Direct Drive Fans

Low Pressure Industrial Duty

MODEL EXG

MADE IN USA

Explosion Proof 1 Phase 115/230V

◄= EDP in Stock

EDP Number	Catalog No.	Prop Dia.	HP	Fan RPM	Capacity (CFM) @ "SP 0"	1/8"	1/4"	Approx. Ship Wt.	Max. Sones @ 5'	List Price
◄24350	12EXG16	12"	1/4	1725	970	900	800	25	6.7	$1,506
◄24360	16EXG16	16"	1/4	1725	2950	2200	1900	40	17.6	$1,744
24371	18EXG16A	18"	1/4	1140	2600	2200	1000	62	10.5	$1,769
◄24381	24EXG16A	24"	1/4	1140	5100	4780	3550	75	20.6	$1,815

Explosion Proof 3 Phase 230/460V

EDP Number	Catalog No.	Prop Dia.	HP	Fan RPM	Capacity (CFM) @ "SP 0"	1/8"	1/4"	Approx. Ship Wt.	Max. Sones @ 5'	List Price
24391	18EBX836A	18"	1/4	1140	2600	2200	1000	60	10.5	$1,912
24401	24EBX836A	24"	1/4	1140	5100	4780	3550	90	20.6	$1,987

For supply duty add "S" prefix to EDP Number and use list price divided by 0.80. Explosion Proof Motors Class I, Group D & Class II Groups E, F & G, with the exception of the 12" and 16" sizes which are Explosion Proof Motors, Class I, Group D & Class II Groups F & G. Propellers have spark resistant aluminum blades.
See page 51 for Explosion Proof Motor information. Do not use variable speed control with EXG fan.

RECOMMENDED OPTIONAL ACCESSORIES (EDP Numbers in Parenthesis)

Prop Dia.	Wall Collar			Exhaust Shutter for use: With Wall Collar			Exhaust Shutter for use: Without Wall Collar			Supply Shutter for use: With Wall Collar			Supply Shutter for use: Without Wall Collar			Safety Guards: Prop Side Guard (Front)			Safety Guards: Motor Side Guard (Rear)		
12"	WS12	(06884)	$242	WR12E	(22765)	$124	WR12E	(22765)	$124	WC12	(22611)	$154	WC12	(22611)	$154	12FG	(23660)	7#	$224	12RG	(23605)	15#	$224
16"	WS18E	(06886)	$319	WR16E	(22775)	$158	WR16E	(22775)	$158	WC16	(22621)	$162	WC16	(22621)	$162	16FG	(23665)	11#	$238	16RG	(23610)	21#	$327
18"	WS18	(06894)	$299	WR18E	(22785)	$171	WR18E	(22785)	$171	WC18	(22631)	$193	WC18	(22631)	$193	18FG	(23670)	11#	$271	18RG	(23615)	23#	$372
24"	WS24	(06887)	$316	WR24E	(22795)	$227	WR24E	(22795)	$227	WC24	(22641)	$241	WC24	(22641)	$241	24FG	(23675)	15#	$299	24RG	(23620)	28#	$393

NOTE: When a WRE or WC shutter is used for exhaust or supply and mounted remote from the fan, a WS Wall Collar is not needed.
The shutter is installed directly on the wall and a Motor Actuator Kit must be utilized.

NOTES:
Weatherhoods are available for the 24" units. WS Wall Collars are shipped knocked down.
WC Supply Shutters are not weather resistant. It is recommended that the WC be used with a weatherhood.

See pages 60 and 61 for WS Wall Collar Dimensions & Weatherhoods.
See page 61 for prop (front) and motor (rear) side guard dimensions.

For Epoxy Coating Finish of shutters or guards, add "E" suffix to EDP# and use list price divided by 0.65.

See page 59 for WRE and WC shutter selection/installation information, ship weights and cautions.

DIMENSIONS FOR EXG (IN.)

Size	12"	16"	18"	24"
SeeFig.	1	1	1	2
A(Dia.)	12	16	18	24
B	12 1/2	16 1/2	18 1/2	24 1/2
C	1-5/8	1-7/8	2	2 1/2
D	10-5/8	13-3/4	15-1/2	15 1/2
E	16	22	24	30
F				14-1/8
H(Dia.)	.38	.38	.38	.38
HOLES	4	4	4	8

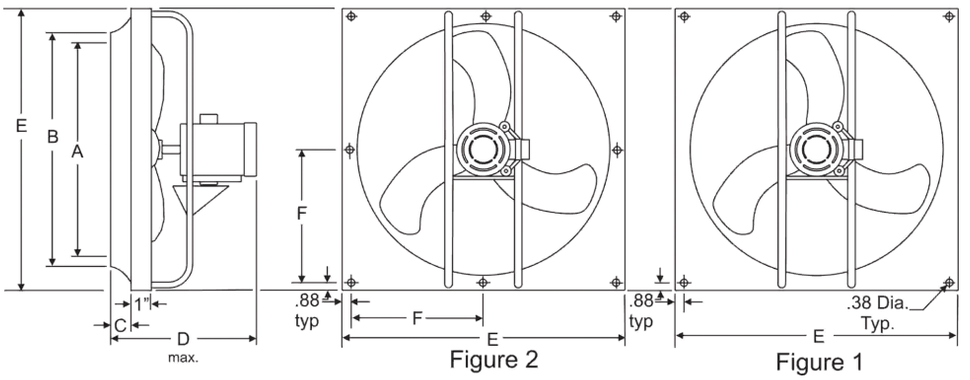
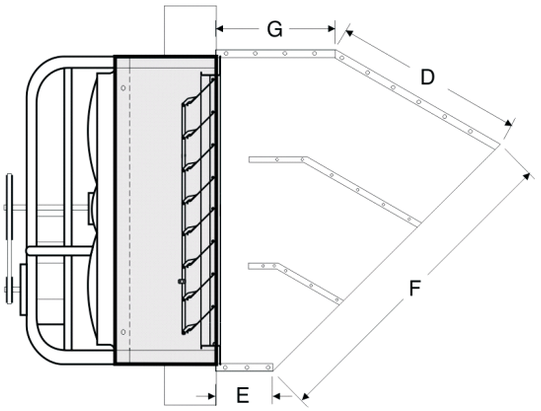


Figure 2 Figure 1

Supply Duty Option And Supply Fan Accessories

For EPR, EXG, PD, HV, PB and HA Series Of Wall Fans



SUPPLY DUTY INFORMATION

Airmaster offers a supply duty option for the EPR, EXG, PD, HV, PB AND HA series wall fans. The fans are custom built with the venture facing the motor, allowing the fan to blow air into the building and still have the motor on the inside.

To order Supply Duty Fan, add “S” to EDP number and use list price divided by 0.80.

Recommended optional accessories include the WC supply shutters, WS wall collars, WH weather hoods, FG front guards and RG rear guards. See pages

WC SUPPLY SHUTTER SELECTION / INSTALLATION INFORMATION AND CAUTIONS:

The velocity profile near the fan blade tips (spot velocity) is non-uniform and will vary by fan model. This spot velocity condition can damage a backdraft damper if it exceeds the maximum recommended backdraft damper velocity. For this reason, it is recommended that the backdraft damper be mounted a minimum of 1/3 the fan diameter away from the fan outlet. When the fan motor horsepower is 7-1/2 and above the WC shutter should not be used.

Stocked and Sold By:

INDUSTRIAL & ELECTRIC SUPPLY CO.
209 Paredes Line Road
Brownsville, Tx 78521

Toll Free Call: 1-800-880-3743

Understanding Hazardous Location Fans & Motors

Many areas do or may contain gas, vapor or dust in explosive quantities. These areas must be considered hazardous when selecting a fan. To exhaust these areas a fan with an explosion proof motor must be used, many explosions have been caused by exhausting a potentially explosive area with a fan and motor not designed for use in hazardous areas.

Locations Which May Contain Explosive
Gas, Vapor or Dust in the Atmosphere
Oil Refineries Painting Operations Welding Shops
Chemical Plants Grain Elevators Coal Mines
Grain Mills Battery Charging Areas Chemical Storage
Paint Storage Dry Cleaners Laboratory Hoods
Feed Mills Flour Mills Electroplating Operations

Most airborne dusts are flammable and potentially explosive, and should be treated as such. Locations containing any amounts of explosive material, no matter how slight, require the use of a fan with a motor rated for hazardous locations and spark resistant construction. Hazardous locations may include, but are not limited to the above list.

All Airmaster fans with explosion proof motors are rated for Class I, Group D, Class II, Groups F & G atmospheres. Some may be rated for Class I, Group D, Class II, Groups E, F & G, they will be listed in the catalog. An explosion proof motor is designed to withstand an explosion of a specific gas or vapor which may occur within it, and prevent the ignition of the gas or vapor which may be surrounding the motor casing. Always be sure that the motor classes and group ratings match the requirements of the hazardous location. Fans and air circulators with explosion proof motors must be hard wired using explosion proof components and in accordance with all local, state, and national codes. Equipment with explosion proof motors should never be supplied with a cord and plug. Plugging a piece of equipment into a wall outlet can cause a spark, which could lead to an explosion.

National Electrical Code Explosive Atmosphere Classifications

Class I

- Group A: Acetylene
- Group B: Butadiene, ethylene oxide, hydrogen, propylene oxide, manufactured gasses containing more than 30% hydrogen by volume.
- Group C: Acetaldehyde, cyclopropane, diethyl ether, and ethylene.
- Group D: Acetone, acrylonitrile, ammonia, benzene, butane, ethanol, ethylene dichloride, gasoline, hexane, isoprene, methane (natural gas), methanol, naphtha, propane, styrene, toluene, vinyl acetate, vinyl chloride, xylene.

Class II

- Group E: Aluminum, magnesium, and other metal dusts with similar characteristics
- Group F: Carbon black, coke or coal dust
- Group G: Flour, starch or grain dust

Class III

Easily ignitable fibers, such as rayon, cotton, sisal, hemp, cocoa fiber, oakum, excelsior and other fibers of similar nature.

The Classification of a Hazardous Environment

The classification of a hazardous atmosphere requires considerable skill and judgment, especially the extent of the hazardous areas.

- Class I, Division I: hose areas in which hazardous concentrations of flammable gasses, vapor or liquids exist, either continually or periodically during normal operating conditions. In these areas the National Electric Code requires the use of explosion proof motors at all times.
- Class II, Division II: Those areas in which flammable gasses are handled, processed or used. In these locations the liquid or gas is normally confined in enclosed containers or systems, from which they can escape only in the event of accidental breakdown or abnormal operations. In these areas the National Electric Code requires only that the motors must not have sparking internal contacts (such as centrifugal switches). Normally, three phase TEFC motors are suitable for operation in these atmospheres.

Explosion proof motors are generally not available for Class I, Group A and Class I, Group B locations. When these conditions are encountered, it is usually necessary to isolate the motors from the hazardous location. Also, it is possible to substitute hydraulic or pneumatic motors in place of electric type. All Airmaster axial flow fans and air circulators with explosion proof motors have a cast aluminum propeller or a fabricated propeller with aluminum blades.

Note: All fans must be installed in accordance with all applicable national, state, and local electrical and mechanical codes.