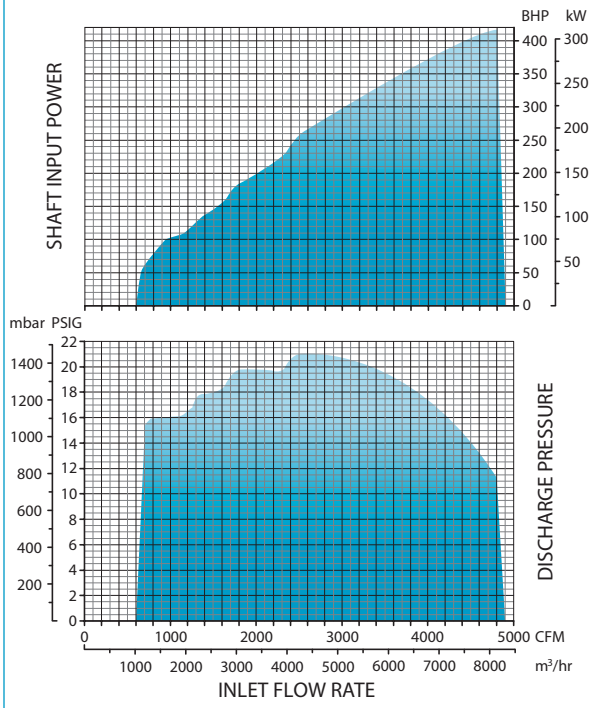
ZM 88

Atlas Copco

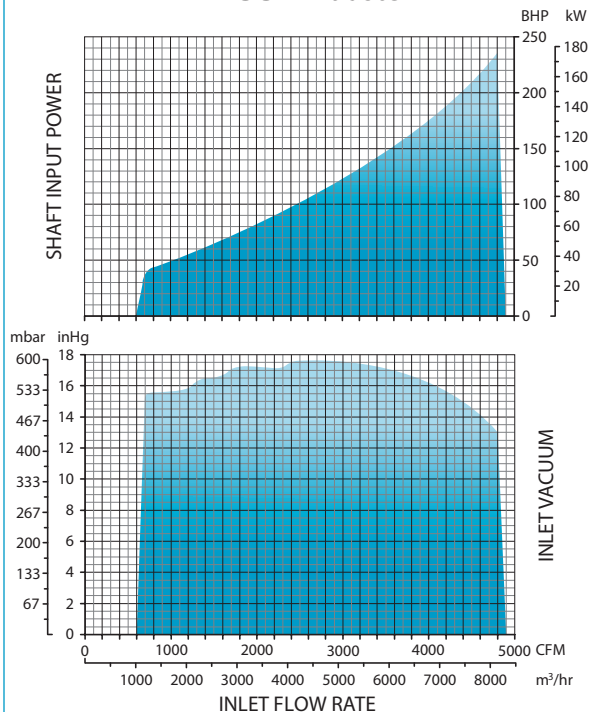
MULTISTAGE CENTRIFUGAL BLOWERS

General Performance

ZM 88 Blower



ZM 88 Exhauster



Specifications Standard

Technical Data

Number of Stages	1 to 11
Inlet Connection	10" flange, ASA 25# / ANSI 150# drilling Optional DIN 250 adapter flange
Outlet Connection	8" flange, ASA 25# / ANSI 150# drilling Optional DIN 250 adapter flange
Operating Speed	Fixed speed 3550 RPM (60 Hz), 2960 RPM (50 Hz) Variable speed option available
Casing Pressure	25 PSIG (1.7 bar)
Seals (air)	Labyrinth type
Seals (gas)	OPTi Seal/ Stuffing box type/ Carbon ring type/ Custom available
Bearings	Ball, 10-year minimum life per AFBMA L_{10} standard
Lubrication	Oil or Grease
Impeller Diameter	24.00 in (610.0 mm)
Impeller Tip Speed	372 ft/s (113 m/s) @ 3550 RPM
First Critical Speed	4470 RPM (11-stage)
Drive Type	Direct coupled or belt driven, Inlet driven (standard) or Outlet driven
Shaft End	2.25 in (57 mm) diameter at coupling
Vibration Tolerance	.25 in/s (6.4 mm/s) ISO overall specification, 1.25 mils (0.03 mm) peak to peak
Rotor Balance	Military standard 167-1. Individual impellers and rotating assembly dynamically balanced

Materials of Construction

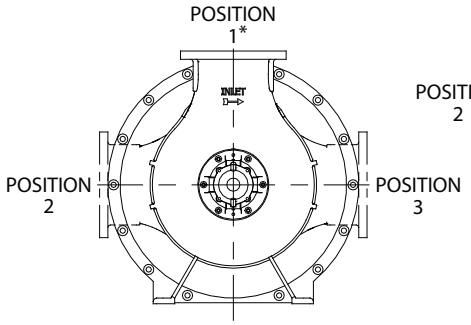
Casing	Cast iron ASTM A48 grade 25/30
Bearing Caps & Housings	Cast iron ASTM A48 grade 25/30
Oil Reservoir	Cast iron ASTM A48 grade 25/30
Shaft	Carbon steel AISI 4140 (stainless steel available)
Impellers	Cast aluminum ANSI AA319/356 (stainless steel/custom alloys available)
Seals (air)	Cast Iron ASTM A48 grade 30 with lead babbitt insert Zinc-Alloy, ZA-12
Seals (gas)	Stainless Steel with Viton Elastomer, isostatically molded high density fine grain electro-graphite
Interstage Baffle Rings	Stainless steel ASTM A240 304
Tie Rods	.75 in (19.1 mm) diameter, high strength steel ASTM A193-B7/B7M available
Blower Base	Welded structural steel ASTM A36 ASME/AWS D1.1
Motor Pedestal	Welded steel plate ASTM A36
Joint Sealing Compound	RTV silicone
Base Isolation Pads	Neoprene rubber
Finish	Standard 2 part epoxy, 7011 Atlas Copco Dark Gray

Curves are based on atmospheric conditions of 1 Atm, 68F/20C, 36% RH, and 3550 rpm

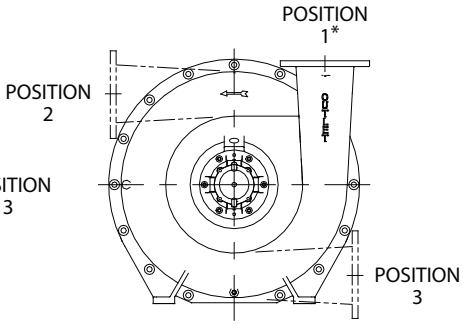
ZM 88 MULTISTAGE CENTRIFUGAL BLOWER

Inlet and Outlet Orientation Options

The orientation of the inlet and outlet is selectable from any of three different positions, as viewed when facing the exterior of the part:



INLET POSITIONS



OUTLET POSITIONS

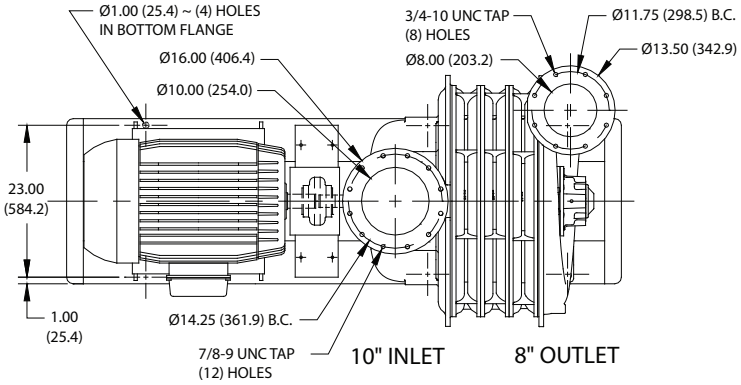
*Standard configuration.

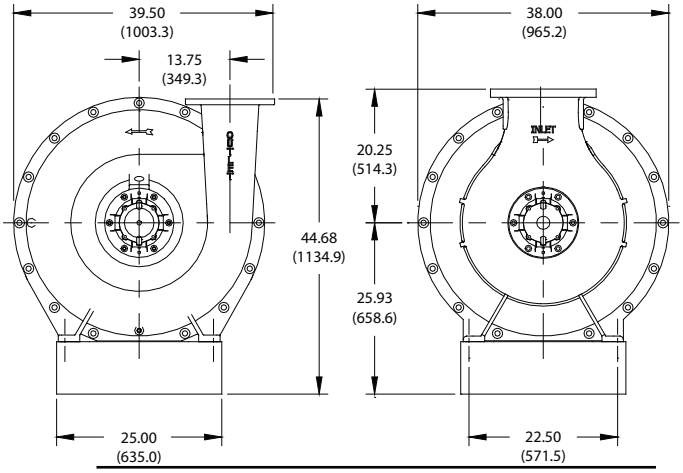
Weight and Inertia

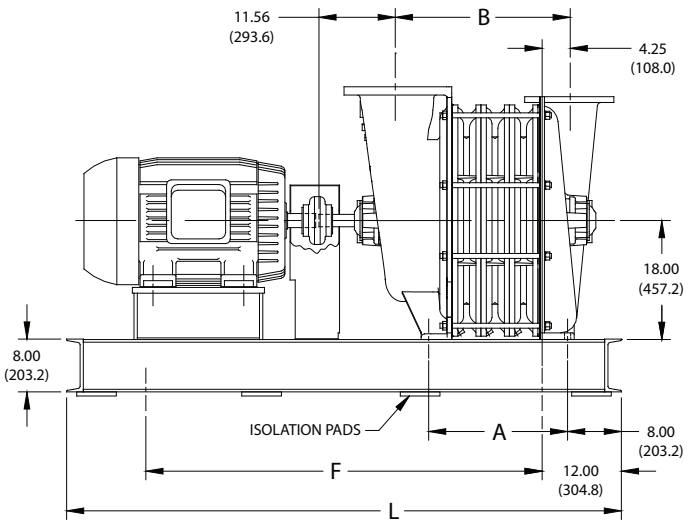
Model	Weight* lb	Weight* kg	Wk² lb-ft²	Wk² kg-m²
8801	1,400	635	11	0.48
8802	1,800	816	23	0.96
8803	2,140	971	34	1.44
8804	2,530	1,148	45	1.92
8805	2,990	1,356	57	2.40
8806	3,350	1,520	68	2.88
8807	3,710	1,683	79	3.36
8808	4,140	1,878	91	3.84
8809	4,550	2,064	102	4.32
8810	5,000	2,268	113	4.80
8811	6,060	2,749	125	5.28

*Approximate weight for blower only.
† Inertia based on cast impellers.

General Arrangement







Dimensions*

Model	A	B	F†	L†
8801	8.25 (210)	13.25 (337)	49 (1245)	73 (1854)
8802	12.56 (319)	17.56 (446)	49 (1245)	73 (1854)
8803	16.88 (429)	21.88 (556)	62 (1575)	86 (2184)
8804	21.19 (538)	26.18 (665)	62 (1575)	86 (2184)
8805	25.50 (648)	30.50 (775)	62 (1575)	86 (2184)
8806	29.81 (757)	34.81 (884)	76 (1930)	100 (2540)
8807	34.12 (867)	39.13 (994)	89 (2261)	113 (2870)
8808	38.44 (976)	43.44 (1103)	89 (2261)	113 (2870)
8809	42.75 (1086)	47.75 (1213)	89 (2261)	113 (2870)
8810	47.06 (1195)	52.06 (1322)	106 (2692)	130 (3302)
8811	51.38 (1305)	56.38 (1432)	106 (2692)	130 (3302)

*Dimensions in inches and (millimeters) and are approximate. Do not use for construction purposes.
†Dimension may vary depending on motor frame size.

Atlas Copco

www.atlascopco.us
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