PENN BARRY™

Moving Your Way

FUMEX

Upblast Roof Exhausters

TABLE OF CONTENTS

Introduction, Certifications & Listings	3
Features & Benefits	4
Options & Accessories	5
Motor Availability	8
Direct Drive Dimensional & Performance Data	10
Belt Drive Dimensional & Performance Data	13
Engineering Specifications	29

BULLETIN FX15

INTRODUCTION

Fumex Series of Centrifugal Fans

Fumex centrifugal fans are designed for medium to high pressure applications and are available in a range of capacities. They can be either roof or wall mounted. While suitable for general ventilation, Fumex fans are specifically designed to discharge contaminated or grease-laden air or fumes up and away from building surfaces. The optional "Fatrap" (UL762) restaurant grease exhaust configuration (see Fatrap Configuration) makes Fumex fans particularly suited for all food service applications and chemical fume hoods. The optional heat and smoke removal configuration (see Smoke Removal) makes Fumex fans particularly suited for heat and smoke control systems. The optional high wind construction makes Fumex fans particularly suited for high wind hurricane zones.

Fumex fans feature a weather-resistant seamless spun aluminum housing which provides ample drainage and works in conjunction with a patented wheel design and deeply spun inlets to provide smooth quiet airflow through the ventilator. The centrifugal wheels are aluminum, non-overloading, backward inclined, robotically welded, and dynamically balanced.

Belt Drive Fumex with Fatrap option (left) and Direct Drive Fumex (below).

Direct Drive Units

Model: FX (V/S/R/Q/Q1/Q2)

- Static pressure up to 1.5" wg.
- Flow capacity up to 4,489 CFM.
- Fatrap (FT) option available on sizes 13, 16, and 18.
- High Wind Construction (-HW) option available.

Standard Duty Belt Drive Units

Model: FX (B)

- Static pressure up to 2.5" wg.
- Flow capacity up to 21,511 CFM.
- Fatrap (FT) option available.
- Heat & Smoke Removal (-HS) option available.
- High Wind Construction (-HW) option available.

High Pressure Belt Drive Units

Model: FX (BH)

- Static pressure up to 4" wg.
- Flow capacity up to 9,920 CFM.
- Fatrap (FT) option available.
- Heat & Smoke Removal (-HS) option available.
- High Wind Construction (-HW) option available.

CERTIFICATIONS & LISTINGS

AMCA Certification

PennBarry certifies that the Fumex direct drive and belt drive models FX, FXB, FXBH, and FXBHFT 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 Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

UL and cUL Certification

Fumex fans carry the UL label, UL705 (ZACT/ZACT7), file #E28413. Fumex fans with the "Fatrap" option carry the UL label, UL762 (YZHW/YZHW7), file #MH10684. Fumex fans with the heat and smoke removal option carry the UL label, UL793 (ZAXH/ZAXH7), file #MH19473

FEATURES & BENEFITS

Motor Selection

Both direct drive and belt drive models are available with a wide range of voltages and enclosures (see Motor Selection for a complete listing). Standard belt drive Open Drip Proof (ODP) ball bearing motors are selected using a conservative portion of the NEMA service factor. Standard direct drive ODP motors have Class B insulation and internal overload protection. Overload protection is available as an option on belt drive models. Each size is carefully engineered to match the motor to the wheel capacity.

Internal Wiring

All direct and belt drive models with ODP motors feature a polarized disconnect plug which is factory wired from the motor to the junction box. This provides a positive method of electric shut-off as required by most codes without requiring the traditional disconnect switch. (See Options & Accessories for optional NEMA wiring and disconnect devices.)

Sound Performance

Fumex units deliver outstanding air performance with minimal noise and have the lowest AMCA licensed sound performance in the industry.

Curb Caps (Base)

Curb caps for direct drive and standard duty belt drive models are available in galvanized steel (standard) or aluminum (optional). Curb caps for high capacity belt drive models are available only in aluminum. All curb caps have fully welded corners and are pre-punched to ensure a leak-tight and easy installation.

Forced Motor Cooling

Motors and drive components are located out of the airstream in a separate compartment. A cooling tube between the motor dome and discharge apron enables fresh air to be drawn into the motor housing during fan operation. This positive cooling promotes longer life for motor and drive components.

Easy Maintenance Access

By removing the fasteners, the motor dome lifts off for complete access to all the drive components.

Vibration Isolators

Multidirectional, rubber-in-shear vibration isolators mitigate residual vibration transmission from the unit to the building.

Structural Integrity

Durable housings of spun aluminum have a high strength-to-weight ratio and incorporate a rolled bead for additional strength. There are no welds to break or seams to leak. The heavy-gauge motor mounting platform provides positive rigidity between all components of the power train assembly.

Internal Bracing

Tri-Strut™ supports transfer the weight of the motor mounting platform directly to the curb mounting surface. The aluminum spun housing, therefore, is not used to support any weight. For grease laden applications, there is less surface for grease build-up during normal operation.

Solid Steel Shafts

Sized so the first critical speed is a minimum of 130% of maximum cataloged operating speed, shafts are precision ground, and polished.

Self-Aligning Bearings

Heavy-duty bearings are sized for a minimum L50 life in excess of 200,000 hours of operation. 100% factory tested, they are designed for air handling applications.

Drives and Belts

Pulleys are pre-set to the specified RPM. Cast iron variable pitch pulleys are adjustable, allowing for field balancing based on actual field conditions. All pulleys are sized for at least 150% of the driven horsepower.

Conduit

Both direct and belt drive units include a large 1" nominal conduit chase (not available on heat and smoke removal units; wiring is run via the cooling tubes) for easy installation of wiring from the motor dome to below the curb cap. Fatrap units are factory wired to an external NEMA 3R junction box.

Reverse Venturi

Reverse venturi reduces turbulence and improves distribution of the air as it enters the wheel inlet and is "captured" by the blades.

Wheels

Fumex fans offer patented wheel designs. Carefully matched, highly-tooled venturis enhance the performance of these backward inclined and non-overloading centrifugal wheels. Made of advanced aluminum alloys, the various wheel components provide superior strength and durability, as well as spark resistant construction. The heat and smoke removal configuration utilizes steel construction.

Silent Wheel (Direct Drive)

- Blades' highly curved leading edge provide unsurpassed low sound numbers with excellent air performance.
- Back plate and inlet are stamped for consistency, plus dynamic balancing assure smooth, vibration-free operation.
- Riveted or riveted and welded construction ensure superior dependability over other wheel designs.

Standard Duty, All Welded Wheel

(Standard Duty & High Pressure Belt Drive)

- Blades are curved for improved air performance while increasing their strength and rigidity.
- Back plate and inlet are stamped for consistency. They include a perimeter rim which enhances strength and improves balancing.
- Wheel assembly is robotically welded to provide extremely durable and consistent performance.
- Wheel is dynamically balanced. Balancing weights are mechanically attached to the inside of the rims of both the back plate and wheel inlet. This allows a precise placement of the weights anywhere within a full 360º range on two separate planes, without the possibility of detachment.

OPTIONS & ACCESSORIES

Finishes

Coatings such as Polyester Powder Coat, Epoxy Powder Coat, Phenolic Epoxy Powder Coat, and others are available. See the coatings brochure for details.

Mounting Pedestal

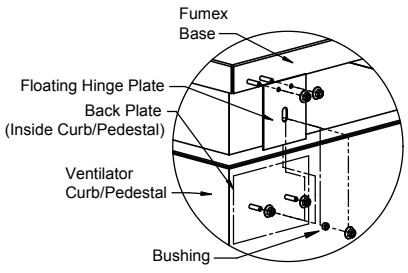
The 12" high mounting pedestal, available in aluminum or galvanized steel, incorporates a removable access panel for easy inspection and service of motor operated back draft dampers. It provides solid ventilator support and a weather resistant seal that does not injure or disturb flashing. This item should not be used with Fatrap units.

Hinged Sub-Base

Hinged sub-bases provide access to the curb well for damper service or clean out for grease applications. Constructed with a rust proof hinge arrangement and low height (3 ½") the assembly is easily manipulated and reduces the impact on overall installation height. This accessory is available for use with most all models for either factory built or existing roof curbs.

Floating Hinge Kit

A floating hinge kit is also available for field installation. This assembly connects the exhauster directly to the roof curb and provides the same level of access as the hinged sub-base.



Aluminum Bird & Insect Screen

Bird screens are available for all direct and belt drive models. An aluminum insect screen with a smaller mesh than the standard bird screen is also available. However, please note that NFPA 96 installations do not allow the use of bird or insect screens. The requirements of local codes must be reviewed to determine if there are any conflicts.

Internal Wiring

NEMA 3R wiring is available for both direct and belt drive models.

Backdraft Dampers

Back draft dampers are available for either gravity or motorized operation (motor kit optional). Dampers feature square galvanized steel frame, multi-leaf, roll formed aluminum blades with nylon bearings. Back draft dampers should not be used when venting kitchen hoods. NFPA 96 installations do not allow the use of dampers. The requirements of local codes must be reviewed to determine if there are any conflicts.

Safety Disconnect Switch

Safety disconnect switches are available to allow positive electrical shut-off and safety. Switches are factory mounted when factory wiring is requested. Wiring is only run from the motor to the junction box. (Factory wiring of explosion proof applications is not available.) A wide range of NEMA rated enclosures with disconnect switches are available for indoor, outdoor, and explosion proof installations. Disconnects are to be field wired by a licensed electrician.

Firestat Switch

Firestat switch automatically disconnects the unit when the temperature of the air being exhausted exceeds a preset rating.

Time-Delay Switch

(Selected direct drive models only) The Airminder Model AM12 switch is a UL recognized and CSA certified time-delay relay that operates both the fan and room light to ventilate an area even after the occupants depart. In the "On" position, the Airminder turns the light and fan on immediately. In the "Off" position, the light goes off immediately and the fan is in operation for a period of time as preset from 1 to 60 minutes. Suitable only for 1/3 HP maximum at 120/1/60.

Speed Controllers

The Lek-Trol™ controller allows adjustment in speed to a maximum of 50% reduction, which results in a very cost effective means for system balancing. The device can be located under the fan dome to prevent unauthorized tampering or on the wall for ease of operation by the building occupants. (Available on direct drive units with ODP motors and some select TE motors. See reference table under Motor Availability)

Automatic Belt Tensioner

The factory mounted Automatic Belt Tensioner accessory eliminates the need for re-tensioning the belt after start-up. It is constructed from 10 gage galvanized steel and incorporates five torsion springs to automatically position the motor and maintain proper belt tension. Additional benefits include reduced belt and pulley wear and simplified belt replacement without tools. The Automatic Belt Tensioner is available for Fumex models FX08B, FX10B, FX12BH, FX13B, FX13BHFT and FX14B with 1/4, 1/2, 3/4, and 1 HP ODP motors. It can also be used with 1.5 HP, 3-phase ODP motors.

Spark Resistant Construction

AMCA 'B' construction is available as standard construction on direct drive units and as an option on belt drive units (not available on heat and smoke removal units). If required, an explosion proof motor and disconnect may be selected as options.

Wall Mounting

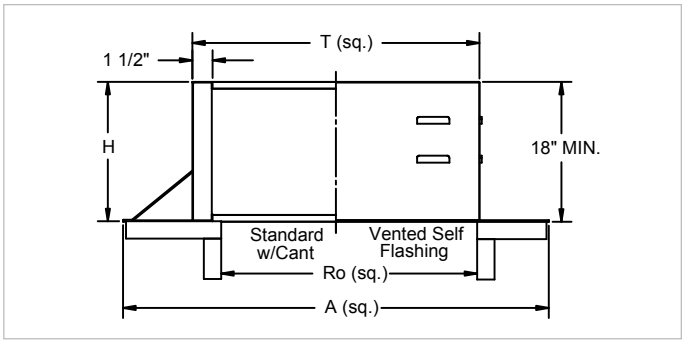
This option is provided as a separate product line, whose models include a "W" prefix. Product line includes models up to size 24, motors up to 2HP, and round bases (not available on heat and smoke removal units).

Prefabricated Curb

A variety of sizes of prefabricated roof curbs are available. Galvanized steel unibeam curbs are the most popular. For a complete listing of all curb types and sizes available, see the latest PennBarry Ventilation Curb brochure. Please note that NFPA 96 installations require a specific curb height. See Fatrap configuration on the next page.

OPTIONS & ACCESSORIES

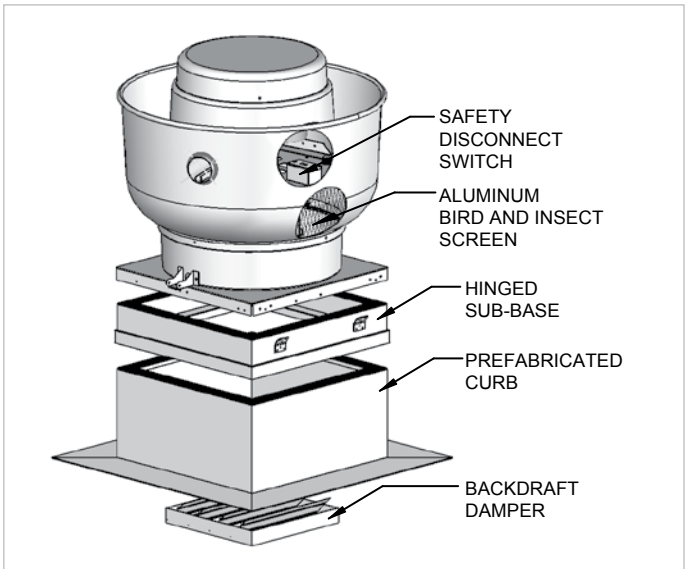
Fumex Curb



Model	E(4) SQ	T(2) SQ	A SQ	Ro(3) SQ	Damper Size SQ	Galv. Steel Gauge
FX08S/R	18.5	17	25	9	8.75	18
FX10S/R	18.5	17	25	11.5	11.25	18
FX11V/S/R/Q	18.5	17	25	11.5	11.25	18
FX13V/S/R/Q	18.5	17	25	11.5	11.25	18
FX16V/S/R/Q1/Q2	20.5	19	27	16	15.75	18
FX18V	28.5	27	35	20	19.75	18
FX08B to FX14B	24.75	23.25	31.25	16	15.75	18
FX12BH	24.75	23.25	31.25	16	15.75	18
FX13BHFT	24.75	23.25	31.25	16	15.75	18
FX16B and FX18B	28.5	27	35	20	19.75	18
FX18BH	28.5	27	35	20	19.75	18
FX24B	33.5	32	40	25	24.75	18
FX24BH	33.5	32	40	25	24.75	18
FX27B and FX30B	36.5	35	43	28	27.75	18
FX36B	44.5	43	51	36	35.5	18

Standard heights "H" are 8", 12", and 18" including wood nailer. "T" dimension of curb is 1 1/2" less than the dimension of inside base of fan ("E"). "Ro" refers to Roof Opening. "E" dimension is inside base of fan. For FT (Fatrap) units, curbs are cantless, 18" high and optionally vented.

Exploded View



Fatrap Configuration

Fatrap configured fans are ideal for use in commercial kitchens over grilles, charcoal broilers, deep fat fryers, steam tables, ranges, dishwashers, and other appliances. Fumex fans are specially configured for food service applications with the addition of a group of accessories that either meets a requirement or eases installation requirements according to NFPA 96. NFPA 96 "Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations" is the generally recognized authority nationwide for restaurant installation requirements. However, local codes may vary.

Included in the units are the following.

- **UL 762 Listing:** Fatrap configured Fumex fans are listed at 400°F — 100°F higher than UL requirements. The high temperature rating is the result of the fan's highly efficient forced motor cooling capability. Three direct drive (sizes 13 – 18) and all belt drive models are listed.
- **Pre-wired Junction Box:** A weather-proof junction box is factory wired and mounted to the housing exterior. An appropriately sized disconnect switch is commonly selected as an additional option. These items meet the code requirements for positive electric shut-off.
- **Grease Collector/Separator Box:** Designed for easy installation, the grease is routed from a single swiveling collection spout to an amply sized durable galvanized steel box, trapping grease and residue, and avoiding discharge onto the roof surface. Additionally, these boxes separate the water from the grease, prolonging the time required between periodic maintenance.

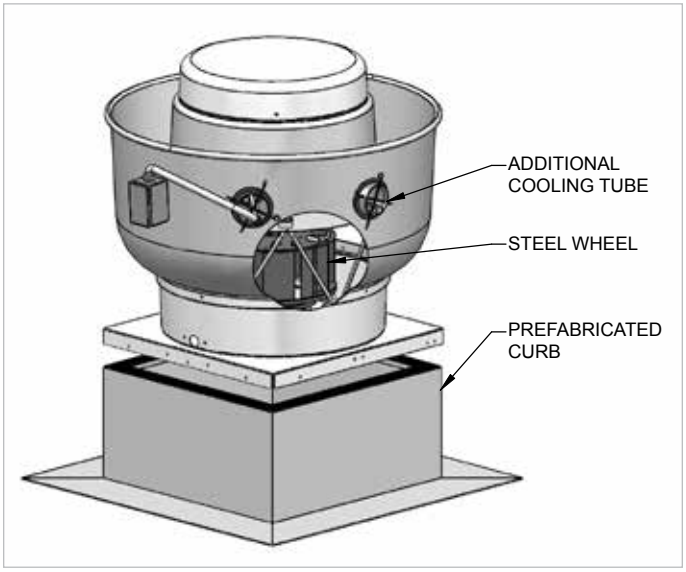
Additional Fatrap Accessories

Ventilated Curbs and Pedestals: For buildings two stories or higher NFPA 96 requires the use of ventilated mounting curbs or pedestals to provide an approved arrangement for connecting a range hood and duct work to the roof fan. PennBarry's ventilated mounting curbs and pedestals, 18" high, comply with that standard when properly installed. Ventilated curbs have a flat mounting flange for fastening directly to the roof deck. This flange should be securely fastened and flashed to ensure weather tightness. Ventilated pedestals are designed to fit on an existing curb. They provide cap flashing when so installed.

OPTIONS & ACCESSORIES

Heat & Smoke Removal Configuration

While Fumex fans are commonly used for general ventilation, they are also designed to discharge contaminated or grease-laden air or fumes up and away from building surfaces with the Fatrap option. When equipped with the Heat and Smoke Removal option, this series of fans incorporates features exclusively designed to exhaust heat and smoke in the event of fire. During these emergencies, the fans are designed to operate at the temperature and time limits stated below. To maintain power to these fans during emergencies, special consideration must be made for field power supply. In the event of an emergency, if power is maintained, the units will operate for the times and temperatures indicated, after which they will continue to operate until they are destroyed by the extreme temperature generated during an actual fire, or their roof structure collapses.



For smoke control systems, Heat and Smoke Removal configured fans are listed per UL for emergency smoke removal, referencing UL705, UL793, Industrial Risk Insurers (IRI), and Southern Building Code Congress International (SBCCI).

The UL standard requires the fan to run at 500°F for 4 hours (IRI) and 1000°F for 15 minutes (SBCCI). PennBarry Heat and Smoke Removal configured Fumex units are listed at 500°F for 4 hours and 1000°F for 1 hour. The additional 45 minutes at 1000°F will buy precious time in the event of a fire.

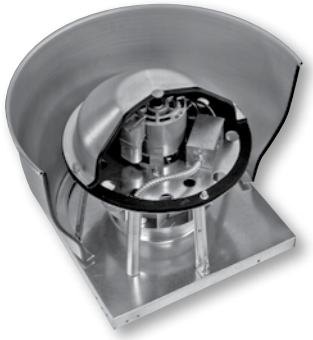
Steel Wheel: The wheel is a standard duty, all welded wheel (standard duty and high pressure belt drive). The blades are curved for improved air performance while increasing their strength and rigidity. The wheel assembly is fully welded to provide extremely durable and consistent performance. The wheel is dynamically balanced. Balancing weights are mechanically attached to the inside of the rims of both the back plate and wheel inlet. This allows a precise placement of the weights anywhere within a full 360° range on two separate planes, without the possibility of detachment.

Forced Motor Cooling: Motors and drive components are located out of the airstream in a separate compartment. Two cooling tubes are located between the motor dome and discharge apron which enables fresh air to be drawn into the motor compartment during fan operation. This allows the cooler outside air to wash over the motor and bearings. This positive cooling promotes longer life for the motor and drive components.

High Wind Construction

High wind construction Fumex fans are specifically designed for high wind hurricane zones (HWHZ). The Fumex models are designed to withstand 150 MPH winds in accordance with Miami-Dade and Florida Building Code standards. The units are 3rd party tested and certified through a 3rd party Professional Engineer (P.E.) to meet these strict standards. Installation details are provided and since there are no tie downs or external braces required for attaching the unit to the roof or curb this makes installation simple and easy. A wide range is offered to meet all of your ventilation needs which includes all belt and direct drive sizes 36 and under.

Belt Drive
Fumex Cutaway



Direct Drive
Fumex Cutaway

Product Certifications:

- Miami-Dade NOA # 14-0311.03
- Florida Product Approval #12339
- Texas Department of Insurance # RV-48

MOTOR AVAILABILITY

Green Plus Electronically Commutated Motor

The Green Plus (GP) option utilizes EC motors to provide significantly greater efficiency, flexibility, and controllability over standard direct drive permanent split capacitor (PSC) motors. Using the included potentiometer, the Green Plus motors can be turned down to as low as 80% the max operating speed while maintaining 90% efficiency through the operating range. Additionally, the Green Plus can accept 0-10V input to tie to building management systems, allowing for savings in not only direct fan energy consumption but reducing the exhaust of conditioned air during off peak hours as well. All Green Plus motors come in open enclosure for usage with 115V-208V/230V, single phase, 50/60 Hz applications.

Model	Size	Tap	ECM HP
WFX/FX	8	V	1/6
	8	S	1/6
	8	R	1/6
	8	Q	1/6
	10	V	1/6
	10	S	1/6
	10	R	1/6
	10	Q	1/6
	11	V	1/6
	11	S	1/6
	11	R	1/6
	11	Q	1/4
	13	V	1/6
	13	S	1/6
	13	R	1/6
	13	Q	1/4
	16	V	1/6
	16	S	1/3
	16	R	1/3
	16	Q1	1/2
	16	Q2	3/4
	18	V	3/4

Variable Speed Motor Control

PennBarry offers Lek-Trol™ solid state controllers to alter the high speed of most direct drive motors by as much as 50%. If variable speed is required, check the Lek-Trol™ availability table below to verify that controllers exist for the fan model selected. Remember, Lek-Trol™ controllers are currently only available for direct drive motors including all standard Open Drip Proof (ODP) 60 Hz motors. Not all totally enclosed motors are currently available with variable speed control. Inverter rated motors suitable for use with variable frequency drives can be supplied for belt drive models. Contact your local PennBarry representative for availability.

Available Lek-Trol™ Speed Controls

Model	60 Hz					50 Hz		
	ODP	Totally Enclosed				Totally Enclosed		
	115V	115V	200V	208V	230V	110V	220V	240V
FX08S	-	-	-	-	-	-	-	-
FX08R	LT25	-	-	-	-	-	-	-
FX10S	-	-	-	-	-	-	-	-
FX10R	LT30	LT30	LT35	LT35	LT35	LT30	LT35	LT35
FX11V	-	-	-	-	-	-	-	-
FX11S	-	-	-	-	-	-	-	-
FX11R	LT30	-	-	-	-	-	-	-
FX11Q	LT50	-	-	-	-	-	-	-
FX13V	-	-	-	-	-	-	-	-
FX13S	-	-	-	-	-	-	-	-
FX13R	LT30	LT30	LT35	LT35	LT35	LT50	LT35	LT35
FX13Q	LT45	LT50	LT35	LT35	LT35	LT50	LT35	LT35
FX16V	-	-	-	-	-	-	-	-
FX16S	-	-	-	-	-	-	-	-
FX16R	LT50	-	-	-	-	-	-	-
FX16Q1	LT40	-	-	-	-	-	-	-
FX16Q2	LT75	-	-	-	-	-	-	-
FX18V	LT60	-	-	-	-	-	-	-

Lek-Trols™ indicated for multi-speed models (eg., FX16V/S/R) are applicable only for the high speed. Do not use on low or medium speed for multi-speed models. Items noted with (-) are not applicable.

MOTOR AVAILABILITY

Direct Drive Motor Availability

The following chart lists the various motor options available for each of the direct drive fan models. Once a fan model is selected, this chart can be used to determine if a suitable motor is available. (If not, another selection may have to be made from the fan performance charts). Look under the nominal RPM heading to determine which fans have 2-speed and 3-speed motors.

Model	Nominal RPM				1 Phase							
					115 Volts			200 - 240 Volts				
	1050 V	1300 S	1550 R	1725 Q	Open Drip Proof	Totally Enclosed	Explosion Proof	Open Drip Proof	Totally Enclosed	50 hz	50 C Ambient	Explosion Proof (4)
FX08S/R	-	x	x	-	yes	yes (1)	-	Use TE Motors	yes (1)	yes (1)	yes (1)	-
FX10S/R	-	x	x	-	yes	yes (1)	-		yes (1)	yes (1)	yes (1)	-
FX11V/S/R	x	x	x	-	yes	yes (1)	-		yes (1)	yes (1)	yes (1)	-
FX11Q	-	-	-	x	yes	yes	yes		yes	yes	yes	yes (5)
FX13V/S/R	x	x	x	-	yes	yes (1)	-		yes (1)	yes (1)	yes (1)	-
FX13Q	-	-	-	x	yes	yes	yes		yes	yes	yes	yes (5)
FX16V/S/R	x	x	x	-	yes	yes (1)	-		yes (1)	yes (1)	yes (1)	-
FX16Q1	-	-	-	x (3)	yes	-	-		-	-	-	-
FX16Q2	-	-	-	x	yes	yes	yes		yes	yes	yes	yes (5)
FX18V	x	-	-	-	yes	-	-		-	-	-	-

Model	Nominal RPM				3 Phase
	1050 V	1300 S	1550 R	1725 Q	200 - 460 Volts (2)
					Explosion Proof (4)
FX08S/R	-	x	x	-	-
FX10S/R	-	x	x	-	-
FX11V/S/R	x	x	x	-	-
FX11Q	-	-	-	x	yes (6)
FX13V/S/R	x	x	x	-	-
FX13Q	-	-	-	x	yes (6)
FX16V/S/R	x	x	x	-	-
FX16Q1	-	-	-	x (3)	-
FX16Q2	-	-	-	x	yes (6)
FX18V	x	-	-	-	-

(1) High speed only.
(2) 200v - 240v, 380v, 415v, 460V.
(3) Nominal 1650 RPM.
(4) Cls.I, Grp.D, Div. I / Cls. II, Grp. F & G, Div.I., Not available with 50 Hz.
(5) 230V only. Not available in 200V or 208V.
(6) 230V and 460V only.

FX08 - FX13 | DIRECT DRIVE

Performance Data Overview

Fumex direct drive models are available with single and multi-speed motors. Multi-speed motors (eg., FX16V/S/R) are designated: V (1050 RPM), S (1300 RPM), and R (1550 RPM). FX18V is an exception, being a single speed motor. Q, Q2 (1725 RPM) and Q1 (1650 RPM) are single speed motors. A single Fumex fan may be suitable for several requirements by a simple wiring change. This feature provides flexibility for a variety of reasons, including energy savings, off hours requirements, future expansion, or unexpected field variations.

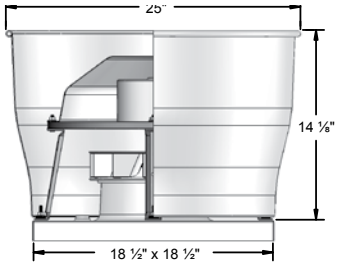
Fumex direct drive models are available in six sizes (8, 10, 11, 13, 16, and 18). Capacities up to 4500 CFM, with static pressures to 1 1/2".

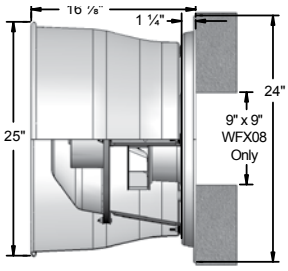
By using Lek-Trol™ variable speed controllers, the high speed flow rate of most models can be reduced by as much as 50%. Do not use Lek-Trol™ on medium or low speed for multi-speed models.

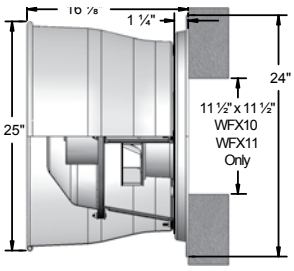
When compared to belt drive models, direct drive fans require less maintenance, have a simpler construction, cost less, and are lighter in weight.

Performances in 50 Hz applications will be less than shown below; consult your local PennBarry representative.

FX08 - FX11





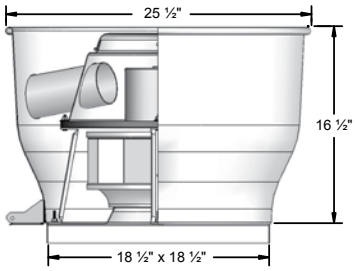


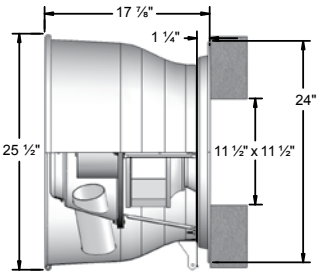
(FX Units Only) Galv. Steel Base = 16 Gage
(WFX Units Only) Aluminum Base = 0.064
(FX Units Only) Aluminum Base = 0.050
Discharge Apron = 0.050
FX08 Estimated Ship Weight = 29 lbs.
FX10 Estimated Ship Weight = 32 lbs.
FX11V/S/R Estimated Ship Weight = 42 lbs.
FX11Q Estimated Ship Weight = 44 lbs.

Model	Nominal			Tip Speed FPM	0.000" SP		0.125" SP		0.250" SP		0.375" SP		0.500" SP		0.625" SP		0.750" SP		1.000" SP	
	HP	Max Watts	RPM		CFM	Sones	CFM	Sones	CFM	Sones	CFM	Sones	CFM	Sones	CFM	Sones	CFM	Sones	CFM	Sones
FX8V	1/00(3)	-(3)	1050	2715	200	0.4	96	0.8	42	0.8	-	-	-	-	-	-	-	-	-	-
FX8S	1/50	44	1300	3361	247	1.3	150	2	94	3.2	54	4.3	-	-	-	-	-	-	-	-
FX8R	1/30	55	1550	4007	288	2.4	205	2.9	154	3.5	112	4.4	72	5.2	-	-	-	-	-	-
FX8Q	1/20(3)	-(3)	1725	4460	325	3.2	249	3.6	197	3.9	157	3.9	121	3.9	85	3.9	46	3.9	-	-
FX10V	1/50(3)	-(3)	1050	2715	323	1.6	221	2.3	155	2.2	103	2.2	40	2.2	-	-	-	-	-	-
FX10S	1/25	85	1300	3361	400	3.5	309	3.8	246	4.1	194	4.6	152	5	109	5.5	57	6.1	-	-
FX10R	1/12	122	1550	4007	570	6.2	500	6.6	440	6.8	385	6.8	325	6.8	251	6.9	170	7.1	-	-
FX10Q	1/6(3)	-(3)	1725	4460	644	7.7	582	8.1	526	8.4	476	8.6	426	8.5	373	8.5	309	8.5	168	8.5
FX11V	1/25	103	1050	3058	406	1.9	225	2.2	151	3.6	119	4.2	87	4.8	57	5.5	-	-	-	-
FX11S	1/11	142	1300	3786	534	3.9	417	4.2	337	5.1	273	5.9	223	6.2	177	6.5	129	6.9	-	-
FX11R	1/6	199	1550	4514	760	7.6	667	7.4	586	7.6	512	7.9	434	8.9	359	9.6	283	9.6	118	9.7
FX11Q	1/5	255	1725	5024	1034	10.7	959	10.5	883	10.5	804	10.5	722	10.6	631	10.9	538	10.7	313	9.7

(1) TE motor is 1/6 Hp. (2) TE motor is 1/7 Hp. (3) Available on EC Motor only. See additional notes on page 11.

FX13





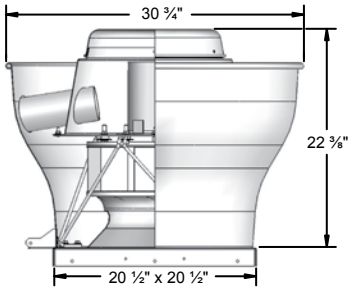
(FX Units Only) Galv. Steel Base = 16 Gage
(WFX Units Only) Aluminum Base = 0.064
(FX Units Only) Aluminum Base = 0.050
Discharge Apron = 0.050
FX13S/R Estimated Ship Weight = 45 lbs.
FX13Q Estimated Ship Weight = 52 lbs.

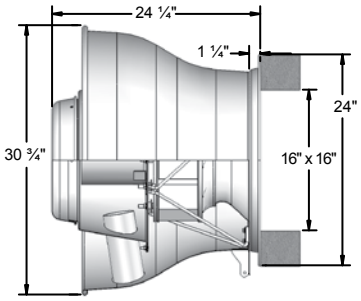
Model	Nominal			Tip Speed FPM	0.000" SP		0.125" SP		0.250" SP		0.375" SP		0.500" SP		0.625" SP		0.750" SP		1.000" SP		1.250" SP	
	HP	Max Watts	RPM		CFM	Sones	CFM	Sones	CFM	Sones	CFM	Sones	CFM	Sones	CFM	Sones	CFM	Sones	CFM	Sones	CFM	Sones
FX13V	1/20	113	1050	3221	640	4.2	469	2.8	317	2.4	250	3.1	197	3.8	149	4.5	106	5.2	-	-	-	-
FX13S	1/12	148	1300	3988	845	7.4	735	6.4	612	5.2	492	5.0	404	5.3	334	5.7	270	6.1	136	7.0	-	-
FX13R	1/6	188	1550	4755	1057	10.5	980	10.1	908	9.6	825	8.6	733	8.1	646	8.1	561	8.2	376	8.2	144	8.5
FX13Q	1/4	343	1725	5292	1261	13.6	1198	13.0	1143	12.6	1093	12.1	1033	11.7	973	11.2	909	10.8	757	10.1	515	9.6

See notes on page 11.

FX16 - FX18 | DIRECT DRIVE

FX16



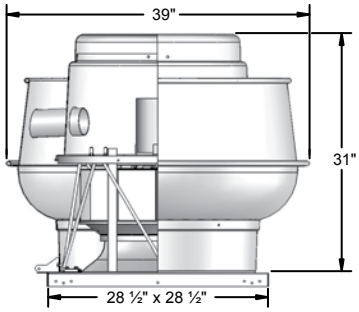


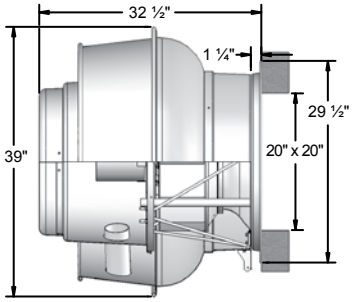
(FX Units Only) Galv. Steel Base = 16 Gage
Aluminum Base = 0.064
Discharge Apron = 0.064
FX16Q Estimated Ship Weight = 71 lbs.

Model	Nominal			Tip Speed FPM	0.000" SP		0.125" SP		0.250" SP		0.375" SP		0.500" SP		0.625" SP		0.750" SP		1.000" SP		1.250" SP		1.500" SP	
	HP	Max Watts	RPM		CFM	Sones	CFM	Sones	CFM	Sones	CFM	Sones	CFM	Sones	CFM	Sones	CFM	Sones	CFM	Sones	CFM	Sones	CFM	Sones
FX16V	1/6	485	1050	3788	1604	7.9	1358	6.5	1128	5.5	951	5.8	801	6.3	705	6.9	644	7.7	522	9.2	384	9.3	230	9.7
FX16S	1/3	527	1300	4690	1874	10.7	1693	9.5	1514	8.6	1326	8.0	1158	7.6	1023	7.7	913	8.2	735	9.6	572	9.7	379	9.9
FX16R	1/3(1)	590	1550	5592	2140	12.8	1994	11.9	1849	11.0	1709	10.2	1561	9.9	1410	9.6	1269	9.4	1033	9.7	812	11.1	583	10.8
FX16Q1	1/2	715	1650	5953	2531	15.2	2432	14.7	2332	14.2	2232	13.7	2114	13.1	1992	12.5	1868	11.9	1582	11.0	1320	11.5	1001	12.1
FX16Q2	3/4	890	1725	6223	2822	17.1	2753	16.8	2684	16.5	2594	16.1	2501	15.7	2418	15.4	2331	15.1	2119	14.2	1872	14.1	1566	14.2

(1) TE motor is 1/2 Hp. See additional notes at bottom of page.

FX18





(FX Units Only) Galv. Steel Base = 16 Gage
Aluminum Base = 0.064
Discharge Apron = 0.080
FX18V Estimated Ship Weight = 87 lbs.

Model	Nominal			Tip Speed FPM	0.000" SP		0.125" SP		0.250" SP		0.375" SP		0.500" SP		0.625" SP		0.750" SP		1.000" SP		1.250" SP		1.500" SP	
	HP	Max Watts	RPM		CFM	Sones	CFM	Sones	CFM	Sones	CFM	Sones	CFM	Sones	CFM	Sones	CFM	Sones	CFM	Sones	CFM	Sones	CFM	Sones
FX18V	3/4	969	1075	6029	4489	21.0	4333	21.0	4177	20.0	4011	19.1	3831	18.1	3652	17.6	3455	17.2	3023	16.5	2431	17.5	1447	20.0

Performance shown is for installation Type A: Free Inlet, Free Outlet. Speed (RPM) shown is nominal. Performance is based on actual speed of test. The sound ratings shown are for loudness values in fan sones at 5'0" (1.5m) in a hemispherical free field per AMCA Standard 301. Values shown are for Installation Type A: free inlet hemispherical sone levels. Performance ratings do not include the effects of appurtenances in the air stream.

Fumex fans are only one component of a total system. As such, fan performance is directly affected by the system. It is critical that system designers determine the actual system loss to ensure that the actual flow is specified in the system design.

DIRECT DRIVE PERFORMANCE DATA

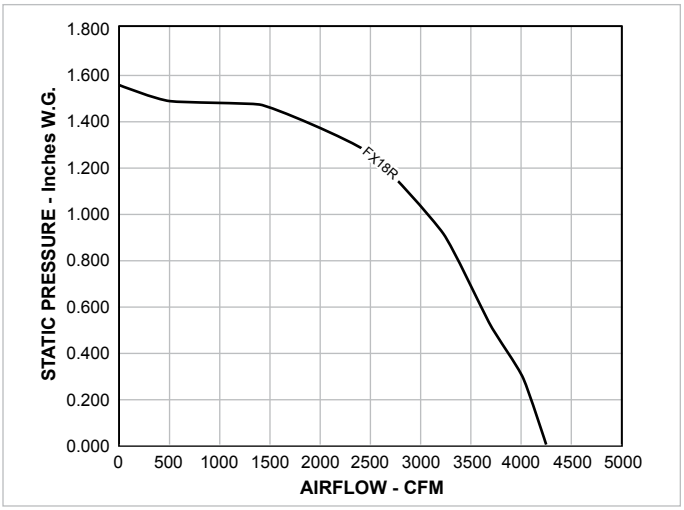
Fan Curves

The fan curves illustrated here show the range of capacities available for direct drive units. Each graph shows the performance of several models at one particular nominal speed. Fan curves provide a quick method for selecting a fan unit based on design point requirements.

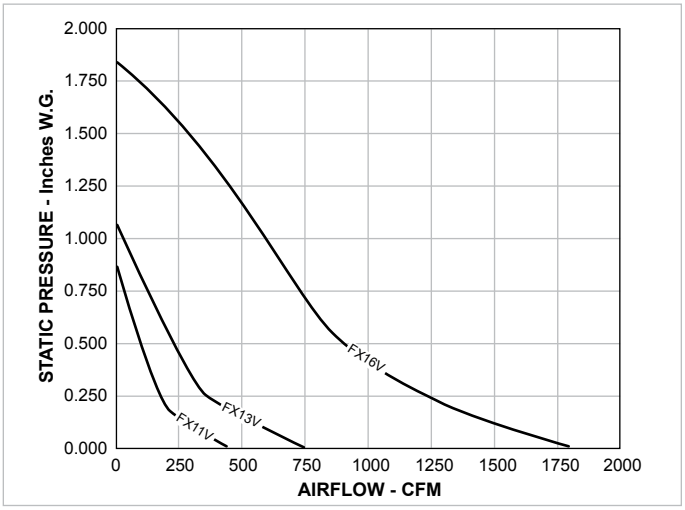
The direct drive performance charts on the previous pages provides the tabular data (CFM and static pressure) used to plot the fan curves. In addition, the horsepower tip speed and sones are tabulated. Since sound is normally an important factor in the selection of a fan, an engineer will usually want to select the “slowest” unit which meets CFM and SP requirements.

Please refer to the Motor Availability section to make sure the motor you select meets your electrical requirements.

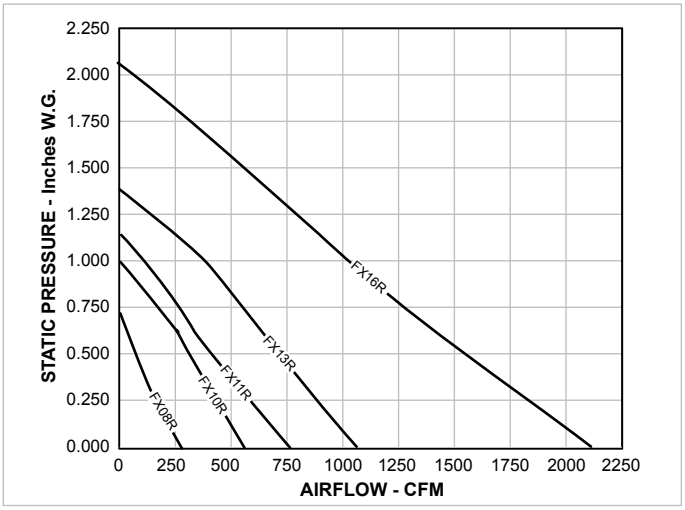
Nominal 1075 RPM



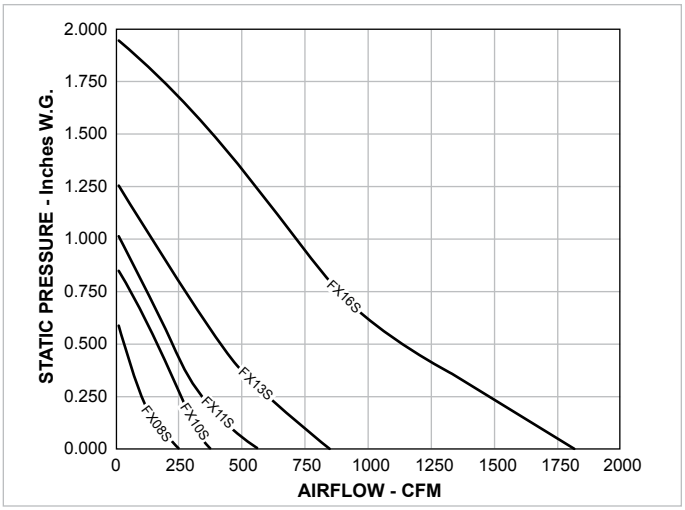
Nominal 1050 RPM



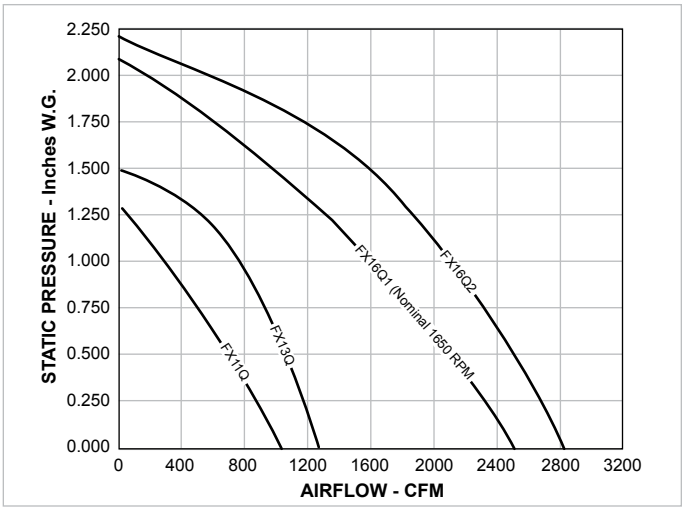
Nominal 1550 RPM



Nominal 1300 RPM



Nominal 1725 RPM



Fumex fans are only one component of a total system. As such, fan performance is directly affected by the system. It is critical that system designers determine the actual system loss to ensure that the actual flow is specified in the system design. Performance shown is for installation Type A: Free Inlet, Free Outlet. Speed (RPM) shown is nominal. Performance is based on actual speed of test. Performance ratings do not include the effects of appurtenances in the air stream.

BELT DRIVE PERFORMANCE DATA

Performance Data

The belt drive models shown on the following pages have sizes and capacities ranging from below 250 CFM to above 30,000 CFM, with static pressures from 0" to 4". All models are available with a wide range of horsepower sizes and RPM's. Two-speed motors are commonly used to enhance this flexibility.

The data provided for each belt drive model includes:

- Elevation Drawing Showing Overall Dimensions
- Fan Curve Graph
- Performance Chart

Each curve graphically displays the range of capacities available for each model, in most cases beyond the specifics shown in the tabular data. The maximum performance afforded by each horsepower is indicated by dashed lines and the RPM is indicated by solid lines.

Some models have graphs that show both shaded and unshaded areas. Selection should be made from the unshaded area only. Shaded areas reflect unstable performance ("surge"), a characteristic typical of backward inclined wheels, and should be avoided. These unstable regions are not shown in the tabular data.

The highest RPM shown for a specific horsepower in the tabular data is the maximum speed that for any point along the performance curve, the BHP will not exceed the available horsepower.

It is important to note that while it is common industry-wide practice to exceed a "nominal" horsepower by using a motor's service factor, PennBarry uses a conservative portion of the service factor, allowing half to remain a true "safety" factor.

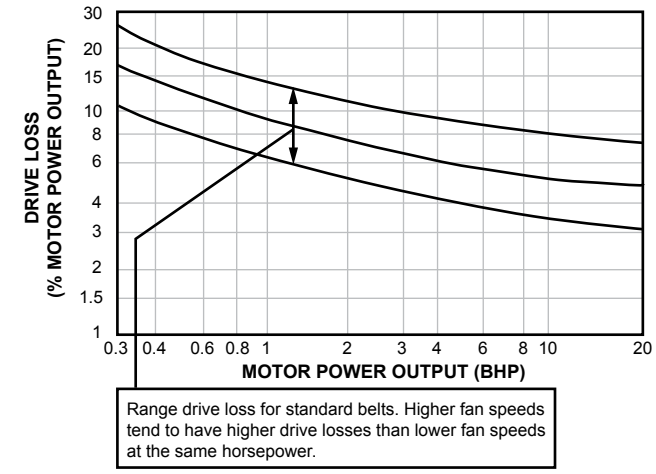
Use the Motor Availability chart (see Motor Selection) to select motor enclosures and voltages which can be installed in the fans.

Note: Fumex fans are only one component of a total system. As such, performance is directly affected by the system. It is critical that system designers determine actual system losses to ensure that the actual flow is specified in the system range.

Belt Drive Losses

The AMCA Review Committee has developed the chart shown below for the purpose of estimating belt drive losses. To calculate total BHP (including drive losses): Find the BHP of your operating point on the x-axis on the graph below. Follow the vertical line to the curves indicating the range of drive losses. Look at the y-axis on the left and find the drive loss percentage. Calculate the total BHP by adding the drive loss to the operating point BHP. For BHP's below 0.3, use 30%.

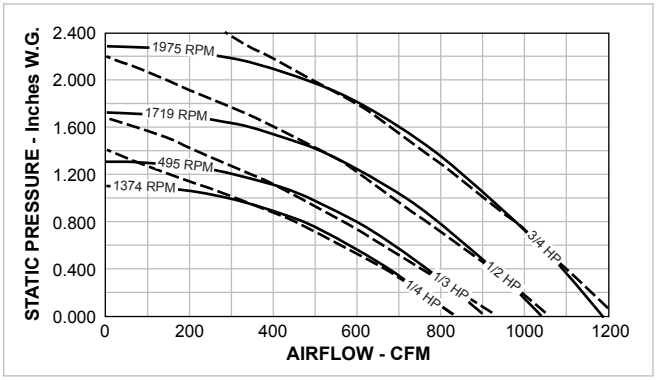
Drive Loss Reference Chart

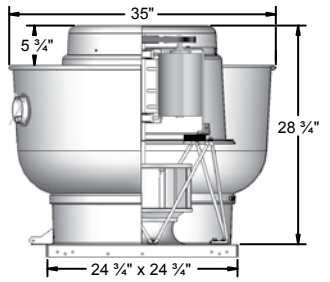


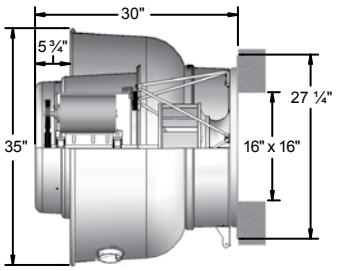
For totally enclosed, explosion proof, multi-speed and all 1.0 Service Factor motors, fan BHP plus drive losses should not exceed motor rated HP.

Graph reprinted from AMCA publication 203, with the express written permission from the Air Movement and Control Association, Inc., 30 West University Drive, Arlington Heights, IL 60004-1983.

FX08B | BELT DRIVE







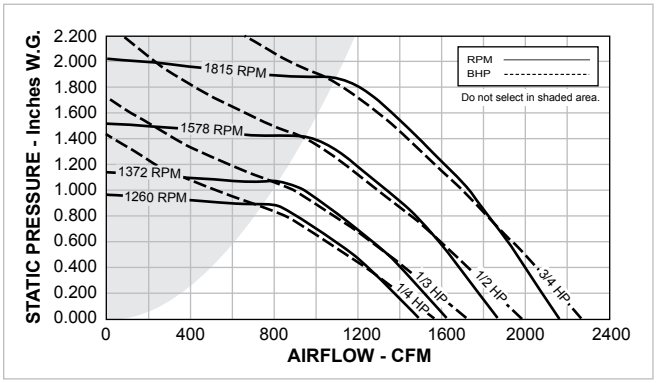
Galv. Steel Base = 16 Gage	Roof/Wall Opening = 16" SQ.	Peak BHP = (RPM/2126)^3
Aluminum Base = 0.064	Damper Size = 15 ¾" SQ.	Max. RPM = 2085
Discharge Apron = 0.064	Max. Motor Frame Size = 55	Est. Ship Weight = 96 lbs.*

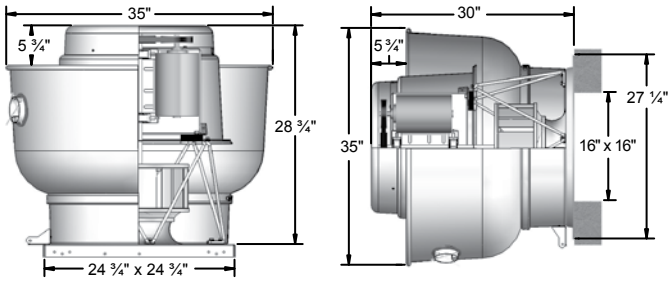
* Add 8 lbs. for Heat & Smoke option.

HP	RPM	Tip Speed FPM	0.000" SP		0.125" SP		0.250" SP		0.375" SP		0.500" SP		0.625" SP		0.750" SP		0.875" SP		1.000" SP		1.125" SP	
			Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP
1/4	350	1191	208		-		-		-		-		-		-		-		-		-	
			1.7	0.01	-		-		-		-		-		-		-		-		-	
	525	1787	312		162		-		-		-		-		-		-		-		-	
			4.2	0.01	4.2	0.01	-		-		-		-		-		-		-		-	
	700	2382	416		320		163		-		-		-		-		-		-		-	
			4.5	0.03	4.4	0.03	4.2	0.03	-		-		-		-		-		-		-	
	875	2978	520		447		359		231		-		-		-		-		-		-	
			5.9	0.06	5.8	0.07	5.6	0.07	5.3	0.07	-		-		-		-		-		-	
	1050	3574	624		563		497		422		324		108		-		-		-		-	
			8.0	0.11	7.9	0.11	7.6	0.12	7.3	0.12	6.9	0.12	6.0	0.10	-		-		-		-	
	1225	4169	728		677		623		564		498		421		306		-		-		-	
			10.6	0.17	10.4	0.18	10.2	0.18	9.8	0.18	9.4	0.19	9.0	0.19	8.3	0.18	-		-		-	
	1374	4676	817		771		724		674		619		560		493		407		275		-	
			12.1	0.25	11.9	0.25	11.6	0.25	11.3	0.26	11.0	0.26	10.7	0.27	10.3	0.26	9.9	0.26	9.2	0.24	-	
1/3	1410	4799	838		793		748		700		647		591		528		455		346		152	
			12.6	0.27	12.3	0.27	12.1	0.27	11.8	0.27	11.4	0.28	11.1	0.29	10.8	0.29	10.4	0.28	9.9	0.27	9.0	0.23
	1440	4901	856		812		767		722		670		616		557		489		394		252	
			13.0	0.28	12.7	0.29	12.5	0.29	12.2	0.29	11.8	0.30	11.5	0.30	11.2	0.31	10.9	0.30	10.4	0.29	9.7	0.27
	1470	5003	874		831		787		743		693		640		584		519		437		318	
			13.4	0.30	13.2	0.31	12.9	0.21	12.6	0.31	12.3	0.32	11.9	0.32	11.6	0.33	11.3	0.32	11.0	0.31	10.3	0.30
	1495	5088	889		846		804		760		711		660		605		543		472		366	
			13.8	0.32	13.5	0.32	13.3	0.33	13.0	0.33	12.7	0.33	12.3	0.34	11.9	0.34	11.6	0.34	11.4	0.33	10.9	0.32
1/2	1535	5224	912		871		830		787		741		692		639		582		518		429	
			14.3	0.34	14.0	0.35	13.8	0.35	13.5	0.35	13.2	0.36	12.9	0.37	12.5	0.37	12.1	0.37	11.8	0.37	11.5	0.35
	1565	5326	930		890		849		807		763		715		664		611		548		472	
			14.6	0.36	14.4	0.37	14.1	0.37	13.8	0.37	13.5	0.38	13.2	0.39	12.8	0.39	12.5	0.39	12.1	0.39	11.9	0.38
	1595	5428	948		909		869		828		785		738		689		637		578		511	
			14.9	0.39	14.0	0.39	14.5	0.40	14.2	0.40	13.9	0.40	13.5	0.41	13.2	0.41	12.9	0.42	12.5	0.41	12.3	0.41
	1630	5548	969		930		891		851		810		764		717		667		612		551	
			15.4	0.41	15.1	0.42	14.9	0.42	14.6	0.42	14.3	0.42	14.0	0.43	13.6	0.44	13.3	0.44	13.0	0.44	12.7	0.44
	1665	5667	990		952		914		875		835		790		745		696		646		587	
			15.8	0.44	16.7	0.44	15.3	0.45	15.1	0.45	14.8	0.45	14.5	0.46	14.1	0.47	13.8	0.47	13.5	0.48	13.1	0.47
	1695	5769	1008		970		933		895		856		813		768		721		672		616	
			16.2	0.46	17.1	0.47	15.7	0.47	15.5	0.48	15.2	0.48	14.9	0.48	14.6	0.49	14.2	0.50	13.9	0.50	13.6	0.50
	1719	5850	1022		985		948		911		872		830		787		741		693		640	
			16.6	0.48	16.4	0.49	16.1	0.49	15.9	0.50	15.6	0.50	15.2	0.50	14.9	0.51	14.6	0.52	14.3	0.52	13.9	0.52
3/4	1755	5973	1043		1007		971		934		897		857		814		770		723		674	
			17.1	0.51	16.9	0.52	16.7	0.52	16.4	0.53	16.2	0.53	15.8	0.53	15.5	0.54	15.2	0.55	14.8	0.55	14.5	0.56
	1795	6109	1067		1032		997		961		924		886		844		802		757		711	
			17.7	0.55	17.5	0.56	17.3	0.56	17.0	0.56	16.8	0.56	16.5	0.57	16.2	0.58	15.8	0.58	15.5	0.59	15.2	0.59
	1830	6228	1088		1053		1019		984		948		911		870		829		786		741	
			18.3	0.58	18.1	0.59	17.8	0.59	17.6	0.60	17.4	0.60	17.1	0.60	16.8	0.61	16.5	0.62	16.2	0.62	15.9	0.63
	1860	6330	1106		1072		1038		1003		968		933		893		853		810		766	
			18.8	0.61	18.6	0.62	18.4	0.62	18.1	0.63	17.9	0.63	17.6	0.63	17.3	0.64	17.0	0.65	16.7	0.66	16.4	0.66
	1890	6432	1124		1090		1057		1023		988		953		915		875		834		791	
			19.4	0.64	19.1	0.65	18.9	0.65	18.6	0.66	18.4	0.66	18.1	0.66	17.8	0.67	17.5	0.68	17.2	0.68	17.0	0.69
	1920	6535	1141		1109		1076		1042		1008		974		937		898		858		816	
			19.8	0.67	19.6	0.68	19.4	0.68	19.1	0.69	18.9	0.69	18.6	0.69	18.3	0.70	18.0	0.71	17.7	0.72	17.4	0.72
	1950	6637	1159		1127		1095		1062		1028		995		959		920		882		841	
			20.0	0.70	20.0	0.71	19.8	0.72	19.6	0.72	19.3	0.72	19.1	0.72	18.8	0.73	18.5	0.74	18.2	0.75	17.9	0.75
	1975	6722	1174		1142		1110		1078		1045		1012		977		939		901		861	
			21.0	0.73	20.0	0.74	20.0	0.74	20.0	0.75	19.7	0.75	19.5	0.75	19.1	0.76	18.8	0.77	18.6	0.78	18.3	0.78

Performance shown is for installation type A: Free Inlet, Free Outlet. Power rating (BHP) does not include transmission losses. For further information on estimating belt drive losses and motor service factors see page 12. The sound ratings shown are for loudness values in fan sones at 5'0" (1.5m) in a hemispherical free field per AMCA Standard 301. Values shown are for installation Type A: free inlet hemispherical sone levels. Performance ratings do not include the effects of appurtenances in the airstream.

FX10B | BELT DRIVE





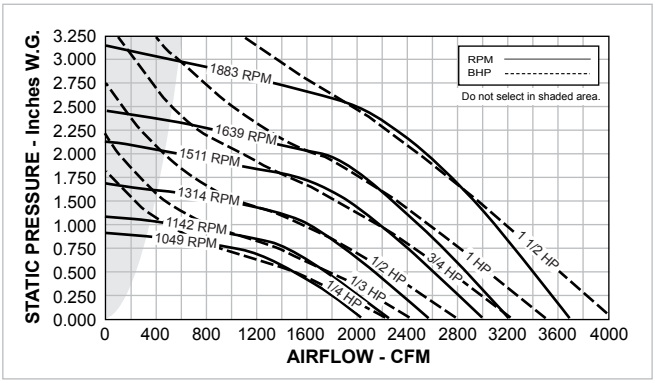
Galv. Steel Base = 16 Gage	Roof/Wall Opening = 16" SQ.	Peak BHP = (RPM/1869)³
Aluminum Base = 0.064	Damper Size = 15 ¾" SQ.	Max. RPM = 2085
Discharge Apron = 0.064	Max. Motor Frame Size = 56	Est. Ship Weight = 96 lbs.*

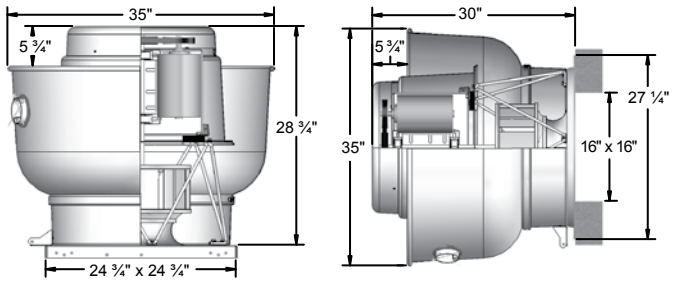
* Add 8 lbs. for Heat & Smoke option.

HP	RPM	Tip Speed FPM	0.000" SP		0.125" SP		0.250" SP		0.375" SP		0.500" SP		0.625" SP		0.750" SP		1.000" SP		1.125" SP		1.250" SP	
			Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP
1/4	600	2042	714		543		-		-		-		-		-		-		-		-	
			5.9	0.02	5.7	0.03	-		-		-		-		-		-		-		-	
	750	2553	892		765		596		-		-		-		-		-		-		-	
			6.7	0.05	6.6	0.05	6.5	0.06	-		-		-		-		-		-		-	
	900	3063	1071		968		854		696		-		-		-		-		-		-	
			7.3	0.08	7.1	0.09	7.1	0.09	7.1	0.10	-		-		-		-		-		-	
	1000	3403	1190		1097		998		874		730		-		-		-		-		-	
			8.6	0.11	8.4	0.12	8.3	0.13	8.3	0.13	8.4	0.13	-		-		-		-		-	
	1100	3744	1309		1225		1136		1042		915		780		-		-		-		-	
			10.4	0.14	10.2	0.15	10.0	0.16	9.9	0.17	9.9	0.18	9.9	0.18	-		-		-		-	
	1260	4288	1499		1426		1352		1271		1187		1076		961		-		-		-	
			13.5	0.22	13.2	0.23	13.0	0.24	12.7	0.25	12.6	0.26	12.6	0.26	12.6	0.26	-		-		-	
1/3	1300	4424	1547		1476		1404		1327		1249		1144		1035		-		-		-	
			13.9	0.24	13.6	0.25	13.4	0.26	13.1	0.27	13.0	0.28	12.9	0.29	12.9	0.29	-		-		-	
	1325	4509	1577		1507		1437		1361		1285		1187		1080		-		-		-	
			14.2	0.25	13.9	0.26	13.7	0.28	13.4	0.29	13.2	0.30	13.1	0.30	13.1	0.31	-		-		-	
	1350	4595	1607		1538		1469		1396		1320		1229		1125		892		-		-	
			14.4	0.27	14.2	0.28	13.9	0.29	13.7	0.30	13.4	0.31	13.4	0.32	13.3	0.32	13.3	0.32	-		-	
	1372	4669	1633		1565		1497		1426		1352		1266		1164		943		-		-	
			14.7	0.28	14.5	0.29	14.2	0.31	13.9	0.32	13.7	0.33	13.6	0.33	13.5	0.34	13.5	0.34	-		-	
1/2	1390	4731	1654		1587		1521		1450		1377		1296		1195		984		-		-	
			15.0	0.29	14.7	0.30	14.5	0.32	14.2	0.33	13.9	0.34	13.8	0.35	13.6	0.35	13.6	0.35	-		-	
	1420	4833	1690		1624		1559		1491		1419		1345		1247		1044		909		-	
			15.4	0.31	15.2	0.32	14.9	0.34	14.6	0.35	14.3	0.36	14.1	0.37	13.9	0.37	13.9	0.38	13.9	0.38	-	
	1450	4935	1726		1662		1597		1531		1461		1391		1298		1100		988		-	
			15.9	0.33	15.7	0.34	15.4	0.36	15.1	0.37	14.8	0.38	14.6	0.39	14.4	0.40	14.3	0.40	14.3	0.40	-	
	1475	5020	1755		1692		1629		1565		1496		1427		1340		1147		1045		-	
			16.3	0.35	16.1	0.36	15.9	0.38	15.6	0.39	15.3	0.40	15.0	0.41	14.8	0.42	14.6	0.42	14.6	0.42	-	
	1500	5105	1785		1723		1661		1599		1531		1463		1382		1193		1096		968	
			16.7	0.36	16.5	0.38	16.3	0.39	16.0	0.41	15.7	0.42	15.4	0.43	15.1	0.44	14.9	0.44	14.9	0.44	14.9	0.44
	1525	5190	1815		1754		1693		1632		1565		1498		1423		1239		1143		1034	
			17.0	0.38	16.8	0.40	16.6	0.41	16.3	0.43	15.9	0.44	15.6	0.45	15.3	0.46	15.0	0.47	15.0	0.47	15.0	0.47
	1550	5275	1845		1785		1725		1665		1600		1534		1465		1284		1190		1091	
			17.2	0.40	17.0	0.42	16.8	0.43	16.5	0.45	16.2	0.46	15.8	0.47	15.6	0.48	15.1	0.49	15.1	0.49	15.1	0.49
	1578	5371	1878		1819		1760		1701		1638		1573		1509		1333		1241		1149	
			17.4	0.42	17.2	0.44	17.0	0.46	16.8	0.47	16.4	0.48	16.1	0.49	15.8	0.51	15.3	0.52	15.3	0.52	15.3	0.52
3/4	1600	5445	1904		1846		1788		1730		1668		1604		1541		1371		1282		1191	
			17.6	0.44	17.4	0.46	17.2	0.47	16.9	0.49	16.6	0.50	16.3	0.51	16.0	0.53	15.4	0.54	15.4	0.54	15.4	0.54
	1630	5548	1940		1883		1826		1769		1709		1646		1584		1423		1336		1247	
			17.8	0.47	17.6	0.48	17.4	0.50	17.2	0.52	16.9	0.53	16.6	0.54	16.2	0.55	15.5	0.57	15.5	0.57	15.5	0.57
	1660	5650	1976		1920		1864		1808		1749		1688		1627		1474		1390		1302	
			18.0	0.49	17.9	0.51	17.7	0.53	17.5	0.54	17.2	0.56	16.9	0.57	16.5	0.58	15.8	0.60	15.7	0.60	15.7	0.60
	1695	5769	2017		1962		1908		1853		1796		1736		1676		1534		1451		1367	
			18.4	0.53	18.2	0.54	18.1	0.56	17.9	0.58	17.6	0.59	17.3	0.60	16.9	0.62	16.2	0.63	16.0	0.64	16.0	0.64
	1730	5888	2059		2005		1952		1898		1843		1784		1726		1592		1511		1430	
			18.8	0.56	18.6	0.58	18.5	0.59	18.3	0.61	18.0	0.63	17.7	0.64	17.4	0.65	16.7	0.67	16.3	0.68	16.3	0.68
	1765	6007	2101		2048		1995		1943		1890		1832		1775		1650		1571		1492	
			19.3	0.59	19.2	0.61	19.0	0.63	18.9	0.65	18.6	0.66	18.3	0.68	18.0	0.69	17.3	0.71	16.8	0.72	16.7	0.72
	1790	6092	2130		2078		2027		1975		1923		1866		1810		1692		1613		1535	
			19.8	0.62	19.6	0.64	19.5	0.66	19.4	0.67	19.0	0.69	18.7	0.70	18.4	0.72	17.7	0.74	17.3	0.75	17.0	0.75
	1815	6177	2160		2109		2058		2007		1955		1900		1844		1732		1655		1578	
			20.0	0.65	20.0	0.66	20.0	0.68	19.9	0.70	19.6	0.72	19.2	0.73	18.9	0.75	18.2	0.77	17.8	0.78	17.3	0.78

Performance shown is for installation type A: Free Inlet, Free Outlet. Power rating (BHP) does not include transmission losses. For further information on estimating belt drive losses and motor service factors see page 12. The sound ratings shown are for loudness values in fan sones at 5'0' (1.5m) in a hemispherical free field per AMCA Standard 301. Values shown are for installation Type A: free inlet hemispherical sone levels. Performance ratings do not include the effects of appurtenances in the airstream.

FX12BH | BELT DRIVE





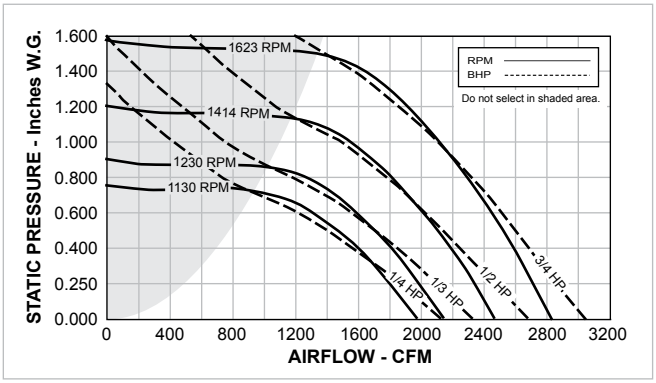
Galv. Steel Base = 16 Gage	Roof/Wall Opening = 16" SQ.	Peak BHP = (RPM/1632)^3
Aluminum Base = 0.064	Damper Size = 15 ¾" SQ.	Max. RPM = 2440
Discharge Apron = 0.064	Max. Motor Frame Size = 56	Est. Ship Weight = 109 lbs.*

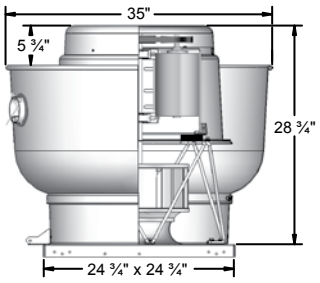
* Add 8 lbs. for Heat & Smoke option.

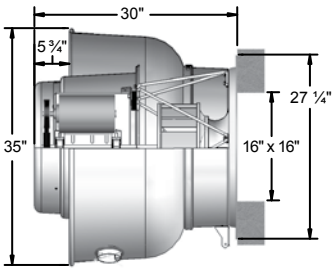
HP	RPM	Tip Speed FPM	0.250" SP		0.500" SP		0.750" SP		1.000" SP		1.250" SP		1.500" SP		1.750" SP		2.000" SP		2.250" SP		2.500" SP	
			Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP
1/4	840	3491	1320		794		-		-		-		-		-		-		-		-	
			7.4	0.13	7.0	0.13	-		-		-		-		-		-		-		-	
	880	3657	1416		1005		-		-		-		-		-		-		-		-	
			8.4	0.14	7.7	0.16	-		-		-		-		-		-		-		-	
	920	3824	1509		1140		-		-		-		-		-		-		-		-	
			9.0	0.16	8.4	0.18	-		-		-		-		-		-		-		-	
	970	4031	1624		1299		500		-		-		-		-		-		-		-	
			9.2	0.19	8.8	0.21	9.1	0.16	-		-		-		-		-		-		-	
	1049	4360	1801		1518		1105		-		-		-		-		-		-		-	
			10.1	0.23	9.8	0.26	10.0	0.26	-		-		-		-		-		-		-	
1/3	1105	4592	1924		1661		1325		425		-		-		-		-		-		-	
			10.8	0.27	10.6	0.29	10.6	0.31	10.9	0.22	-		-		-		-		-		-	
	1142	4746	2004		1754		1445		776		-		-		-		-		-		-	
			11.1	0.29	10.9	0.32	11.0	0.34	11.3	0.29	-		-		-		-		-		-	
1/2	1175	4883	2075		1836		1551		1028		-		-		-		-		-		-	
			11.5	0.32	11.2	0.35	11.2	0.37	11.7	0.35	-		-		-		-		-		-	
	1200	4987	2128		1897		1626		1212		-		-		-		-		-		-	
			11.8	0.34	11.6	0.37	11.4	0.39	12.0	0.39	-		-		-		-		-		-	
	1235	5133	2203		1981		1725		1382		470		-		-		-		-		-	
			12.1	0.37	12.1	0.40	11.8	0.42	12.4	0.43	12.5	0.31	-		-		-		-		-	
	1280	5320	2298		2085		1846		1543		896		-		-		-		-		-	
			12.4	0.40	12.7	0.44	12.4	0.46	12.7	0.48	13.1	0.42	-		-		-		-		-	
	1314	5461	2369		2164		1934		1654		1151		-		-		-		-		-	
			12.6	0.43	13.1	0.47	12.9	0.50	13.1	0.52	13.6	0.49	-		-		-		-		-	
3/4	1340	5569	2423		2224		2000		1738		1343		374		-		-		-		-	
			12.8	0.46	13.4	0.50	13.3	0.53	13.4	0.55	14.1	0.54	14.0	0.36	-		-		-		-	
	1375	5715	2496		2304		2089		1847		1522		737		-		-		-		-	
			13.1	0.49	13.8	0.53	13.8	0.57	13.8	0.59	14.6	0.59	14.6	0.48	-		-		-		-	
	1400	5818	2547		2360		2151		1918		1622		963		-		-		-		-	
			13.2	0.52	14.1	0.56	14.1	0.59	14.2	0.62	14.7	0.63	15.0	0.54	-		-		-		-	
	1435	5964	2620		2439		2238		2017		1738		1228		-		-		-		-	
			13.5	0.56	14.5	0.60	14.6	0.64	14.7	0.66	13.4	0.55	15.7	0.63	-		-		-		-	
	1462	6076	2675		2500		2305		2090		1826		1428		564		-		-		-	
			13.9	0.59	14.9	0.63	15.0	0.67	15.1	0.69	15.5	0.71	16.2	0.69	16.1	0.51	-		-		-	
	1511	6280	2775		2609		2422		2217		1984		1686		1029		-		-		-	
			14.7	0.65	15.7	0.69	16.0	0.73	16.0	0.76	16.2	0.78	17.0	0.79	17.0	0.68	-		-		-	
1	1540	6400	2835		2672		2490		2291		2073		1799		1253		-		-		-	
			15.0	0.68	15.9	0.73	16.3	0.77	16.3	0.80	16.5	0.82	17.2	0.83	17.6	0.76	-		-		-	
	1586	6592	2928		2772		2597		2408		2204		1950		1593		835		-		-	
			15.5	0.74	16.3	0.79	16.7	0.83	16.8	0.87	16.9	0.89	17.4	0.91	18.4	0.89	18.3	0.73	-		-	
	1600	6650	2957		2802		2629		2443		2243		1996		1675		964		-		-	
			15.7	0.76	16.4	0.81	16.9	0.85	16.9	0.89	17.1	0.92	17.6	0.93	18.6	0.93	18.5	0.78	-		-	
	1639	6812	3036		2886		2719		2540		2349		2121		1850		1285		-		-	
			16.2	0.81	16.8	0.87	17.3	0.91	17.3	0.95	17.5	0.98	17.9	1.00	18.9	1.00	19.1	0.91	-		-	
1 1/2	1675	6961	3109		2963		2801		2629		2442		2236		1981		1552		817		-	
			16.7	0.87	17.3	0.92	17.8	0.97	17.8	1.01	17.9	1.04	18.2	1.06	19.0	1.07	19.7	1.02	19.6	0.84	-	
	1750	7273	3261		3123		2971		2809		2633		2449		2226		1969		1448		701	
			18.0	0.98	18.4	1.04	18.8	1.09	18.8	1.14	18.8	1.17	18.8	1.20	19.5	1.22	21.0	1.22	21.0	1.13	21.0	0.89
	1825	7585	3412		3282		3139		2984		2821		2650		2461		2231		1955		1381	
			19.4	1.11	19.7	1.17	19.9	1.22	19.9	1.27	19.8	1.31	19.8	1.34	20.0	1.37	21.0	1.38	22.0	1.38	22.0	1.24
	1883	7826	3529		3402		3266		3117		2965		2798		2625		2419		2193		1812	
			21.0	1.22	21.0	1.28	21.0	1.33	21.0	1.38	21.0	1.43	21.0	1.46	21.0	1.49	21.0	1.51	22.0	1.53	23.0	1.47

Performance shown is for installation type A: Free Inlet, Free Outlet. Power rating (BHP) does not include transmission losses. For further information on estimating belt drive losses and motor service factors see page 12. The sound ratings shown are for loudness values in fan sones at 5'0" (1.5m) in a hemispherical free field per AMCA Standard 301. Values shown are for installation Type A: free inlet hemispherical sone levels. Performance ratings do not include the effects of appurtenances in the airstream.

FX13B | BELT DRIVE







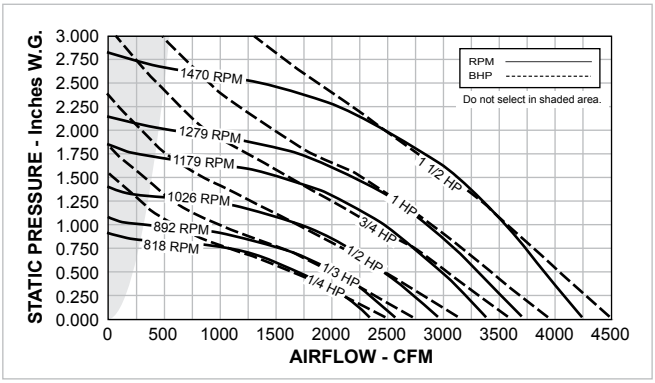
Galv. Steel Base = 16 Gage	Roof/Wall Opening = 16" SQ.	Peak BHP = (RPM/1751)^3
Aluminum Base = 0.064	Damper Size = 15 ¾" SQ.	Max. RPM = 2202
Discharge Apron = 0.064	Max. Motor Frame Size = 56	Est. Ship Weight = 110 lbs.*

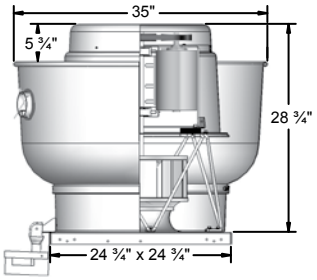
* Add 8 lbs. for Heat & Smoke option.

HP	RPM	Tip Speed FPM	0.000" SP		0.250" SP		0.375" SP		0.500" SP		0.625" SP		0.750" SP		0.875" SP		1.000" SP		1.250" SP		1.375" SP	
			Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP
1/4	500	1800	874		-		-		-		-		-		-		-		-		-	
			6.3	0.02	-		-		-		-		-		-		-		-		-	
	650	2340	1137		-		-		-		-		-		-		-		-		-	
			7.0	0.04	-		-		-		-		-		-		-		-		-	
	800	2880	1399		1052		-		-		-		-		-		-		-		-	
			7.6	0.07	7.4	0.09	-		-		-		-		-		-		-		-	
	978	3521	1710		1452		1284		1026		-		-		-		-		-		-	
			11.0	0.13	10.6	0.16	10.2	0.17	9.7	0.17	-		-		-		-		-		-	
	1055	3798	1845		1608		1471		1281		928		-		-		-		-		-	
			12.7	0.17	12.3	0.20	12.0	0.21	11.5	0.22	10.9	0.21	-		-		-		-		-	
	1130	4068	1976		1755		1635		1485		1281		-		-		-		-		-	
			13.5	0.20	13.1	0.24	12.9	0.25	12.4	0.26	11.7	0.27	-		-		-		-		-	
1/3	1160	4176	2029		1814		1699		1559		1377		1054		-		-		-		-	
			13.9	0.22	13.4	0.26	13.2	0.27	12.8	0.28	12.2	0.29	11.6	0.28	-		-		-		-	
	1185	4266	2072		1862		1751		1619		1448		1196		-		-		-		-	
			14.3	0.24	13.8	0.27	13.5	0.29	13.1	0.30	12.5	0.31	11.9	0.30	-		-		-		-	
	1210	4356	2116		1911		1804		1679		1519		1303		-		-		-		-	
			14.6	0.25	14.1	0.29	13.9	0.30	13.5	0.32	12.9	0.32	12.3	0.33	-		-		-		-	
	1230	4428	2151		1950		1845		1727		1574		1378		-		-		-		-	
			15.0	0.26	14.4	0.30	14.2	0.32	13.8	0.33	13.3	0.34	12.6	0.34	-		-		-		-	
1/2	1255	4518	2195		1998		1895		1782		1639		1458		1152		-		-		-	
			15.4	0.28	14.8	0.32	14.6	0.34	14.2	0.35	13.6	0.36	13.0	0.37	12.5	0.35	-		-		-	
	1280	4608	2239		2046		1945		1835		1701		1535		1292		-		-		-	
			15.7	0.30	15.2	0.34	14.9	0.35	14.6	0.37	14.0	0.38	13.4	0.39	12.9	0.38	-		-		-	
	1305	4698	2282		2094		1994		1889		1762		1606		1401		-		-		-	
			16.1	0.31	15.6	0.36	15.3	0.37	15.0	0.39	14.4	0.40	13.8	0.41	13.2	0.41	-		-		-	
	1330	4788	2326		2142		2044		1942		1823		1676		1493		1130		-		-	
			16.3	0.33	15.8	0.38	15.5	0.39	15.2	0.41	14.7	0.42	14.1	0.43	13.5	0.44	13.2	0.41	-		-	
	1355	4878	2370		2190		2093		1995		1883		1746		1573		1314		-		-	
			16.5	0.35	16.0	0.40	15.7	0.41	15.4	0.43	15.0	0.44	14.4	0.45	13.7	0.46	13.4	0.45	-		-	
	1375	4950	2405		2228		2132		2037		1931		1796		1636		1413		-		-	
			16.7	0.37	16.2	0.41	15.9	0.43	15.6	0.45	15.3	0.46	14.7	0.47	14.0	0.48	13.6	0.48	-		-	
	1400	5040	2449		2275		2181		2089		1985		1858		1708		1516		-		-	
			16.9	0.39	16.4	0.43	16.2	0.45	15.9	0.47	15.5	0.49	15.0	0.50	14.3	0.50	13.8	0.51	-		-	
	1414	5090	2473		2302		2208		2118		2015		1892		1747		1568		-		-	
			17.1	0.40	16.6	0.45	16.3	0.47	16.0	0.48	15.7	0.50	15.2	0.51	14.5	0.52	13.9	0.52	-		-	
3/4	1445	5202	2527		2360		2269		2180		2082		1968		1834		1671		-		-	
			17.4	0.43	16.9	0.47	16.6	0.49	16.4	0.51	16.0	0.53	15.6	0.54	15.0	0.55	14.3	0.56	-		-	
	1470	5292	2571		2408		2317		2230		2135		2028		1903		1749		-		-	
			17.7	0.45	17.2	0.50	16.9	0.52	16.7	0.54	16.3	0.55	15.9	0.57	15.3	0.58	14.6	0.59	-		-	
	1495	5382	2615		2455		2366		2280		2188		2088		1965		1821		1341		-	
			18.0	0.47	17.6	0.52	17.3	0.54	17.0	0.56	16.7	0.58	16.3	0.60	15.7	0.60	15.1	0.61	14.4	0.59	-	
	1525	5490	2667		2511		2424		2339		2251		2156		2039		1906		1521		-	
			18.5	0.50	18.0	0.55	17.7	0.57	17.4	0.59	17.1	0.61	16.8	0.63	16.2	0.64	15.6	0.65	14.7	0.65	-	
	1550	5580	2711		2558		2472		2388		2304		2210		2100		1975		1637		-	
			18.9	0.53	18.4	0.58	18.1	0.60	17.8	0.62	17.6	0.64	17.3	0.66	16.7	0.67	16.1	0.68	15.0	0.69	-	
	1575	5670	2755		2604		2520		2437		2356		2264		2160		2043		1731		1455	
			19.3	0.55	18.9	0.61	18.6	0.63	18.3	0.65	18.0	0.67	17.7	0.69	17.3	0.70	16.7	0.71	15.3	0.72	15.3	0.70
	1600	5760	2798		2651		2568		2486		2406		2317		2220		2105		1818		1597	
			19.6	0.58	19.2	0.63	18.9	0.66	18.6	0.68	18.3	0.70	18.0	0.72	17.6	0.73	17.0	0.74	15.6	0.76	15.5	0.75
	1623	5842	2839		2694		2612		2531		2452		2366		2275		2161		1892		1707	
			19.9	0.60	19.4	0.66	19.2	0.68	18.9	0.70	18.6	0.73	18.3	0.74	18.0	0.76	17.3	0.77	16.0	0.79	15.7	0.79

Performance shown is for installation type A: Free Inlet, Free Outlet. Power rating (BHP) does not include transmission losses. For further information on estimating belt drive losses and motor service factors see page 12. The sound ratings shown are for loudness values in fan sones at 5'0' (1.5m) in a hemispherical free field per AMCA Standard 301. Values shown are for installation Type A: free inlet hemispherical sone levels. Performance ratings do not include the effects of appurtenances in the airstream.

FX13BHFT | BELT DRIVE





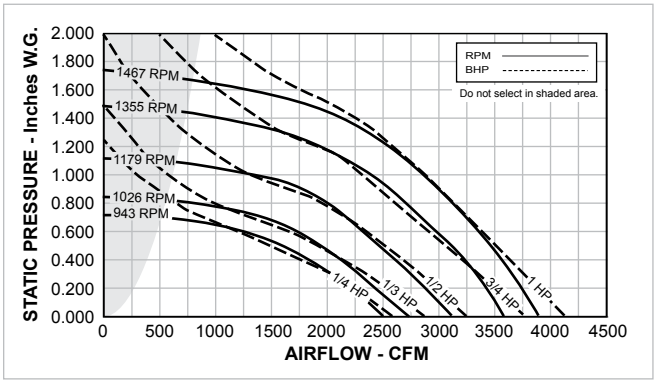
Galv. Steel Base = 16 Gage	Roof/Wall Opening = 16" SQ.	Peak BHP = (RPM/1277)^3
Aluminum Base = 0.064	Damper Size = 15 ¾" SQ.	Max. RPM = 1875
Discharge Apron = 0.064	Max. Motor Frame Size = 56	Est. Ship Weight = 115 lbs.*

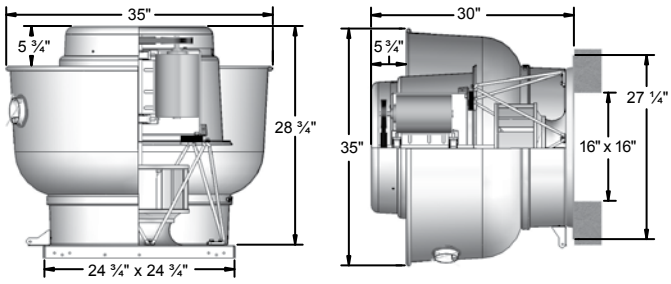
* Add 8 lbs. for Heat & Smoke option.

HP	RPM	Tip Speed FPM	0.250" SP		0.500" SP		0.750" SP		1.000" SP		1.250" SP		1.500" SP		1.750" SP		2.000" SP		2.250" SP		2.500" SP	
			Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP
1/4	750	3670	1817		1312		-		-		-		-		-		-		-		-	
			7.2	0.19	6.7	0.20	-		-		-		-		-		-		-		-	
	818	4002	2046		1645		915		-		-		-		-		-		-		-	
			7.9	0.25	7.4	0.26	7.2	0.23	-		-		-		-		-		-		-	
1/3	850	4159	2152		1781		1168		-		-		-		-		-		-		-	
			8.4	0.27	7.9	0.29	7.7	0.28	-		-		-		-		-		-		-	
	892	4365	2289		1953		1463		-		-		-		-		-		-		-	
			9.3	0.31	8.8	0.33	8.4	0.33	-		-		-		-		-		-		-	
1/2	925	4526	2395		2080		1641		782		-		-		-		-		-		-	
			9.9	0.35	9.4	0.37	9.0	0.38	8.3	0.30	-		-		-		-		-		-	
	950	4648	2476		2176		1769		1100		-		-		-		-		-		-	
			10.3	0.38	9.8	0.40	9.4	0.41	9.0	0.37	-		-		-		-		-		-	
	975	4771	2554		2270		1888		1298		-		-		-		-		-		-	
			10.7	0.41	10.1	0.43	9.7	0.44	9.4	0.41	-		-		-		-		-		-	
	1000	4893	2630		2360		2006		1483		-		-		-		-		-		-	
			11.3	0.44	10.6	0.46	10.1	0.48	9.8	0.46	-		-		-		-		-		-	
	1026	5020	2709		2451		2119		1666		739		-		-		-		-		-	
			11.8	0.47	11.1	0.50	10.7	0.52	10.3	0.51	9.4	0.39	-		-		-		-		-	
3/4	1050	5138	2782		2534		2218		1798		1104		-		-		-		-		-	
			12.3	0.50	11.6	0.53	11.2	0.55	10.8	0.55	10.1	0.48	-		-		-		-		-	
	1075	5260	2858		2619		2321		1932		1333		-		-		-		-		-	
			13.0	0.54	12.2	0.57	11.8	0.59	11.3	0.59	10.8	0.54	-		-		-		-		-	
	1100	5382	2933		2705		2421		2057		1529		-		-		-		-		-	
			13.6	0.57	12.8	0.60	12.5	0.63	12.0	0.63	11.3	0.60	-		-		-		-		-	
	1125	5505	3008		2788		2518		2177		1708		828		-		-		-		-	
			14.2	0.61	13.4	0.64	13.1	0.67	12.6	0.68	12.0	0.66	11.1	0.51	-		-		-		-	
	1150	5627	3083		2871		2613		2294		1881		1206		-		-		-		-	
			14.5	0.65	13.7	0.68	13.4	0.71	12.9	0.73	12.4	0.72	11.6	0.63	-		-		-		-	
	1179	5769	3169		2967		2723		2422		2038		1471		-		-		-		-	
			14.9	0.70	14.1	0.73	13.7	0.76	13.3	0.78	12.9	0.78	12.2	0.72	-		-		-		-	
1	1200	5872	3232		3036		2802		2510		2150		1636		611		-		-		-	
			15.2	0.74	14.4	0.77	14.0	0.80	13.6	0.82	13.2	0.82	12.6	0.78	12.0	0.54	-		-		-	
	1225	5994	3306		3118		2891		2613		2277		1819		1054		-		-		-	
			15.6	0.79	14.8	0.82	14.2	0.85	13.9	0.87	13.5	0.88	13.1	0.85	12.5	0.70	-		-		-	
	1255	6141	3396		3216		2996		2736		2420		2029		1442		-		-		-	
			16.1	0.84	15.2	0.88	14.6	0.91	14.3	0.93	13.9	0.95	13.6	0.93	13.1	0.84	-		-		-	
	1279	6258	3467		3294		3079		2830		2533		2165		1633		569		-		-	
			16.5	0.89	15.6	0.93	15.0	0.96	14.6	0.98	14.3	1.0	14.0	0.99	13.6	0.92	13.3	0.63	-		-	
1 1/2	1300	6361	3529		3362		3151		2911		2631		2278		1797		972		-		-	
			16.9	0.93	16.0	0.97	15.3	1.00	14.9	1.03	14.6	1.06	14.4	1.04	14.0	0.99	13.6	0.79	-		-	
	1325	6483	3603		3442		3237		3007		2737		2411		1978		1351		-		-	
			17.3	0.99	16.5	1.02	15.7	1.06	15.3	1.09	15.0	1.11	14.8	1.11	14.5	1.07	14.1	0.95	-		-	
	1360	6655	3706		3554		3355		3139		2882		2581		2222		1688		680		-	
			17.9	1.07	17.1	1.10	16.2	1.14	15.9	1.17	15.5	1.20	15.3	1.20	15.1	1.18	14.8	1.10	14.8	0.79	-	
	1400	6850	3824		3677		3489		3288		3046		2770		2438		1997		1355		-	
			18.5	1.16	17.7	1.20	16.8	1.24	16.5	1.27	16.1	1.29	15.9	1.32	15.7	1.30	15.5	1.25	15.4	1.10	-	
	1425	6973	3897		3753		3572		3375		3145		2887		2571		2174		1651		493	
			18.9	1.22	18.1	1.26	17.2	1.30	16.8	1.34	16.5	1.36	16.2	1.39	16.1	1.37	15.9	1.34	15.8	1.24	16.1	0.80
	1450	7095	3972		3829		3654		3462		3241		2992		2697		2349		1849		1028	
			19.3	1.29	18.5	1.33	17.5	1.36	17.2	1.40	16.8	1.43	16.5	1.46	16.4	1.45	16.3	1.43	16.2	1.34	16.2	1.08
	1470	7193	4032		3889		3720		3532		3318		3075		2793		2463		2006		1345	
			19.5	1.34	18.7	1.38	17.8	1.42	17.4	1.46	17.1	1.49	16.8	1.51	16.7	1.52	16.6	1.50	16.5	1.43	16.5	1.24

Performance shown is for installation type A: Free Inlet, Free Outlet. Power rating (BHP) does not include transmission losses. For further information on estimating belt drive losses and motor service factors see page 12. The sound ratings shown are for loudness values in fan sones at 5'0" (1.5m) in a hemispherical free field per AMCA Standard 301. Values shown are for installation Type A: free inlet hemispherical sone levels. Performance ratings do not include the effects of appurtenances in the airstream.

FX14B | BELT DRIVE





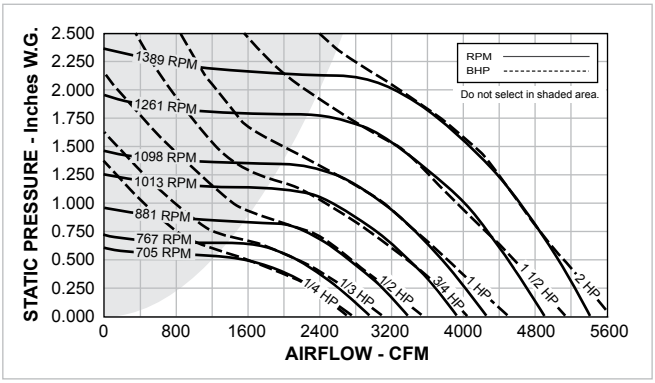
Galv. Steel Base = 16 Gage	Roof/Wall Opening = 16" SQ.	Peak BHP = (RPM/1462)³
Aluminum Base = 0.064	Damper Size = 15 ¾" SQ.	Max. RPM = 1790
Discharge Apron = 0.064	Max. Motor Frame Size = 56	Est. Ship Weight = 112 lbs.*

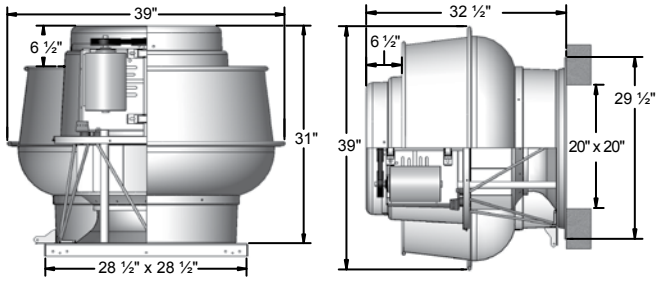
* Add 11 lbs. for Heat & Smoke option.

HP	RPM	Tip Speed FPM	0.000" SP		0.250" SP		0.500" SP		0.625" SP		0.750" SP		0.875" SP		1.000" SP		1.250" SP		1.375" SP		1.500" SP	
			Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP
1/4	400	1662	1061		-		-		-		-		-		-		-		-		-	
			4.8	0.02	-		-		-		-		-		-		-		-		-	
	550	2286	1459		-		-		-		-		-		-		-		-		-	
			4.9	0.04	-		-		-		-		-		-		-		-		-	
	690	2868	1830		1283		-		-		-		-		-		-		-		-	
			7.8	0.09	6.9	0.10	-		-		-		-		-		-		-		-	
	815	3387	2162		1743		673		-		-		-		-		-		-		-	
			10.2	0.14	9.3	0.17	8.0	0.14	-		-		-		-		-		-		-	
	880	3657	2334		1955		1367		-		-		-		-		-		-		-	
			11.8	0.18	11.1	0.21	9.8	0.21	-		-		-		-		-		-		-	
	943	3919	2502		2154		1673		1230		-		-		-		-		-		-	
			13.0	0.22	12.3	0.26	11.0	0.27	10.4	0.25	-		-		-		-		-		-	
1/3	975	4052	2586		2253		1812		1480		-		-		-		-		-		-	
			13.6	0.25	12.8	0.28	11.5	0.30	11.0	0.29	-		-		-		-		-		-	
	1000	4156	2653		2330		1914		1615		887		-		-		-		-		-	
			14.0	0.26	13.3	0.30	12.0	0.32	11.5	0.32	10.8	0.27	-		-		-		-		-	
	1026	4264	2722		2410		2019		1738		1267		-		-		-		-		-	
			14.3	0.29	13.7	0.32	12.5	0.35	12.0	0.35	11.4	0.32	-		-		-		-		-	
1/2	1050	4364	2785		2483		2110		1850		1504		-		-		-		-		-	
			14.7	0.31	14.1	0.35	13.0	0.37	12.4	0.37	12.1	0.36	-		-		-		-		-	
	1075	4468	2852		2559		2198		1963		1659		838		-		-		-		-	
			15.2	0.33	14.5	0.37	13.4	0.39	12.9	0.40	12.6	0.39	12.2	0.32	-		-		-		-	
	1100	4572	2918		2634		2285		2067		1791		1269		-		-		-		-	
			15.8	0.35	15.0	0.39	13.8	0.42	13.3	0.43	13.0	0.43	12.6	0.39	-		-		-		-	
	1130	4696	2998		2724		2388		2189		1933		1593		657		-		-		-	
			16.6	0.38	15.9	0.43	14.6	0.45	14.0	0.46	13.5	0.46	13.3	0.44	13.2	0.33	-		-		-	
	1160	4821	3077		2812		2490		2309		2072		1786		1147		-		-		-	
			17.4	0.41	16.7	0.46	15.6	0.49	14.9	0.50	14.4	0.50	14.2	0.49	13.9	0.44	-		-		-	
	1179	4900	3128		2867		2553		2377		2157		1889		1394		-		-		-	
			18.1	0.43	17.4	0.48	16.2	0.51	15.6	0.52	15.0	0.52	14.9	0.52	14.7	0.49	-		-		-	
3/4	1210	5029	3210		2956		2654		2485		2284		2038		1718		-		-		-	
			19.1	0.47	18.4	0.52	17.2	0.55	16.6	0.56	16.1	0.57	15.9	0.57	15.8	0.54	-		-		-	
	1240	5154	3290		3043		2750		2590		2406		2178		1909		-		-		-	
			19.4	0.50	18.7	0.55	17.5	0.59	16.8	0.60	16.3	0.61	16.0	0.61	15.9	0.60	-		-		-	
	1270	5278	3369		3129		2846		2693		2526		2315		2067		812		-		-	
			19.4	0.54	18.7	0.59	17.6	0.63	17.0	0.64	16.5	0.65	16.0	0.65	15.8	0.65	15.8	0.48	-		-	
	1300	5403	3449		3214		2941		2795		2634		2439		2209		1324		-		-	
			19.6	0.58	18.9	0.63	17.9	0.67	17.3	0.69	16.8	0.70	16.2	0.70	15.9	0.70	15.8	0.62	-		-	
	1330	5528	3528		3300		3035		2893		2738		2561		2349		1698		829		-	
			19.9	0.62	19.2	0.68	18.3	0.72	17.7	0.73	17.1	0.74	16.6	0.75	16.2	0.75	15.9	0.71	15.9	0.55	-	
	1355	5631	3595		3371		3113		2974		2825		2662		2464		1938		1241		-	
			20.0	0.66	19.6	0.72	18.6	0.76	18.0	0.77	17.5	0.78	17.0	0.79	16.5	0.79	16.1	0.76	16.1	0.67	-	
1	1385	5756	3674		3456		3206		3070		2928		2777		2588		2126		1665		817	
			21.0	0.70	20.0	0.76	19.2	0.80	18.6	0.82	18.0	0.83	17.5	0.85	17.0	0.85	16.3	0.83	16.3	0.79	16.3	0.61
	1405	5839	3727		3512		3268		3134		2997		2848		2670		2235		1893		1054	
			21.0	0.73	20.0	0.79	19.6	0.84	19.0	0.85	18.5	0.87	17.9	0.88	17.4	0.89	16.6	0.88	16.6	0.79	16.6	0.70
	1430	5943	3794		3583		3344		3214		3081		2935		2771		2359		2093		1529	
			22.0	0.77	21.0	0.84	20.0	0.88	19.7	0.90	19.1	0.91	18.5	0.93	18.0	0.93	17.0	0.93	16.9	0.90	16.9	0.84
	1450	6026	3847		3639		3405		3277		3147		3005		2852		2454		2216		1780	
			22.0	0.81	22.0	0.87	21.0	0.91	20.0	0.93	19.6	0.95	19.0	0.96	18.5	0.97	17.4	0.97	17.1	0.96	17.1	0.91
	1467	6097	3892		3687		3457		3331		3202		3063		2919		2533		2309		1972	
			23.0	0.83	22.0	0.90	21.0	0.94	21.0	0.97	20.0	0.98	19.5	0.99	19.0	1.01	17.8	1.01	17.4	1.00	17.4	0.96

Performance shown is for installation type A: Free Inlet, Free Outlet. Power rating (BHP) does not include transmission losses. For further information on estimating belt drive losses and motor service factors see page 12. The sound ratings shown are for loudness values in fan sones at 5'0' (1.5m) in a hemispherical free field per AMCA Standard 301. Values shown are for installation Type A: free inlet hemispherical sone levels. Performance ratings do not include the effects of appurtenances in the airstream.

FX16B | BELT DRIVE





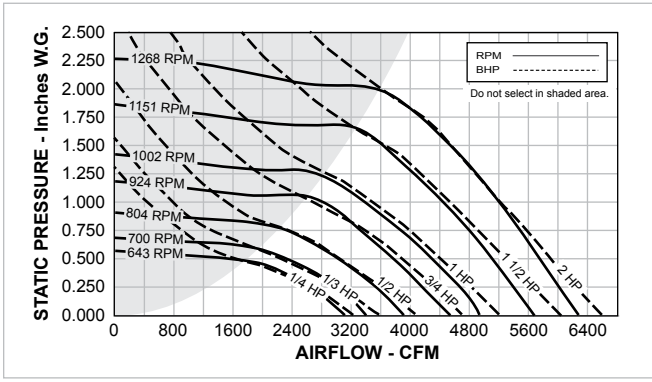
Galv. Steel Base = 14 Gage	Roof/Wall Opening = 20" SQ.	Peak BHP = (RPM/1095)³
Aluminum Base = 0.080	Damper Size = 19 ¾" SQ.	Max. RPM = 1755
Discharge Apron = 0.064	Max. Motor Frame Size = 145T	Est. Ship Weight = 144 lbs.*

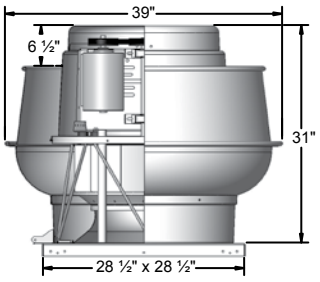
* Add 11 lbs. for Heat & Smoke option.

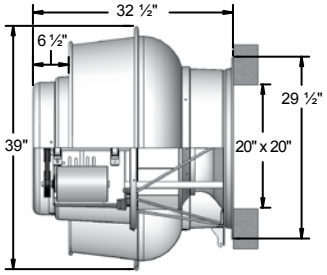
HP	RPM	Tip Speed FPM	0.000" SP		0.250" SP		0.500" SP		0.625" SP		0.750" SP		1.000" SP		1.250" SP		1.375" SP		1.500" SP		1.750" SP	
			Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP
1/4	500	2446	1999		1280		-		-		-		-		-		-		-		-	
			6.0	0.08	5.2	0.09	-		-		-		-		-		-		-		-	
	609	2979	2435		1951		-		-		-		-		-		-		-		-	
			8.8	0.15	8.1	0.17	-		-		-		-		-		-		-		-	
	660	3229	2639		2213		-		-		-		-		-		-		-		-	
			9.7	0.19	9.2	0.21	-		-		-		-		-		-		-		-	
	705	3449	2819		2426		1791		-		-		-		-		-		-		-	
			10.7	0.23	10.1	0.26	8.1	0.26	-		-		-		-		-		-		-	
1/3	725	3547	2899		2518		1971		-		-		-		-		-		-		-	
			11.1	0.25	10.6	0.28	8.6	0.29	-		-		-		-		-		-		-	
	745	3645	2979		2611		2111		-		-		-		-		-		-		-	
			11.6	0.27	11.1	0.30	9.2	0.32	-		-		-		-		-		-		-	
	767	3752	3067		2712		2247		1770		-		-		-		-		-		-	
			12.0	0.30	11.5	0.33	9.8	0.34	8.6	0.33	-		-		-		-		-		-	
1/2	800	3914	3199		2862		2434		2109		-		-		-		-		-		-	
			12.6	0.34	11.9	0.37	10.5	0.39	9.4	0.39	-		-		-		-		-		-	
	830	4061	3319		2997		2596		2342		1791		-		-		-		-		-	
			13.2	0.38	12.4	0.41	11.2	0.43	10.2	0.44	9.2	0.41	-		-		-		-		-	
	855	4183	3419		3106		2727		2497		2109		-		-		-		-		-	
			13.7	0.41	12.9	0.45	11.7	0.47	10.9	0.48	9.8	0.46	-		-		-		-		-	
	881	4310	3523		3219		2862		2645		2352		-		-		-		-		-	
			14.3	0.45	13.5	0.49	12.3	0.51	11.6	0.52	10.6	0.52	-		-		-		-		-	
3/4	920	4501	3679		3387		3062		2860		2635		-		-		-		-		-	
			15.3	0.51	14.4	0.55	13.3	0.57	12.6	0.58	11.9	0.60	-		-		-		-		-	
	955	4672	3819		3536		3233		3044		2841		2011		-		-		-		-	
			16.3	0.57	15.5	0.61	14.4	0.64	13.7	0.65	13.0	0.66	11.1	0.61	-		-		-		-	
	985	4819	3939		3664		3374		3200		3010		2412		-		-		-		-	
			17.0	0.63	16.1	0.67	15.0	0.70	14.4	0.71	13.8	0.72	11.8	0.71	-		-		-		-	
	1013	4956	4051		3783		3505		3344		3160		2678		-		-		-		-	
			17.5	0.68	16.6	0.72	15.6	0.76	15.0	0.77	14.4	0.78	12.7	0.79	-		-		-		-	
1	1045	5112	4179		3918		3653		3506		3329		2930		-		-		-		-	
			18.2	0.75	17.2	0.79	16.2	0.83	15.7	0.84	15.1	0.85	13.7	0.87	-		-		-		-	
	1070	5235	4279		4023		3768		3626		3459		3092		2287		-		-		-	
			18.7	0.81	17.8	0.84	16.8	0.89	16.3	0.90	15.7	0.91	14.4	0.94	12.8	0.86	-		-		-	
	1098	5372	4391		4141		3896		3757		3603		3253		2662		-		-		-	
			19.4	0.87	18.5	0.91	17.7	0.96	17.2	0.97	16.6	0.98	15.3	1.00	13.4	0.98	-		-		-	
1 1/2	1140	5577	4559		4317		4087		3953		3817		3491		3060		2656		-		-	
			21.0	0.97	19.9	1.01	19.1	1.07	18.6	1.08	18.1	1.09	16.9	1.11	15.0	1.13	14.1	1.08	-		-	
	1180	5773	4719		4484		4267		4138		4009		3704		3352		3069		2634		-	
			22.0	1.08	21.0	1.12	20.0	1.18	20.0	1.19	19.4	1.20	18.3	1.23	16.8	1.26	15.7	1.24	14.9	1.18	-	
	1220	5969	4879		4652		4440		4321		4196		3913		3594		3397		3093		-	
			23.0	1.19	22.0	1.23	22.0	1.29	21.0	1.31	21.0	1.33	19.5	1.35	18.1	1.38	17.3	1.39	16.2	1.36	-	
	1261	6169	5043		4823		4617		4508		4387		4125		3827		3663		3453		2609	
			24.0	1.32	23.0	1.36	22.0	1.42	22.0	1.44	21.0	1.46	20.0	1.48	19.2	1.51	18.4	1.53	17.5	1.53	16.4	1.39
2	1295	6335	5179		4965		4764		4661		4544		4299		4012		3858		3687		3102	
			25.0	1.43	24.0	1.47	23.0	1.53	23.0	1.56	22.0	1.57	21.0	1.60	20.0	1.63	19.3	1.65	18.5	1.66	17.0	1.60
	1330	6507	5318		5111		4913		4817		4704		4475		4197		4055		3900		3452	
			26.0	1.55	25.0	1.59	24.0	1.65	23.0	1.68	23.0	1.70	22.0	1.73	21.0	1.76	20.0	1.77	19.5	1.79	17.7	1.77
	1365	6678	5458		5256		5063		4969		4864		4641		4380		4244		4100		3751	
			26.0	1.67	25.0	1.72	25.0	1.78	24.0	1.81	24.0	1.83	23.0	1.86	22.0	1.89	21.0	1.90	21.0	1.92	18.8	1.94
	1389	6795	5554		5355		5165		5073		4972		4753		4505		4371		4235		3920	
			27.0	1.76	26.0	1.81	25.0	1.87	25.0	1.90	24.0	1.93	23.0	1.96	22.0	1.99	22.0	2.00	21.0	2.02	19.7	2.05

Performance shown is for installation type A: Free Inlet, Free Outlet. Power rating (BHP) does not include transmission losses. For further information on estimating belt drive losses and motor service factors see page 12. The sound ratings shown are for loudness values in fan sones at 5'0" (1.5m) in a hemispherical free field per AMCA Standard 301. Values shown are for installation Type A: free inlet hemispherical sone levels. Performance ratings do not include the effects of appurtenances in the airstream.

FX18B | BELT DRIVE







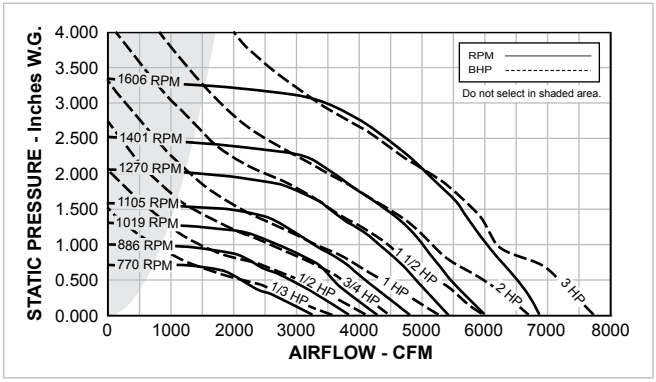
Galv. Steel Base = 14 Gage	Roof/Wall Opening = 20" SQ.	Peak BHP = (RPM/999)³
Aluminum Base = 0.080	Damper Size = 19 ¾" SQ.	Max. RPM = 1430
Discharge Apron = 0.064	Max. Motor Frame Size = 145T	Est. Ship Weight = 145 lbs.*

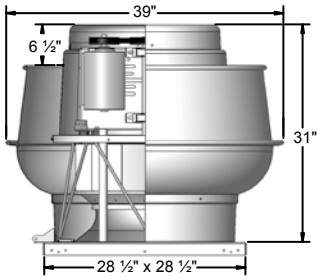
* Add 20 lbs. for Heat & Smoke option.

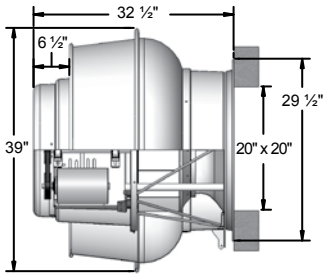
HP	RPM	Tip Speed FPM	0.000" SP		0.250" SP		0.500" SP		0.625" SP		0.750" SP		1.000" SP		1.250" SP		1.375" SP		1.500" SP		1.750" SP	
			Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP
1/4	400	2121	1984		-		-		-		-		-		-		-		-		-	
			4.7	0.05	-		-		-		-		-		-		-		-		-	
	556	2948	2758		2050		-		-		-		-		-		-		-		-	
			8.9	0.15	7.9	0.17	-		-		-		-		-		-		-		-	
	600	3181	2976		2345		-		-		-		-		-		-		-		-	
			10.0	0.18	9.0	0.21	-		-		-		-		-		-		-		-	
	643	3409	3189		2618		-		-		-		-		-		-		-		-	
			11.1	0.23	10.3	0.26	-		-		-		-		-		-		-		-	
1/3	665	3525	3299		2755		1885		-		-		-		-		-		-		-	
			11.6	0.25	10.8	0.28	9.8	0.28	-		-		-		-		-		-		-	
	685	3631	3398		2873		2147		-		-		-		-		-		-		-	
			12.0	0.27	11.2	0.31	10.4	0.32	-		-		-		-		-		-		-	
	700	3711	3472		2961		2279		-		-		-		-		-		-		-	
			12.3	0.29	11.7	0.33	10.7	0.35	-		-		-		-		-		-		-	
1/2	730	3870	3621		3136		2503		-		-		-		-		-		-		-	
			13.2	0.33	12.6	0.37	11.7	0.39	-		-		-		-		-		-		-	
	760	4029	3770		3309		2716		2328		-		-		-		-		-		-	
			14.2	0.37	13.7	0.42	12.8	0.44	12.3	0.44	-		-		-		-		-		-	
	785	4162	3894		3452		2890		2569		-		-		-		-		-		-	
			15.1	0.41	14.7	0.46	13.9	0.48	13.4	0.49	-		-		-		-		-		-	
	804	4262	3988		3559		3021		2710		-		-		-		-		-		-	
			15.9	0.44	15.5	0.49	14.8	0.52	14.3	0.52	-		-		-		-		-		-	
3/4	840	4453	4167		3759		3261		2968		2640		-		-		-		-		-	
			16.7	0.50	16.3	0.56	15.6	0.59	15.1	0.59	14.6	0.59	-		-		-		-		-	
	870	4612	4316		3922		3454		3179		2891		-		-		-		-		-	
			17.2	0.56	16.8	0.61	16.1	0.65	15.6	0.66	15.1	0.66	-		-		-		-		-	
	900	4771	4464		4084		3643		3385		3108		-		-		-		-		-	
			17.6	0.62	17.3	0.68	16.6	0.71	16.2	0.72	15.7	0.73	-		-		-		-		-	
	924	4899	4584		4212		3794		3548		3279		-		-		-		-		-	
			18.3	0.67	17.8	0.73	17.1	0.76	16.6	0.78	16.1	0.79	-		-		-		-		-	
1	950	5036	4712		4351		3952		3716		3461		2805		-		-		-		-	
			19.2	0.73	18.7	0.79	18.0	0.83	17.4	0.84	16.9	0.86	15.7	0.84	-		-		-		-	
	975	5169	4837		4485		4100		3876		3634		3093		-		-		-		-	
			20.0	0.79	19.6	0.85	18.9	0.89	18.3	0.91	17.8	0.92	16.7	0.93	-		-		-		-	
	1002	5312	4970		4628		4258		4047		3818		3319		-		-		-		-	
			21.0	0.85	20.0	0.92	19.9	0.96	19.4	0.98	18.9	1.00	17.7	1.01	-		-		-		-	
1 1/2	1040	5513	5159		4829		4479		4285		4067		3595		-		-		-		-	
			22.0	0.95	21.0	1.02	21.0	1.07	20.0	1.09	19.7	1.11	18.5	1.13	-		-		-		-	
	1080	5726	5357		5039		4709		4525		4322		3878		3357		-		-		-	
			22.0	1.07	22.0	1.14	21.0	1.20	21.0	1.21	20.0	1.23	19.3	1.26	18.3	1.26	-		-		-	
	1120	5938	5556		5249		4937		4759		4574		4156		3709		3364		-		-	
			23.0	1.19	23.0	1.26	22.0	1.33	22.0	1.35	21.0	1.36	20.0	1.40	18.9	1.42	18.7	1.39	-		-	
	1151	6102	5710		5411		5113		4940		4767		4368		3935		3696		-		-	
			24.0	1.29	23.0	1.37	23.0	1.44	22.0	1.46	22.0	1.47	21.0	1.51	19.5	1.53	19.2	1.53	-		-	
2	1190	6309	5903		5614		5327		5165		4997		4626		4213		4002		3752		-	
			24.0	1.43	24.0	1.51	24.0	1.58	23.0	1.60	23.0	1.62	22.0	1.66	21.0	1.69	20.0	1.70	19.8	1.69	-	
	1215	6441	6027		5744		5463		5308		5144		4786		4388		4183		3970		-	
			25.0	1.52	25.0	1.60	24.0	1.67	24.0	1.70	23.0	1.72	22.0	1.76	21.0	1.79	21.0	1.80	20.0	1.81	-	
	1245	6600	6176		5899		5625		5479		5319		4977		4597		4397		4195		3541	
			26.0	1.64	25.0	1.72	25.0	1.79	25.0	1.83	24.0	1.84	23.0	1.89	22.0	1.92	22.0	1.93	21.0	1.94	21.0	1.87
	1268	6722	6290		6019		5749		5610		5453		5123		4755		4558		4362		3850	
			26.0	1.73	26.0	1.81	25.0	1.89	25.0	1.92	25.0	1.94	24.0	1.99	23.0	2.03	22.0	2.04	22.0	2.05	21.0	2.03

Performance shown is for installation type A: Free Inlet, Free Outlet. Power rating (BHP) does not include transmission losses. For further information on estimating belt drive losses and motor service factors see page 12. The sound ratings shown are for loudness values in fan sones at 5'0' (1.5m) in a hemispherical free field per AMCA Standard 301. Values shown are for installation Type A: free inlet hemispherical sone levels. Performance ratings do not include the effects of appurtenances in the airstream.

FX18BH | BELT DRIVE





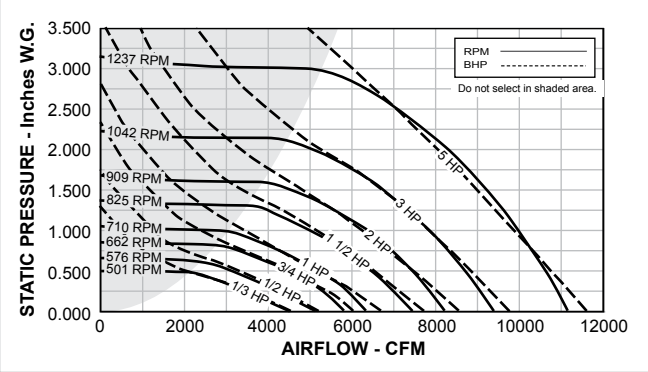


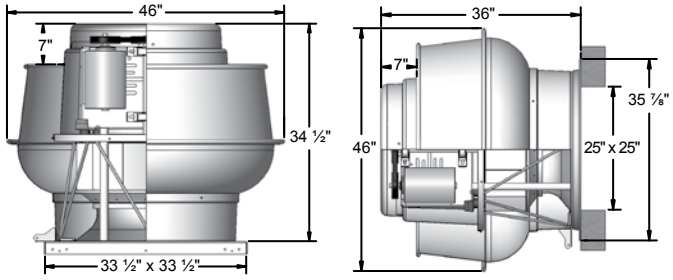
Galv. Steel Base = 14 Gage	Roof/Wall Opening = 20" SQ.	Peak BHP = (RPM/1106)^3
Aluminum Base = 0.080	Damper Size = 19 ¾" SQ.	Max. RPM = 1870
Discharge Apron = 0.064	Max. Motor Frame Size = 145T	Wall Mounted Max. HP = 2
Est. Ship Weight = 142 lbs. (Add 20 lbs. for Heat & Smoke option.)		

HP	RPM	Tip Speed FPM	0.500" SP		0.750" SP		1.000" SP		1.250" SP		1.500" SP		1.750" SP		2.000" SP		2.250" SP		2.500" SP		3.000" SP	
			Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP
1/3	770	4082	2308		-		-		-		-		-		-		-		-		-	
			7.6	0.33	-		-		-		-		-		-		-		-		-	
1/2	800	4241	2520		1622		-		-		-		-		-		-		-		-	
			7.9	0.37	8.1	0.36	-		-		-		-		-		-		-		-	
	840	4453	2773		2108		-		-		-		-		-		-		-		-	
			8.4	0.42	8.9	0.44	-		-		-		-		-		-		-		-	
	886	4697	3028		2436		-		-		-		-		-		-		-		-	
			9.4	0.48	9.4	0.52	-		-		-		-		-		-		-		-	
3/4	915	4851	3186		2628		1676		-		-		-		-		-		-		-	
			10.1	0.53	9.9	0.57	10.0	0.52	-		-		-		-		-		-		-	
	970	5142	3475		3017		2435		-		-		-		-		-		-		-	
			11.5	0.62	10.7	0.66	11.5	0.68	-		-		-		-		-		-		-	
	1019	5402	3712		3342		2786		1779		-		-		-		-		-		-	
			12.4	0.71	11.3	0.75	12.0	0.79	12.1	0.71	-		-		-		-		-		-	
1	1065	5646	3932		3598		3093		2515		-		-		-		-		-		-	
			13.0	0.81	11.9	0.85	12.4	0.89	13.3	0.88	-		-		-		-		-		-	
	1080	5726	4003		3681		3200		2675		-		-		-		-		-		-	
			13.2	0.84	12.2	0.88	12.5	0.93	13.6	0.93	-		-		-		-		-		-	
	1105	5858	4121		3818		3378		2884		1361		-		-		-		-		-	
			13.5	0.90	12.6	0.93	12.7	0.98	13.7	1.00	13.4	0.73	-		-		-		-		-	
1 1/2	1125	5964	4216		3926		3519		3019		2151		-		-		-		-		-	
			13.9	0.94	12.9	0.98	12.8	1.03	13.9	1.06	14.1	0.98	-		-		-		-		-	
	1150	6097	4333		4061		3693		3186		2575		-		-		-		-		-	
			14.2	1.00	13.4	1.04	13.0	1.09	14.1	1.13	14.8	1.10	-		-		-		-		-	
	1175	6229	4450		4193		3850		3352		2844		-		-		-		-		-	
			14.7	1.07	14.0	1.11	13.3	1.15	14.3	1.20	15.5	1.19	-		-		-		-		-	
	1200	6362	4570		4315		3990		3525		3088		1920		-		-		-		-	
			15.3	1.13	14.5	1.17	13.6	1.22	14.6	1.28	15.7	1.29	15.5	1.11	-		-		-		-	
	1225	6494	4697		4436		4129		3703		3258		2544		-		-		-		-	
			16.1	1.18	15.2	1.24	14.3	1.29	14.9	1.34	16.0	1.37	16.4	1.3	-		-		-		-	
	1270	6733	4925		4652		4376		4019		3559		3081		-		-		-		-	
			17.0	1.29	16.2	1.38	15.3	1.42	15.3	1.47	16.5	1.52	17.7	1.51	-		-		-		-	
2	1280	6786	4975		4700		4430		4089		3625		3188		1895		-		-		-	
			17.1	1.32	16.3	1.41	15.5	1.45	15.4	1.50	16.6	1.56	17.9	1.55	17.3	1.28	-		-		-	
	1335	7077	5251		4961		4728		4424		4008		3599		3051		-		-		-	
			18.4	1.46	17.2	1.58	16.6	1.63	16.1	1.68	17.1	1.74	18.4	1.77	19.2	1.73	-		-		-	
	1375	7289	5449		5150		4931		4646		4290		3865		3478		2571		-		-	
			19.4	1.57	18.2	1.72	17.6	1.77	17.1	1.82	17.5	1.88	18.8	1.93	20.0	1.93	19.9	1.78	-		-	
	1401	7427	5578		5272		5057		4789		4471		4036		3670		3073		-		-	
			20.0	1.64	18.8	1.82	18.2	1.86	17.8	1.91	17.9	1.97	19.1	2.04	20.0	2.05	21.0	1.98	-		-	
3	1440	7634	5770		5454		5245		5002		4720		4315		3933		3494		2481		-	
			21.0	1.76	19.8	1.96	19.3	2.01	18.8	2.06	18.7	2.12	19.6	2.19	21.0	2.22	22.0	2.20	22.0	1.98	-	
	1480	7846	5958		5650		5436		5218		4944		4598		4198		3852		3274		-	
			22.0	1.89	21.0	2.11	20.0	2.17	20.0	2.22	19.7	2.28	20.0	2.35	21.0	2.41	23.0	2.41	23.0	2.34	-	
	1520	8058	6139		5853		5627		5428		5165		4876		4474		4122		3705		-	
			24.0	2.03	22.0	2.24	22.0	2.34	21.0	2.39	21.0	2.45	21.0	2.51	22.0	2.59	23.0	2.61	25.0	2.59	-	
	1560	8270	6321		6055		5816		5623		5385		5124		4759		4389		4060		1714	
			25.0	2.19	24.0	2.39	23.0	2.52	23.0	2.57	23.0	2.63	22.0	2.69	23.0	2.77	24.0	2.82	25.0	2.83	24.0	1.93
	1585	8403	6434		6181		5934		5744		5520		5264		4935		4553		4230		2907	
			26.0	2.28	25.0	2.48	24.0	2.64	24.0	2.69	23.0	2.75	23.0	2.81	23.0	2.88	24.0	2.96	26.0	2.96	26.0	2.71
	1606	8514	6528		6286		6032		5845		5634		5381		5081		4700		4371		3378	
			27.0	2.37	25.0	2.56	24.0	2.74	24.0	2.79	24.0	2.85	24.0	2.91	24.0	2.98	25.0	3.06	26.0	3.08	27.0	2.95

Performance shown is for installation type A: Free Inlet, Free Outlet. Power rating (BHP) does not include transmission losses. For further information on estimating belt drive losses and motor service factors see page 12. The sound ratings shown are for loudness values in fan sones at 5'0" (1.5m) in a hemispherical free field per AMCA Standard 301. Values shown are for installation Type A: free inlet hemispherical sone levels. Performance ratings do not include the effects of appurtenances in the airstream.

FX24B | BELT DRIVE



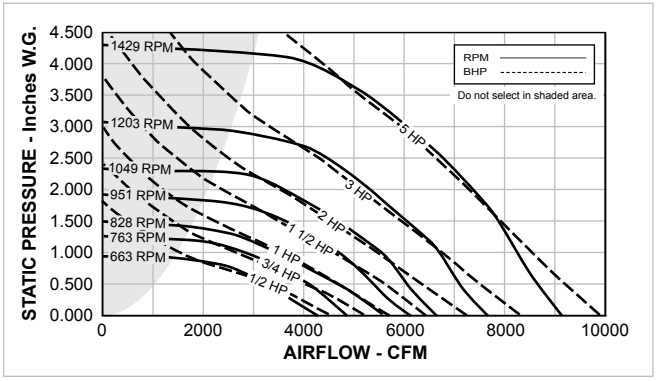


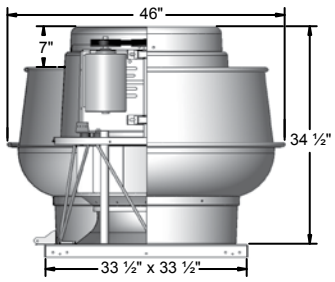
Galv. Steel Base = 14 Gage	Roof/Wall Opening = 25" SQ.	Peak BHP = (RPM/716)^3
Aluminum Base = 0.080	Damper Size = 24 ¾" SQ.	Max. RPM = 1360
Discharge Apron = 0.064	Max. Motor Frame Size = 184T	Wall Mounted Max. HP = 2
Est. Ship Weight = 190 lbs. (Add 40 lbs. for Heat & Smoke option.)		

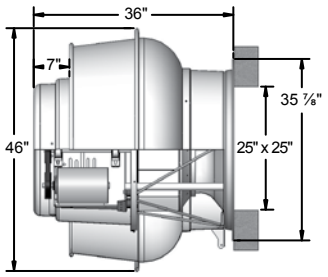
HP	RPM	Tip Speed FPM	0.250" SP		0.500" SP		0.750" SP		1.000" SP		1.250" SP		1.500" SP		1.750" SP		2.000" SP		2.250" SP		2.500" SP	
			Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP
1/4	375	2436	2263		-		-		-		-		-		-		-		-		-	
			5.9	0.15	-		-		-		-		-		-		-		-		-	
	420	2728	2741		-		-		-		-		-		-		-		-		-	
			7.3	0.20	-		-		-		-		-		-		-		-		-	
	461	2994	3159		-		-		-		-		-		-		-		-		-	
			8.7	0.26	-		-		-		-		-		-		-		-		-	
1/3	480	3118	3349		-		-		-		-		-		-		-		-		-	
			9.5	0.29	-		-		-		-		-		-		-		-		-	
	501	3254	3556		-		-		-		-		-		-		-		-		-	
			10.4	0.33	-		-		-		-		-		-		-		-		-	
1/2	540	3507	3935				-		-		-		-		-		-		-		-	
			11.9	0.41			-		-		-		-		-		-		-		-	
	576	3741	4278				-		-		-		-		-		-		-		-	
			12.9	0.48			-		-		-		-		-		-		-		-	
3/4	610	3962	3599		2777		-		-		-		-		-		-		-		-	
			14.0	0.57	10.7	0.39	-		-		-		-		-		-		-		-	
	640	4157	4878		3335		2946		-		-		-		-		-		-		-	
			14.0	0.65	11.7	0.48	12.8	0.63	-		-		-		-		-		-		-	
	662	4300	5082		3777		3413		-		-		-		-		-		-		-	
			15.5	0.72	12.9	0.58	13.6	0.72	-		-		-		-		-		-		-	
1	690	4482	5339		4133		3868		-		-		-		-		-		-		-	
			16.2	0.81	14.0	0.67	14.3	0.83	-		-		-		-		-		-		-	
	718	4664	5595		4390		4258		-		-		-		-		-		-		-	
			16.9	0.90	14.7	0.75	15.1	0.94	-		-		-		-		-		-		-	
1 1/2	755	4904	5931		4695		4720		3767		-		-		-		-		-		-	
			18.2	1.04	17.4	0.84	16.4	1.10	15.3	1.06	-		-		-		-		-		-	
	790	5131	6247		5747		5134		4371		-		-		-		-		-		-	
			19.7	1.19	19.0	1.25	18.1	1.26	16.9	1.24	-		-		-		-		-		-	
	825	5359	6561		6090		5533		4860		3769		-		-		-		-		-	
			21.0	1.35	19.9	1.41	19.0	1.44	18.0	1.42	16.8	1.34	-		-		-		-		-	
2	850	5521	6784		6332		5804		5189		4321		-		-		-		-		-	
			21.0	1.47	20.0	1.53	19.5	1.57	18.6	1.56	17.5	1.52	-		-		-		-		-	
	880	5716	7051		6621		6126		5548		4841		-		-		-		-		-	
			22.0	1.63	21.0	1.69	20.0	1.74	19.3	1.74	18.3	1.71	-		-		-		-		-	
	909	5904	7309		6899		6433		5891		5248		4277		-		-		-		-	
			23.0	1.79	23.0	1.86	22.0	1.91	21.0	1.93	19.6	1.89	18.4	1.81	-		-		-		-	
3	950	6170	7671		7288		6862		6360		5797		5078		-		-		-		-	
			25.0	2.03	25.0	2.11	24.0	2.17	23.0	2.20	22.0	2.18	21.0	2.14	-		-		-		-	
	985	6398	7980		7618		7210		6740		6217		5599		4708		-		-		-	
			28.0	2.26	27.0	2.34	26.0	2.41	25.0	2.45	24.0	2.44	23.0	2.41	22.0	2.32	-		-		-	
	1015	6593	8244		7899		7503		7061		6571		6016		5282		3005		-		-	
			29.0	2.47	28.0	2.55	27.0	2.62	26.0	2.67	25.0	2.68	24.0	2.64	23.0	2.60	22.0	1.91	-		-	
	1042	6768	8480		8150		7765		7348		6886		6366		5738		4724		-		-	
			29.0	2.67	29.0	2.75	28.0	2.83	27.0	2.88	26.0	2.91	25.0	2.87	24.0	2.84	23.0	2.69	-		-	
5	1100	7145	8988		8679		8322		7955		7522		7059		6548		5918		4863		-	
			30.0	3.12	30.0	3.22	29.0	3.30	28.0	3.37	27.0	3.41	26.0	3.41	25.0	3.37	24.0	3.33	23.0	3.14	-	
	1150	7470	9424		9128		8798		8449		8056		7642		7171		6641		5973		-	
			32.0	3.56	31.0	3.66	30.0	3.75	29.0	3.83	28.0	3.88	27.0	3.92	26.0	3.87	25.0	3.84	25.0	3.77	-	
	1200	7794	9859		9576		9270		8935		8583		8186		7764		7313		6768		6072	
			34.0	4.04	33.0	4.14	33.0	4.24	32.0	4.32	31.0	4.39	30.0	4.43	29.0	4.43	28.0	4.38	27.0	4.35	26.0	4.26
	1237	8035	10180		9905		9617		9292		8967		8583		8195		7757		7283		6739	
			36.0	4.42	35.0	4.52	35.0	4.62	34.0	4.71	33.0	4.79	32.0	4.84	31.0	4.87	30.0	4.83	29.0	4.78	28.0	4.75

Performance shown is for installation type A: Free Inlet, Free Outlet. Power rating (BHP) does not include transmission losses. For further information on estimating belt drive losses and motor service factors see page 12. The sound ratings shown are for loudness values in fan sones at 5'0' (1.5m) in a hemispherical free field per AMCA Standard 301. Values shown are for installation Type A: free inlet hemispherical sone levels. Performance ratings do not include the effects of appurtenances in the airstream.

FX24BH | BELT DRIVE





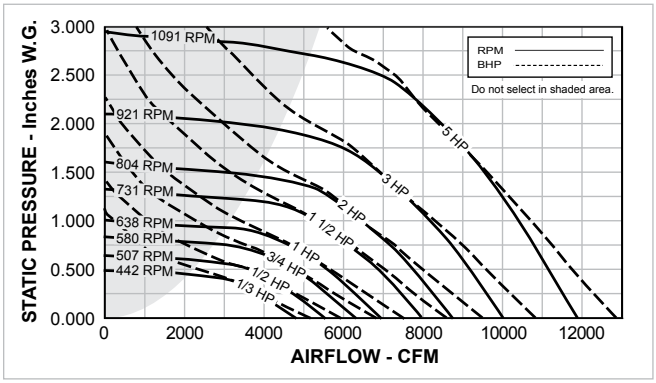


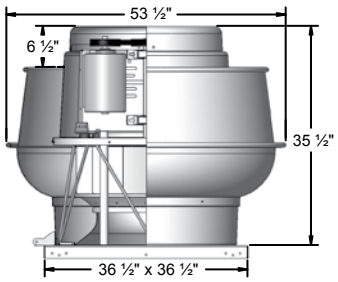
Galv. Steel Base = 14 Gage	Roof Opening = 25" SQ.	Peak BHP = (RPM/827)^3
Aluminum Base = 0.080	Damper Size = 24 ¾" SQ.	Max. RPM = 1620
Discharge Apron = 0.064	Max. Motor Frame Size = 184T	Wall Mounted Max. HP = 2
Est. Ship Weight = 187 lbs. (Add 40 lbs. for Heat & Smoke option.)		

HP	RPM	Tip Speed FPM	0.500" SP		0.750" SP		1.000" SP		1.250" SP		1.500" SP		1.750" SP		2.000" SP		2.250" SP		2.500" SP		3.000" SP	
			Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP
1/2	600	3897	2641		-		-		-		-		-		-		-		-		-	
			8.9	0.38	-		-		-		-		-		-		-		-		-	
	663	4306	3231		2472		-		-		-		-		-		-		-		-	
			10.0	0.51	10.3	0.51	-		-		-		-		-		-		-		-	
3/4	707	4592	3633		2971		1877		-		-		-		-		-		-		-	
			10.8	0.61	11.0	0.63	10.8	0.56	-		-		-		-		-		-		-	
	725	4709	3774		3142		2264		-		-		-		-		-		-		-	
			11.1	0.65	11.3	0.67	11.4	0.64	-		-		-		-		-		-		-	
	763	4956	4069		3497		2824		-		-		-		-		-		-		-	
			11.9	0.75	12.0	0.78	12.3	0.78	-		-		-		-		-		-		-	
1	800	5196	4351		3844		3259		2352		-		-		-		-		-		-	
			12.4	0.86	12.5	0.89	12.6	0.91	12.7	0.85	-		-		-		-		-		-	
	828	5378	4549		4107		3542		2822		-		-		-		-		-		-	
			12.7	0.94	12.8	0.98	12.9	1.00	13.4	0.98	-		-		-		-		-		-	
1 1/2	855	5553	4736		4357		3796		3180		1929		-		-		-		-		-	
			13.1	1.03	13.1	1.07	13.3	1.10	13.6	1.09	13.3	0.93	-		-		-		-		-	
	886	5755	4950		4607		4083		3546		2740		-		-		-		-		-	
			13.7	1.13	13.7	1.19	13.7	1.22	14.0	1.23	14.3	1.17	-		-		-		-		-	
	915	5943	5148		4833		4355		3857		3223		-		-		-		-		-	
			14.7	1.23	14.6	1.30	14.6	1.34	14.6	1.35	14.9	1.33	-		-		-		-		-	
	925	6008	5216		4910		4450		3953		3345		2152		-		-		-		-	
			15.2	1.27	15.0	1.34	15.0	1.38	14.9	1.40	15.0	1.38	14.8	1.20	-		-		-		-	
	951	6177	5393		5110		4695		4198		3655		2859		-		-		-		-	
			16.0	1.37	15.7	1.45	15.7	1.49	15.6	1.51	15.5	1.51	15.8	1.43	-		-		-		-	
2	990	6430	5657		5403		5056		4560		4107		3503		2353		-		-		-	
			16.9	1.53	16.5	1.62	16.5	1.67	16.5	1.70	16.5	1.72	16.7	1.69	16.5	1.48	-		-		-	
	1019	6619	5856		5605		5288		4831		4384		3851		3096		-		-		-	
			17.4	1.66	16.9	1.75	16.9	1.81	16.9	1.85	17.0	1.87	17.2	1.85	17.5	1.76	-		-		-	
	1049	6814	6063		5813		5522		5115		4667		4203		3597		2447		-		-	
			18.0	1.80	17.4	1.89	17.4	1.96	17.4	2.00	17.5	2.03	17.8	2.04	18.3	1.99	17.9	1.75	-		-	
3	1080	7015	6276		6027		5761		5405		4954		4539		4005		3270		-		-	
			18.8	1.95	18.0	2.05	18.0	2.13	18.0	2.18	18.1	2.21	18.4	2.23	18.8	2.20	19.1	2.10	-		-	
	1105	7177	6447		6198		5953		5635		5184		4777		4301		2689		2546		-	
			19.5	2.08	18.6	2.18	18.6	2.32	18.6	2.32	18.6	2.36	18.9	2.38	19.3	2.73	19.9	2.31	19.4	2.03	-	
	1125	7307	6583		6335		6105		5801		5375		4965		4535		4002		3184		-	
			20.0	2.19	19.3	2.29	19.1	2.39	19.1	2.44	19.1	2.48	19.3	2.51	19.7	2.51	20.0	2.48	20.0	2.32	-	
	1175	7632	6923		6675		6461		6191		5846		5429		5047		4597		4058		-	
			22.0	2.48	21.0	2.58	21.0	2.69	21.0	2.75	21.0	2.80	20.0	2.84	21.0	2.86	21.0	2.85	22.0	2.80	-	
	1203	7814	7122		6864		6655		6407		6105		5690		5311		4924		4425		-	
			23.0	2.65	22.0	2.76	21.0	2.86	21.0	2.94	21.0	3.00	21.0	3.04	21.0	3.07	22.0	3.08	22.0	3.04	-	
5	1210	7859	7160		6911		6704		6461		6169		5757		5377		5004		4508		2767	
			23.0	2.69	22.0	2.80	21.0	2.91	21.0	2.99	21.0	3.05	21.0	3.09	21.0	3.12	22.0	3.14	22.0	3.10	22.0	2.65
	1245	8087	7395		7152		6945		6728		6453		6088		5701		5341		4922		3740	
			24.0	2.92	23.0	3.03	22.0	3.14	22.0	3.24	22.0	3.30	22.0	3.35	22.0	3.39	22.0	3.41	23.0	3.40	24.0	3.21
	1275	8281	7597		7359		7151		6954		6688		6368		5977		5624		5270		4244	
			24.0	3.12	23.0	3.24	23.0	3.35	23.0	3.47	23.0	3.53	22.0	3.58	23.0	3.63	23.0	3.65	23.0	3.67	25.0	3.54
	1325	8606	7931		7702		7492		7302		7074		6815		6453		6088		5750		4933	
			25.0	3.49	24.0	3.61	24.0	3.73	23.0	3.84	23.0	3.93	23.0	3.99	23.0	4.04	24.0	4.08	24.0	4.10	26.0	4.07
	1380	8963	8298		8078		7865		7683		7493		7246		6965		6604		6264		5580	
			27.0	3.92	26.0	4.04	25.0	4.17	25.0	4.29	25.0	4.41	25.0	4.47	25.0	4.53	25.0	4.58	25.0	4.62	26.0	4.64
	1429	9282	8623		8411		8198		8019		7843		7624		7384		7065		6717		6086	
			29.0	4.33	28.0	4.46	27.0	4.59	26.0	4.72	26.0	4.84	26.0	4.93	26.0	4.99	26.0	5.05	26.0	5.05	27.0	5.16

Performance shown is for installation type A: Free Inlet, Free Outlet. Power rating (BHP) does not include transmission losses. For further information on estimating belt drive losses and motor service factors see page 12. The sound ratings shown are for loudness values in fan sones at 5'0" (1.5m) in a hemispherical free field per AMCA Standard 301. Values shown are for installation Type A: free inlet hemispherical sone levels. Performance ratings do not include the effects of appurtenances in the airstream.

FX27B | BELT DRIVE





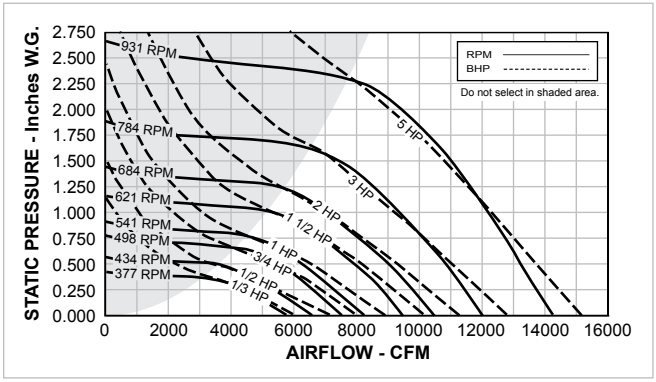
Galv. Steel Base = 14 Gage	Roof Opening = 28" SQ.	Peak BHP = (RPM/539)³
Aluminum Base = 0.080	Damper Size = 27 ¾" SQ.	Max. RPM = 1188
Discharge Apron = 0.080	Max. Motor Frame Size = 184T	Est. Ship Weight = 219 lbs.*

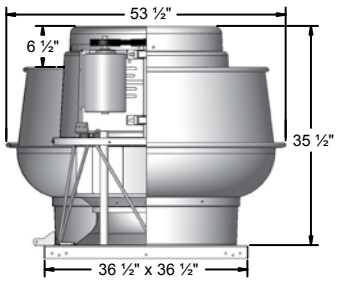
* Add 55 lbs. for Heat & Smoke option.

HP	RPM	Tip Speed FPM	0.125" SP		0.250" SP		0.375" SP		0.500" SP		0.750" SP		1.000" SP		1.250" SP		1.500" SP		2.000" SP	
			Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP
1/3	442	3211	4361		3843		3112		-		-		-		-		-		-	
			8.3	0.30	7.7	0.33	7.1	0.33	-		-		-		-		-		-	
1/2	475	3451	4780		4293		3695		2634		-		-		-		-		-	
			9.7	0.37	9.0	0.40	8.6	0.41	7.6	0.38	-		-		-		-		-	
	507	3683	5120		4710		4213		3530		-		-		-		-		-	
			10.7	0.44	10.1	0.48	9.8	0.50	9.2	0.49	-		-		-		-		-	
3/4	535	3887	5444		5065		4617		4030		-		-		-		-		-	
			11.7	0.51	11.1	0.55	10.7	0.58	10.3	0.59	-		-		-		-		-	
	560	4068	4361		4361		4361		4361		-		-		-		-		-	
			12.7	0.59	12.2	0.63	11.7	0.66	11.5	0.67	-		-		-		-		-	
	580	4214	5960		5628		5234		4785		3159		-		-		-		-	
			13.5	0.65	13.1	0.69	12.7	0.73	12.5	0.75	10.9	0.69	-		-		-		-	
1	600	4359	6188		5870		5498		5076		3889		-		-		-		-	
			14.2	0.71	13.8	0.76	13.4	0.80	13.2	0.82	12.0	0.80	-		-		-		-	
	620	4504	6415		6107		5756		5363		4304		-		-		-		-	
			14.9	0.78	14.6	0.83	14.2	0.87	13.8	0.90	12.9	0.90	-		-		-		-	
	638	4635	6631		6330		5990		5625		4635		-		-		-		-	
			15.4	0.85	15.0	0.90	14.6	0.94	14.3	0.98	13.5	0.99	-		-		-		-	
1 1/2	660	4795	6868		6577		6264		5913		5018		-		-		-		-	
			15.9	0.94	15.7	0.99	15.2	1.04	14.8	1.07	14.2	1.10	-		-		-		-	
	685	4976	7150		6869		6578		6248		5461		4209		-		-		-	
			16.7	1.04	16.4	1.10	16.0	1.15	15.6	1.19	15.0	1.24	13.8	1.17	-		-		-	
	705	5122	7374		7101		6827		6506		5782		4753		-		-		-	
			17.4	1.13	17.1	1.19	16.7	1.24	16.3	1.29	15.7	1.34	14.7	1.31	-		-		-	
	731	5311	7666		7403		7144		6839		6161		5247		-		-		-	
			18.4	1.26	18.1	1.32	17.7	1.38	17.4	1.42	16.7	1.49	15.8	1.48	-		-		-	
2	750	5449	7879		7622		7369		7080		6434		5583		4127		-		-	
			19.0	1.35	18.7	1.42	18.4	1.48	18.0	1.53	17.4	1.60	16.6	1.61	15.0	1.49	-		-	
	770	5594	8103		7853		7605		7332		6719		5932		4856		-		-	
			19.6	1.46	19.3	1.53	18.9	1.59	18.5	1.64	17.9	1.72	17.3	1.76	16.0	1.67	-		-	
	785	5703	8270		8025		7782		7521		6925		6200		5250		-		-	
			20.0	1.54	19.8	1.62	19.4	1.68	18.9	1.73	18.3	1.82	17.8	1.86	16.6	1.81	-		-	
	804	5841	8482		8243		8004		7758		7183		6528		5628		-		-	
			21.0	1.66	20.0	1.73	19.9	1.80	19.5	1.85	18.8	1.94	18.4	2.00	17.3	1.97	-		-	
3	830	6030	8772		8540		8308		8080		7534		6910		6092		4830		-	
			22.0	1.82	21.0	1.89	21.0	1.97	22.0	2.00	19.6	2.12	18.9	2.18	18.1	2.18	16.9	2.05	-	
	865	6284	9161		8938		8716		8497		7988		7415		6706		5853		-	
			23.0	2.05	23.0	2.13	22.0	2.21	22.0	2.27	21.0	2.38	20.0	2.46	19.7	2.49	18.6	2.43	-	
	895	6502	9493		9278		9063		8851		8372		7840		7239		6421		5162	
			25.0	2.26	24.0	2.35	24.0	2.43	23.0	2.50	22.0	2.61	22.0	2.70	21.0	2.75	20.0	2.73	18.4	2.56
	921	6691	9782		9573		9364		9156		8702		8195		7624		6881		6055	
			26.0	2.46	26.0	2.55	25.0	2.63	25.0	2.71	24.0	2.82	23.0	2.93	23.0	2.99	22.0	2.99	20.0	2.90
5	960	6974	10213		10013		9812		9612		9193		8720		8189		7568		6816	
			28.0	2.78	27.0	2.87	27.0	2.96	26.0	3.04	25.0	3.17	25.0	3.28	24.0	3.36	24.0	3.40	22.0	3.36
	1000	7265	10655		10463		10270		10078		9691		9239		8757		8221		7523	
			30.0	3.14	29.0	3.23	29.0	3.32	28.0	3.41	27.0	3.55	26.0	3.67	26.0	3.77	25.0	3.83	24.0	3.83
	1045	7592	11151		10967		10783		10599		10236		9814		9369		8875		8318	
			31.0	3.57	31.0	3.66	31.0	3.76	30.0	3.85	29.0	4.01	28.0	4.14	28.0	4.26	27.0	4.34	26.0	4.39
	1091	7926	11658		11482		11305		11129		10780		10395		9981		9531		9039	
			34.0	4.05	33.0	4.15	33.0	4.25	33.0	4.35	31.0	4.53	31.0	4.66	30.0	4.80	29.0	4.91	29.0	4.96

Performance shown is for installation type A: Free Inlet, Free Outlet. Power rating (BHP) does not include transmission losses. For further information on estimating belt drive losses and motor service factors see page 12. The sound ratings shown are for loudness values in fan sones at 5'0' (1.5m) in a hemispherical free field per AMCA Standard 301. Values shown are for installation Type A: free inlet hemispherical sone levels. Performance ratings do not include the effects of appurtenances in the airstream.

FX30B | BELT DRIVE





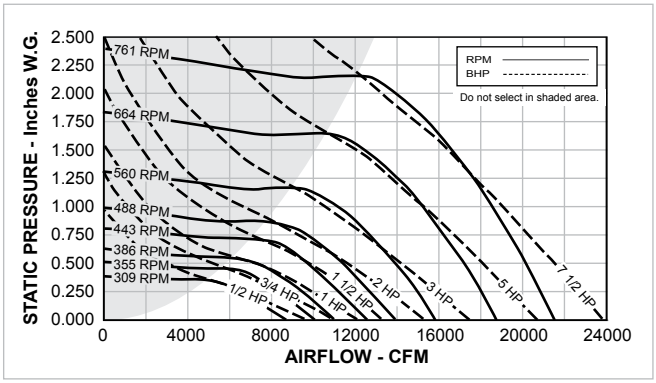
Galv. Steel Base = 14 Gage	Roof Opening = 28" SQ.	Peak BHP = (RPM/539)^3
Aluminum Base = 0.080	Damper Size = 27 ¾" SQ.	Max. RPM = 1188
Discharge Apron = 0.080	Max. Motor Frame Size = 184T	Est. Ship Weight = 219 lbs.*

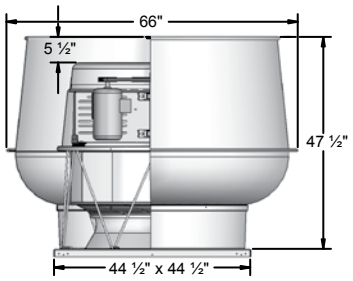
* Add 65 lbs. for Heat & Smoke option.

HP	RPM	Tip Speed FPM	0.000" SP		0.250" SP		0.500" SP		0.750" SP		1.000" SP		1.250" SP		1.500" SP		1.750" SP		2.000" SP		2.250" SP	
			Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP
1/3	347	2782	5314		3779		-		-		-		-		-		-		-		-	
			7.6	0.22	7.2	0.27	-		-		-		-		-		-		-		-	
	377	3023	5773		4431		-		-		-		-		-		-		-		-	
			8.9	0.28	8.5	0.34	-		-		-		-		-		-		-		-	
1/2	400	3207	6125		4899		-		-		-		-		-		-		-		-	
			10.1	0.33	9.5	0.40	-		-		-		-		-		-		-		-	
	420	3367	6431		5283		-		-		-		-		-		-		-		-	
			10.9	0.38	10.2	0.46	-		-		-		-		-		-		-		-	
	434	3480	6646		5548		3742		-		-		-		-		-		-		-	
			11.6	0.42	10.7	0.50	10.0	0.51	-		-		-		-		-		-		-	
3/4	455	3648	6968		5937		4445		-		-		-		-		-		-		-	
			12.5	0.49	11.6	0.57	10.8	0.61	-		-		-		-		-		-		-	
	480	3848	7350		6377		5078		-		-		-		-		-		-		-	
			13.7	0.57	12.8	0.66	11.9	0.71	-		-		-		-		-		-		-	
	498	3993	7626		6690		5505		-		-		-		-		-		-		-	
			14.6	0.64	13.6	0.74	12.7	0.79	-		-		-		-		-		-		-	
1	520	4169	7963		7069		5984		-		-		-		-		-		-		-	
			15.6	0.73	14.6	0.83	13.8	0.90	-		-		-		-		-		-		-	
	541	4338	8285		7428		6433		4939		-		-		-		-		-		-	
			16.4	0.82	15.4	0.93	14.6	1.00	13.3	1.01	-		-		-		-		-		-	
1 1/2	560	4490	8576		7748		6818		5514		-		-		-		-		-		-	
			17.1	0.91	16.1	1.02	15.2	1.10	14.1	1.13	-		-		-		-		-		-	
	595	4770	9112		8333		7491		6397		-		-		-		-		-		-	
			18.5	1.09	17.5	1.21	16.5	1.30	15.4	1.35	-		-		-		-		-		-	
	621	4979	9510		8764		7983		6985		5581		-		-		-		-		-	
			19.7	1.24	18.8	1.36	17.8	1.46	16.6	1.53	15.3	1.52	-		-		-		-		-	
2	640	5131	9801		9077		8335		7397		6193		-		-		-		-		-	
			21.0	1.35	19.6	1.48	18.6	1.59	17.5	1.67	16.2	1.68	-		-		-		-		-	
	665	5332	10184		9488		8776		7930		6835		-		-		-		-		-	
			22.0	1.52	21.0	1.79	19.7	1.77	18.7	1.86	17.4	1.89	-		-		-		-		-	
	684	5484	10474		9798		9109		8314		7311		5817		-		-		-		-	
			22.0	1.65	21.0	1.79	20.0	1.92	19.4	2.01	18.1	2.06	16.8	1.99	-		-		-		-	
3	710	5693	10873		10221		9560		8817		7911		6748		-		-		-		-	
			23.0	1.85	22.0	1.99	21.0	2.13	20.0	2.23	19.0	2.29	17.7	2.29	-		-		-		-	
	730	5853	11179		10545		9905		9199		8347		7299		-		-		-		-	
			24.0	2.01	23.0	2.15	22.0	2.30	21.0	2.40	19.9	2.48	18.6	2.50	-		-		-		-	
	750	6013	11485		10869		10248		9578		8777		7806		6405		-		-		-	
			25.0	2.18	24.0	2.33	23.0	2.49	22.0	2.59	21.0	2.68	19.4	2.71	18.2	2.63	-		-		-	
	770	6174	11792		11191		10588		9953		9202		8305		7144		-		-		-	
			26.0	2.36	25.0	2.51	24.0	2.68	23.0	2.78	22.0	2.89	21.0	2.93	19.3	2.91	-		-		-	
	784	6286	12006		11416		10824		10211		9487		8630		7591		-		-		-	
			27.0	2.49	26.0	2.64	25.0	2.81	24.0	2.93	23.0	3.04	21.0	3.09	20.0	3.09	-		-		-	
5	805	6454	12328		11753		11177		10582		9895		9090		8132		-		-		-	
			28.0	2.69	27.0	2.85	26.0	3.03	25.0	3.15	24.0	3.26	23.0	3.33	21.0	3.35	-		-		-	
	840	6735	12863		12313		11761		11196		10566		9844		9011		7982		-		-	
			30.0	3.06	29.0	3.22	28.0	3.41	27.0	3.55	26.0	3.66	25.0	3.76	23.0	3.81	22.0	3.79	-		-	
	880	7055	13476		12951		12424		11889		11322		10674		9918		9049		7955		-	
			31.0	3.52	30.0	3.69	29.0	3.88	28.0	4.04	27.0	4.16	26.0	4.29	25.0	4.35	23.0	4.38	22.0	4.32	-	
	915	7336	14012		13507		13000		12491		11963		11351		10673		9923		9018		7663	
			33.0	3.96	32.0	4.13	31.0	4.33	30.0	4.52	29.0	4.64	28.0	4.77	27.0	4.87	25.0	4.92	24.0	4.92	23.0	4.74
	931	7464	14257		13760		13263		12764		12245		11658		11015		10285		9427		8352	
			34.0	4.17	34.0	4.35	32.0	4.54	31.0	4.75	30.0	4.87	29.0	5.00	28.0	5.11	27.0	5.17	25.0	5.18	24.0	5.11

Performance shown is for installation type A: Free Inlet, Free Outlet. Power rating (BHP) does not include transmission losses. For further information on estimating belt drive losses and motor service factors see page 12. The sound ratings shown are for loudness values in fan sones at 5'0" (1.5m) in a hemispherical free field per AMCA Standard 301. Values shown are for installation Type A: free inlet hemispherical sone levels. Performance ratings do not include the effects of appurtenances in the airstream.

FX36B | BELT DRIVE





Galv. Steel Base = 12 Gage	Roof Opening = 36" SQ.	Peak BHP = (RPM/384)^3
Aluminum Base = 0.102	Damper Size = 35 ½" SQ.	Max. RPM = 810
Discharge Apron = 0.080	Max. Motor Frame Size = 213T	Est. Ship Weight = 470 lbs.*

* Add 110 lbs. for Heat & Smoke option.

HP	RPM	Tip Speed FPM	0.000" SP		0.250" SP		0.500" SP		0.750" SP		1.000" SP		1.250" SP		1.375" SP		1.500" SP		1.750" SP		2.000" SP	
			Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP	Sones	BHP
1/2	269	2619	7603		4897		-		-		-		-		-		-		-		-	
			5.6	0.25	5.4	0.34	-		-		-		-		-		-		-		-	
	309	3008	8734		6761		-		-		-		-		-		-		-		-	
			7.2	0.37	6.8	0.51	-		-		-		-		-		-		-		-	
3/4	335	3261	9469		7715		-		-		-		-		-		-		-		-	
			8.4	0.48	7.8	0.63	-		-		-		-		-		-		-		-	
	355	3456	10034		8409		-		-		-		-		-		-		-		-	
			9.4	0.57	8.7	0.74	-		-		-		-		-		-		-		-	
1	370	3602	10458		8912		6306		-		-		-		-		-		-		-	
			10.1	0.64	9.3	0.82	8.2	0.88	-		-		-		-		-		-		-	
	386	3758	10911		9441		7253		-		-		-		-		-		-		-	
			10.9	0.73	10.0	0.92	8.8	1.01	-		-		-		-		-		-		-	
1 1/2	405	3943	11448		10054		8198		-		-		-		-		-		-		-	
			11.8	0.84	11.0	1.04	9.7	1.17	-		-		-		-		-		-		-	
	420	4089	11872		10531		8875		-		-		-		-		-		-		-	
			12.6	0.94	11.8	1.15	10.5	1.30	-		-		-		-		-		-		-	
	443	4313	12522		11255		9785		-		-		-		-		-		-		-	
			14.0	1.10	13.1	1.32	11.8	1.51	-		-		-		-		-		-		-	
2	465	4527	13144		11941		10593		8429		-		-		-		-		-		-	
			15.0	1.27	14.2	1.51	12.8	1.71	11.7	1.76	-		-		-		-		-		-	
	488	4751	13794		12653		11417		9673		-		-		-		-		-		-	
			16.3	1.47	15.5	1.72	14.2	1.94	13.4	2.05	-		-		-		-		-		-	
3	500	4868	14133		13022		11823		10221		-		-		-		-		-		-	
			17.3	1.58	16.5	1.84	15.1	2.07	14.3	2.20	-		-		-		-		-		-	
	515	5014	14557		13483		12327		10896		8139		-		-		-		-		-	
			18.3	1.73	17.5	2.00	16.1	2.23	15.3	2.40	14.3	2.29	-		-		-		-		-	
	530	5160	14981		13942		12827		11516		9322		-		-		-		-		-	
			18.8	1.88	18.1	2.17	16.6	2.41	15.7	2.60	14.7	2.59	-		-		-		-		-	
	550	5355	15547		14552		13488		12259		10497		-		-		-		-		-	
			19.4	2.11	18.7	2.42	17.2	2.65	16.1	2.87	15.2	2.94	-		-		-		-		-	
	560	5452	15829		14855		13810		12627		11008		-		-		-		-		-	
			19.8	2.22	19.1	2.54	17.6	2.78	16.5	3.00	15.6	3.10	-		-		-		-		-	
5	580	5647	16395		15460		14449		13354		11922		9624		-		-		-		-	
			21.0	2.47	20.0	2.82	18.7	3.05	17.6	3.29	16.7	3.44	15.7	3.35	-		-		-		-	
	600	5841	16960		16063		15084		14062		12820		10863		-		-		-		-	
			22.0	2.73	22.0	3.10	20.0	3.34	19.0	3.60	18.3	3.80	17.3	3.77	-		-		-		-	
	620	6036	17525		16663		15713		14738		13596		12025		10842		-		-		-	
			24.0	3.02	24.0	3.41	22.0	3.64	21.0	3.92	20.0	4.14	19.4	4.22	18.7	4.14	-		-		-	
	640	6231	18091		17262		16339		15407		14337		12945		12022		10872		-		-	
			25.0	3.32	25.0	3.74	24.0	3.96	22.0	4.26	21.0	4.50	21.0	4.63	20.0	4.61	19.7	4.53	-		-	
	664	6464	18769		17978		17086		16203		15213		14029		13246		12296		-		-	
			26.0	3.71	26.0	4.17	24.0	4.38	23.0	4.69	22.0	4.96	21.0	5.15	21.0	5.17	20.0	5.14	-		-	
7 1/2	680	6620	19221		18453		17581		16726		15791		14708		13975		13211		-		-	
			27.0	3.98	26.0	4.47	25.0	4.67	23.0	5.00	22.0	5.28	22.0	5.51	21.0	5.54	21.0	5.56	-		-	
	700	6815	19787		19047		18197		17367		16481		15455		14874		14131		12265		-	
			28.0	4.34	27.0	4.86	26.0	5.05	24.0	5.39	23.0	5.69	22.0	5.94	22.0	6.03	21.0	6.05	20.0	5.96	-	
	720	7010	20352		19639		18813		18003		17155		16193		15681		15037		13445		-	
			29.0	4.72	29.0	5.28	27.0	5.48	25.0	5.81	24.0	6.13	23.0	6.39	23.0	6.52	23.0	6.57	22.0	6.56	-	
	745	7253	21059		20372		19579		18794		17990		17104		16610		16116		14756		12913	
			31.0	5.23	31.0	5.81	29.0	6.04	27.0	6.36	26.0	6.70	25.0	6.99	25.0	7.12	24.0	7.25	24.0	7.31	22.0	7.17
	761	7409	21511		20839		20067		19297		18520		17681		17198		16714		15488		13862	
			32.0	5.58	32.0	6.17	31.0	6.42	29.0	6.73	28.0	7.08	27.0	7.40	26.0	7.53	26.0	7.66	25.0	7.77	24.0	7.71

Performance shown is for installation type A: Free Inlet, Free Outlet. Power rating (BHP) does not include transmission losses. For further information on estimating belt drive losses and motor service factors see page 12. The sound ratings shown are for loudness values in fan sones at 5'0" (1.5m) in a hemispherical free field per AMCA Standard 301. Values shown are for installation Type A: free inlet hemispherical sone levels. Performance ratings do not include the effects of appurtenances in the airstream.

ENGINEERING SPECIFICATIONS

Model
FX = Centrifugal Fan
WFX = Wall Mounted Centrifugal Fan

Unit Size
08, 10, 11, 12, 13, 14, 16,
18, 24, 27, 30, 36

Drive Type
D = Direct Drive
B = Belt Drive

Motor Tap
Q = 1725 RPM
R = 1550 RPM
S = 1300 RPM
V = 1050 RPM
Q1 = 1650 RPM
Q2 = 1725 RPM

ECM
0 = None
G = ECM

Motor Speed
1 = Single Speed
2 = 2S2W Single & Three Phase
3 = 2S1W Three Phase

Horse Power
See selection software.

Enclosure
O = Open Drip Proof
T = Totally Enclosed
E = Explosion Proof
X = Special

Voltage
See selection software.

Phase
1 = Single
3 = Three

Cycle
5 = 50 Hz
6 = 60 Hz

Efficiency
S = Standard
H = High Efficiency

Paint / Coating
0 = None
F = Epoxy Powder Coat*
G = Epoxy Powder Coat with UV*
H = Hi-Temp Powder Coat*
J = Non-stick Powder Coat*
K = Phenolic Powder Coat*
L = Phenolic Powder Coat with UV*
N = Polyester Powder Coat
X = Special
** Not available with choice of color.*

Color
0 = None
50 = Chrome Green
55 = Pale Green
56 = Dove Gray
61 = White
63 = Oxford Beige
65 = Dover White
66 = Desert Tan
70 = Black
73 = Smoke Gray
77 = Brick Red
79 = Peppercorn
81 = Pale Brown
83 = Chocolate Brown
85 = Timeless Bronze
94 = Charcoal
X = Special

AMCA Spark Rating
0 = None
C = Standard
B = Optional

Damper
0 = None
BDD = Gravity Back Draft Damper
MD1 = Gravity Back Draft Damper 115V
MD2 = Gravity Back Draft Damper 230V
MD4 = Gravity Back Draft Damper 460V
ED1 = Explosion Proof Motor Operated Damper 115V

Screen
0 = None
B = Bird Screen
S = Insect/Bird Screen

Roof Curb
See selection software.

Slope
0 = None
S = Single
D = Double

Metal Liner
0 = None
L = Metal Liner

Damper Holding Plate
0 = None
P = Damper Holding Plate

Neoprene Gasket
0 = None
G = Gasket

Wooden Nailer
0 = None
W = Wooden Nailer

Curb Paint/Coating
B = Air Dried Epoxy
Q = Enamel

Hinged Sub-base
0 = None
H = Hinged Sub-base

Mounting Pedestal
0 = None
P = Mounting Pedestal

Floating Hinge Kit
0 = None
H = Floating Hinge Kit

Aluminum Base
0 = None
A = Aluminum Base

Thermal Overload Protection
0 = None
P = Thermal Overload Protection

Disconnect Switch
0 = None
1 = NEMA 1 Disconnect Switch
3R = NEMA 3R Disconnect Switch
4 = NEMA 4 Disconnect Switch
7 = NEMA 7 Disconnect Switch
9 = NEMA 9 Disconnect Switch

Internal Wiring
0 = None
1 = NEMA 1 Internal Wiring
3R = NEMA 3R Internal Wiring

Transformer
0 = None
T = Transformer

Speed Controller
0 = None
L = Loose
M = Mounted

Firestat Switch
0 = None
F = Firestat Switch

Continued, next page.

ENGINEERING SPECIFICATIONS

Fatrap
0 = None
F = Fatrap

Heat & Smoke Removal
0 = None
-HS = Heat & Smoke Removal

Wall Mount
0 = None
W = Wall Mount

High Pressure Wheel
0 = None
H = High Pressure Wheel

High Wind Construction
0 = None
M = Miami Dade Approved

Pressure Controlled Package
L = Low Voltage
H = High Voltage
C = Control 24V

Fumex - Direct Drive Units

Direct drive centrifugal roof exhaust upblast fan shall be Fumex FX, manufactured by PennBarry. The housing shall be weatherproof, utilize heavy gauge spun aluminum construction with a large rolled bead for strength, with galvanized (aluminum optional) base, with rigid galvanized steel internal support structures. Housing shall not provide any of the internal structural support. Units shall be equipped with an oversized electrical conduit chase through the curb cap and into the motor compartment for ease of wiring (except Explosion Proof). Units shall be pre-wired to a junction box mounted in the motor compartment and equipped with an electrical disconnect device (except Explosion Proof).

Statically and dynamically balanced backward inclined, centrifugal wheels shall be aluminum, spark-resistant, nonoverloading, and matched to deeply spun venturis. Motors shall be continuous duty, permanently lubricated, multispeed (for applicable models), have thermal overload protection, mounted out of the main airstream, be easily accessible for service, and furnished at the specified voltage, phase and enclosure. Each fan shall bear the AMCA Certified Ratings Seal for Air and Sound Performance, and shall be UL (UL705, UL762 optional applicable models) listed. If specified (Fatrap option), fan shall additionally provide UL762 listing rated at 400ºF, motor pre-wired to a weather-proof junction box, and drain connection leading into a grease collector/ separator box.

Fumex - Belt Drive Units

Belt drive centrifugal roof exhaust upblast fan shall be Fumex FX, manufactured by PennBarry. The housing shall be weatherproof, utilize heavy-gauge spun aluminum construction with a large rolled bead for strength, with galvanized base, with rigid galvanized steel internal support structures. Housing shall not provide any of the internal structural support. Large diameter cooling tube shall provide ambient air to flow over motor. Units shall be equipped with an oversized electrical conduit chase through the curb cap and into the motor compartment for ease of wiring (except Explosion Proof). Units shall be prewired to a junction box mounted in the motor compartment and equipped with an electrical disconnect device (except Explosion Proof).

Statically and dynamically balanced backward inclined, centrifugal wheels shall be aluminum, spark-resistant, nonoverloading, and be matched to deeply spun venturis. Motors shall be continuous duty, ball bearing design, permanently lubricated, mounted out of the main airstream, and furnished at the specified voltage, phase, and enclosure. Shafts shall be turned, ground and polished. Heavy duty ball bearings are rated for a minimum L50 life exceeding 200,000 hours. Pulleys shall be adjustable, cast iron, machined, keyed, securely attached, and sized for 150% of the horsepower at its rated maximum speed. Each fan shall bear the AMCA Certified Ratings Seal for Air and Sound Performance (FX), and shall be UL (UL705, UL762 optional) listed. If specified (Fatrap option), fan shall additionally provide UL762 listing rated at 400ºF motor pre-wired to a weather-proof junction box, and drain connection leading into a grease collector/ separator box. If specified (heat and smoke removal option), fan shall additionally provide UL listing rated for 500°F at 4-hours and 1000°F at 1 hour, including steel wheel and additional cooling tube.

PennBarry Product Solutions

COMMERCIAL

Roof & Wall Exhaust Centrifugal Fans

Ceiling, Wall, & Inline Centrifugal Fans

Roof Supply Centrifugal Fans

Square & Round Centrifugal Fans

Wall Mounted Axial Fans

Hooded Roof Axial Fans

Upblast Roof Axial Fans

Gravity Ventilators

Roof Curbs

INDUSTRIAL

Utility Vent Sets

Freestanding Centrifugal Fans

Industrial & Material Handling Fans

Tubular Centrifugal Inline Fans

Mixed Flow Centrifugal Fans

Plug & Plenum Fans

Wall Mounted Propeller Fans

Tube Axial Fans

Vane Axial Fans

Bifurcator Fans

Fume Exhaust

ENERGY RECOVERY

Outdoor Units

Indoor Units

KITCHEN VENTILATION

Kitchen Hoods

Make-Up Air Units

Exhaust Fans

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