPM

CFM	OV	0.25"		0.5"		1"		1.5"		2"		2.5"		3"		3.5"		4"		4.5"		5"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1032	800	355	0.08																				
1290	1000	376	0.12	493	0.19																		
1548	1200	402	0.17	509	0.25																		
1806	1400	433	0.23	530	0.32	696	0.53																
2064	1600	467	0.31	555	0.41	711	0.64	850	0.90														
2322	1800	506	0.41	583	0.53	730	0.77	858	1.05														
2580	2000	550	0.55	615	0.66	752	0.93	874	1.22	986	1.53												
2838	2200	595	0.71	649	0.82	777	1.11	894	1.42	1000	1.75	1101	2.09										
3096	2400	641	0.91	687	1.01	804	1.32	916	1.65	1018	1.99	1113	2.35	1205	2.73								
3354	2600	688	1.14	728	1.24	833	1.56	940	1.91	1038	2.27	1131	2.66	1217	3.04	1302	3.46	1388	3.91				
3612	2800	735	1.40	771	1.51	865	1.83	966	2.20	1061	2.59	1150	2.99	1234	3.40	1314	3.82	1393	4.27	1473	4.75		
3870	3000	783	1.71	816	1.82	899	2.14	993	2.53	1085	2.93	1171	3.35	1253	3.79	1331	4.23	1405	4.68	1479	5.16		
4128	3200	831	2.06	861	2.17	934	2.48	1023	2.90	1111	3.32	1194	3.75	1274	4.22	1350	4.68	1422	5.15	1492	5.64		
4386	3400	879	2.45	907	2.57	972	2.87	1055	3.30	1138	3.75	1219	4.20	1296	4.68	1370	5.17	1441	5.66	1509	6.16		
4644	3600	928	2.90	954	3.02	1013	3.32	1088	3.75	1167	4.22	1245	4.70	1320	5.19	1391	5.68	1461	6.21	1528	6.74		
4902	3800	977	3.40	1001	3.52	1055	3.82	1122	4.24	1198	4.74	1272	5.23	1345	5.74	1415	6.27	1482	6.80				

MAXIMUM RPM: Class I - 1273 Class II - 1528

Performance is for installation Type B & D: Free or ducted inlet, ducted outlet.
 Power rating (bhp) does not include belt drive losses.
 Performance ratings do not include the effects of appurtenances in the airstream.

Class I fans are shown non-shaded.
 Class II fans are shown shaded.

Performance Data

VSFC16

Outlet Area - 1.57 ft² Wheel Dia. - 16.50 Inches Tip Speed - 4.32 x RPM

CFM	OV	0.25"		0.5"		1"		1.5"		2"		2.5"		3"		3.5"		4"		4.5"		5"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1256	800	324	0.10																				
1570	1000	343	0.14	448	0.23																		
1884	1200	366	0.20	464	0.31																		
2198	1400	395	0.28	483	0.39	634	0.65																
2512	1600	426	0.38	506	0.51	647	0.79	773	1.10														
2826	1800	462	0.51	532	0.65	665	0.95	780	1.27														
3140	2000	502	0.67	561	0.81	685	1.14	796	1.49	897	1.86												
3454	2200	543	0.87	592	1.01	708	1.36	814	1.74	910	2.13	1001	2.55										
3768	2400	585	1.11	627	1.24	733	1.62	834	2.01	927	2.44	1013	2.87	1096	3.33	1180	3.84						
4082	2600	628	1.39	664	1.52	760	1.91	856	2.33	946	2.78	1029	3.24	1107	3.71	1184	4.21	1262	4.76				
4396	2800	672	1.73	704	1.85	789	2.25	880	2.69	966	3.16	1047	3.65	1123	4.15	1196	4.67	1267	5.20	1339	5.78		
4710	3000	715	2.10	745	2.24	820	2.62	905	3.09	988	3.58	1066	4.09	1141	4.63	1211	5.16	1279	5.72	1345	6.29		
5024	3200	760	2.54	787	2.68	852	3.04	933	3.55	1012	4.06	1088	4.60	1160	5.15	1229	5.72	1294	6.28	1357	6.87		
5338	3400	804	3.02	829	3.17	887	3.52	962	4.05	1037	4.59	1110	5.14	1180	5.71	1247	6.31	1312	6.92	1373	7.52		
5652	3600	848	3.57	872	3.72	925	4.08	992	4.59	1063	5.16	1134	5.74	1202	6.34	1267	6.95	1330	7.59				
5966	3800	893	4.18	915	4.34	964	4.70	1024	5.20	1092	5.80	1159	6.41	1225	7.02	1288	7.65	1349	8.30				

MAXIMUM RPM: Class I - 1157 Class II - 1389

VSFC18

Outlet Area - 1.92 ft² Wheel Dia. - 18.25 Inches Tip Speed - 4.78 x RPM

CFM	OV	0.25"		0.5"		1"		1.5"		2"		2.5"		3"		3.5"		4"		4.5"		5"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1536	800	293	0.11																				
1920	1000	313	0.16	406	0.26																		
2304	1200	339	0.23	421	0.34	566	0.60																
2688	1400	368	0.33	441	0.44	574	0.73																
3072	1600	399	0.46	466	0.58	587	0.88	697	1.22														
3456	1800	432	0.62	494	0.76	605	1.06	708	1.43	804	1.82												
3840	2000	466	0.81	524	0.97	626	1.28	722	1.66	812	2.08	898	2.52										
4224	2200	501	1.04	555	1.22	651	1.56	740	1.93	825	2.37	906	2.84	984	3.33								
4608	2400	536	1.31	587	1.51	677	1.87	761	2.26	842	2.71	918	3.20	992	3.72	1064	4.25	1133	4.80				
4992	2600	572	1.63	620	1.84	706	2.24	785	2.65	861	3.10	934	3.61	1004	4.15	1072	4.71	1138	5.27	1203	5.87		
5376	2800	609	2.01	654	2.23	736	2.67	811	3.10	883	3.56	952	4.06	1019	4.62	1084	5.21	1147	5.81	1209	6.42		
5760	3000	646	2.43	689	2.68	767	3.15	838	3.60	906	4.07	972	4.58	1036	5.14	1099	5.76	1159	6.38	1219	7.04		
6144	3200	683	2.91	724	3.18	799	3.69	867	4.17	932	4.67	995	5.19	1056	5.75	1116	6.36	1174	7.00	1231	7.68		
6528	3400	721	3.46	760	3.75	831	4.28	897	4.80	959	5.32	1019	5.86	1078	6.44	1135	7.04	1191	7.69	1246	8.39		
6912	3600	759	4.08	796	4.38	864	4.94	928	5.51	987	6.04	1045	6.61	1101	7.19	1156	7.81	1210	8.46				
7296	3800	797	4.76	832	5.07	898	5.68	959	6.27	1017	6.85	1072	7.43	1126	8.03	1179	8.66	1230	9.30				

MAXIMUM RPM: Class I - 1046 Class II - 1256

VSFC20

Outlet Area - 2.30 ft² Wheel Dia. - 20.00 Inches Tip Speed - 5.24 x RPM

CFM	OV	0.25"		0.5"		1"		1.5"		2"		2.5"		3"		3.5"		4"		4.5"		5"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1840	800	268	0.13																				
2300	1000	286	0.19	371	0.31																		
2760	1200	309	0.28	384	0.41	517	0.72																
3220	1400	335	0.40	402	0.53	523	0.87																
3680	1600	364	0.55	425	0.70	535	1.05	636	1.46														
4140	1800	394	0.74	450	0.90	551	1.26	645	1.70	733	2.18												
4600	2000	424	0.96	477	1.15	571	1.53	659	1.99	741	2.49	819	3.02										
5060	2200	456	1.24	505	1.45	593	1.86	675	2.31	753	2.85	827	3.41	898	3.99								
5520	2400	488	1.57	535	1.80	617	2.23	694	2.71	767	3.23	838	3.84	905	4.45	970	5.08	1034	5.75				
5980	2600	521	1.95	565	2.20	643	2.67	716	3.17	785	3.71	852	4.32	916	4.97	978	5.64	1038	6.31	1097	7.02		
6440	2800	554	2.39	596	2.67	671	3.19	739	3.70	805	4.26	868	4.86	929	5.52	989	6.24	1047	6.96	1103	7.69		
6900	3000	588	2.90	627	3.19	699	3.76	764	4.30	826	4.87	886	5.48	945	6.15	1002	6.88	1057	7.63	1112	8.42		
7360	3200	622	3.48	659	3.79	728	4.40	790	4.97	849	5.56	907	6.20	963	6.87	1017	7.59	1071	8.39	1123	9.20		
7820	3400	656	4.12	692	4.47	757	5.11	817	5.72	874	6.35	929	7.00	982	7.67	1035	8.42	1086	9.19	1136	10.02		
8280	3600	691	4.86	724	5.21	787	5.90	845	6.56	900	7.23	952	7.88	1004	8.60	1054	9.33	1103	10.10				
8740	3800	725	5.66	758	6.06	818	6.78	874	7.49	926	8.16	977	8.87	1026	9.59	1074	10.33	1122	11.14				

MAXIMUM RPM: Class I - 955 Class II - 1146

Performance is for installation Type B & D: Free or ducted inlet, ducted outlet.
 Power rating (bhp) does not include belt drive losses.
 Performance ratings do not include the effects of appurtenances in the airstream.

Class I fans are shown non-shaded.
 Class II fans are shown shaded.

Performance Data

VSFC22

Outlet Area - 2.85 ft² Wheel Dia. - 22.25 Inches Tip Speed - 5.83 x RPM

CFM	OV	0.25"		0.5"		1"		1.5"		2"		2.5"		3"		3.5"		4"		4.5"		5"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2280	800	241	0.16																				
2850	1000	257	0.24	333	0.39																		
3420	1200	278	0.35	345	0.50	465	0.89																
3990	1400	302	0.50	362	0.66	470	1.07																
4560	1600	327	0.68	382	0.86	481	1.30	572	1.81														
5130	1800	354	0.91	405	1.12	496	1.57	580	2.11	659	2.70												
5700	2000	382	1.20	429	1.43	513	1.90	592	2.46	666	3.09	736	3.73										
6270	2200	410	1.54	455	1.80	533	2.30	607	2.87	677	3.53	743	4.22	807	4.94								
6840	2400	439	1.94	481	2.23	555	2.77	624	3.35	690	4.02	753	4.76	814	5.53	872	6.30	929	7.12				
7410	2600	469	2.43	508	2.73	579	3.33	644	3.94	706	4.60	766	5.35	823	6.15	879	6.98	934	7.84	986	8.69		
7980	2800	499	2.98	536	3.31	603	3.95	665	4.60	724	5.28	780	6.01	835	6.84	889	7.73	941	8.62	991	9.51		
8550	3000	529	3.60	564	3.96	629	4.67	687	5.33	743	6.05	797	6.80	850	7.64	901	8.53	951	9.48	999	10.42		
9120	3200	560	4.33	593	4.71	655	5.47	711	6.19	764	6.92	815	7.68	866	8.53	915	9.43	963	10.40	1009	11.38		
9690	3400	591	5.14	622	5.53	681	6.34	735	7.11	786	7.88	835	8.68	883	9.52	930	10.41	976	11.38	1021	12.41		
10260	3600	622	6.05	652	6.48	708	7.32	760	8.14	809	8.95	856	9.78	903	10.67	948	11.58	992	12.54				
10830	3800	653	7.05	682	7.52	736	8.42	786	9.29	833	10.13	878	10.98	923	11.91	966	12.82	1009	13.81				

MAXIMUM RPM: Class I - 858 Class II - 1030

VSFC24

Outlet Area - 3.45 ft² Wheel Dia. - 24.50 Inches Tip Speed - 6.41 x RPM

CFM	OV	0.25"		0.5"		1"		1.5"		2"		2.5"		3"		3.5"		4"		4.5"		5"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2760	800	218	0.20																				
3450	1000	233	0.29	302	0.47																		
4140	1200	252	0.42	313	0.61	422	1.08																
4830	1400	274	0.60	328	0.79	427	1.30																
5520	1600	297	0.82	347	1.05	437	1.57	519	2.19														
6210	1800	321	1.10	367	1.35	450	1.89	527	2.56	598	3.26												
6900	2000	346	1.45	389	1.72	466	2.30	538	2.98	605	3.74	669	4.53										
7590	2200	372	1.86	413	2.18	484	2.78	551	3.47	614	4.26	675	5.11	733	5.99								
8280	2400	399	2.36	436	2.69	504	3.36	567	4.07	626	4.85	684	5.76	739	6.69	792	7.63	844	8.62				
8970	2600	425	2.92	461	3.30	525	4.01	584	4.75	641	5.57	695	6.46	748	7.46	798	8.44	848	9.49	896	10.54		
9660	2800	452	3.58	486	3.99	547	4.76	603	5.54	657	6.38	708	7.27	758	8.27	807	9.35	854	10.42	900	11.51		
10350	3000	480	4.35	512	4.79	570	5.62	623	6.43	674	7.30	724	8.24	771	9.21	818	10.32	863	11.46	907	12.60		
11040	3200	508	5.23	538	5.69	594	6.59	645	7.47	693	8.35	740	9.29	786	10.31	830	11.38	874	12.57	916	13.77		
11730	3400	536	6.20	564	6.68	618	7.66	667	8.59	713	9.51	758	10.49	802	11.53	845	12.63	886	13.77	927	15.02		
12420	3600	564	7.29	591	7.81	642	8.83	690	9.85	734	10.81	777	11.82	819	12.87	860	13.98	900	15.13				
13110	3800	592	8.50	618	9.06	667	10.14	713	11.21	756	12.25	797	13.28	838	14.41	877	15.51	916	16.71				

MAXIMUM RPM: Class I - 780 Class II - 935

VSFC27

Outlet Area - 4.19 ft² Wheel Dia. - 27.00 Inches Tip Speed - 7.07 x RPM

CFM	OV	0.25"		0.5"		1"		1.5"		2"		2.5"		3"		3.5"		4"		4.5"		5"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3352	800	191	0.23																				
4190	1000	203	0.33	265	0.54																		
5028	1200	219	0.47	273	0.70																		
5866	1400	237	0.66	286	0.91	375	1.51																
6704	1600	257	0.90	301	1.18	382	1.81	456	2.52														
7542	1800	278	1.20	318	1.50	392	2.17	462	2.96	525	3.75												
8380	2000	301	1.59	337	1.91	406	2.63	470	3.44	531	4.32	587	5.21										
9218	2200	324	2.04	357	2.38	421	3.16	480	3.98	538	4.93	593	5.92	643	6.87								
10056	2400	347	2.57	378	2.95	438	3.78	493	4.64	547	5.61	599	6.65	649	7.73	695	8.77						
10894	2600	371	3.21	400	3.61	455	4.46	508	5.40	558	6.38	607	7.45	655	8.60	701	9.77	744	10.91				
11732	2800	395	3.94	422	4.36	474	5.27	525	6.30	572	7.31	617	8.35	663	9.56	707	10.78	750	12.05	790	13.27	830	14.56
12570	3000	419	4.77	445	5.24	493	6.16	541	7.22	587	8.33	630	9.43	673	10.63	715	11.90	756	13.21	796	14.55	834	15.87
13408	3200	444	5.74	468	6.21	514	7.21	559	8.30	603	9.47	644	10.61	684	11.80	724	13.09	764	14.49	803	15.92	841	17.37
14246	3400	469	6.83	492	7.34	535	8.36	577	9.46	620	10.74	660	11.97	698	13.19	736	14.50	773	15.85	810	17.29	847	18.82
15084	3600	494	8.04	515	8.54	557	9.67	596	10.77	637	12.09	676	13.41	713	14.71	749	16.03	784	17.38	820	18.89		
15922	3800	519	9.39	539	9.92	579	11.10	617	12.29	655	13.58	693	14.99	729	16.37	763	17.70	797	19.12	831	20.61		

MAXIMUM RPM: Class I - 707 Class II - 849

Performance is for installation Type B & D: Free or ducted inlet, ducted outlet.
 Power rating (bhp) does not include belt drive losses.
 Performance ratings do not include the effects of appurtenances in the airstream.

Class I fans are shown non-shaded.
 Class II fans are shown shaded.

Performance Data

VSFC30

Outlet Area - 5.17 ft² Wheel Dia. - 30.00 Inches Tip Speed - 7.85 x RPM

CFM	OV	0.25"		0.5"		1"		1.5"		2"		2.5"		3"		3.5"		4"		4.5"		5"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
4136	800	172	0.28																				
5170	1000	183	0.41	239	0.67																		
6204	1200	197	0.58	246	0.86																		
7238	1400	213	0.81	257	1.12	337	1.85																
8272	1600	231	1.11	271	1.46	344	2.24	410	3.11														
9306	1800	250	1.48	286	1.85	353	2.69	416	3.65	473	4.64												
10340	2000	271	1.96	303	2.34	365	3.24	423	4.24	478	5.33	528	6.41										
11374	2200	291	2.51	321	2.93	379	3.90	432	4.91	484	6.07	533	7.27	579	8.49								
12408	2400	312	3.17	340	3.63	394	4.66	444	5.74	492	6.91	539	8.20	584	9.53	626	10.85						
13442	2600	334	3.97	359	4.42	410	5.53	457	6.66	502	7.87	546	9.18	589	10.58	631	12.06	670	13.48				
14476	2800	355	4.84	380	5.39	426	6.48	472	7.75	514	8.98	556	10.35	596	11.75	636	13.29	675	14.87	711	16.37	747	17.96
15510	3000	377	5.88	400	6.44	444	7.62	487	8.92	528	10.27	567	11.64	605	13.07	643	14.65	681	16.35	717	18.00	751	19.62
16544	3200	399	7.05	421	7.66	462	8.87	503	10.24	543	11.71	580	13.12	616	14.59	652	16.18	687	17.83	722	19.59	757	21.44
17578	3400	422	8.42	442	9.01	481	10.29	519	11.66	557	13.18	594	14.77	628	16.26	662	17.86	696	19.58	729	21.34	762	23.20
18612	3600	444	9.89	464	10.58	501	11.91	537	13.33	573	14.89	608	16.51	642	18.17	674	19.78	706	21.49	738	23.31		
19646	3800	467	11.58	485	12.24	521	13.69	555	15.14	589	16.72	623	18.44	656	20.19	687	21.87	717	23.56				

MAXIMUM RPM: Class I - 637 Class II - 764

VSFC33

Outlet Area - 6.26 ft² Wheel Dia. - 33.00 Inches Tip Speed - 8.64 x RPM

CFM	OV	0.25"		0.5"		1"		1.5"		2"		2.5"		3"		3.5"		4"		4.5"		5"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
5008	800	156	0.34																				
6260	1000	166	0.49	217	0.80																		
7512	1200	179	0.70	224	1.05																		
8764	1400	194	0.99	234	1.36	307	2.25																
10016	1600	210	1.34	247	1.78	312	2.69	373	3.77														
11268	1800	228	1.81	261	2.27	321	3.25	378	4.42	430	5.62												
12520	2000	246	2.36	276	2.86	332	3.93	384	5.11	434	6.43	480	7.76										
13772	2200	265	3.05	292	3.56	345	4.74	393	5.96	440	7.35	485	8.83	526	10.26								
15024	2400	284	3.85	309	4.39	358	5.63	404	6.97	447	8.35	490	9.93	531	11.54	569	13.13						
16276	2600	304	4.82	327	5.38	372	6.65	416	8.10	457	9.56	497	11.15	536	12.85	574	14.63	609	16.32				
17528	2800	323	5.88	345	6.50	387	7.83	429	9.37	468	10.92	505	12.49	542	14.24	579	16.16	614	18.03	647	19.88	679	21.74
18780	3000	343	7.13	364	7.81	403	9.18	443	10.82	480	12.43	515	14.05	550	15.83	585	17.78	619	19.78	652	21.81	683	23.78
20032	3200	363	8.55	383	9.29	420	10.73	457	12.37	493	14.12	527	15.86	560	17.67	593	19.62	625	21.63	657	23.78	688	25.94
21284	3400	384	10.22	402	10.92	438	12.52	472	14.13	507	16.02	540	17.88	571	19.69	602	21.64	633	23.74	663	25.87	693	28.12
22536	3600	404	12.00	422	12.82	455	14.38	488	16.12	521	18.04	553	20.02	583	21.93	613	23.98	642	26.03	671	28.23		
23788	3800	425	14.06	441	14.82	474	16.60	505	18.38	536	20.30	567	22.40	596	24.40	625	26.54	652	28.55				

MAXIMUM RPM: Class I - 579 Class II - 694

VSFC36

Outlet Area - 7.66 ft² Wheel Dia. - 36.50 Inches Tip Speed - 9.56 x RPM

CFM	OV	0.25"		0.5"		1"		1.5"		2"		2.5"		3"		3.5"		4"		4.5"		5"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
6128	800	141	0.41																				
7660	1000	150	0.60	196	0.98																		
9192	1200	162	0.86	202	1.28																		
10724	1400	175	1.20	211	1.66	277	2.74																
12256	1600	190	1.65	223	2.16	283	3.33	337	4.60														
13788	1800	206	2.21	236	2.78	290	3.97	342	5.42	389	6.89												
15320	2000	223	2.92	249	3.47	300	4.80	347	6.25	393	7.91	434	9.50										
16852	2200	240	3.75	264	4.35	312	5.81	355	7.28	398	9.01	438	10.77	476	12.59								
18384	2400	257	4.72	279	5.35	324	6.91	365	8.51	404	10.20	443	12.14	480	14.12	514	16.02						
19916	2600	275	5.90	296	6.61	337	8.19	376	9.90	413	11.69	449	13.62	484	15.67	519	17.90	550	19.91				
21448	2800	292	7.19	312	7.96	350	9.58	388	11.48	423	13.35	457	15.33	490	17.42	523	19.71	555	22.05	585	24.33	614	26.62
22980	3000	310	8.72	329	9.55	365	11.29	400	13.18	434	15.21	466	17.24	498	19.46	529	21.76	559	24.12	589	26.63	617	29.03
24512	3200	329	10.54	346	11.33	380	13.16	413	15.12	446	17.31	477	19.48	506	21.58	536	23.99	565	26.46	594	29.10	622	31.73
26044	3400	347	12.48	364	13.42	396	15.32	427	17.32	458	19.55	488	21.85	516	24.06	544	26.44	572	29.00	600	31.74	627	34.49
27576	3600	365	14.65	381	15.62	412	17.67	441	19.70	471	22.06	500	24.50	527	26.82	554	29.30	580	31.78	606	34.43		
29108	3800	384	17.17	399	18.17	428	20.24	456	22.40	484	24.75	512	27.30	539	29.88	565	32.46	590	35.02	615	37.73		

MAXIMUM RPM: Class I - 523 Class II - 628

Performance is for installation Type B & D: Free or ducted inlet, ducted outlet.
 Power rating (bhp) does not include belt drive losses.
 Performance ratings do not include the effects of appurtenances in the airstream.

Class I fans are shown non-shaded.
 Class II fans are shown shaded.

Performance Data

VSAC12

Outlet Area - 0.86 ft² Wheel Dia. - 12.25 Inches Tip Speed - 3.21 x RPM Max. BHP = 0.045 (RPM/1000)³

CFM	OV	0.25"		0.5"		1"		1.5"		2"		3"		4"		5"		6"		7"		8"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
688	800	1070	0.05	1242	0.09	1510	0.16	1738	0.24	1952	0.33												
860	1000	1251	0.08	1402	0.12	1656	0.20	1864	0.29	2051	0.39												
1032	1200	1441	0.11	1574	0.16	1810	0.26	2010	0.37	2185	0.47	2398	0.61	2731	0.86								
1204	1400	1637	0.16	1756	0.22	1970	0.33	2163	0.45	2331	0.57	2625	0.82	2892	1.09	3142	1.39	3386	1.71	3627	2.05	3861	2.41
1376	1600	1837	0.22	1945	0.28	2140	0.41	2320	0.54	2484	0.68	2770	0.96	3020	1.25	3255	1.55	3476	1.89	3691	2.24	3904	2.61
1548	1800	2040	0.30	2138	0.37	2318	0.50	2484	0.65	2641	0.80	2920	1.12	3164	1.43	3384	1.75	3595	2.10	3795	2.46	3989	2.84
1720	2000	2245	0.39	2335	0.47	2502	0.62	2656	0.77	2803	0.94	3074	1.29	3312	1.63	3528	1.98	3727	2.34	3917	2.71	4102	3.11
1892	2200	2452	0.51	2535	0.59	2690	0.76	2835	0.92	2972	1.09	3231	1.47	3465	1.86	3676	2.23	3872	2.62	4055	3.02	4228	3.42
2064	2400	2660	0.64	2737	0.73	2882	0.92	3018	1.09	3147	1.27	3392	1.67	3620	2.09	3828	2.51	4019	2.92	4199	3.34	4369	3.77
2236	2600	2869	0.79	2941	0.89	3077	1.09	3206	1.29	3327	1.48	3559	1.89	3779	2.34	3983	2.80	4171	3.25	4347	3.70	4514	4.15
2408	2800	3079	0.97	3146	1.08	3274	1.30	3396	1.51	3512	1.72	3731	2.14	3941	2.61	4140	3.10	4325	3.59	4498	4.08	4663	4.56
2580	3000	3289	1.18	3352	1.30	3473	1.53	3589	1.76	3699	1.98	3908	2.43	4108	2.91	4300	3.42	4482	3.95	4653	4.48	4814	5.00
2752	3200	3501	1.42	3560	1.54	3674	1.79	3784	2.03	3890	2.28	4090	2.75	4279	3.24	4463	3.77	4641	4.33	4809	4.90	4968	5.45
2924	3400	3712	1.68	3768	1.81	3876	2.08	3981	2.34	4082	2.60	4274	3.10	4456	3.61	4631	4.15	4802	4.73	4967	5.33	5125	5.93
3096	3600	3924	1.98	3977	2.12	4080	2.40	4180	2.68	4276	2.95	4461	3.49	4636	4.03	4804	4.58	4968	5.17	5128	5.79		
3268	3800	4136	2.31	4186	2.46	4285	2.75	4380	3.05	4473	3.34	4650	3.92	4819	4.48	4981	5.05	5138	5.64				

MAXIMUM RPM: Class I - 3990 Class II - 5205 Selections above 4000 RPM not recommended. Consult factory.

VSAC13

Outlet Area - 1.05 ft² Wheel Dia. - 13.50 Inches Tip Speed - 3.53 x RPM Max. BHP = 0.081 (RPM/1000)³

CFM	OV	0.25"		0.5"		1"		1.5"		2"		3"		4"		5"		6"		7"		8"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
840	800	886	0.05	1050	0.09	1327	0.19																
1050	1000	1024	0.08	1171	0.13	1410	0.23	1628	0.34														
1260	1200	1173	0.11	1298	0.17	1526	0.29	1713	0.41	1891	0.54												
1470	1400	1326	0.16	1438	0.22	1648	0.36	1827	0.49	1986	0.64	2300	0.97										
1680	1600	1482	0.22	1586	0.29	1773	0.44	1948	0.59	2100	0.75	2370	1.08	2653	1.48								
1890	1800	1641	0.29	1737	0.37	1906	0.53	2071	0.70	2221	0.88	2479	1.24	2713	1.61	2968	2.07	3235	2.62				
2100	2000	1802	0.37	1891	0.46	2048	0.64	2197	0.83	2343	1.02	2596	1.42	2819	1.82	3027	2.24	3256	2.75	3498	3.34		
2310	2200	1964	0.48	2047	0.57	2195	0.77	2332	0.97	2467	1.18	2717	1.61	2933	2.05	3132	2.50	3321	2.96	3525	3.50	3745	4.13
2520	2400	2127	0.60	2205	0.70	2346	0.92	2473	1.13	2597	1.35	2839	1.82	3052	2.30	3244	2.77	3426	3.27	3598	3.77	3781	4.33
2730	2600	2291	0.74	2364	0.85	2498	1.08	2619	1.32	2734	1.55	2962	2.05	3174	2.57	3362	3.08	3537	3.60	3705	4.13	3864	4.67
2940	2800	2457	0.91	2525	1.03	2652	1.27	2768	1.52	2876	1.77	3089	2.30	3296	2.85	3483	3.40	3654	3.95	3816	4.51	3971	5.09
3150	3000	2622	1.10	2687	1.23	2808	1.49	2919	1.75	3022	2.02	3221	2.57	3419	3.16	3605	3.75	3775	4.34	3932	4.93	4083	5.53
3360	3200	2789	1.31	2849	1.45	2965	1.73	3072	2.01	3171	2.30	3359	2.87	3546	3.48	3727	4.11	3897	4.75	4053	5.38	4200	6.01
3570	3400	2955	1.55	3013	1.70	3123	2.00	3226	2.30	3322	2.60	3501	3.21	3677	3.84	3851	4.50	4019	5.18	4175	5.85		
3780	3600	3122	1.82	3177	1.98	3282	2.30	3381	2.61	3474	2.93	3647	3.57	3812	4.23	3979	4.92	4142	5.63				
3990	3800	3290	2.13	3342	2.29	3442	2.62	3537	2.96	3628	3.29	3795	3.97	3953	4.65	4110	5.37						

MAXIMUM RPM: Class I - 3265 Class II - 4259 Selections above 4000 RPM not recommended. Consult factory.

VSAC15

Outlet Area - 1.29 ft² Wheel Dia. - 15.00 Inches Tip Speed - 3.93 x RPM Max. BHP = 0.125(RPM/1000)³

CFM	OV	0.25"		0.5"		1"		1.5"		2"		3"		4"		5"		6"		7"		8"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1032	800	874	0.08	1015	0.13	1233	0.23	1420	0.35	1594	0.49												
1290	1000	1022	0.12	1145	0.18	1353	0.31	1522	0.44	1675	0.58	1958	0.91	2231	1.29								
1548	1200	1177	0.17	1285	0.24	1479	0.39	1642	0.55	1784	0.71	2040	1.05	2275	1.44	2506	1.87						
1806	1400	1337	0.24	1434	0.32	1610	0.49	1766	0.67	1904	0.85	2144	1.23	2362	1.63	2566	2.08	2765	2.56	2962	3.08	3153	3.62
2064	1600	1501	0.34	1589	0.43	1748	0.61	1895	0.81	2029	1.02	2263	1.44	2467	1.87	2658	2.33	2839	2.83	3015	3.36	3189	3.92
2322	1800	1667	0.45	1747	0.55	1893	0.75	2029	0.97	2158	1.21	2385	1.67	2584	2.14	2764	2.63	2936	3.14	3100	3.69	3258	4.27
2580	2000	1834	0.59	1908	0.71	2044	0.93	2170	1.16	2290	1.41	2511	1.93	2705	2.45	2882	2.97	3044	3.51	3200	4.07	3351	4.67
2838	2200	2003	0.76	2071	0.89	2198	1.14	2316	1.38	2427	1.64	2640	2.21	2830	2.78	3003	3.35	3163	3.93	3312	4.52	3453	5.12
3096	2400	2173	0.96	2236	1.10	2355	1.37	2466	1.64	2571	1.91	2771	2.50	2957	3.14	3126	3.76	3283	4.38	3430	5.01	3569	5.66
3354	2600	2344	1.19	2402	1.34	2514	1.64	2619	1.94	2718	2.22	2907	2.83	3087	3.51	3253	4.20	3407	4.87	3551	5.55	3687	6.22
3612	2800	2515	1.46	2570	1.62	2675	1.95	2774	2.27	2869	2.58	3048	3.21	3219	3.91	3382	4.66	3533	5.39	3674	6.11	3808	6.84
3870	3000	2687	1.77	2739	1.95	2838	2.30	2932	2.64	3022	2.98	3193	3.65	3355	4.36	3512	5.13	3661	5.93	3800	6.72	3932	7.49
4128	3200	2860	2.12	2908	2.31	3002	2.68	3091	3.05	3178	3.42	3341	4.13	3496	4.86	3646	5.66	3791	6.50	3928	7.34	4058	8.18
4386	3400	3033	2.52	3078	2.72	3167	3.12	3252	3.51	3335	3.90	3491	4.66	3640	5.42	3783	6.23	3923	7.10	4058	8.00	4186	8.90
4644	3600	3206	2.97	3249	3.18	3333	3.60	3415	4.02	3494	4.43	3644	5.24	3787	6.04	3924	6.86	4058	7.75	4189	8.68		
4902	3800	3379	3.47	3420	3.68	3500	4.13	3578	4.57	3654	5.01	3799	5.88	3936	6.71	4069	7.57	4197	8.47				

MAXIMUM RPM: Class I - 3260 Class II - 4252 Selections above 4000 RPM not recommended. Consult factory.

Performance is for installation Type B & D: Free or ducted inlet, ducted outlet.
Power rating (bhp) does not include belt drive losses.
Performance ratings do not include the effects of appurtenances in the airstream.

Class I fans are shown non-shaded.
Class II fans are shown shaded.

Performance Data

VSAC16

Outlet Area - 1.57 ft² Wheel Dia. - 16.50 Inches Tip Speed - 4.32 x RPM Max. BHP = 0.222 (RPM/1000)³

CFM	OV	0.25"		0.5"		1"		1.5"		2"		3"		4"		5"		6"		7"		8"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1256	800	726	0.08	859	0.14	1086	0.28																
1570	1000	838	0.12	959	0.19	1154	0.34	1332	0.51														
1884	1200	960	0.17	1063	0.25	1249	0.43	1402	0.61	1547	0.81												
2198	1400	1086	0.24	1177	0.33	1349	0.53	1496	0.74	1625	0.95	1882	1.44										
2512	1600	1214	0.32	1298	0.43	1451	0.65	1595	0.89	1719	1.12	1940	1.61	2171	2.21	2413	2.95						
2826	1800	1344	0.43	1422	0.55	1561	0.79	1695	1.05	1818	1.32	2029	1.85	2220	2.41	2429	3.10	2647	3.92				
3140	2000	1475	0.56	1548	0.69	1677	0.96	1799	1.24	1918	1.53	2125	2.12	2307	2.72	2478	3.35	2664	4.10	2862	4.99		
3454	2200	1608	0.71	1676	0.86	1797	1.15	1909	1.45	2020	1.76	2224	2.41	2400	3.06	2564	3.73	2718	4.42	2885	5.23	3064	6.17
3768	2400	1742	0.90	1805	1.05	1921	1.37	2025	1.69	2126	2.03	2324	2.73	2498	3.44	2655	4.15	2804	4.88	2945	5.63	3094	6.47
4082	2600	1876	1.11	1936	1.28	2046	1.62	2144	1.97	2238	2.32	2425	3.07	2598	3.84	2752	4.60	2895	5.38	3032	6.18	3162	6.98
4396	2800	2012	1.36	2068	1.54	2172	1.91	2266	2.28	2355	2.62	2529	3.44	2698	4.27	2851	5.09	2991	5.92	3123	6.75	3251	7.61
4710	3000	2147	1.64	2200	1.84	2299	2.23	2390	2.63	2474	3.02	2637	3.85	2799	4.72	2951	5.61	3090	6.49	3219	7.38	3342	8.27
5024	3200	2284	1.96	2333	2.17	2427	2.59	2515	3.01	2596	3.44	2750	4.30	2903	5.21	3051	6.15	3190	7.10	3317	8.04	3438	8.99
5338	3400	2420	2.32	2467	2.55	2557	2.99	2641	3.44	2720	3.89	2867	4.80	3010	5.75	3153	6.74	3290	7.74	3417	8.75		
5652	3600	2557	2.73	2602	2.97	2687	3.44	2768	3.91	2845	4.39	2986	5.34	3121	6.33	3257	7.36	3390	8.41				
5966	3800	2694	3.18	2737	3.43	2819	3.93	2896	4.43	2970	4.93	3107	5.94	3236	6.96	3364	8.02						

MAXIMUM RPM: Class I - 2673 Class II - 3487

VSAC18

Outlet Area - 1.92 ft² Wheel Dia. - 18.25 Inches Tip Speed - 4.78 x RPM Max. BHP = 0.43 (RPM/1000)³

CFM	OV	0.25"		0.5"		1"		1.5"		2"		3"		4"		5"		6"		7"		8"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1536	800	616	0.10	736	0.17	941	0.32																
1920	1000	710	0.15	814	0.23	996	0.41	1157	0.60														
2304	1200	811	0.22	903	0.31	1066	0.52	1212	0.73	1346	0.96												
2688	1400	916	0.31	998	0.42	1146	0.64	1280	0.89	1404	1.15	1633	1.69										
3072	1600	1023	0.42	1097	0.54	1232	0.80	1357	1.07	1472	1.35	1684	1.94	1882	2.58								
3456	1800	1132	0.56	1201	0.70	1324	0.98	1439	1.27	1547	1.58	1747	2.23	1931	2.90	2106	3.62	2283	4.41				
3840	2000	1243	0.73	1306	0.89	1421	1.20	1528	1.52	1629	1.85	1817	2.55	1992	3.28	2155	4.03	2313	4.82	2472	5.68		
4224	2200	1354	0.94	1413	1.11	1520	1.45	1620	1.80	1715	2.15	1893	2.90	2059	3.68	2215	4.49	2363	5.32	2507	6.18	2651	7.11
4608	2400	1467	1.18	1521	1.37	1622	1.74	1716	2.11	1805	2.50	1974	3.29	2132	4.13	2281	4.99	2423	5.87	2559	6.77	2692	7.71
4992	2600	1580	1.47	1631	1.67	1726	2.08	1814	2.48	1899	2.89	2059	3.73	2210	4.62	2352	5.53	2489	6.47	2620	7.43	2746	8.40
5376	2800	1694	1.80	1742	2.02	1832	2.46	1916	2.89	1995	3.32	2148	4.22	2292	5.16	2429	6.12	2559	7.10	2685	8.12	2807	9.15
5760	3000	1808	2.18	1853	2.42	1938	2.88	2018	3.35	2094	3.81	2239	4.76	2377	5.74	2508	6.75	2634	7.79	2755	8.86	2873	9.95
6144	3200	1923	2.61	1965	2.86	2046	3.36	2123	3.86	2195	4.35	2333	5.35	2465	6.38	2591	7.45	2713	8.54	2830	9.66		
6528	3400	2038	3.10	2078	3.37	2155	3.90	2228	4.43	2297	4.95	2429	6.00	2556	7.09	2677	8.20	2795	9.35				
6912	3600	2153	3.64	2191	3.93	2264	4.49	2334	5.05	2401	5.61	2528	6.72	2649	7.85	2766	9.02	2879	10.21				
7296	3800	2269	4.26	2305	4.55	2374	5.14	2441	5.73	2506	6.33	2628	7.50	2744	8.68	2857	9.90						

MAXIMUM RPM: Class I - 2294 Class II - 2902

VSAC20

Outlet Area - 2.30 ft² Wheel Dia. - 20.00 Inches Tip Speed - 5.24 x RPM Max. BHP = 0.68 (RPM/1000)³

CFM	OV	0.25"		0.5"		1"		1.5"		2"		3"		4"		5"		6"		7"		8"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1840	800	561	0.12	671	0.20	858	0.39																
2300	1000	647	0.18	742	0.28	908	0.49	1055	0.72														
2760	1200	739	0.26	822	0.37	972	0.62	1105	0.88	1227	1.15												
3220	1400	834	0.37	909	0.50	1044	0.77	1166	1.06	1280	1.37	1489	2.02										
3680	1600	931	0.50	1000	0.65	1123	0.95	1236	1.28	1341	1.61	1535	2.32	1717	3.09								
4140	1800	1031	0.67	1093	0.84	1206	1.17	1312	1.53	1410	1.89	1593	2.67	1760	3.47	1921	4.34	2083	5.28				
4600	2000	1131	0.87	1189	1.06	1294	1.43	1392	1.82	1484	2.21	1656	3.05	1816	3.92	1965	4.82	2110	5.78	2255	6.81		
5060	2200	1233	1.12	1286	1.32	1385	1.73	1476	2.15	1563	2.58	1726	3.47	1877	4.41	2020	5.38	2155	6.37	2287	7.41	2418	8.51
5520	2400	1335	1.41	1385	1.64	1478	2.08	1563	2.53	1645	2.99	1799	3.94	1943	4.94	2079	5.97	2210	7.04	2334	8.12	2455	9.24
5980	2600	1438	1.75	1485	2.00	1572	2.48	1653	2.96	1730	3.45	1876	4.46	2014	5.52	2144	6.61	2269	7.75	2389	8.90	2504	10.06
6440	2800	1542	2.15	1586	2.41	1668	2.93	1745	3.45	1817	3.96	1957	5.05	2088	6.16	2214	7.32	2333	8.51	2448	9.72	2560	10.97
6900	3000	1646	2.60	1687	2.88	1765	3.44	1838	4.00	1907	4.55	2040	5.69	2166	6.87	2286	8.08	2401	9.33	2512	10.61	2619	11.91
7360	3200	1750	3.11	1789	3.41	1863	4.01	1933	4.61	1999	5.20	2125	6.39	2246	7.63	2361	8.91	2473	10.23	2580	11.57		
7820	3400	1855	3.70	1892	4.02	1962	4.65	2029	5.29	2092	5.91	2213	7.17	2328	8.47	2440	9.81	2547	11.18				
8280	3600	1960	4.35	1995	4.69	2061	5.35	2125	6.02	2187	6.70	2302	8.02	2413	9.38	2520	10.78	2623	12.21				
8740	3800	2065	5.07	2098	5.43	2162	6.14	2223	6.85	2282	7.55	2393	8.95	2500	10.37	2603	11.83						

MAXIMUM RPM: Class I - 2093 Class II - 2648

Performance is for installation Type B & D: Free or ducted inlet, ducted outlet.
 Power rating (bhp) does not include belt drive losses.
 Performance ratings do not include the effects of appurtenances in the airstream.

Class I fans are shown non-shaded.
 Class II fans are shown shaded.

Performance Data

VSAC22

Outlet Area - 2.85 ft² Wheel Dia. - 22.25 Inches Tip Speed - 5.84 x RPM Max. BHP = 1.16 (RPM/1000)³

CFM	OV	0.25"		0.5"		1"		1.5"		2"		3"		4"		5"		6"		7"		8"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2280	800	505	0.15	603	0.25	772	0.48																
2850	1000	582	0.22	668	0.34	816	0.61																
3420	1200	665	0.32	740	0.46	874	0.77	993	1.09	1104	1.43												
3990	1400	750	0.45	817	0.61	939	0.95	1049	1.32	1151	1.70	1339	2.51										
4560	1600	838	0.62	899	0.81	1010	1.18	1112	1.58	1206	2.00	1381	2.88	1543	3.82								
5130	1800	927	0.83	984	1.04	1085	1.45	1180	1.89	1268	2.35	1432	3.31	1583	4.31	1727	5.37	1872	6.54				
5700	2000	1018	1.09	1070	1.32	1164	1.77	1252	2.25	1335	2.74	1490	3.78	1633	4.86	1767	5.98	1897	7.16	2027	8.43		
6270	2200	1109	1.39	1158	1.65	1246	2.15	1327	2.66	1406	3.20	1552	4.30	1688	5.47	1816	6.66	1938	7.90	2056	9.18	2174	10.55
6840	2400	1202	1.76	1246	2.03	1329	2.58	1406	3.13	1479	3.70	1618	4.89	1748	6.13	1870	7.40	1987	8.72	2098	10.05	2207	11.44
7410	2600	1294	2.18	1336	2.48	1414	3.08	1487	3.67	1556	4.28	1688	5.54	1812	6.85	1928	8.20	2040	9.59	2148	11.03	2251	12.46
7980	2800	1388	2.67	1427	2.99	1501	3.64	1570	4.28	1635	4.92	1760	6.26	1878	7.64	1991	9.08	2098	10.54	2201	12.04	2302	13.59
8550	3000	1481	3.23	1518	3.58	1588	4.27	1654	4.96	1716	5.65	1835	7.05	1948	8.51	2056	10.02	2160	11.58	2259	13.15	2355	14.76
9120	3200	1575	3.87	1610	4.24	1676	4.98	1739	5.72	1799	6.45	1912	7.93	2020	9.46	2124	11.05	2224	12.67	2320	14.33		
9690	3400	1669	4.59	1702	4.98	1765	5.77	1825	6.55	1882	7.33	1991	8.90	2094	10.50	2194	12.16	2291	13.87				
10260	3600	1764	5.40	1795	5.82	1855	6.65	1912	7.48	1967	8.30	2071	9.95	2171	11.64	2267	13.37	2360	15.15				
10830	3800	1858	6.29	1888	6.74	1945	7.62	2000	8.49	2053	9.37	2153	11.10	2249	12.87	2341	14.67						

MAXIMUM RPM: Class I - 1881 Class II - 2381

VSAC24

Outlet Area - 3.45 ft² Wheel Dia. - 24.50 Inches Tip Speed - 6.41 x RPM Max. BHP = 1.87 (RPM/1000)³

CFM	OV	0.25"		0.5"		1"		1.5"		2"		3"		4"		5"		6"		7"		8"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2760	800	458	0.18	547	0.30	701	0.58																
3450	1000	528	0.27	606	0.42	741	0.74	861	1.08														
4140	1200	603	0.39	671	0.56	793	0.93	902	1.32	1002	1.73												
4830	1400	681	0.55	742	0.74	852	1.15	952	1.59	1045	2.06	1216	3.04										
5520	1600	760	0.75	816	0.97	916	1.43	1009	1.92	1095	2.42	1253	3.48	1401	4.63								
6210	1800	841	1.00	892	1.25	985	1.76	1071	2.29	1151	2.84	1300	4.00	1437	5.21	1568	6.50	1700	7.92				
6900	2000	923	1.31	970	1.59	1056	2.14	1136	2.72	1212	3.32	1352	4.57	1482	5.88	1604	7.23	1722	8.66	1841	10.22		
7590	2200	1006	1.68	1050	1.99	1130	2.60	1204	3.21	1275	3.86	1409	5.21	1532	6.61	1649	8.07	1759	9.55	1866	11.10	1974	12.78
8280	2400	1090	2.12	1130	2.45	1206	3.12	1275	3.78	1342	4.47	1468	5.91	1586	7.41	1697	8.95	1804	10.56	1905	12.17	2004	13.85
8970	2600	1174	2.63	1212	3.00	1283	3.72	1349	4.44	1412	5.17	1531	6.69	1644	8.29	1750	9.92	1852	11.62	1950	13.35	2044	15.10
9660	2800	1258	3.22	1294	3.61	1361	4.40	1424	5.17	1483	5.95	1597	7.57	1705	9.25	1807	10.98	1904	12.76	1998	14.58	2089	16.44
10350	3000	1343	3.90	1377	4.32	1440	5.16	1500	5.99	1557	6.83	1665	8.53	1768	10.30	1866	12.13	1960	14.00	2050	15.91	2138	17.87
11040	3200	1428	4.67	1460	5.12	1520	6.01	1577	6.90	1631	7.78	1734	9.58	1833	11.45	1927	13.36	2018	15.33	2105	17.33		
11730	3400	1514	5.54	1544	6.02	1601	6.97	1656	7.93	1707	8.85	1806	10.75	1900	12.70	1991	14.71	2079	16.78				
12420	3600	1599	6.51	1628	7.03	1682	8.03	1734	9.03	1784	10.03	1879	12.03	1969	14.06	2057	16.17	2141	18.31				
13110	3800	1685	7.60	1712	8.14	1764	9.20	1814	10.26	1862	11.32	1953	13.42	2040	15.55	2124	17.74						

MAXIMUM RPM: Class I - 1708 Class II - 2162

VSAC27

Outlet Area - 4.19 ft² Wheel Dia. - 27.00 Inches Tip Speed - 7.07 x RPM Max. BHP = 2.80 (RPM/1000)³

CFM	OV	0.25"		0.5"		1"		1.5"		2"		3"		4"		5"		6"		7"		8"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3352	800	424	0.21	506	0.36	644	0.70																
4190	1000	489	0.32	560	0.49	684	0.87	791	1.29														
5028	1200	557	0.46	622	0.67	733	1.10	832	1.56	921	2.06												
5866	1400	628	0.65	686	0.89	788	1.37	880	1.89	965	2.44	1117	3.64										
6704	1600	702	0.88	754	1.16	849	1.71	933	2.27	1012	2.87	1155	4.14	1287	5.55								
7542	1800	777	1.18	824	1.48	912	2.10	991	2.73	1065	3.38	1201	4.74	1324	6.20	1441	7.80						
8380	2000	853	1.54	896	1.87	977	2.56	1052	3.25	1121	3.95	1250	5.41	1369	6.98	1477	8.60	1582	10.36				
9218	2200	930	1.97	969	2.33	1045	3.09	1115	3.85	1181	4.61	1303	6.18	1416	7.83	1522	9.57	1620	11.35	1716	13.28	1813	15.40
10056	2400	1007	2.48	1044	2.88	1114	3.70	1181	4.53	1243	5.35	1359	7.03	1467	8.79	1569	10.61	1665	12.52	1755	14.46	1843	16.52
10894	2600	1085	3.07	1119	3.51	1185	4.39	1248	5.29	1307	6.18	1417	7.97	1520	9.82	1618	11.75	1711	13.74	1800	15.82	1884	17.94
11732	2800	1164	3.77	1195	4.23	1257	5.18	1316	6.14	1373	7.11	1479	9.04	1577	10.99	1671	13.03	1761	15.12	1847	17.28	1929	19.49
12570	3000	1242	4.56	1272	5.06	1330	6.07	1386	7.10	1440	8.13	1542	10.21	1636	12.27	1726	14.40	1812	16.58	1895	18.83	1976	21.17
13408	3200	1321	5.46	1349	5.99	1404	7.07	1457	8.16	1508	9.25	1606	11.46	1697	13.67	1783	15.89	1866	18.18	1947	20.55		
14246	3400	1401	6.49	1427	7.05	1478	8.17	1529	9.34	1578	10.50	1672	12.85	1760	15.20	1843	17.54	1923	19.93				
15084	3600	1480	7.62	1505	8.22	1554	9.42	1601	10.62	1648	11.86	1738	14.33	1824	16.83	1904	19.30	1982	21.82				
15922	3800	1559	8.89	1583	9.52	1630	10.79	1675	12.06	1720	13.36	1806	15.96	1889	18.60	1967	21.21						

MAXIMUM RPM: Class I - 1558 Class II - 1999

Performance is for installation Type B & D: Free or ducted inlet, ducted outlet.
 Power rating (bhp) does not include belt drive losses.
 Performance ratings do not include the effects of appurtenances in the airstream.

Class I fans are shown non-shaded.
 Class II fans are shown shaded.

Performance Data

VSAC30

Outlet Area - 5.17 ft² Wheel Dia. - 30.00 Inches Tip Speed - 7.85 x RPM Max. BHP = 4.74 (RPM/1000)³

CFM	OV	0.25"		0.5"		1"		1.5"		2"		3"		4"		5"		6"		7"		8"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
4136	800	382	0.26	455	0.44	579	0.86																
5170	1000	440	0.40	504	0.61	616	1.08	712	1.60														
6204	1200	501	0.57	559	0.82	660	1.35	749	1.93	829	2.55												
7238	1400	565	0.80	618	1.10	709	1.69	792	2.33	868	3.01	1005	4.49										
8272	1600	631	1.09	678	1.42	764	2.11	840	2.81	911	3.54	1040	5.11	1158	6.85								
9306	1800	699	1.45	741	1.83	820	2.59	891	3.36	958	4.16	1081	5.85	1191	7.64	1296	9.61						
10340	2000	767	1.89	806	2.31	879	3.15	946	4.01	1009	4.88	1125	6.68	1232	8.61	1329	10.61	1424	12.79				
11374	2200	836	2.42	872	2.88	940	3.81	1004	4.76	1062	5.68	1172	7.62	1274	9.65	1370	11.81	1458	14.02	1544	16.38	1631	18.99
12408	2400	906	3.05	939	3.55	1002	4.56	1062	5.58	1118	6.60	1222	8.66	1320	10.84	1412	13.10	1498	15.43	1579	17.84	1658	20.37
13442	2600	976	3.79	1007	4.33	1066	5.42	1122	6.51	1176	7.63	1275	9.84	1368	12.13	1456	14.50	1540	16.97	1620	19.53	1695	22.12
14476	2800	1047	4.65	1075	5.22	1131	6.39	1184	7.57	1235	8.76	1330	11.14	1419	13.56	1503	16.05	1584	18.64	1662	21.32	1736	24.06
15510	3000	1118	5.63	1144	6.23	1196	7.48	1247	8.75	1295	10.01	1387	12.58	1472	15.14	1553	17.76	1631	20.48	1706	23.26	1778	26.11
16544	3200	1189	6.74	1214	7.39	1263	8.72	1310	10.05	1357	11.42	1445	14.14	1527	16.86	1605	19.63	1679	22.43	1752	25.36		
17578	3400	1260	7.99	1284	8.69	1330	10.09	1375	11.50	1419	12.93	1504	15.84	1583	18.73	1658	21.62	1730	24.57				
18612	3600	1331	9.39	1354	10.14	1398	11.62	1441	13.12	1483	14.63	1564	17.68	1641	20.76	1713	23.80	1783	26.90				
19646	3800	1403	10.97	1424	11.74	1466	13.30	1507	14.88	1547	16.47	1625	19.69	1699	22.91	1770	26.18						

MAXIMUM RPM: Class I - 1402 Class II - 1799

VSAC33

Outlet Area - 6.26 ft² Wheel Dia. - 33.00 Inches Tip Speed - 8.64 x RPM Max. BHP = 7.64 (RPM/1000)³

CFM	OV	0.25"		0.5"		1"		1.5"		2"		3"		4"		5"		6"		7"		8"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
5008	800	347	0.32	414	0.54	527	1.04																
6260	1000	400	0.48	459	0.74	560	1.30	647	1.93														
7512	1200	456	0.69	509	1.00	600	1.64	681	2.34	754	3.09												
8764	1400	514	0.97	562	1.33	645	2.05	720	2.82	789	3.64	914	5.44										
10016	1600	574	1.32	617	1.73	694	2.55	764	3.40	828	4.28	945	6.18	1053	8.29								
11268	1800	636	1.76	674	2.21	746	3.14	811	4.08	871	5.04	983	7.09	1083	9.26	1179	11.66						
12520	2000	698	2.30	733	2.80	800	3.83	861	4.86	917	5.89	1023	8.09	1120	10.42	1209	12.86	1295	15.50				
13772	2200	761	2.94	793	3.49	855	4.62	913	5.76	966	6.88	1066	9.23	1159	11.71	1245	14.28	1326	16.98	1404	19.83	1483	22.99
15024	2400	824	3.70	854	4.30	912	5.53	966	6.76	1017	8.00	1112	10.51	1200	13.11	1284	15.86	1362	18.69	1436	21.61	1508	24.69
16276	2600	888	4.60	916	5.25	969	6.55	1021	7.90	1070	9.25	1160	11.93	1244	14.69	1324	17.56	1400	20.53	1473	23.65	1541	26.77
17528	2800	952	5.63	978	6.33	1028	7.73	1077	9.18	1123	10.61	1210	13.51	1290	16.41	1367	19.45	1440	22.55	1511	25.80	1579	29.16
18780	3000	1017	6.83	1041	7.56	1088	9.06	1134	10.60	1178	12.13	1262	15.26	1339	18.35	1412	21.50	1483	24.80	1551	28.15	1617	31.64
20032	3200	1081	8.16	1104	8.96	1149	10.57	1192	12.19	1234	13.82	1314	17.12	1389	20.44	1459	23.74	1527	27.17	1593	30.70		
21284	3400	1146	9.69	1168	10.54	1210	12.23	1251	13.95	1291	15.69	1368	19.19	1440	22.70	1508	26.20	1573	29.75				
22536	3600	1211	11.39	1231	12.27	1271	14.06	1310	15.87	1349	17.74	1422	21.40	1492	25.13	1558	28.84	1621	32.56				
23788	3800	1276	13.29	1295	14.22	1333	16.10	1371	18.04	1407	19.95	1478	23.86	1546	27.80	1610	31.73						

MAXIMUM RPM: Class I - 1275 Class II - 1636

VSAC36

Outlet Area - 7.66 ft² Wheel Dia. - 36.50 Inches Tip Speed - 9.56 x RPM Max. BHP = 14.50 (RPM/1000)³

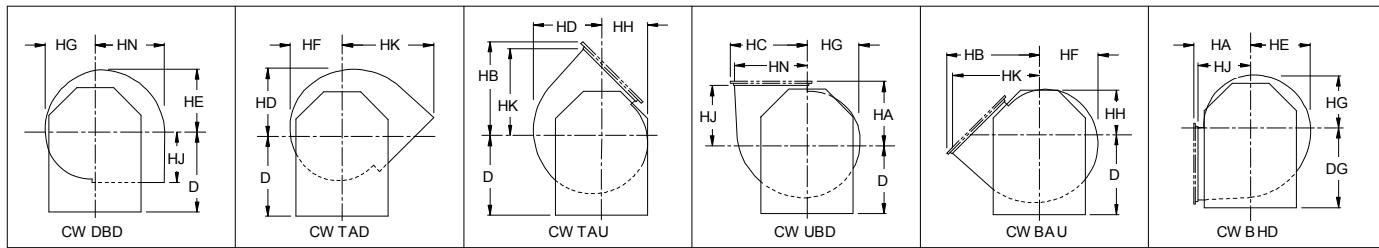
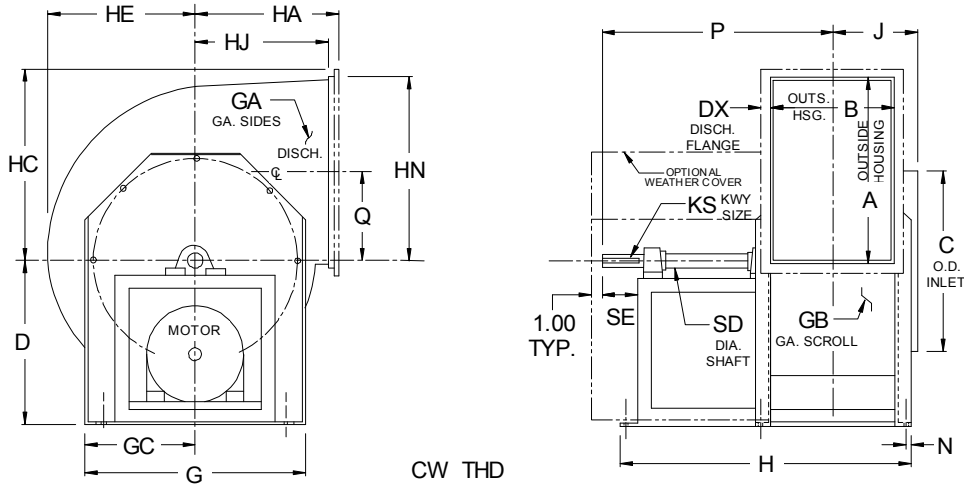
CFM	OV	0.25"		0.5"		1"		1.5"		2"		3"		4"		5"		6"		7"		8"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
6128	800	292	0.36	353	0.62	460	1.21																
7660	1000	335	0.53	388	0.84	481	1.51	565	2.26														
9192	1200	383	0.78	427	1.12	510	1.88	586	2.71	656	3.59												
10724	1400	432	1.09	471	1.48	546	2.35	614	3.25	678	4.20	797	6.31										
12256	1600	482	1.48	518	1.94	584	2.88	647	3.88	706	4.92	816	7.15	920	9.66								
13788	1800	534	1.98	566	2.49	626	3.52	684	4.62	739	5.77	842	8.18	937	10.71	1029	13.55						
15320	2000	586	2.59	616	3.15	671	4.28	724	5.48	775	6.72	872	9.32	962	12.05	1047	14.91	1129	18.01	1211	21.48		
16852	2200	639	3.32	666	3.93	718	5.18	766	6.45	814	7.79	905	10.59	990	13.49	1070	16.49	1148	19.69	1223	23.07	1297	26.73
18384	2400	692	4.18	717	4.84	765	6.19	811	7.58	855	9.00	940	11.97	1021	15.08	1098	18.29	1171	21.59	1242	25.03	1311	28.65
19916	2600	746	5.20	769	5.91	814	7.37	857	8.86	898	10.36	978	13.52	1055	16.83	1128	20.21	1198	23.69	1266	27.31	1332	31.03
21448	2800	799	6.35	822	7.15	864	8.71	904	10.29	942	11.87	1018	15.23	1091	18.73	1161	22.32	1228	25.98	1293	29.76	1356	33.64
22980	3000	853	7.69	874	8.53	914	10.21	952	11.90	989	13.62	1060	17.13	1129	20.80	1196	24.60	1260	28.43	1323	32.43	1383	36.44
24512	3200	908	9.23	927	10.10	965	11.90	1001	13.69	1036	15.51	1103	19.20	1169	23.07	1233	27.06	1295	31.14	1355	35.29		
26044	3400	962	10.94	980	11.87	1016	13.77	1051	15.70	1084	17.61	1148	21.50	1210	25.52	1271	29.67	1331	33.98				
27576	3600	1016	12.85	1034	13.86	1068	15.87	1101	17.90	1133	19.94	1194	24.02	1253	28.21	1311	32.54	1369	37.07				
29108	3800	1071	15.01	1088	16.08	1120	18.18	1151	20.28	1182	22.45	1240	26.71	1297	31.12	1353	35.67						

MAXIMUM RPM: Class I - 1071 Class II - 1388

Performance is for installation Type B & D: Free or ducted inlet, ducted outlet.
 Power rating (bhp) does not include belt drive losses.
 Performance ratings do not include the effects of appurtenances in the airstream.

Class I fans are shown non-shaded.
 Class II fans are shown shaded.

Dimensional Data



NOTES:

1. Flanged outlet is optional on sizes 12-20. Flanged outlet is standard on sizes 22-36 (except on TAD & DBD).
2. "CW" Rotation is shown. "CCW" rotation is similar but opposite.
3. Shaft diameter is increased to 1.187 on hi-temperature fans which require shaft coolers.
4. All units are rotatable to all positions (except sizes 30-36 with "D" centerline height are not rotatable to BHD).

SIZE	A	B	C	D		DG		DX	G	GA	GB	GC	H		HA	HB	HC	HD	HE	HF
				CL I	CL II	CL I	CL II						CL I	CL II						
12	13.00	9.75	13.25	14.50	17.63	14.50	17.63	1.00	16.00	14	14	8.00	24.50	32.00	9.75	16.75	13.94	11.19	10.56	9.94
13	14.31	10.81	14.56	15.75	19.13	15.75	19.13	1.00	17.50	14	14	8.75	25.63	34.81	10.75	18.38	15.25	12.31	11.63	10.94
15	15.88	11.94	16.19	17.75	19.38	17.75	19.38	1.00	19.00	14	14	9.50	28.75	36.00	11.94	20.31	16.81	13.75	12.88	12.13
16	17.44	13.19	17.75	19.00	19.38	19.00	19.38	1.00	20.50	14	14	10.25	30.13	37.31	13.13	22.25	18.38	15.06	14.13	13.31
18	19.38	14.56	19.50	21.00	21.88	21.00	21.88	1.25	22.50	12	14	11.25	34.38	43.44	14.50	24.81	20.56	16.69	15.69	14.75
20	21.19	15.94	21.38	22.75	22.75	22.75	22.75	1.25	25.00	12	14	12.50	35.75	44.81	15.81	27.00	22.38	18.38	17.31	16.25
22	23.56	17.69	23.75	25.50	25.50	25.50	25.50	1.25	27.25	12	14	13.63	40.75	47.13	17.69	30.00	24.75	20.44	19.06	17.94
24	25.94	19.44	26.06	28.00	28.00	28.00	28.00	1.25	29.75	12	14	14.88	43.50	48.81	19.50	33.00	27.13	22.38	21.00	19.75
27	28.63	21.38	28.50	30.50	30.50	30.50	30.50	1.50	33.00	12	14	16.50	47.38	53.00	21.44	36.44	30.06	24.69	23.19	21.81
30	31.81	23.81	31.63	27.50	27.50	34.25	34.25	1.50	36.13	10	12	18.06	52.88	56.00	23.81	40.31	33.25	27.44	25.75	24.25
33	35.13	26.06	34.75	30.00	30.00	37.25	37.25	1.50	38.88	10	12	19.44	56.13	61.75	26.25	44.44	36.56	30.13	28.38	26.69
36	38.75	28.88	38.50	33.50	33.50	41.00	41.00	1.50	43.75	10	12	21.88	64.56	64.56	29.00	48.88	40.13	33.50	31.50	29.63

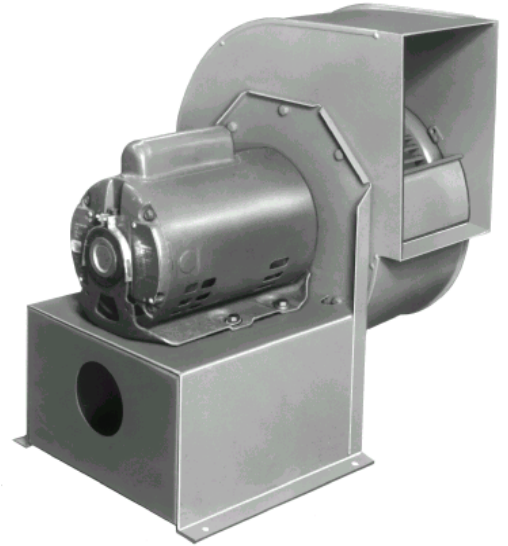
SIZE	HG	HH	HJ	HK	HN	J	KS		N	P		Q	SD		SE		MAX. MTR.	
							CL I	CL II		CL I	CL II		CL I	CL II	CL I	CL II		
12	9.31	8.69	9.25	15.69	12.94	7.44	.25x.13	.25x.13	0.50	19.75	26.50	6.44	1.000	1.187	2.75	2.75	145T	184T
13	10.25	9.56	10.25	17.31	14.25	8.00	.25x.13	.25x.13	0.50	20.31	29.56	7.13	1.000	1.187	2.75	3.38	145T	215T
15	11.38	10.63	11.44	19.25	15.81	9.06	.25x.13	.25x.13	0.50	23.13	30.13	7.88	1.000	1.187	3.25	3.38	184T	215T
16	12.50	11.69	12.63	21.19	17.38	9.69	.25x.13	.25x.13	0.63	23.75	30.75	8.69	1.000	1.187	3.25	3.38	184T	215T
18	13.81	12.88	14.00	23.56	19.31	10.88	.25x.13	.38x.19	0.63	27.94	36.81	9.63	1.187	1.437	3.75	4.00	215T	256T
20	15.19	14.13	15.31	25.75	21.13	11.56	.38x.19	.38x.19	0.63	28.63	37.50	10.56	1.437	1.437	3.75	4.00	215T	256T
22	16.81	15.69	17.19	28.75	23.50	12.44	.38x.19	.38x.19	0.88	27.63	38.38	11.75	1.437	1.437	3.75	4.00	215T	256T
24	18.50	17.25	19.00	31.75	25.88	13.31	.38x.19	.38x.19	0.88	29.00	39.25	12.94	1.437	1.687	3.75	4.00	215T	256T
27	20.44	19.06	20.94	35.00	28.56	14.25	.38x.19	.38x.19	0.88	31.69	43.13	14.25	1.437	1.687	4.00	4.63	215T	286T
30	22.75	21.25	23.31	38.94	31.75	15.50	.50x.25	.50x.25	1.13	40.38	44.44	15.81	1.937	1.937	3.75	4.63	215T	286T
33	25.00	23.31	25.75	43.00	35.06	16.63	.50x.25	.50x.25	1.13	42.50	49.69	17.50	1.937	2.187	3.75	5.25	256T	326T
36	27.75	25.88	28.50	47.44	39.63	18.00	.50x.25	.63x.31	1.13	50.56	51.06	19.25	1.937	2.437	4.75	5.25	286T	326T

DIMENSIONS ARE NOT TO BE USED FOR CONSTRUCTION. CERTIFIED DRAWINGS ARE AVAILABLE UPON REQUEST.

Direct Drive Junior Ventilating Sets

Type VSDDF

Direct drive ventilating sets are ideal in applications where general ventilation or exhaust is required in small areas such as washrooms, restaurant counters, exhaust hoods, etc. Incorporating forward curved blades for maximum capacity, and available with steel, aluminum, or stainless steel construction, they provide optimal performance with minimal physical dimensions. Available in four sizes, direct drive ventilating sets are an economical solution for capacity requirements from 250 to 2100 cfm and static pressures to 1.75".



Belt Driven Junior Ventilating Sets

Type VSBCJ, VSFCJ

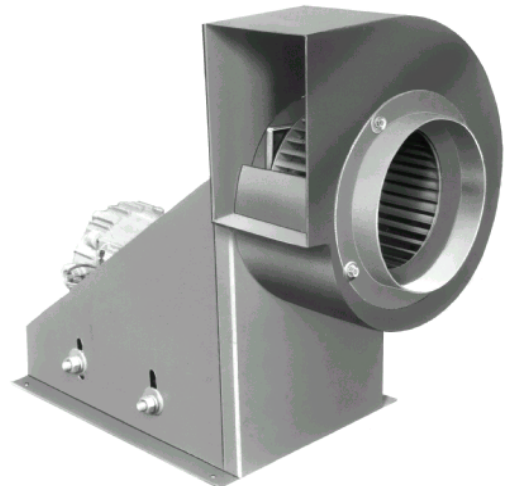
Belt driven ventilating sets are recommended where capacity and static pressure requirements are such that they cannot be met by direct drive sets, and where some variation in capacity may be required because of ductwork adjustments.

Belt driven ventilating sets are offered with both forward curved and backward inclined, non-overloading wheels. Fan housings are of heavy gauge, continuously welded construction and are available constructed of steel, aluminum, or stainless steel. Housings are convertible to eight standard discharge configurations. Adjustable pitch V-belt drives are used so capacity corrections can be readily made when needed. Specialized design of the support base provides easy access for electrical wiring and adjustment of the drives.

Belt driven ventilating sets are available in 3 sizes with capacities from 260 to 1900 cfm and static pressures to 5".

Accessories include:

- Weather cover
- Inlet and/or outlet screens
- Gravity backdraft dampers



American Coolair Corporation certifies that the type VSBCJ fans shown on page 22 are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings program.

For sound performance see Eng. Bulletin 2002-10.



Type VSBCJ is available for listing under UL705, Canadian UL705, and UL762. Check with your local representative.

VSDDF Direct Drive Ventilating Set

MODEL NO.	MOTOR HP	RPM	0.125" SP		0.25" SP		0.375" SP		0.50" SP		0.625" SP		0.75" SP		1" SP	
			CFM	OV	CFM	OV	CFM	OV	CFM	OV	CFM	OV	CFM	OV	CFM	OV
VSDDF6F11	1/6	1150	324	1466	254	1149	-	-	-	-	-	-	-	-	-	-
VSDDF6F17	1/6	1750	545	2466	506	2290	464	2100	421	1905	362	1638	292	1321	-	-
VSDDF7F11	1/6	1150	668	2264	586	1986	516	1749	447	1515	-	-	-	-	-	-
VSDDF7H17	1/3	1750	-	-	-	-	-	-	-	-	872	2963	828	2807	741	2512
VSDDF7J17	1/2	1750	1085	3678	1033	3502	978	3315	923	3129	874	2963	828	2807	741	2512
VSDDF9H11	1/3	1150	-	-	1216	2916	1129	2707	1042	2499	946	2269	802	1923	-	-
VSDDF9J11	1/2	1150	1300	3118	1216	2916	1129	2707	1042	2499	946	2269	802	1923	-	-
VSDDF9M17	1 1/2	1750	2048	4911	1994	4782	1940	4652	1886	4523	1830	4388	1772	4249	1657	3974
VSDDF10L11	1	1150	2127	3648	2036	3492	1945	3336	1855	3182	1766	3029	1681	2883	1484	2545

MODEL NO.	MOTOR HP	RPM	1" SP		1.25" SP		1.5" SP		1.75" SP	
			CFM	OV	CFM	OV	CFM	OV	CFM	OV
VSDDF9L17	1	1750	-	-	1543	3700	1408	3376	1205	2890
VSDDF9M17	1 1/2	1750	1657	3974	1543	3700	1408	3376	1205	2890

Model VSDDF is not licensed to bear the AMCA Seal

VSBCJ9 Belt Driven SWSI Junior Ventilating Set

Wheel Dia. - 10.500" Tip Speed (FPM): 2.75 x RPM Outlet Area - 0.653 ft²

CFM	OV	0.125" SP		0.25" SP		0.50" SP		0.75" SP		1" SP		1.5" SP		2" SP		3" SP		4" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
261	400	829	0.01	970	0.02	1190	0.04												
327	500	964	0.02	1088	0.03	1305	0.05	1470	0.07	1626	0.09								
392	600	1095	0.03	1220	0.04	1409	0.06	1584	0.09	1722	0.12								
457	700	1232	0.04	1352	0.05	1527	0.08	1688	0.11	1836	0.14	2069	0.20						
522	800	1374	0.05	1483	0.07	1659	0.10	1799	0.13	1940	0.17	2184	0.24	2380	0.30				
588	900	1521	0.07	1618	0.09	1794	0.13	1927	0.16	2051	0.20	2295	0.28	2495	0.35	2840	0.50		
653	1000	1668	0.10	1756	0.11	1926	0.16	2059	0.20	2173	0.23	2399	0.32	2608	0.41	2938	0.57	3251	0.75
718	1100	1817	0.12	1898	0.14	2056	0.19	2193	0.23	2304	0.28	2508	0.36	2712	0.46	3052	0.65	3334	0.82
784	1200	1970	0.16	2044	0.18	2190	0.22	2327	0.28	2440	0.32	2631	0.42	2819	0.52	3168	0.73	3444	0.92
849	1300	2121	0.19	2190	0.22	2325	0.27	2457	0.32	2573	0.38	2760	0.48	2932	0.58	3274	0.81	3560	1.03
914	1400	2274	0.24	2338	0.26	2463	0.31	2588	0.37	2705	0.43	2893	0.54	3055	0.65	3377	0.89	3673	1.14
980	1500	2429	0.29	2489	0.32	2606	0.37	2723	0.43	2837	0.49	3029	0.62	3186	0.73	3485	0.98		
1045	1600	2582	0.35	2639	0.38	2749	0.43	2858	0.49	2968	0.56	3162	0.70	3319	0.82	3600	1.07		
1110	1700	2736	0.41	2789	0.44	2894	0.50	2996	0.57	3100	0.64	3294	0.78	3453	0.92				
1175	1800	2890	0.49	2940	0.52	3040	0.58	3137	0.65	3234	0.72	3424	0.87	3587	1.02				
1241	1900	3046	0.57	3094	0.60	3189	0.67	3282	0.74	3373	0.81	3556	0.97						

VSBCJ10 Belt Driven SWSI Junior Ventilating Set

Wheel Dia. - 10.500" Tip Speed (FPM): 2.75 x RPM Outlet Area - 0.653ft²

CFM	OV	0.25" SP		0.50" SP		0.75" SP		1" SP		1.5" SP		2" SP		3" SP		4" SP		5" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
327	500	901	0.02	1151	0.04	1360	0.07												
392	600	980	0.03	1203	0.05	1403	0.08	1579	0.11										
457	700	1063	0.04	1267	0.06	1453	0.09	1623	0.12	1920	0.19								
522	799	1149	0.05	1346	0.08	1512	0.10	1674	0.14	1961	0.21	2214	0.29						
588	900	1239	0.06	1429	0.09	1585	0.12	1732	0.15	2009	0.24	2255	0.32						
653	1000	1330	0.07	1512	0.11	1665	0.14	1800	0.18	2061	0.26	2300	0.35	2720	0.55				
784	1200	1522	0.11	1686	0.14	1831	0.19	1961	0.23	2187	0.32	2405	0.41	2806	0.63	3158	0.87	3477	1.12
914	1400	1721	0.15	1868	0.20	2003	0.24	2126	0.30	2343	0.40	2535	0.49	2907	0.72	3246	0.98	3555	1.25
1045	1600	1927	0.21	2058	0.26	2183	0.31	2298	0.37	2509	0.49	2693	0.60	3025	0.83	3348	1.10	3647	1.40
1175	1799	2135	0.29	2253	0.34	2367	0.40	2476	0.45	2676	0.59	2857	0.72	3169	0.97	3462	1.24		
1306	2000	2347	0.38	2455	0.44	2559	0.50	2661	0.57	2850	0.70	3024	0.85	3331	1.14	3600	1.41		
1437	2200	2562	0.49	2660	0.56	2756	0.63	2850	0.70	3030	0.83	3196	0.99	3496	1.32				
1567	2400	2776	0.62	2867	0.70	2956	0.77	3043	0.85	3213	1.00	3371	1.15	3662	1.51				
1698	2600	2994	0.77	3078	0.86	3160	0.94	3241	1.02	3400	1.18	3553	1.34						
1828	2800	3210	0.95	3289	1.04	3366	1.13	3442	1.22	3591	1.39								
1959	3000	3429	1.15	3503	1.25	3575	1.35	3647	1.44										

Performance is for installation Type B & D: Free or ducted inlet, ducted outlet.
 Power rating (bhp) does not include belt drive losses.
 Performance ratings do not include the effects of appurtenances in the airstream.

Performance Data

VSFCJ7 Belt Driven Junior Ventilating Set

Wheel Dia. - 7.688" Tip Speed (FPM): 2.012 x RPM Outlet Area - 0.325 ft²

CFM	OV	0.125" SP		0.25" SP		0.375" SP		0.50" SP		0.625" SP		0.75" SP		1" SP		1.25" SP		1.5" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
260	800	632	0.02	832	0.03	996	0.05												
292	900	659	0.02	847	0.04	1008	0.05	1148	0.07	1273	0.09								
325	1000	691	0.03	866	0.04	1022	0.06	1159	0.08	1283	0.10	1396	0.12						
357	1100	728	0.03	887	0.05	1037	0.06	1172	0.08	1293	0.11	1405	0.13						
390	1200	769	0.04	912	0.05	1056	0.07	1187	0.09	1306	0.12	1416	0.14	1616	0.19				
422	1300	812	0.05	940	0.06	1075	0.08	1203	0.10	1320	0.13	1428	0.15	1626	0.20	1803	0.25		
455	1400	858	0.05	972	0.07	1099	0.09	1222	0.11	1336	0.14	1443	0.16	1637	0.22	1812	0.27	1973	0.33
487	1500	905	0.07	1008	0.08	1125	0.10	1242	0.13	1354	0.15	1458	0.18	1649	0.23	1823	0.29	1982	0.35
520	1600	954	0.08	1048	0.09	1154	0.11	1265	0.14	1373	0.16	1475	0.19	1663	0.25	1834	0.31	1992	0.37
552	1700	1003	0.09	1088	0.11	1185	0.13	1290	0.15	1393	0.18	1493	0.21	1678	0.26	1847	0.33	2003	0.39
585	1800	1054	0.11	1132	0.12	1222	0.14	1318	0.17	1417	0.19	1513	0.22	1695	0.28	1861	0.35	2015	0.42
617	1900	1104	0.12	1176	0.14	1259	0.16	1348	0.18	1443	0.21	1535	0.24	1713	0.30	1876	0.37	2029	0.44
650	2000	1156	0.14	1223	0.16	1299	0.18	1382	0.20	1470	0.23	1559	0.26	1732	0.33	1893	0.39	2043	0.47
682	2100	1206	0.16	1269	0.18	1340	0.20	1418	0.23	1499	0.25	1585	0.28	1751	0.35	1910	0.42	2058	0.49
715	2200	1259	0.19	1319	0.20	1384	0.22	1457	0.25	1533	0.28	1613	0.31	1774	0.37	1929	0.45	2075	0.52
747	2300	1310	0.21	1367	0.23	1428	0.25	1496	0.27	1568	0.30	1642	0.33	1798	0.40	1948	0.47	2093	0.55
780	2400	1364	0.24	1417	0.26	1474	0.28	1538	0.30	1606	0.33	1675	0.36	1824	0.43	1970	0.50	2112	0.58
812	2500	1415	0.27	1466	0.29	1521	0.31	1580	0.33	1644	0.36	1710	0.39	1851	0.46	1992	0.53	2131	0.62

VSFCJ9 Belt Driven Junior Ventilating Set

Wheel Dia. - 9.188" Tip Speed (FPM): 2.405 x RPM Outlet Area - 0.451 ft²

CFM	OV	0.125" SP		0.25" SP		0.375" SP		0.50" SP		0.625" SP		0.75" SP		1" SP		1.25" SP		1.5" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
361	800	495	0.02	665	0.04	804	0.06	924	0.08	1032	0.10	1132	0.12						
406	900	511	0.03	673	0.04	809	0.06	927	0.08	1033	0.11	1130	0.13	1308	0.18				
451	1000	531	0.03	683	0.05	816	0.07	932	0.09	1036	0.12	1132	0.14	1305	0.20				
496	1100	554	0.04	695	0.06	824	0.08	938	0.10	1041	0.13	1135	0.15	1306	0.21	1460	0.27	1603	0.34
541	1200	579	0.04	710	0.06	834	0.09	946	0.12	1047	0.14	1140	0.17	1308	0.23	1459	0.29	1599	0.35
586	1300	607	0.05	728	0.07	845	0.10	954	0.13	1054	0.15	1146	0.18	1312	0.24	1461	0.31	1599	0.38
631	1400	636	0.06	748	0.08	859	0.11	964	0.14	1062	0.17	1153	0.20	1317	0.26	1465	0.33	1600	0.40
676	1500	666	0.07	770	0.10	875	0.12	976	0.15	1071	0.18	1161	0.22	1323	0.28	1469	0.35	1603	0.42
722	1600	698	0.09	795	0.11	893	0.14	990	0.17	1082	0.20	1170	0.23	1330	0.30	1475	0.38	1608	0.45
767	1700	730	0.10	820	0.12	913	0.15	1005	0.18	1094	0.22	1180	0.25	1338	0.33	1481	0.40	1612	0.48
812	1800	763	0.12	848	0.14	935	0.17	1022	0.20	1108	0.23	1191	0.27	1346	0.35	1487	0.43	1618	0.51
857	1900	796	0.13	876	0.16	958	0.19	1041	0.22	1124	0.26	1204	0.29	1356	0.37	1495	0.46	1624	0.54
902	2000	830	0.15	905	0.18	983	0.21	1062	0.24	1141	0.28	1218	0.32	1366	0.40	1504	0.48	1632	0.57
947	2100	864	0.17	936	0.20	1009	0.23	1085	0.26	1159	0.30	1234	0.34	1378	0.42	1513	0.51	1640	0.61
992	2200	899	0.20	967	0.22	1037	0.25	1108	0.29	1180	0.33	1251	0.37	1391	0.45	1523	0.54	1648	0.64
1037	2300	934	0.22	998	0.25	1065	0.28	1133	0.32	1202	0.36	1270	0.40	1405	0.48	1534	0.58	1658	0.68
1082	2400	969	0.25	1030	0.28	1094	0.31	1159	0.35	1225	0.39	1290	0.43	1421	0.52	1547	0.61	1668	0.71
1127	2500	1004	0.28	1063	0.31	1124	0.34	1186	0.38	1249	0.42	1312	0.46	1437	0.55	1561	0.65	1679	0.75

VSFCJ10 Belt Driven Junior Ventilating Set

Wheel Dia. - 10.625" Tip Speed (FPM): 2.782 x RPM Outlet Area - 0.594 ft²

CFM	OV	0.125" SP		0.25" SP		0.375" SP		0.50" SP		0.625" SP		0.75" SP		1" SP		1.25" SP		1.5" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
475	800	404	0.04	519	0.06	617	0.08												
535	900	425	0.04	533	0.07	627	0.10	710	0.12										
594	1000	447	0.05	548	0.08	638	0.11	719	0.14	794	0.17	863	0.20						
653	1100	472	0.07	566	0.10	652	0.13	730	0.16	802	0.19	870	0.23						
713	1200	498	0.08	585	0.11	667	0.14	743	0.18	813	0.22	878	0.25	999	0.33				
772	1300	524	0.10	606	0.13	684	0.16	757	0.20	825	0.24	889	0.28	1006	0.36	1115	0.44		
832	1400	551	0.12	629	0.15	703	0.19	773	0.23	839	0.27	901	0.31	1016	0.39	1121	0.48	1220	0.57
891	1500	579	0.14	653	0.17	723	0.21	790	0.25	854	0.30	914	0.34	1026	0.43	1129	0.52	1226	0.62
950	1600	607	0.16	678	0.20	744	0.24	808	0.28	870	0.33	928	0.37	1038	0.47	1139	0.56	1233	0.66
1010	1700	636	0.19	704	0.23	767	0.27	828	0.32	887	0.36	944	0.41	1051	0.51	1150	0.61	1243	0.71
1069	1800	665	0.22	731	0.26	791	0.31	849	0.35	906	0.40	961	0.45	1065	0.55	1162	0.66	1253	0.77
1129	1900	695	0.25	758	0.30	816	0.34	872	0.39	926	0.44	979	0.49	1080	0.60	1175	0.71	1264	0.83
1188	2000	725	0.29	785	0.34	841	0.39	895	0.44	947	0.49	998	0.54	1096	0.65	1189	0.77	1277	0.89
1247	2100	754	0.33	813	0.38	867	0.43	919	0.48	969	0.54	1018	0.59	1113	0.71	1204	0.83	1290	0.95
1307	2200	785	0.37	841	0.43	894	0.48	944	0.53	992	0.59	1039	0.64	1132	0.77	1220	0.89	1304	1.02
1366	2300	815	0.42	870	0.48	920	0.53	969	0.59	1016	0.65	1061	0.70	1150	0.82	1237	0.96	1319	1.09
1426	2400	846	0.47	899	0.53	948	0.59	995	0.65	1040	0.71	1084	0.77	1170	0.89	1254	1.02	1335	1.16
1485	2500	876	0.53	928	0.59	975	0.65	1021	0.71	1065	0.77	1108	0.83	1191	0.96	1273	1.10	1351	1.24

Typical Specification

Fans shall be Type VSBC Backward Inclined or Type VSFC Forward Curved Ventilating Sets

PERFORMANCE- Fans shall be tested in accordance with AMCA 211 and AMCA 311 test codes for air moving devices and shall be guaranteed by the manufacturer to deliver rated published performance levels. VSBC fans shall be licensed to bear the AMCA certified ratings seal for both sound and air. VSFC fans shall be licensed to bear the AMCA certified ratings seal for air.

HOUSINGS- Fan housings shall be heavy gauge, continuously welded construction. Housings with lock seams or partially welded construction are not acceptable. Housings shall be suitably braced to prevent vibration or pulsation. Housings shall have tapered spun, aerodynamically designed inlet cones or shrouds providing stable flow and high rigidity. Housings shall be of the rotatable design, convertible to eight standard discharge configurations.

WHEELS- VSBC backward inclined wheels shall be single thickness plate type designed for maximum efficiency and quiet operation and shall be of the non-overloading type. Class I wheels, sizes 12 through 27, shall be constructed of aluminum with the blades riveted and welded to the spun wheel cone and backplate. Class I wheels, sizes 30 through 36, and all Class II wheels shall be constructed of heavy gauge steel with welded (not riveted) blades.

VSFC forward curved wheels shall be constructed of heavy gauge steel and solidly riveted to a steel shroud and backplate.

All wheels shall be statically and dynamically balanced.

SHAFT- Shafts shall be AISI 1040 or 1045 hot rolled steel, accurately turned, ground, polished, and ring gauged for accuracy. Shafts shall be sized for the first critical speed of at least 1.43 times the maximum speed.

BEARINGS- Bearings shall be heavy duty, grease lubricated, anti-friction ball, self-aligning, pillow block type and selected for a minimum average bearing life (AFBMA L-50) in excess of 200,000 hours at the maximum fan RPM.

DRIVE- Motor sheaves shall be cast iron, and supplied as either variable pitch or fixed pitch. Drives and belts shall be rated for a minimum of 120% of the required HP.

FINISH AND COATING- The entire fan assembly, excluding the shaft, shall be thoroughly degreased and deburred before application of a rust-preventative primer. After the fan is completely assembled, a finish coat of paint shall be applied to the entire assembly. The fan shaft shall be coated with a petroleum-based rust protectant. Aluminum components shall be unpainted.

ACCESSORIES- When specified, accessories such as belt guards, weather covers, access doors, outlet shutters, inlet screens, etc., shall be provided by American Coolair Corporation to maintain one source responsibility.

UL705 (OPTIONAL)- VSBC fans shall be listed under UL 705 for power ventilators. VSBC fans shall include a UL listed motor, V-belt drive, special weather cover with additional cooling louvers, and UL705 label. Disconnect switches or other devices (not including motor) shall be field mounted and wired in accordance with all local and national codes.

UL762 (OPTIONAL)- VSBC fans shall be listed under UL 762 for power ventilators used in restaurant exhaust service (grease laden air). VSBC fans shall include a UL listed motor, V-belt drive, special weather cover with additional cooling louvers, bolted access door, drain connection, wheel backplate fins, and UL label. VSBC fans shall be upblast or top angular up discharge and shall have a discharge height of at least 40" above the roof line. They are to be installed in accordance with NFBA 96. Disconnect switches or other devices (not including motor) shall be field mounted and wired in accordance with all local and national codes.

Limited Warranty

In the sale of its products, American Coolair Corporation agrees to correct, by repairs or replacement, any defects in workmanship or material that develop under proper and normal use during the period of one year from date of shipment from factory. Any product or part proving, upon American Coolair's examination, to be defective during limited warranty period will be repaired or replaced, at American Coolair's option, f.o.b. factory, at no charge.

Deterioration or wear caused by chemicals, abrasive action or excessive heat shall not constitute defect.

Motors are guaranteed only to the extent of manufacturer's warranty.

American Coolair's limited warranty does not apply to any of its products or parts that have been subject to accidental damage, misuse by the user, unauthorized modifications, improper installation or electrical wiring, or lack of proper lubrication or other service requirements established by American Coolair.

Repairs or replacements provided under the above terms shall constitute fulfillment of all American Coolair's obligations with respect to limited warranty.

THE LIMITED WARRANTY STATED HEREIN IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, STATUTORY OR IMPLIED, INCLUDING WITHOUT LIMITATION THAT OF MERCHANTABILITY AND FITNESS.

NO LIABILITY FOR REINSTALLATION COST OR FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OF ANY NATURE IS ASSUMED OR SHALL BE IMPOSED UPON AMERICAN COOLAIR.

AMERICAN COOLAIR CORPORATION; ILG INDUSTRIES

P.O. BOX 2300 ~ Jacksonville, Florida 32203

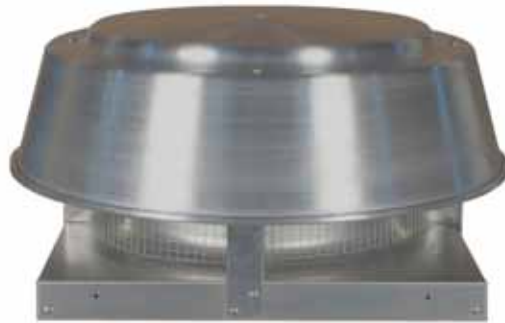
Phone: (904) 389-3646

Fax: (904) 387-3449 or (904) 381-7560

E-mail: info@coolair.com

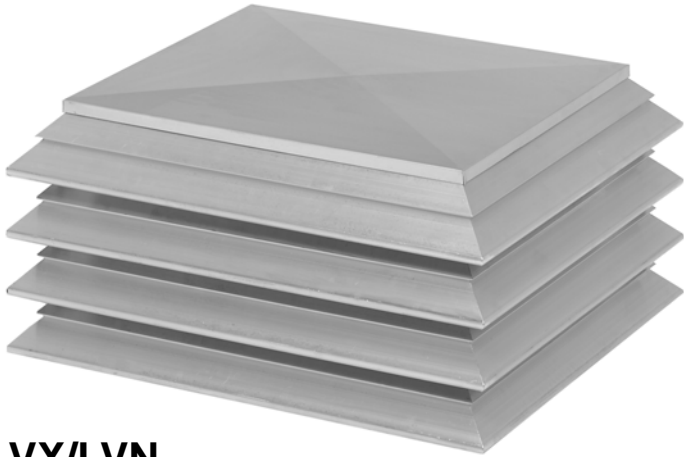
REPRESENTED BY:

Gravity Ventilators & Rooftop Equipment Enclosures



Type LVN/LVX – Louverline Penthouses & Ventilators
Type TEV/TIV – Trimline Hooded Ventilators
Type ARVE – Spun Aluminum Ventilators

Gravity Ventilator Models



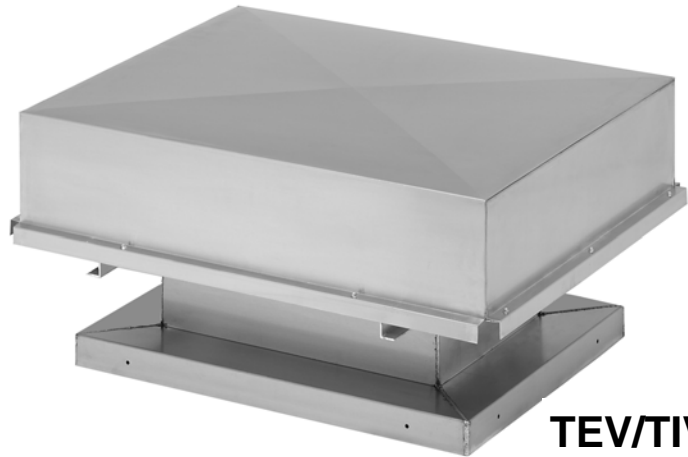
LVX/LVN
Pages 3 - 6

Louverline Models LVX/LVN Penthouses & Ventilators

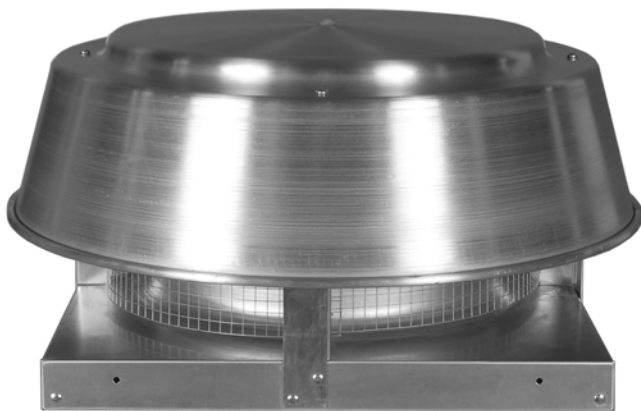
- The louvered look — a favorite selection for modern architectural eye appeal
- **PENTHOUSES** to dress up and beautify roof tops by enclosing unattractive mounted equipment viewed from higher floors and taller buildings
- **VENTILATORS** for exhaust relief and fresh air intake applications — capacities up to 103,900 CFM

Trimline Models TEV/TIV Hoods & Ventilators

- Modernistic low silhouette style to blend in with roof top lines and equipment
- Designed with improved aerodynamically shaped airflow passages
- For exhaust relief and fresh air intake applications — capacities up to 76,800 CFM



TEV/TIV
Pages 7 - 9



ARVE
Pages 10 & 11

Spun Aluminum ARVE Gravity Ventilators

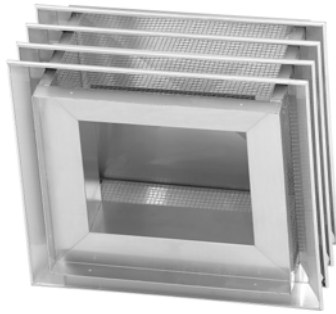
- A low silhouette relief vent that is compatible with modern architectural lines
- Contoured spun aluminum hood to match ILG Industries power roof ventilators
- For exhaust relief and fresh air intake applications — capacities up to 12,000 CFM.

LOUVERLINE Penthouses and Ventilators

The Louverline's aerodynamically designed extruded louvers offer pleasant low silhouette lines that blend with modernistic roof designs. When used as a penthouse to enclose or hide roof mounted equipment, the vertical and storm baffle is omitted.

CONSTRUCTION

- Extruded aluminum louvers are .081" thick, precision mitered at corners and welded for maximum strength.
- Large sizes are cross braced internally for extra rigidity and resistance to wind damage.
- Curb base is constructed of .080" aluminum. All mitered corners and seams are continuous welded for strength and water tightness.
- Removable hood is .050" thick aluminum, cross broke and reinforced as needed.



BIRD SCREEN

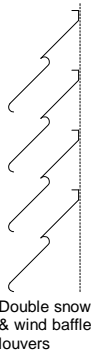
All ventilators and penthouses are equipped with 1/2" x 1/2" mesh galvanized welded wire, attached to inside perimeter of louvered opening. Screens are standard, but are omitted on ventilators when equipped with filters.

PERFORMANCE

Louverline models feature aerodynamically designed extruded louvers and generous air flow areas for efficient performance. They are louvered on all four sides for full 360° perimeter opening and multiple tiers for high air flow capacities.

WEATHER PROTECTION

- Curb base has a vertical snow and storm baffle extension surrounding throat opening to serve as an additional guard against storm driven snow and rain.
- Extruded louvers have a double water and snow baffle for added weather protection.
- Louvered ventilators are reasonably weather tight, however, they are not recommended for use where airborne water droplets from storms or high winds may damage the interior of the building.



EXHAUST — RELIEF Model LVX

Exhaust ventilators are designed for a maximum air velocity of 1000 feet per minute (FPM) through the louvered openings and a maximum of 1200 FPM through the throat.

The tables on Pages 4 and 5 show:

1. Throat size of each ventilator.
2. CFM air flow capacity.
3. Corresponding static encountered with the air flow.
4. Number of louvered tiers required.

FRESH AIR INTAKE Model LVN

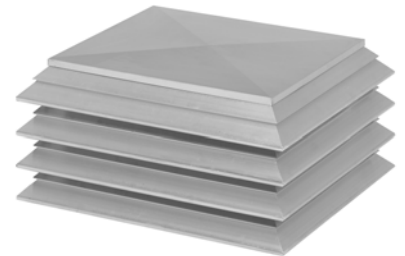
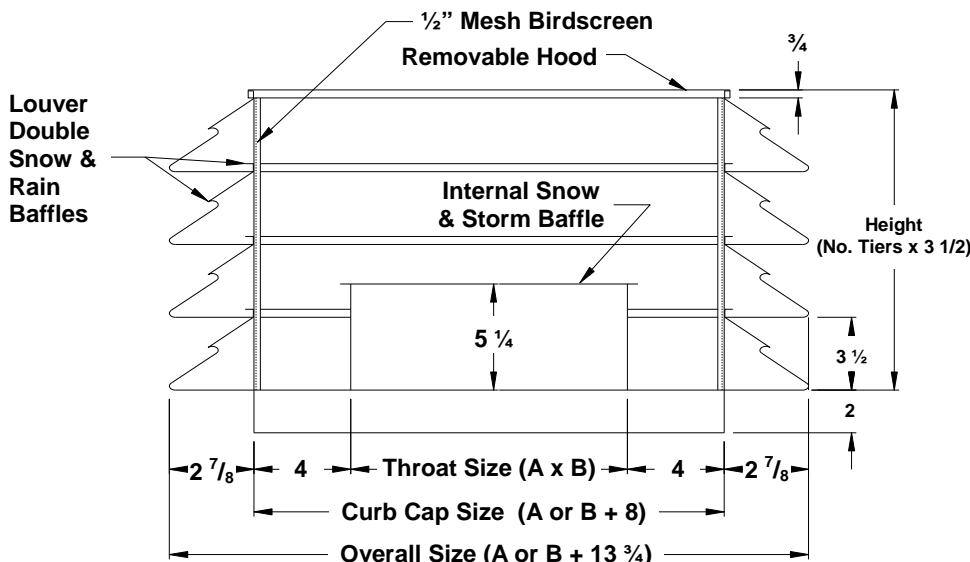
Air intake ventilators are designed for a maximum inlet velocity through the louver opening of 600 feet per minute (FPM) to reduce entrainment of rain or snow to a minimum. The maximum throat velocity is 1200 FPM.

The table on Page 6 shows:

1. Throat size of each ventilator.
2. CFM air flow capacity.
3. Corresponding static encountered with the air flow.
4. Number of louvered tiers required.

Special Sizes

In addition to the ventilators listed in the following tables, custom sized units are available upon request to meet other size or ventilation requirements. Contact your American Coolair representative or visit www.americancoolair.com for the complete line of available sizes and aerodynamic performances for the Louverline ventilators.



THROAT SIZE = A & B
(listed as "Throat Size" in tables)

CURB CAP SIZE = A or B plus 8"

OVERALL SIZE = A or B plus 13 3/4"

HEIGHT = 3 1/2" times No. Tiers

Model LVX Exhaust Louver Ventilators

Max exhaust velocity: 1000 FPM through Louvers — 1200 FPM through Throat

Throat Size	CFM	Ps	No. Tiers	Throat Size	CFM	Ps	No. Tiers	Throat Size	CFM	Ps	No. Tiers	Throat Size	CFM	Ps	No. Tiers
12				16x28	3,720	0.22	3	20x80	13,310	0.20	6	32x72	19,200	0.21	8
12x12	1,480	0.22	2	16x32	4,270	0.16	4	20x84	13,900	0.20	6	32x76	20,070	0.21	8
12x14	1,560	0.19	2	16x36	4,800	0.17	4	20x88	14,560	0.20	6	32x80	21,240	0.22	8
12x16	1,630	0.19	2	16x40	5,360	0.19	4	20x92	15,100	0.21	6	32x84	22,400	0.19	9
12x18	1,710	0.19	2	16x44	5,820	0.19	4	20x96	15,990	0.21	6	32x88	23,470	0.19	9
12x20	1,980	0.22	2	16x48	6,290	0.22	4	24				32x92	24,410	0.20	9
12x22	2,060	0.22	2	16x52	6,920	0.22	4	24x24	4,800	0.19	4	32x96	25,600	0.20	9
12x24	2,440	0.15	3	16x56	7,380	0.22	4	24x28	5,600	0.22	4	32x100	26,610	0.21	9
12x28	2,790	0.16	3	16x60	8,010	0.17	5	24x32	6,390	0.18	5	32x104	27,700	0.21	9
12x32	3,200	0.17	3	16x64	8,400	0.17	5	24x36	7,000	0.19	5	32x106	28,800	0.22	9
12x36	3,610	0.19	3	16x68	9,050	0.18	5	24x40	7,810	0.21	5	36			
12x40	3,950	0.19	3	16x72	9,500	0.18	5	24x44	8,680	0.22	5	36x36	10,940	0.22	6
12x44	4,400	0.21	3	16x76	10,100	0.19	5	24x48	9,550	0.18	6	36x40	12,000	0.19	7
12x48	4,750	0.22	3	16x80	10,610	0.19	5	24x52	10,200	0.18	6	36x44	13,080	0.20	7
12x52	4,990	0.22	3	16x84	11,080	0.19	5	24x56	11,010	0.19	6	36x48	14,300	0.21	7
12x56	5,400	0.16	4	16x88	11,700	0.20	5	24x60	11,900	0.20	6	36x52	15,520	0.22	7
12x60	6,000	0.17	4	16x92	12,210	0.20	5	24x64	12,800	0.21	6	36x56	16,750	0.18	8
12x64	6,320	0.17	4	16x96	12,790	0.21	5	24x68	13,450	0.22	6	36x60	17,970	0.19	8
12x68	6,800	0.18	4	18				24x72	14,360	0.18	7	36x64	19,200	0.22	8
12x72	7,200	0.19	4	18x18	2,700	0.19	3	24x76	15,140	0.19	7	36x68	20,220	0.22	8
12x76	7,460	0.18	4	18x20	2,920	0.18	3	24x80	15,910	0.19	7	36x72	21,540	0.19	9
12x80	7,900	0.19	4	18x22	3,280	0.20	3	24x84	16,800	0.21	7	36x76	22,700	0.20	9
12x84	8,400	0.19	4	18x24	3,590	0.22	3	24x88	17,600	0.20	7	36x80	23,880	0.21	9
12x88	8,780	0.19	4	18x28	3,900	0.22	3	24x92	18,290	0.20	7	36x84	25,200	0.22	9
12x92	9,170	0.19	4	18x32	4,330	0.16	4	24x96	19,200	0.21	7	36x88	26,560	0.22	9
12x96	9,580	0.20	4	18x36	5,200	0.19	4	28				36x92	27,550	0.19	10
14				18x40	5,800	0.20	4	28x28	6,000	0.20	4	36x96	28,800	0.20	10
14x14	1,630	0.19	2	18x44	6,500	0.22	4	28x32	7,460	0.20	5	36x100	30,200	0.20	10
14x16	1,870	0.21	2	18x48	7,130	0.17	5	28x36	8,330	0.22	5	36x104	31,100	0.21	10
14x18	2,000	0.21	2	18x52	7,800	0.18	5	28x40	9,300	0.18	6	36x108	32,300	0.21	10
14x20	2,140	0.19	2	18x56	8,330	0.19	5	28x44	10,170	0.19	6	36x112	33,510	0.22	10
14x22	2,560	0.15	3	18x60	8,910	0.20	5	28x48	11,090	0.21	6	40			
14x24	2,800	0.17	3	18x64	9,550	0.21	5	28x52	12,030	0.22	6	40x40	13,300	0.20	7
14x28	3,260	0.19	3	18x68	10,200	0.21	5	28x56	13,020	0.19	7	40x44	14,610	0.22	7
14x30	3,710	0.20	3	18x72	10,740	0.21	5	28x60	13,940	0.20	7	40x48	15,900	0.17	8
14x36	4,100	0.22	3	18x76	11,200	0.18	5	28x64	14,830	0.20	7	40x52	17,320	0.21	8
14x40	4,600	0.15	4	18x80	11,860	0.22	5	28x68	15,510	0.21	7	40x56	18,610	0.22	8
14x44	5,120	0.17	4	18x84	12,520	0.17	6	28x72	16,600	0.22	7	40x60	20,150	0.17	9
14x48	5,600	0.17	4	18x88	13,000	0.18	6	28x76	17,540	0.22	7	40x64	21,340	0.20	9
14x52	6,090	0.18	4	18x92	13,720	0.18	6	28x80	18,610	0.19	8	40x68	22,600	0.21	9
14x56	6,510	0.19	4	18x96	14,400	0.19	6	28x84	19,490	0.19	8	40x72	24,110	0.20	10
14x60	6,990	0.19	4	20				28x88	20,530	0.20	8	40x76	25,300	0.20	10
14x64	7,420	0.20	4	20x20	3,340	0.20	3	28x92	21,470	0.20	8	40x80	26,660	0.21	10
14x68	7,850	0.19	4	20x24	3,720	0.22	3	28x96	22,400	0.20	8	40x84	28,000	0.21	10
14x72	8,390	0.21	4	20x28	4,360	0.17	4	28x100	23,320	0.21	8	40x88	29,270	0.22	10
14x76	8,860	0.22	4	20x32	5,210	0.20	4	28x104	24,180	0.21	8	40x92	30,650	0.22	10
14x80	9,150	0.22	4	20x36	5,880	0.21	4	32				40x96	32,000	0.22	10
14x84	9,810	0.17	5	20x40	6,610	0.18	5	32x32	8,300	0.20	5	40x100	33,330	0.19	11
14x88	10,200	0.17	5	20x44	7,330	0.19	5	32x36	9,440	0.19	6	40x104	34,600	0.20	11
14x92	10,720	0.17	5	20x48	7,980	0.19	5	32x40	10,600	0.21	6	40x108	36,100	0.21	11
14x96	11,200	0.18	5	20x52	8,610	0.20	5	32x44	11,710	0.18	7	40x112	37,310	0.22	11
16				20x56	9,300	0.21	5	32x48	12,800	0.19	7	44			
16x16	1,980	0.22	2	20x60	9,990	0.22	5	32x52	13,770	0.20	7	44x44	16,130	0.19	8
16x18	2,400	0.15	3	20x64	10,660	0.17	6	32x56	14,820	0.21	7	44x48	17,600	0.21	8
16x20	2,660	0.17	3	20x68	11,300	0.18	6	32x60	15,990	0.18	8	44x52	19,000	0.22	8
16x22	2,890	0.18	3	20x72	11,950	0.19	6	32x64	17,060	0.19	8	44x56	20,540	0.21	9
16x24	3,200	0.19	3	20x76	12,500	0.20	6	32x68	18,080	0.20	8	44x60	22,000	0.21	9

Throat Size	CFM	Ps	No. Tiers	Throat Size	CFM	Ps	No. Tiers	Throat Size	CFM	Ps	No. Tiers	Throat Size	CFM	Ps	No. Tiers
44x64	23,400	0.22	9	52x108	46,800	0.22	13	64x108	57,600	0.21	15	80x100	66,600	0.21	17
44x68	24,880	0.20	10	52x112	48,480	0.22	13	64x112	59,850	0.22	15	80x104	69,300	0.21	17
44x72	26,400	0.21	10	52x120	52,060	0.20	14	64x120	64,100	0.20	16	80x108	71,860	0.22	17
44x76	27,800	0.21	10	56				68				80x112	74,720	0.22	17
44x80	29,350	0.22	10	56x56	26,100	0.21	10	68x68	37,880	0.22	12	80x120	80,650	0.22	18
44x84	30,800	0.20	11	56x60	28,000	0.21	11	68x72	40,800	0.21	13	84			
44x88	32,280	0.21	11	56x64	29,920	0.19	11	68x76	43,150	0.22	13	84x84	59,640	0.21	16
44x92	33,700	0.21	11	56x68	31,700	0.20	11	68x80	45,280	0.20	14	84x88	63,300	0.22	16
44x96	35,100	0.21	11	56x72	33,600	0.22	12	68x84	47,660	0.21	14	84x92	64,800	0.20	17
44x100	36,680	0.22	11	56x76	35,900	0.19	12	68x88	44,800	0.22	14	84x96	67,200	0.20	17
44x104	38,140	0.19	12	56x80	37,300	0.21	12	68x92	52,130	0.20	15	84x100	70,100	0.22	17
44x108	39,600	0.20	12	56x84	39,210	0.22	12	68x96	55,100	0.22	15	84x104	72,800	0.22	17
44x112	41,060	0.20	12	56x88	41,080	0.20	13	68x100	56,500	0.22	15	84x108	75,500	0.20	18
44x120	44,000	0.21	12	56x92	43,200	0.21	13	68x104	58,900	0.22	15	84x112	78,400	0.22	18
48				56x96	44,890	0.22	13	68x108	61,200	0.20	16	84x120	84,400	0.22	19
48x48	18,580	0.21	8	56x100	46,880	0.22	13	68x112	63,540	0.21	16	88			
48x52	20,800	0.21	9	56x104	48,500	0.20	14	68x120	68,000	0.22	16	88x88	64,600	0.22	16
48x56	22,420	0.22	9	56x108	50,460	0.20	14	72				88x92	67,500	0.21	17
48x60	23,960	0.19	10	56x112	52,480	0.21	14	72x72	43,500	0.22	13	88x96	70,400	0.22	17
48x64	25,590	0.20	10	56x120	56,140	0.22	14	72x76	45,600	0.20	14	88x100	73,100	0.22	17
48x68	27,270	0.22	10	60				72x80	48,000	0.21	14	88x104	76,300	0.22	18
48x72	28,780	0.19	11	60x60	30,000	0.21	11	72x84	50,040	0.22	14	88x108	80,520	0.22	18
48x76	30,400	0.20	11	60x64	31,800	0.22	11	72x88	52,900	0.21	15	88x112	82,100	0.21	19
48x80	32,080	0.21	11	60x68	34,080	0.20	12	72x92	54,450	0.21	15	88x120	88,100	0.22	19
48x84	33,600	0.22	11	60x72	36,100	0.21	12	72x96	57,800	0.22	15	92			
48x88	35,210	0.19	12	60x76	38,000	0.22	12	72x100	60,200	0.21	16	92x92	69,800	0.22	17
48x92	36,970	0.20	12	60x80	40,040	0.20	13	72x104	62,400	0.21	16	92x96	73,000	0.22	17
48x96	38,400	0.21	12	60x84	42,100	0.21	13	72x108	64,960	0.22	16	92x100	76,600	0.22	18
48x100	40,000	0.21	12	60x88	43,960	0.22	13	72x112	67,200	0.20	17	92x104	79,730	0.22	18
48x104	41,800	0.22	12	60x92	46,060	0.22	13	72x120	72,000	0.21	17	92x108	83,000	0.21	19
48x108	43,280	0.22	12	60x96	48,000	0.20	14	76				92x112	85,880	0.22	19
48x112	44,700	0.20	13	60x100	50,120	0.21	14	76x76	48,160	0.21	14	92x120	91,900	0.20	20
48x120	48,100	0.21	13	60x104	51,980	0.22	14	76x80	50,660	0.22	14	96			
52				60x108	54,140	0.22	14	76x84	52,820	0.21	15	96x96	76,800	0.21	18
52x52	22,410	0.22	9	60x112	56,100	0.20	15	76x88	55,800	0.22	15	96x100	80,000	0.22	18
52x56	24,300	0.20	10	60x120	60,300	0.20	15	76x92	58,340	0.22	15	96x104	83,100	0.21	19
52x60	26,100	0.21	10	64				76x96	60,800	0.21	16	96x108	86,500	0.22	19
52x64	27,700	0.22	10	64x64	33,000	0.22	11	76x100	63,200	0.22	16	96x112	89,600	0.22	19
52x68	29,400	0.20	11	64x68	36,300	0.21	12	76x104	65,950	0.20	16	96x120	96,200	0.22	20
52x72	31,390	0.21	11	64x72	38,400	0.22	12	76x108	68,400	0.21	17	100			
52x76	32,760	0.22	11	64x76	40,600	0.21	13	76x112	71,000	0.21	17	100x100	83,320	0.21	19
52x80	34,780	0.20	12	64x80	42,700	0.21	13	76x120	72,000	0.22	17	100x104	86,600	0.22	19
52x84	36,420	0.20	12	64x84	44,800	0.22	13	80				100x112	93,300	0.21	20
52x88	38,100	0.21	12	64x88	47,160	0.20	14	80x80	52,660	0.20	15	100x120	100,200	0.21	21
52x92	39,920	0.22	12	64x92	49,200	0.21	14	80x84	56,200	0.22	15	104			
52x96	41,600	0.22	12	64x96	51,200	0.22	14	80x88	58,600	0.20	16	104x104	90,100	0.20	20
52x100	43,300	0.20	13	64x100	53,300	0.20	15	80x92	61,330	0.21	16	104x112	97,070	0.22	20
52x104	45,100	0.21	13	64x104	55,500	0.21	15	80x96	64,150	0.22	16	104x120	103,900	0.22	21

When an application specifies a CFM capacity for a listed ventilator that is different from that shown for that ventilator in the tables, the new static pressure (Ps₂) for the specified CFM is readily determined by applying the equation:

$$Ps_2 = Ps_1(CFM_2/CFM_1)^2$$

The CFM₁ and Ps₁ are shown in the preceding tables while CFM₂ is the specified air flow capacity and Ps₂ is the static pressure to be determined.

Example: Model LVX 28x32 Exhaust Ventilator

CFM₁ is 7,460 and Ps₁ is 0.20"

The specified CFM₂ is 8,000

$$Ps_2 = 0.20(8,000/7,460)^2 = 0.20(1.072)^2 = 0.20 \times 1.15 = 0.23"$$

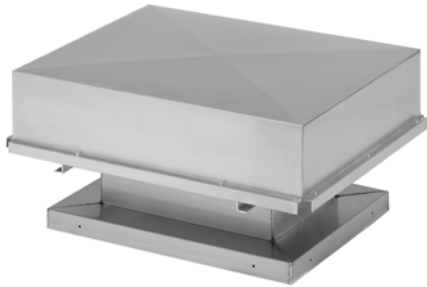
Model LVN Intake Louver Vent Performance

Max inlet velocity: 600 FPM through Louvers — 1200 FPM through Throat

Throat Size	CFM	Ps	No. Tiers	Throat Size	CFM	Ps	No. Tiers	Throat Size	CFM	Ps	No. Tiers	Throat Size	CFM	Ps	No. Tiers
12				16x72	9,070	0.15	7	28x32	7,550	0.18	8	40x104	33,900	0.17	17
12x12	1,480	0.20	3	16x80	9,760	0.14	7	28x36	7,960	0.15	8	40x112	37,700	0.19	18
12x14	1,560	0.20	3	16x88	10,470	0.13	7	28x40	8,360	0.14	8	44			
12x16	1,630	0.19	3	16x96	12,760	0.18	8	28x44	9,840	0.17	9	44x44	15,530	0.15	12
12x18	1,710	0.15	3	18				28x48	10,300	0.15	9	44x48	17,470	0.18	13
12x20	1,780	0.14	3	18x18	2,580	0.16	4	28x52	10,750	0.14	9	44x52	18,120	0.15	13
12x24	2,580	0.18	4	18x20	2,680	0.14	4	28x56	12,450	0.16	10	44x56	20,220	0.18	14
12x28	2,790	0.18	4	18x24	3,600	0.18	5	28x60	12,960	0.14	10	44x60	20,920	0.16	14
12x32	2,990	0.15	4	18x28	3,850	0.15	5	28x64	13,470	0.14	10	44x64	23,160	0.18	15
12x36	3,180	0.14	4	18x32	4,100	0.12	5	28x72	15,890	0.15	11	44x72	26,300	0.18	16
12x40	3,380	0.13	4	18x36	5,210	0.16	6	28x80	18,530	0.18	12	44x80	29,650	0.19	17
12x44	4,470	0.18	5	18x40	5,520	0.14	6	28x88	19,730	0.16	12	44x88	31,350	0.17	17
12x48	4,720	0.17	5	18x44	5,830	0.14	6	28x96	22,670	0.19	13	44x96	34,990	0.18	18
12x52	4,970	0.14	5	18x48	7,130	0.18	7	28x104	23,980	0.17	13	44x104	36,790	0.16	18
12x56	5,220	0.14	5	18x52	7,480	0.16	7	32				44x112	40,740	0.18	19
12x60	5,470	0.13	5	18x56	7,840	0.14	7	32x32	7,950	0.15	8	44x120	42,640	0.16	19
12x64	5,730	0.13	5	18x60	8,190	0.14	7	32x36	9,400	0.17	9	48			
12x72	6,220	0.13	5	18x64	8,540	0.13	7	32x40	9,850	0.14	9	48x48	18,120	0.15	13
12x80	8,070	0.18	6	18x72	10,550	0.17	8	32x44	11,440	0.17	10	48x52	20,220	0.17	14
12x88	8,680	0.17	6	18x80	11,360	0.15	8	32x48	11,950	0.14	10	48x56	22,410	0.17	15
12x96	9,290	0.16	6	18x88	12,180	0.14	8	32x52	13,680	0.17	11	48x60	23,160	0.16	15
14				18x96	14,570	0.20	9	32x56	14,230	0.15	11	48x64	25,500	0.18	16
14x14	1,530	0.18	3	20				32x60	16,130	0.18	12	48x72	27,100	0.14	16
14x16	1,710	0.14	3	20x20	2,780	0.12	4	32x64	16,730	0.17	12	48x80	30,500	0.15	17
14x18	1,780	0.13	3	20x24	3,720	0.14	5	32x72	19,430	0.19	13	48x88	34,090	0.17	18
14x20	1,860	0.11	3	20x28	3,970	0.12	5	32x80	20,720	0.17	13	48x96	37,890	0.17	19
14x24	2,690	0.16	4	20x32	5,060	0.16	6	32x88	23,710	0.19	14	48x104	41,880	0.18	20
14x28	2,900	0.13	4	20x36	5,370	0.14	6	32x96	25,120	0.17	14	48x112	43,900	0.17	20
14x32	3,850	0.19	5	20x40	6,610	0.17	7	32x104	26,530	0.16	14	48x120	48,170	0.18	21
14x36	4,100	0.16	5	20x44	6,960	0.15	7	32x112	29,910	0.17	15	52			
14x40	4,350	0.14	5	20x48	7,320	0.14	7	36				52x52	22,410	0.18	15
14x44	4,600	0.14	5	20x52	7,670	0.13	7	36x36	10,940	0.18	10	52x56	23,160	0.18	15
14x48	4,860	0.13	5	20x56	9,150	0.17	8	36x40	11,440	0.16	10	52x60	25,500	0.17	16
14x52	6,110	0.19	6	20x60	9,560	0.16	8	36x44	13,130	0.18	11	52x64	27,950	0.17	16
14x56	6,420	0.18	6	20x64	9,970	0.14	8	36x48	13,680	0.15	11	52x72	31,400	0.18	18
14x60	6,710	0.16	6	20x72	12,070	0.19	9	36x52	15,530	0.18	12	52x80	35,040	0.19	19
14x64	7,020	0.15	6	20x80	13,000	0.17	9	36x56	16,130	0.18	12	52x88	36,940	0.16	19
14x72	7,610	0.14	6	20x88	13,910	0.15	9	36x60	18,120	0.18	13	52x96	40,880	0.17	20
14x78	7,920	0.14	6	20x96	14,810	0.14	9	36x64	18,770	0.17	13	52x104	45,020	0.18	21
14x80	8,210	0.14	6	24				36x72	21,620	0.18	14	52x112	47,140	0.17	21
14x88	10,280	0.18	7	24x24	4,760	0.18	6	36x80	23,020	0.16	14	56			
14x96	10,990	0.17	7	24x28	5,060	0.14	6	36x88	26,160	0.18	15	56x56	25,500	0.17	16
16				24x32	6,260	0.17	7	36x96	27,660	0.16	15	56x60	27,950	0.18	17
16x16	1,780	0.13	3	24x36	6,610	0.15	7	36x104	31,100	0.18	16	56x64	28,800	0.16	17
16x18	2,470	0.19	4	24x40	7,950	0.18	8	36x112	32,710	0.17	16	56x72	32,300	0.16	18
16x20	2,580	0.17	4	24x44	8,360	0.15	8	40				56x80	35,990	0.16	19
16x24	2,780	0.13	4	24x48	9,850	0.18	9	40x40	11,940	0.17	10	56x88	40,010	0.16	20
16x28	3,720	0.18	5	24x52	10,300	0.17	9	40x44	13,680	0.14	11	56x96	43,970	0.17	21
16x32	3,980	0.14	5	24x56	10,750	0.17	9	40x48	15,530	0.17	12	60			
16x36	4,230	0.13	5	24x60	11,210	0.16	9	40x52	16,130	0.14	12	60x60	30,000	0.17	18
16x40	5,360	0.18	6	24x64	12,940	0.19	10	40x56	18,120	0.17	13	60x64	31,400	0.17	18
16x44	5,670	0.16	6	24x72	13,960	0.18	10	40x60	20,220	0.19	14	60x72	34,040	0.17	19
16x48	5,980	0.14	6	24x80	14,950	0.13	10	40x64	20,920	0.17	14	60x80	38,890	0.17	20
16x52	6,290	0.14	6	24x88	17,530	0.18	11	40x72	23,910	0.18	15	64			
16x56	6,600	0.13	6	24x96	18,640	0.16	11	40x80	25,410	0.16	15	64x64	34,090	0.18	19
16x60	8,010	0.18	7	28				40x88	28,710	0.17	16	64x72	37,880	0.18	20
16x64	8,360	0.17	7	28x28	6,260	0.16	7	40x96	32,200	0.18	17	64x80	41,870	0.17	21

TRIMLINE Hooded Ventilators

The Trimline's low silhouette style blends aesthetically with modern roof top lines and equipment. The Trimline hoods are designed with aerodynamically shaped air flow passages for improved performance.



CONSTRUCTION

- Curb base constructed of .080" aluminum. All corners are miter cut. All seams and corners are continuous welded for strength and water tightness.
- The hood is reinforced and braced for extra rigidity and resistance to wind damage, utilizing channels and structural angles throughout.
- The hood is constructed of .050" aluminum and assembled with standing seams and snap lock seams that are secured with spot welds. No screws or rivets to break or work loose.

BIRD SCREEN

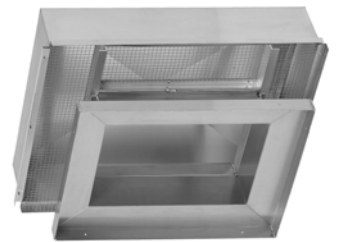
All hoods are equipped with ½" x ½" mesh galvanized welded wire as standard equipment. Screens are attached to the full hood perimeter opening with stainless steel or zinc plated fasteners. Screens are standard, but are omitted on ventilators when equipped with filters.

PERFORMANCE

The full 360° perimeter hood opening utilizes total wind action from any direction for more reliable air flow performance. Generously sized throat and hood perimeter openings provide low resistance and more efficient air flow.

WEATHER PROTECTION

- All curb base seams and corners are continuous welded for water tightness.
- Hoods have a special deflector flange on the edge of the perimeter opening for added protection against rain and snow, and a wide overhang for storm protection.



Special Sizes

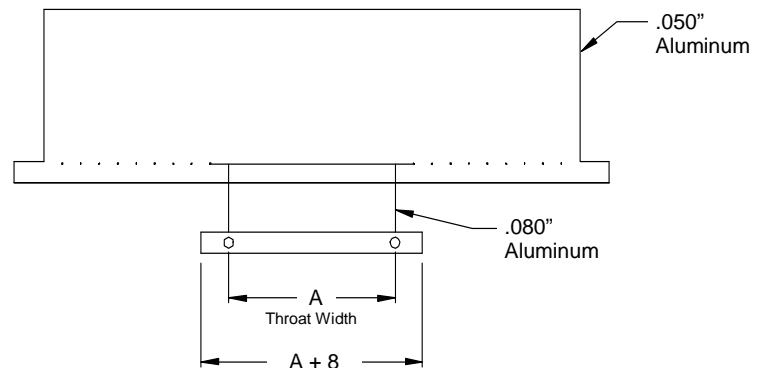
In addition to the ventilators listed in the following tables, custom sized units are available upon request to meet other size or ventilation requirements. Contact your American Coolair representative or visit www.americancoolair.com for the complete line of available sizes and aerodynamic performances for the Trimline ventilators.

EXHAUST — RELIEF Model TEV

Exhaust ventilators have a 1:1 ratio of hood perimeter opening to throat area. Maximum design air velocity through the hood and throat openings is 1200 FPM.

The table on Page 8 shows:

1. Throat size (width and length).
2. CFM air flow capacity.
3. Static pressure corresponding with the air flow.

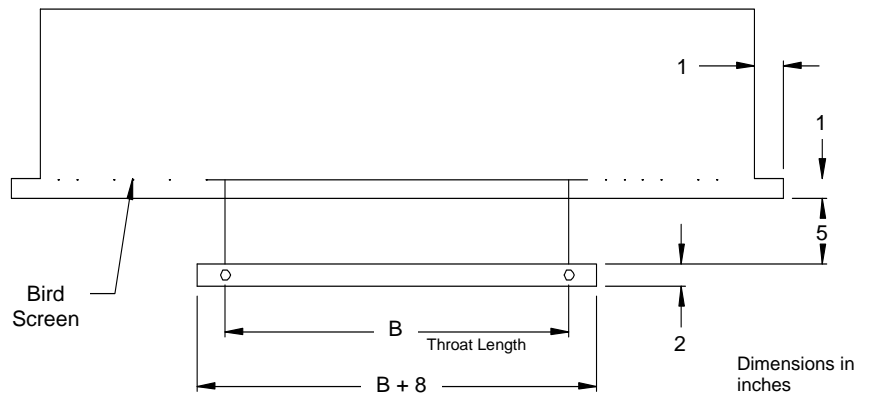


FRESH AIR INTAKE Model TIV

Air intake ventilators have a 2:1 ratio of hood perimeter opening to throat area. Maximum design air velocity through the hood opening is 600 FPM to reduce entrainment of rain or snow to a minimum. The maximum throat velocity is 1200 FPM.

The table on Page 9 shows:

1. Throat size (width and length).
2. CFM air flow capacity.
3. Static pressure corresponding with the air flow.



Model TEV Exhaust Relief Vent Performance

Max exhaust velocity: 1000 FPM through Hood Perimeter — 1200 FPM through Throat

Throat Size	CFM	Ps	Throat Size	CFM	Ps	Throat Size	CFM	Ps	Throat Size	CFM	Ps
12			16x80	9,810	0.25	22x120	19,250	0.23	36x120	31,500	0.24
12x12	1,520	0.26	16x84	10,410	0.25	24			42		
12x14	1,760	0.26	16x96	11,520	0.25	24x24	5,600	0.26	42x42	16,050	0.25
12x16	2,010	0.26	16x108	12,720	0.26	24x28	6,530	0.26	42x48	18,340	0.25
12x18	2,265	0.26	16x120	14,000	0.25	24x30	7,000	0.26	42x54	19,690	0.25
12x20	2,415	0.26	18			24x36	7,950	0.26	42x60	21,000	0.24
12x22	2,650	0.25	18x18	3,380	0.24	24x42	9,170	0.25	42x66	22,520	0.25
12x24	2,800	0.25	18x20	3,625	0.23	24x48	10,480	0.25	42x72	24,570	0.25
12x28	3,270	0.25	18x22	3,980	0.23	24x54	11,250	0.25	42x80	26,370	0.25
12x30	3,500	0.25	18x24	4,200	0.24	24x60	12,000	0.25	42x84	27,320	0.24
12x36	3,970	0.25	18x28	4,900	0.25	24x66	12,870	0.25	42x96	30,240	0.24
12x42	4,580	0.25	18x30	5,250	0.25	24x72	14,040	0.25	42x108	33,390	0.25
12x48	5,240	0.24	18x36	5,960	0.26	24x80	15,070	0.24	42x120	36,750	0.25
12x54	5,625	0.24	18x42	6,880	0.25	24x84	15,610	0.25	48		
12x60	6,000	0.23	18x48	7,860	0.25	24x96	17,280	0.24	48x48	20,960	0.26
12x66	6,430	0.23	18x54	8,440	0.24	24x108	19,080	0.24	48x54	22,500	0.25
12x72	7,020	0.24	18x60	9,000	0.25	24x120	21,000	0.23	48x60	24,000	0.25
12x80	7,530	0.24	18x66	9,650	0.26	28			48x66	25,740	0.25
12x84	7,800	0.22	18x72	10,530	0.26	28x28	7,620	0.24	48x72	28,080	0.25
12x96	8,640	0.22	18x80	11,300	0.26	28x30	8,170	0.25	48x80	30,130	0.25
12x108	9,540	0.23	18x84	11,710	0.26	28x36	9,270	0.25	48x84	31,220	0.25
12x120	10,500	0.23	18x96	12,960	0.27	28x42	10,700	0.25	48x96	34,560	0.25
14			18x108	14,310	0.25	28x48	12,230	0.25	48x108	38,160	0.24
14x14	2,055	0.25	18x120	15,750	0.26	28x54	13,120	0.25	48x120	42,000	0.24
14x16	2,350	0.25	20			28x60	14,000	0.26	54		
14x18	2,640	0.25	20x20	4,030	0.25	28x66	15,010	0.26	54x54	25,310	0.25
14x20	2,820	0.26	20x22	4,430	0.25	28x72	16,380	0.24	54x60	27,000	0.25
14x22	3,100	0.25	20x24	4,670	0.23	28x80	17,580	0.25	54x66	28,960	0.25
14x24	3,250	0.26	20x28	5,440	0.23	28x84	18,210	0.23	54x72	31,590	0.26
14x28	3,810	0.26	20x30	5,830	0.24	28x96	20,160	0.24	54x80	33,900	0.26
14x30	4,080	0.25	20x36	6,620	0.25	28x108	22,260	0.24	54x84	35,120	0.25
14x36	4,640	0.25	20x42	7,640	0.25	28x120	24,500	0.23	54x96	38,880	0.25
14x42	5,350	0.25	20x48	8,730	0.24	30			54x108	42,830	0.25
14x48	6,110	0.24	20x54	9,370	0.24	30x30	8,530	0.24	54x120	47,250	0.25
14x54	6,560	0.23	20x60	10,000	0.25	30x36	9,940	0.24	60		
14x60	7,000	0.23	20x66	10,720	0.24	30x42	11,460	0.25	60x60	30,000	0.26
14x66	7,510	0.23	20x72	11,700	0.24	30x48	13,100	0.26	60x66	32,170	0.25
14x72	8,190	0.24	20x80	12,550	0.24	30x54	14,060	0.26	60x72	35,100	0.26
14x80	8,790	0.24	20x84	13,010	0.25	30x60	15,000	0.25	60x80	37,670	0.25
14x84	9,100	0.23	20x96	14,400	0.25	30x66	16,090	0.25	60x84	39,020	0.25
14x96	10,080	0.22	20x108	15,900	0.23	30x72	17,550	0.26	60x96	43,200	0.25
14x108	11,130	0.23	20x120	17,500	0.22	30x80	18,830	0.26	60x108	47,700	0.26
14x120	12,250	0.23	22			30x84	19,510	0.25	60x120	52,500	0.26
16			22x22	4,870	0.24	30x96	21,600	0.24	66		
16x16	2,680	0.25	22x24	5,130	0.24	30x108	23,850	0.24	66x66	35,400	0.25
16x18	3,000	0.25	22x28	5,990	0.25	30x120	26,250	0.23	66x72	38,610	0.25
16x20	3,220	0.24	22x30	6,420	0.25	36			66x80	41,430	0.26
16x22	3,540	0.24	22x36	7,290	0.25	36x36	11,920	0.23	66x84	42,930	0.25
16x24	3,730	0.25	22x42	8,400	0.25	36x42	13,750	0.24	66x96	47,520	0.25
16x28	4,360	0.25	22x48	9,610	0.26	36x48	15,720	0.24	66x108	52,470	0.25
16x30	4,670	0.25	22x54	10,310	0.26	36x54	16,880	0.25	66x120	57,750	0.24
16x36	5,300	0.25	22x60	11,000	0.25	36x60	18,000	0.25	72		
16x42	6,110	0.24	22x66	11,800	0.25	36x66	19,300	0.24	72x72	44,120	0.25
16x48	6,990	0.24	22x72	12,870	0.25	36x72	21,060	0.24	72x80	45,200	0.24
16x54	7,500	0.25	22x80	13,810	0.25	36x80	22,600	0.25	72x84	46,830	0.25
16x60	8,000	0.25	22x84	14,310	0.24	36x84	23,410	0.25	72x96	51,840	0.26
16x66	8,580	0.26	22x96	15,840	0.25	36x96	25,920	0.26	72x108	57,240	0.25
16x72	9,360	0.26	22x108	17,490	0.23	36x108	28,620	0.24	72x120	63,000	0.25

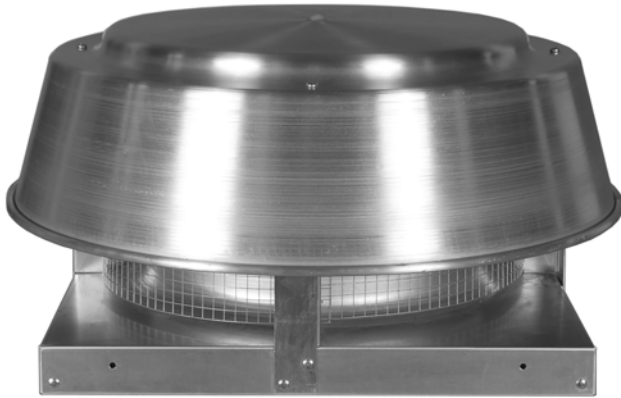
Model TIV Fresh Air Intake Vent Performance

Max intake velocity: 600 FPM through Hood Perimeter — 1200 FPM through Throat

Throat Size	CFM	Ps	Throat Size	CFM	Ps	Throat Size	CFM	Ps	Throat Size	CFM	Ps
12			16x80	11,650	0.19	22x120	23,920	0.18	36x120	38,800	0.20
12x12	1,300	0.18	16x84	12,130	0.18	24			42		
12x14	1,520	0.18	16x96	13,920	0.18	24x24	5,300	0.20	42x42	16,050	0.21
12x16	1,730	0.18	16x108	15,700	0.19	24x28	6,190	0.18	42x48	18,400	0.25
12x18	1,950	0.17	16x120	17,400	0.18	24x30	6,560	0.18	42x54	20,630	0.22
12x20	2,170	0.17	18			24x36	7,890	0.20	42x60	23,000	0.22
12x22	2,380	0.18	18x18	2,920	0.18	24x42	9,200	0.20	42x66	25,220	0.22
12x24	2,660	0.18	18x20	3,250	0.17	24x48	10,550	0.20	42x72	27,070	0.21
12x28	3,100	0.18	18x22	3,570	0.18	24x54	11,830	0.20	42x80	30,330	0.24
12x30	3,300	0.17	18x24	4,000	0.20	24x60	13,160	0.20	42x84	31,850	0.24
12x36	4,030	0.18	18x28	4,660	0.20	24x66	14,410	0.20	42x96	36,400	0.23
12x42	4,620	0.18	18x30	4,870	0.18	24x72	15,710	0.20	42x108	40,800	0.22
12x48	5,280	0.18	18x36	5,890	0.18	24x80	17,400	0.20	42x120	45,320	0.22
12x54	5,920	0.18	18x42	6,900	0.18	24x84	18,340	0.21	48		
12x60	6,580	0.18	18x48	7,900	0.20	24x96	20,800	0.20	48x48	20,900	0.25
12x66	7,230	0.18	18x54	8,880	0.20	24x108	23,500	0.20	48x54	23,580	0.25
12x72	7,890	0.18	18x60	9,860	0.21	24x120	26,200	0.19	48x60	26,200	0.25
12x80	8,730	0.18	18x66	10,850	0.18	28			48x66	28,710	0.23
12x84	9,190	0.18	18x72	11,840	0.19	28x28	7,190	0.18	48x72	31,100	0.25
12x96	10,480	0.18	18x80	13,100	0.19	28x30	7,700	0.18	48x80	34,670	0.25
12x108	11,800	0.17	18x84	13,810	0.19	28x36	9,200	0.20	48x84	36,400	0.24
12x120	13,150	0.18	18x96	15,600	0.19	28x42	10,740	0.20	48x96	41,440	0.23
14			18x108	17,550	0.18	28x48	12,130	0.20	48x108	46,620	0.24
14x14	1,770	0.18	18x120	19,500	0.18	28x54	13,800	0.20	48x120	52,000	0.24
14x16	2,020	0.17	20			28x60	15,300	0.20	54		
14x18	2,270	0.18	20x20	3,600	0.17	28x66	16,800	0.21	54x54	26,530	0.25
14x20	2,530	0.18	20x22	3,970	0.18	28x72	18,270	0.20	54x60	29,510	0.25
14x22	2,780	0.17	20x24	4,440	0.20	28x80	20,200	0.22	54x66	32,180	0.25
14x24	3,100	0.20	20x28	5,180	0.18	28x84	21,310	0.20	54x72	35,100	0.25
14x28	3,600	0.18	20x30	5,420	0.18	28x96	24,300	0.20	54x80	38,900	0.25
14x30	3,790	0.18	20x36	6,610	0.18	28x108	27,300	0.20	54x84	41,260	0.24
14x36	4,040	0.18	20x42	7,670	0.20	28x120	30,450	0.18	54x96	46,620	0.23
14x42	5,370	0.18	20x48	8,730	0.21	30			54x108	52,450	0.25
14x48	6,140	0.17	20x54	9,860	0.20	30x30	8,200	0.19	54x120	57,820	0.25
14x54	6,900	0.18	20x60	10,960	0.21	30x36	9,820	0.21	60		
14x60	7,650	0.18	20x66	12,050	0.20	30x42	11,510	0.21	60x60	32,500	0.25
14x66	8,400	0.18	20x72	13,100	0.19	30x48	13,000	0.21	60x66	35,780	0.25
14x72	9,200	0.18	20x80	14,550	0.18	30x54	14,700	0.20	60x72	38,900	0.25
14x80	10,190	0.19	20x84	15,280	0.19	30x60	16,350	0.20	60x80	43,170	0.25
14x84	10,620	0.18	20x96	17,400	0.18	30x66	18,010	0.21	60x84	45,320	0.25
14x96	12,130	0.18	20x108	19,560	0.19	30x72	19,680	0.20	60x96	51,800	0.25
14x108	13,700	0.18	20x120	21,750	0.18	30x80	21,750	0.21	60x108	58,050	0.25
14x120	15,210	0.17	22			30x84	22,840	0.20	60x120	64,250	0.26
16			22x22	4,370	0.18	30x96	26,100	0.20	66		
16x16	2,310	0.18	22x24	4,880	0.20	30x108	29,100	0.20	66x66	39,050	0.25
16x18	2,600	0.18	22x28	5,650	0.18	30x120	32,300	0.19	66x72	42,600	0.26
16x20	2,890	0.17	22x30	5,960	0.18	36			66x80	47,480	0.25
16x22	3,180	0.17	22x36	7,280	0.20	36x36	11,830	0.22	66x84	49,860	0.25
16x24	3,580	0.20	22x42	8,440	0.20	36x42	13,800	0.20	66x96	56,980	0.25
16x28	4,140	0.20	22x48	9,610	0.20	36x48	15,600	0.22	66x108	63,600	0.26
16x30	4,340	0.18	22x54	10,810	0.21	36x54	17,500	0.20	66x120	70,400	0.26
16x36	5,340	0.18	22x60	12,050	0.20	36x60	19,750	0.20	72		
16x42	6,140	0.18	22x66	13,210	0.21	36x66	21,610	0.20	72x72	46,450	0.26
16x48	6,990	0.18	22x72	14,400	0.20	36x72	23,500	0.20	72x80	51,800	0.26
16x54	7,890	0.20	22x80	16,000	0.20	36x80	26,100	0.22	72x84	54,390	0.25
16x60	8,780	0.20	22x84	16,810	0.19	36x84	27,400	0.23	72x96	62,160	0.26
16x66	9,610	0.18	22x96	19,100	0.18	36x96	31,200	0.22	72x108	69,120	0.26
16x72	10,520	0.18	22x120	23,920	0.18	36x108	35,010	0.22	72x120	76,800	0.26

ARVE

Relief/Intake Roof Ventilators



Application

A low silhouette relief vent that is compatible with modern architectural lines and also matches ILG Industries power roof ventilators. Units used for intake should be selected to maintain flow rates at or below the maximum intake velocity of 600 FPM to prevent entrainment of moisture. For intake units, a minimum curb height of 12" is recommended.

Construction

- Round spun aluminum hood
- Heavy gauge hood supports
- Bird screen
- Wide range of sizes for every need

Suggested Specifications

Relief/Intake ventilators shall have circular hoods of spun aluminum. Vents will be low in silhouette to conform to present architectural styles, and will be compatible with power roof ventilators. Square bases will be constructed of aluminum. Vents will be equipped with galvanized mesh bird screen.

Optional Features

- Two types of shutters available: (a) automatic or gravity operated, (b) motor operated
- Prefabricated curbs
- 3 mil epoxy powder paint
- Insect screen

Model ARVE Relief/Exhaust

Unit Size	12	16	20	25	31	37
Throat Area (ft ²)	0.79	1.40	2.18	3.40	5.24	7.46
500 Throat Vel.	637	357	229	147	95	67
CFM PD	0.048	0.014	0.004	0.003	0.002	0.001
1000 Throat Vel.	1274	714	459	294	191	134
CFM PD	0.193	0.054	0.018	0.011	0.008	0.002
1500 Throat Vel.		1071	688	441	286	201
CFM PD		0.123	0.040	0.025	0.017	0.006
2000 Throat Vel.		1429	917	588	382	268
CFM PD		0.218	0.070	0.045	0.030	0.010
3000 Throat Vel.			1376	882	573	402
CFM PD			0.158	0.101	0.068	0.022
4000 Throat Vel.				1176	763	536
CFM PD				0.180	0.122	0.040
5000 Throat Vel.				1471	954	670
CFM PD				0.281	0.190	0.062
6000 Throat Vel.				1765	1145	804
CFM PD				0.405	0.274	0.090
8000 Throat Vel.					1527	1072
CFM PD					0.486	0.159
10000 Throat Vel.						1340
CFM PD						0.249
12000 Throat Vel.						1609
CFM PD						0.358

Damper losses, if used, are not included in above table.

Throat Velocity=CFM/Throat Area

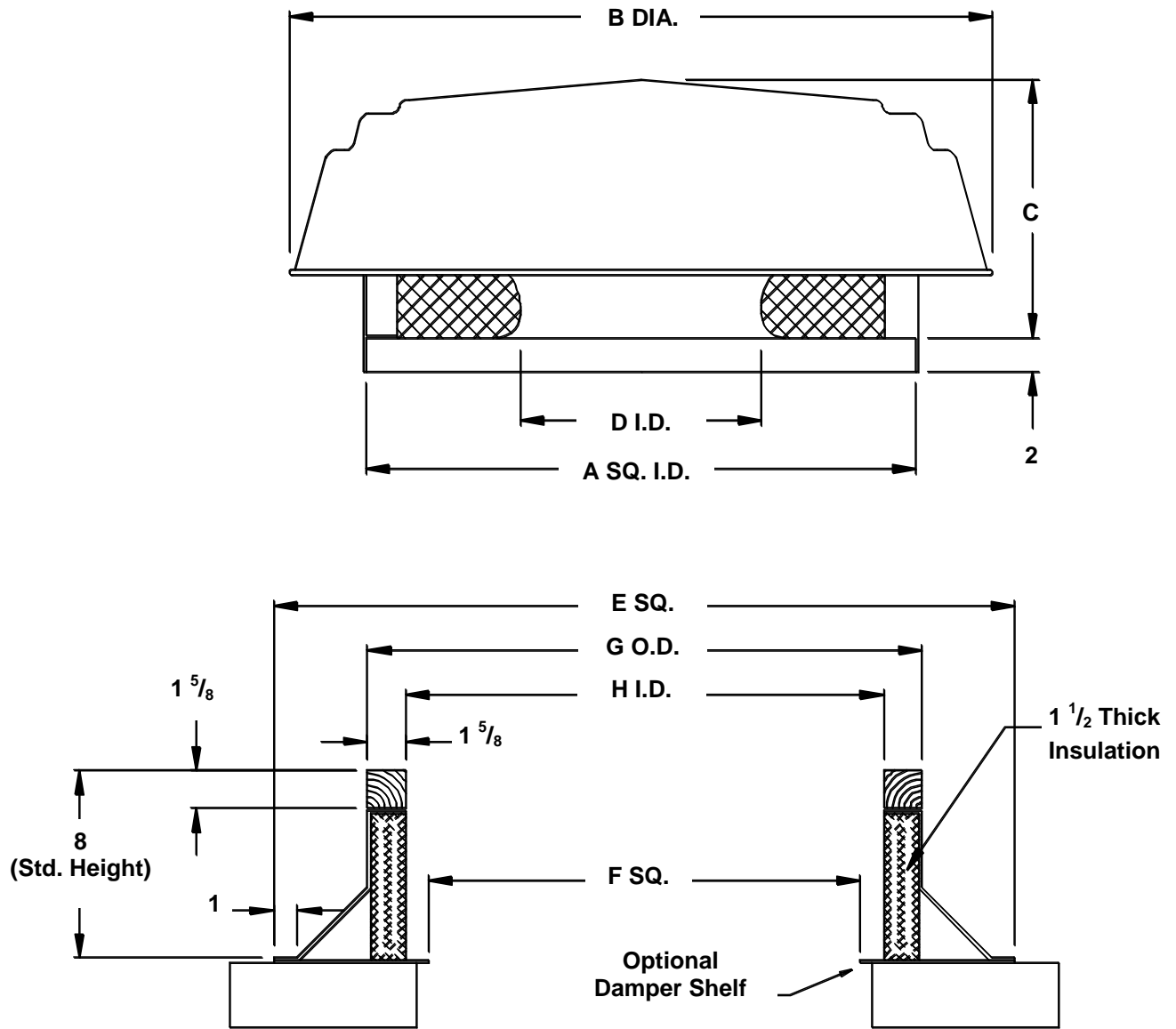
Model ARVE Fresh Air Intake

Unit Size	12	16	20	25	31	37
Intake Area (ft ²)	1.59	3.07	6.38	6.97	7.65	14.09
100 Intake Vel.	63	33				
CFM PD	0.006	0.001				
200 Intake Vel.	126	65	31	29	26	
CFM PD	0.024	0.005	0.002	0.001	0.001	
400 Intake Vel.	251	130	63	57	52	28
CFM PD	0.094	0.021	0.008	0.005	0.003	0.001
800 Intake Vel.	503	260	125	115	105	57
CFM PD	0.378	0.082	0.031	0.019	0.013	0.005
1000 Intake Vel.		326	157	144	131	71
CFM PD		0.129	0.048	0.030	0.020	0.008
2000 Intake Vel.			314	287	261	142
CFM PD			0.191	0.120	0.078	0.031
3000 Intake Vel.				431	392	213
CFM PD				0.270	0.176	0.070
4000 Intake Vel.					523	284
CFM PD					0.314	0.125
5000 Intake Vel.						355
CFM PD						0.196
6000 Intake Vel.						426
CFM PD						0.282
8000 Intake Vel.						568
CFM PD						0.501

Damper losses, if used, are not included in above table.

Intake Velocity=CFM/Intake Area

ARVE Ventilator & Roof Curb Dimensions



Unit Size	Ventilator Dimensions				Roof Curb Dimensions			
	A	B	C	D	E	F	G	H
12	18	23 ⁵ / ₈	13	12	24 ¹ / ₂	11 ¹ / ₄	16 ¹ / ₂	13 ¹ / ₄
16	23	28 ⁵ / ₈	12 ³ / ₈	16	29 ¹ / ₂	16 ¹ / ₄	21 ¹ / ₂	18 ¹ / ₄
20	30	39 ⁵ / ₈	15 ³ / ₈	20	36 ¹ / ₂	23 ¹ / ₄	28 ¹ / ₂	25 ¹ / ₄
25	34	43 ⁵ / ₈	16 ³ / ₄	25	40 ¹ / ₂	27 ¹ / ₄	32 ¹ / ₂	29 ¹ / ₄
31	40	48 ⁵ / ₈	18 ¹ / ₈	31	46 ¹ / ₂	33 ¹ / ₄	38 ¹ / ₂	35 ¹ / ₄
37	46	62 ⁷ / ₈	22 ¹ / ₈	37	52 ¹ / ₂	39 ¹ / ₄	44 ¹ / ₂	41 ¹ / ₄

Dimensions in Inches

Louverline LVX/LVN and Trimline TEV/TIV Standard Options

DECORATIVE COATING available as an industrial grade enamel in a variety of colors.

PROTECTIVE COATING

EPOXY — considered one of the best heavy duty multi-purpose finishes resistant to most chemicals and corrosive agents.

EISENHEISS — a synthetic resin that forms a tough black coating that offers better protection against most acids and other corrosive agents when compared to conventional industrial finishes.

HERESITE — a black phenolic coating that has good resistance to heat, solvents and concentrates of most acids except strong oxidizing agents. Resistance to weak alkalis but not recommended for hydrofluoric acid nor hypochlorite salts.

HINGED HOOD provides easy access for inspection and servicing of equipment or filters and screens.

FILTERS offered as 1" thick permanent type aluminum mesh mounted in removable frame for easy cleaning attached to inside perimeter of louvered opening. Note: Add .15" to the listed *static pressure* when using filters on AIR INTAKE ventilators.

INSECT SCREENS consist of 18 gauge mesh galvanized screen attached to the inside perimeter of the louvered opening.

Note: When using screens on EXHUAUST ventilators add .08" to the *static pressure* listed in the tables. For INTAKE ventilators add .03" to the listed *static pressure*.

ALUMINUM BIRD SCREENS consist of .060" thick 1/2" x 1" diamond shape expanded aluminum located on inside perimeter of louvered openings.

INSULATED HOOD to reduce condensation offered in rubberized anti-condensate undercoating or 1/2" thick bat type fiberglass insulation.

ARVE Options & Accessories

BACKDRAFT DAMPERS

Gravity or motor operated back draft dampers are available. They are of aluminum construction and designed for installation in prefabricated roof curbs.

PROTECTIVE COATINGS

ARVE units are not recommended for exhausting air of a corrosive nature. However, special protective coatings are available where units may be exposed to corrosive exterior conditions. Consult your ILG Industries representative for available coatings.

INSECT SCREENS

Fine mesh metallic screen to prevent the entry of insects.

Roof Curbs Available for All Models

For all types of roof mounting needs.

- Roofed-over-flashing or self-flashing types
- Galvanized steel or aluminum
- Single or double pitched roof types, sound attenuating, special restaurant requirements and equipment support rails
- Continuous welded seams
- Customized sizes



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