

- ◆ Plastic impeller and casing is highly resistant to chemicals and corrosion; specifically designed for corrosive fume hood applications.
- ◆ Single block strong high density, UV-treated and recyclable polypropylene (PPH). No welded joints. available in polypropylene (PP) construction suitable for most general fume hoods.
- ◆ Forward-curved centrifugal type impeller made of injection molded PPH. Fan wheel supplied with motor shaft bushing and hub cap constructed of PPH.
- ◆ Performance in accordance with AMCA 210-85 and ISO 5801.

FUME HOOD FAN SELECTION PROCEDURE

◆ Calculate the air volume required by the hood; take the product of; the sash height at which minimum inflow velocity will be considered, the inflow velocity specified, the length (from side to side) of the hood.

◆ A common inflow velocity specified is 0.5m/s or 100fpm; however, consult with your Laboratory Safety Officer for more information or contact your local Esco representative for advice on appropriate hood inflow velocities; bear in mind that a higher inflow velocity does not necessarily result in a greater factor of containment and safety.

◆ For example, when working in metric units:

Minimum inflow velocity at sash height of 0.65 metres
 Minimum hood inflow velocity to be 0.5 m/s
 4ft hood size; internal dimensions 1.12m across

Required hood exhaust volume
 = 0.65m x 0.5ms-1 x 1.12m
 = 0.364 cubic metres per second
 = 1310 cubic metres per hour

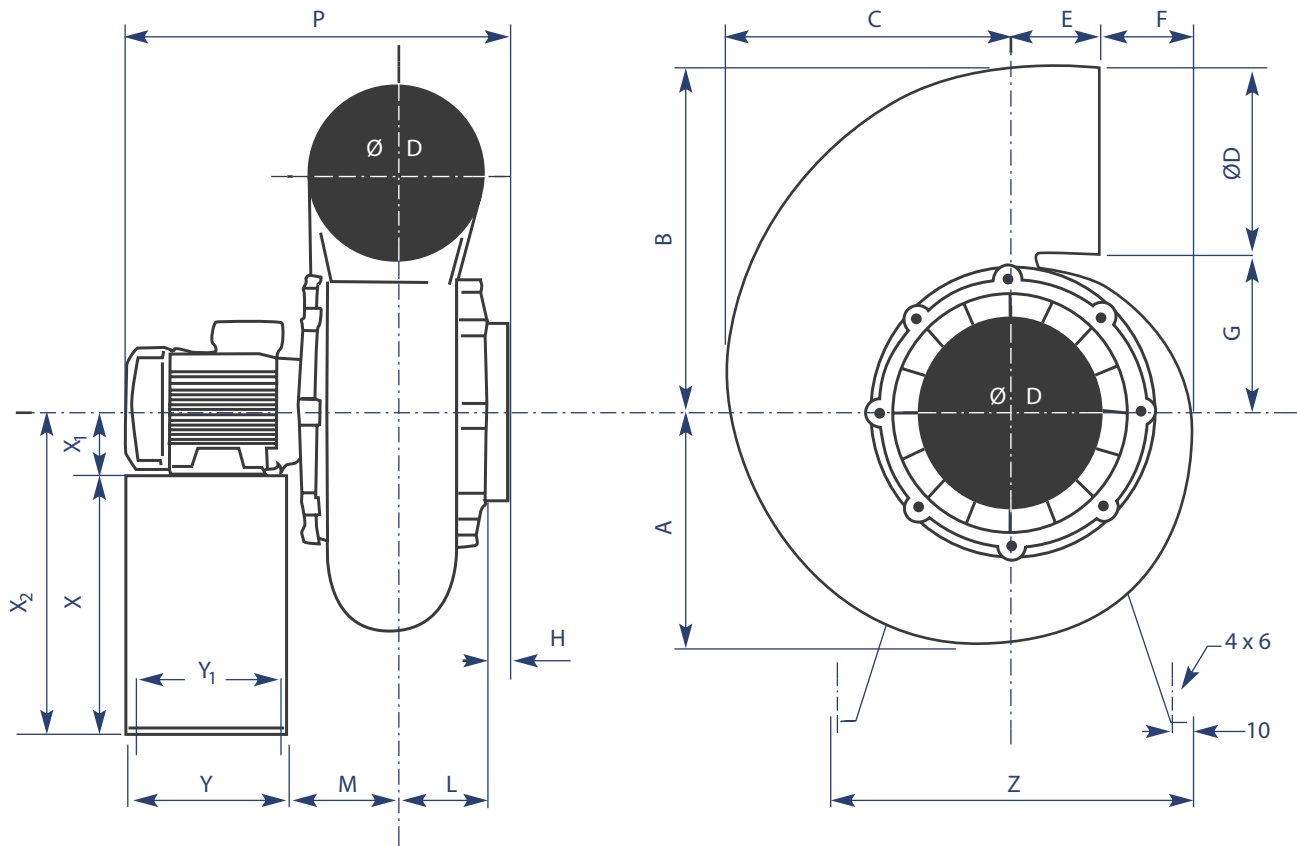
◆ Based on the requirements of the local installation site (length of ductwork, number of elbows etc.); calculate the total system pressure loss of the ductwork run at the specified air volume.

◆ Correlating total system pressure loss with air volume, select an appropriate fan using the performance curves; as long as fan is able to deliver required air volume at system pressure loss equal or more than the calculated value, it can be used; we recommend, however, that a 20% contingency factor be included on the theoretical system pressure loss calculation.

AVAILABLE FAN ROTATIONS (VIEW FROM MOTOR END)

RD180 	RD 270
RD 0 	RD 90
LG 180 	LG 270
LG 0 	LG 90

Explosion-Proof Motor Option: Available on request; contact Esco or your local distributor for more information.

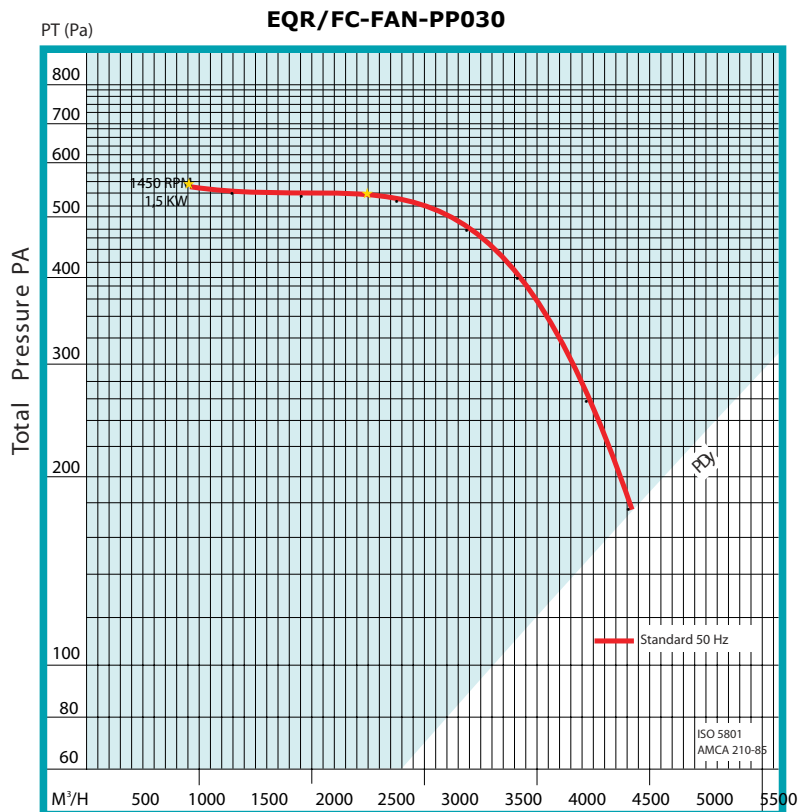
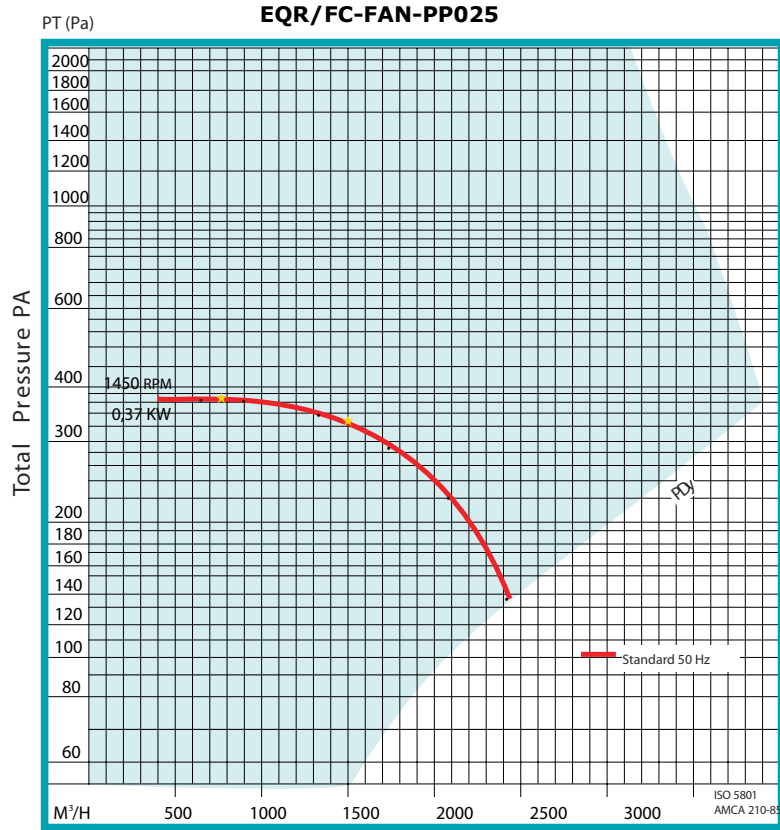


General Specifications	EQR/FC-FAN-PP025	EQR/FC-FAN-PP030
Dimensions A	248 mm / 9.8"	300 mm / 11.8"
Dimensions B	365 mm / 14.3"	450 mm / 17.7"
Dimensions C	310 mm / 12.2"	373 mm / 14.7"
Dimensions D	200 mm / 7.9"	250 mm / 9.8"
Dimensions E	103 mm / 4.1"	117 mm / 4.6"
Dimensions F	92 mm / 3.6"	112 mm / 4.4"
Dimensions G	165 mm / 6.5"	198 mm / 7.8"
Dimensions H	35 mm / 1.4"	35 mm / 1.4"
Dimensions L	95 mm / 3.7"	110 mm / 4.3"
Dimensions M	105 mm / 4.1"	120 mm / 4.7"
Dimensions Y	180 mm / 7.1"	240 mm / 9.4"
Dimensions Y ₁	160 mm / 6.3"	220 mm / 8.7"
Dimensions Z	420 mm / 16.5"	460 mm / 18.1"
Dimensions X	300 mm / 11.8"	370 mm / 14.6"
Dimensions X ₁	71 mm / 2.8"	90 mm / 3.5"
Dimensions X ₂	371 mm / 14.6"	460 / 18.1"
Dimensions P	430 mm / 16.9"	540 mm / 21.3"
Motor Speeds	1450 rpm	1450 rpm
Inlet / Outlet Diameters	254 mm / 10" internal measurements; or 305 mm / 12" internal measurements	
Motor / Fan Speeds	1500 rpm (motor) / Approx 1400 rpm (fan)	
Power Consumption	0.37 kW	1.5 kW
Power Supply	220-240V, single phase, 50/60HZ; or 110-130V, single phase, 50/60HZ; or 220-240V/415V, 3 phase, 50/60HZ	

When ordering exhaust fans, please specify: desired fan rotation (see page1 of this brochure for the rotation diagrams), inlet / outlet diameters (should be the same as that of fume hood with which fan will be used), and the power supply.

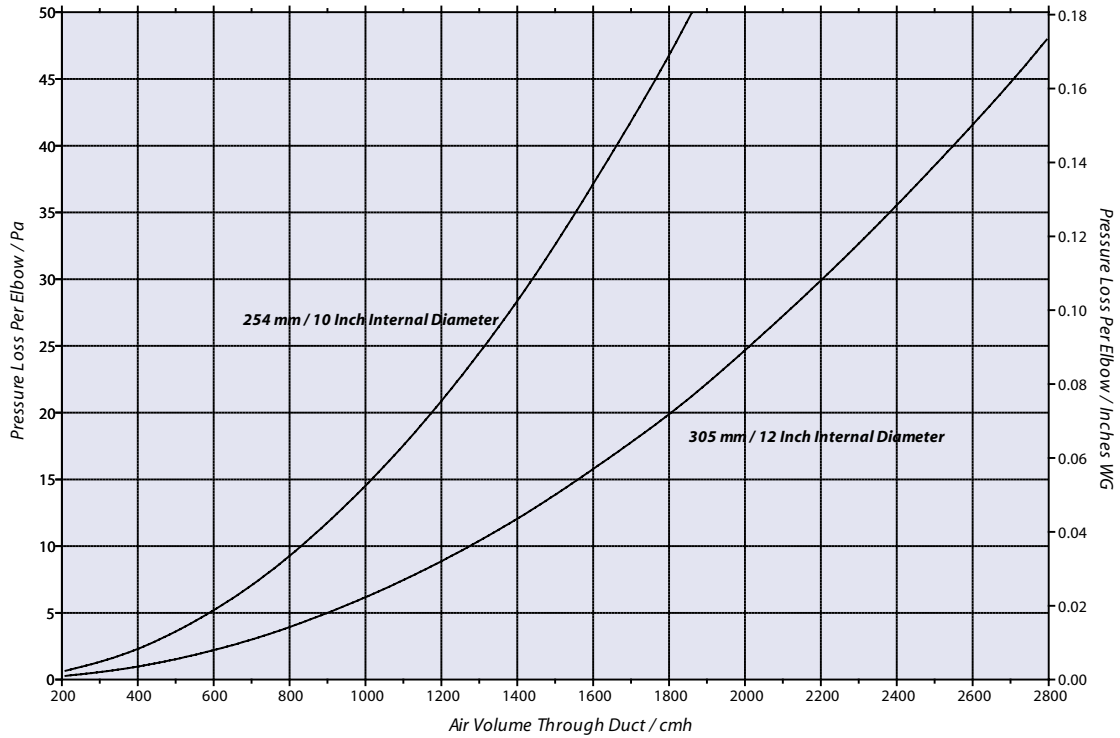
NOTE: Esco 4ft and 5ft Fume Hood models are equipped with a 10" diameter exhaust collar, which should use a 10" diameter ductwork to maintain low pressure loss. (12" for Esco 6ft Fume Hood models). For fans with inlet diameters smaller than the exhaust collar diameter (see Dimension D above), i.e. PP025 with 7.9" for a EFH-4AX with 10" exhaust collar, a reducer is necessary for connection. However, to maintain low pressure loss, do not install reducer with the exhaust collar. Use 10" ductwork, and install reducer at the connection of the ductwork to the exhaust fan.

Esco Fume Hood Fan Performance Curves

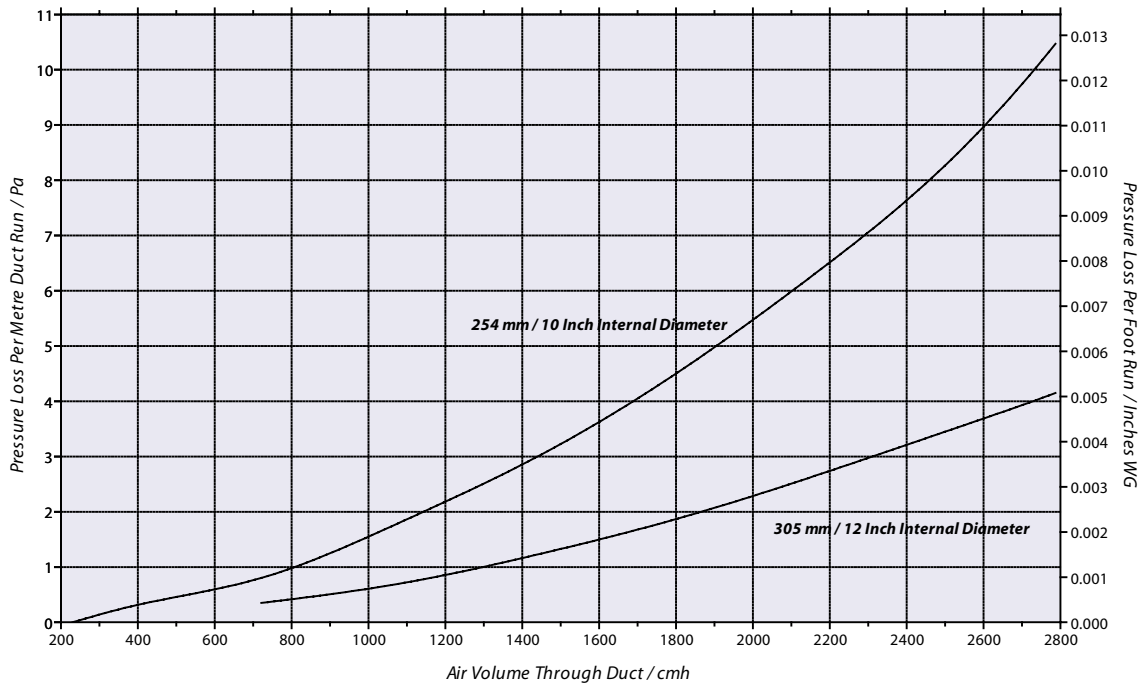


To convert cubic metres per hour (CMH) to cubic feet per minute (CFM) divide value in CMH by 1.7

STATIC PRESSURE LOSS CHART FOR 10 INCH DIAMETER 90° ELBOW BENDS



STATIC PRESSURE LOSS CHART FOR CIRCULAR DUCTWORK



To convert cubic feet minute (CFM) to cubic metres per hour (CMH) multiply value in CFM by 1.7
 Note: Charts reflect values for standard air density at sea level; approx 14° C
 When the exhaust system is designed to operate above 610m altitude, below 0° C or above 49° C
 The duct pressure loss obtained must be corrected for air density.
 Ductwork in use is assumed to be typical uPVC or uncoated / galvanised steel.
 The use of different duct materials will affect real-life static losses