

ZM 61



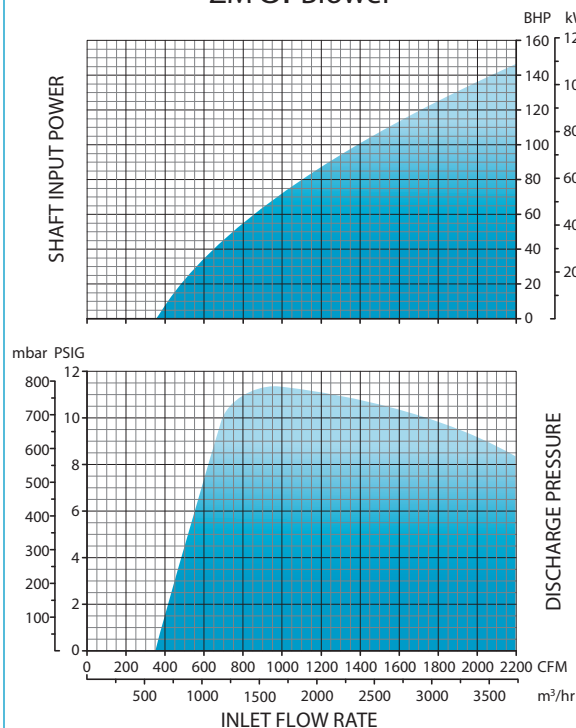
Atlas Copco

MULTISTAGE
CENTRIFUGAL
BLOWERS

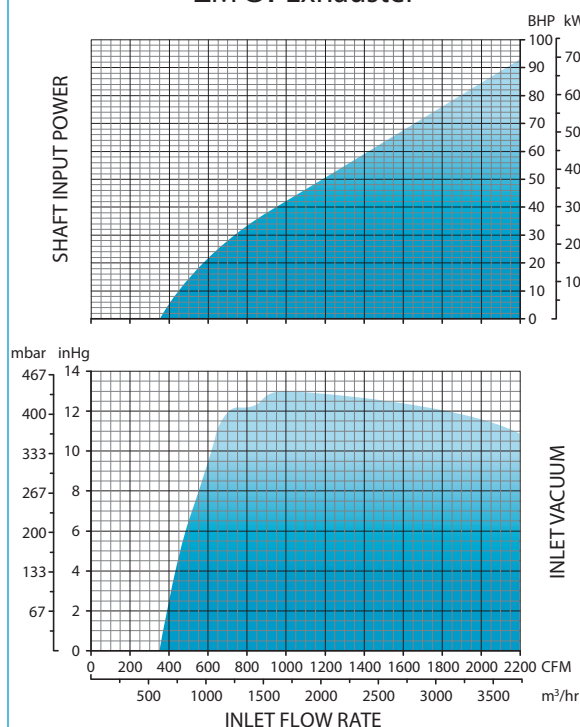
General Performance

Specifications Standard

ZM 61 Blower



ZM 61 Exhauster



Technical Data

Number of Stages	1 to 8 (60 Hz), 1 to 9 (50 Hz)
Inlet Connection	6" flange, ASA 125# / ANSI 150# drilling Optional DIN 175 adapter flange
Outlet Connection	6" flange, ASA 125# / ANSI 150# drilling Optional DIN 175 adapter flange
Operating Speed	Fixed Speed 3550 RPM (60 Hz), 2960 RPM (50 Hz) Variable speed option available
Casing Pressure	20 PSIG (1.4 bar)
Seals (air)	Labyrinth type
Seals (gas)	Stuffing box type/ Carbon ring type/ Custom available
Bearings	Ball, 10-year minimum life per AFBMA L ₁₀ standard
Lubrication	Standard Grease/ Oil option available
Impeller Diameter	22.00 in (558.8 mm)
Impeller Tip Speed	341 ft/s (104 m/s) @ 3550 RPM
First Critical Speed	4560 RPM (9-stage)
Drive Type	Direct coupled or Belt driven, Inlet driven (standard) or Outlet driven
Shaft End	1.875 in (47.63 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 statically and rotating assembly dynamically balanced

Materials of Construction

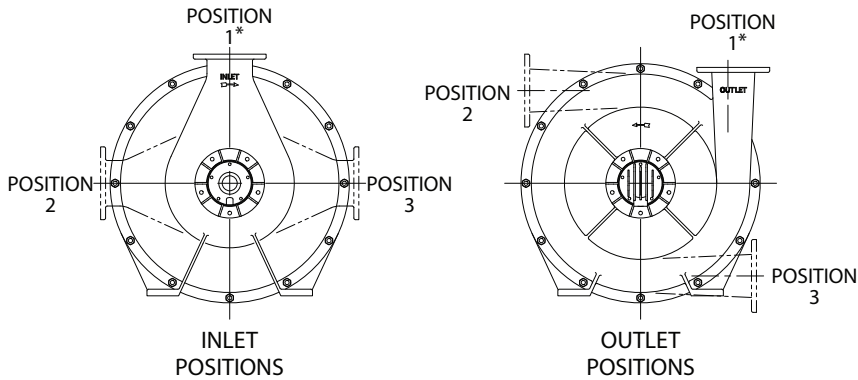
Casing	Cast iron ASTM A48 grade 25/30
Bearing Caps & Housings...	Cast iron ASTM A48 grade 25/30
Oil Reservoir	Cast iron ASTM A48 grade 25/30
Shaft	Carbon steel AISI 4140 (stainless steel available)
Impellers	Cast aluminum ANSI AA319/356 or (stainless steel/custom alloys available)
Seals (air)	Cast iron 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
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, 68°F/20°C, 36% RH, and 3550 rpm

ZM61 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:



*Standard configuration.

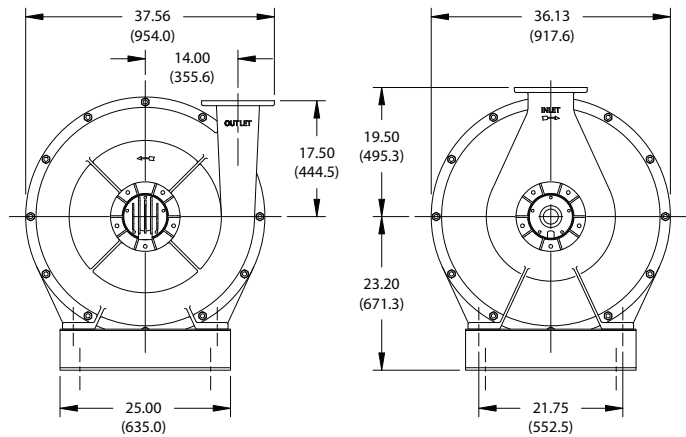
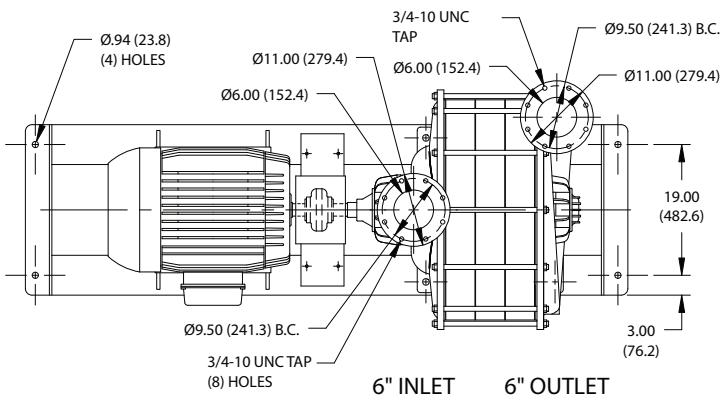
Weight and Inertia

Model	Weight*		Wk ²	
	lb	kg	lb-ft ²	kg-m ²
6101	870	395	8	0.35
6102	1120	508	16	0.68
6103	1370	621	24	1.02
6104	1620	735	32	1.35
6105	1870	848	40	1.68
6106	2120	962	48	2.02
6107	2370	1075	56	2.35
6108	2620	1188	63	2.68
6109	2895	1313	71	3.02

*Approximate weight for blower only.

† Inertia based on cast impellers.

General Arrangement



Model	Dimensions*			
	A	B	F [†]	L [†]
6101	6.00 (152)	8.13 (206)	63 (1600)	66 (1676)
6102	10.50 (267)	12.63 (321)	63 (1600)	66 (1676)
6103	15.00 (381)	17.13 (435)	75 (1905)	78 (1981)
6104	19.50 (495)	21.63 (549)	75 (1905)	78 (1981)
6105	24.00 (610)	26.13 (664)	88 (2235)	91 (2311)
6106	28.50 (724)	30.63 (778)	88 (2235)	91 (2311)
6107	33.00 (838)	35.13 (892)	88 (2235)	91 (2311)
6108	37.50 (953)	39.63 (1006)	99 (2515)	102 (2591)
6109	42.00 (1067)	44.13 (1121)	99 (2515)	102 (2591)

*Dimensions in inches and (millimeters) and are approximate.

Do not use for construction purposes.

† Dimension may vary depending on motor frame size.

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