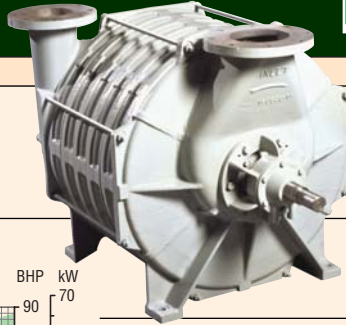


Model 52

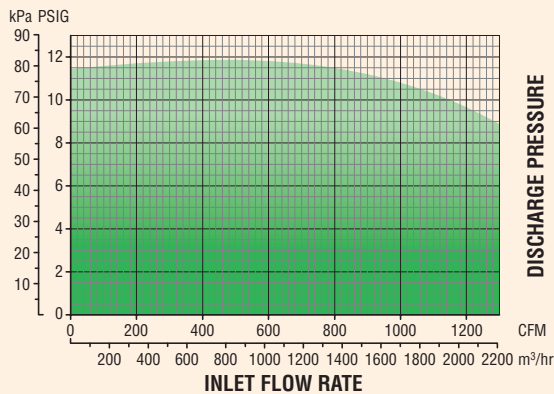
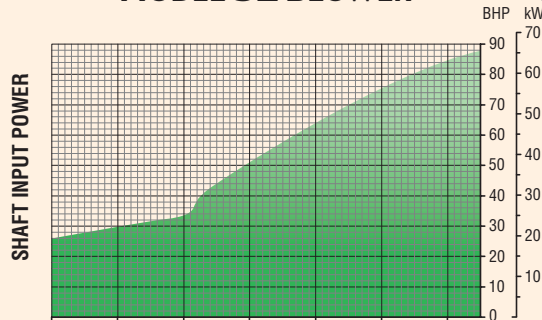
HSI MULTISTAGE
CENTRIFUGAL
BLOWERS



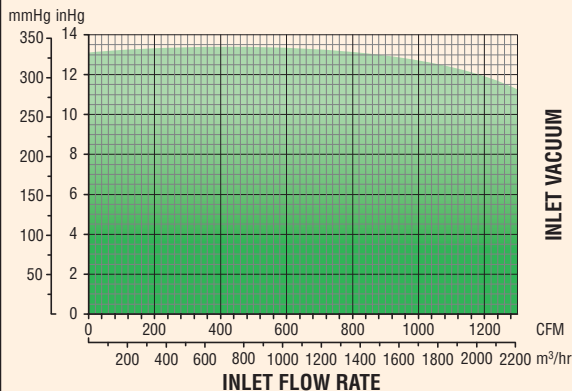
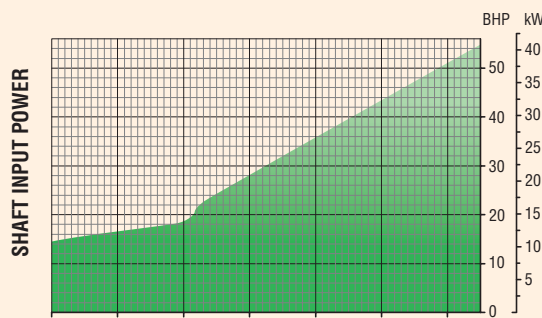
General Performance

Specifications Standard

MODEL 52 BLOWER



MODEL 52 EXHAUSTER



TECHNICAL DATA

Number of Stages	1 through 10
Inlet Connection	6" (152.4 mm) flange, ASA 125# / ANSI 150# drilling
Outlet Connection	5" (127.0 mm) flange, ASA 125# / ANSI 150# drilling
Operating Speed.....	3550 RPM (60 Hz), 2960 RPM (50 Hz)
Casing Pressure.....	20 PSIG (1.41 kg/cm ²)
Seals (air).....	Labyrinth type
Seals (gas).....	Stuffing box type/custom available
Bearings.....	Ball, 10-year minimum life per AFBMA L ₁₀ standard
Lubrication.....	Grease (oil available)
Impeller Diameter.....	22.00 in (558.8 mm)
Impeller Tip Speed	341 ft/s (104 m/s) @ 3550 RPM
First Critical Speed	4505 RPM (10-stage)
Drive Type	Direct coupled or Belt driven, Inlet driven (standard) or Outlet driven
Shaft End	1.625 in (41.28 mm) diameter at coupling
Vibration Tolerance25 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

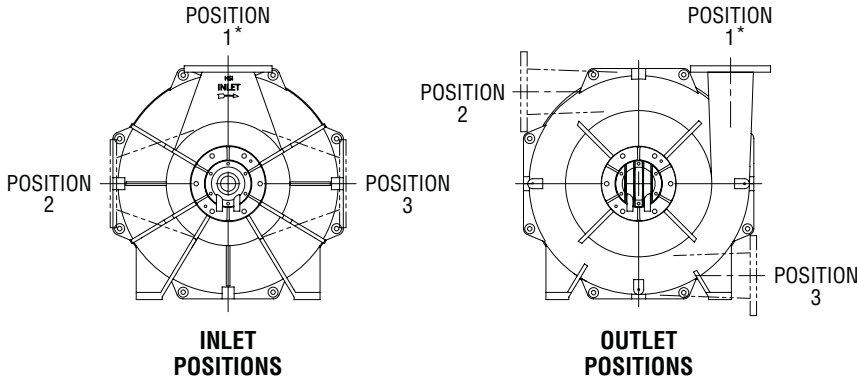
Casing	Cast iron ASTM A48 grade 25/30
Bearing Caps & Housings ...	Cast iron ASTM A48 grade 25/30
Oil Reservoir	Cast iron ASTM A48 grade 25/30
Shaft	Carbon steel AISI 4140 (stainless steel available)
Impellers	Cast aluminum ANSI AA319/356 or fabricated aluminum ANSI AA6061 with cast Al AA356 hub stainless steel/custom alloys available
Seals (air).....	Cast iron ASTM A48 grade 30 with lead babbitt insert Zinc-Alloy, ZA-12
Seals (gas).....	Cast aluminum ANSI AA319 stuffing box with braided packing
Interstage Baffle Rings.....	Stainless steel ASTM A240 304
Tie Rods50 in (12.7 mm) diameter, high strength steel ASTM A193-B7/B7M available
Blower Base	Welded structural steel ASTM A36 ASME/AWS D1.1 WPS's available
Motor Pedestal.....	Welded steel plate ASTM A36
Joint Sealing Compound	RTV silicone
Base Isolation Pads.....	Neoprene rubber
Finish	HSI standard

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

MODEL 52 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:



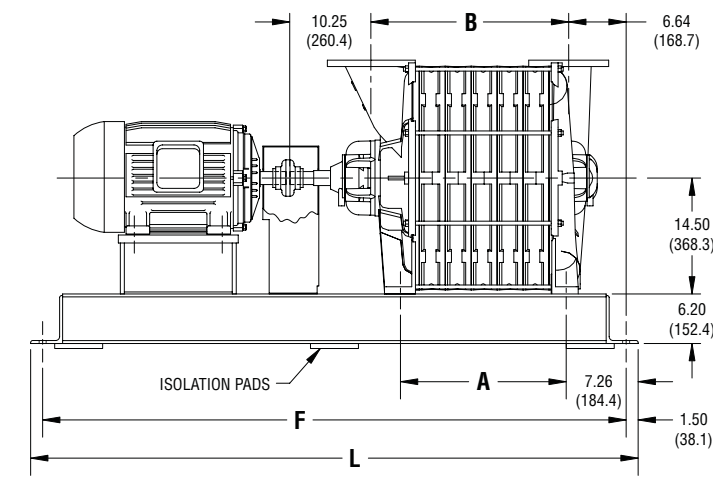
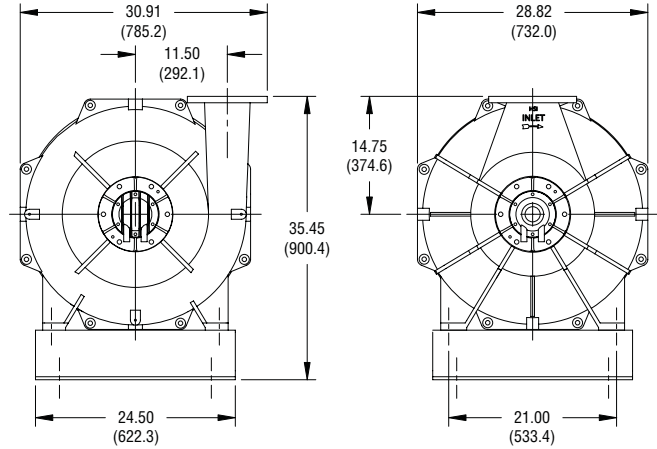
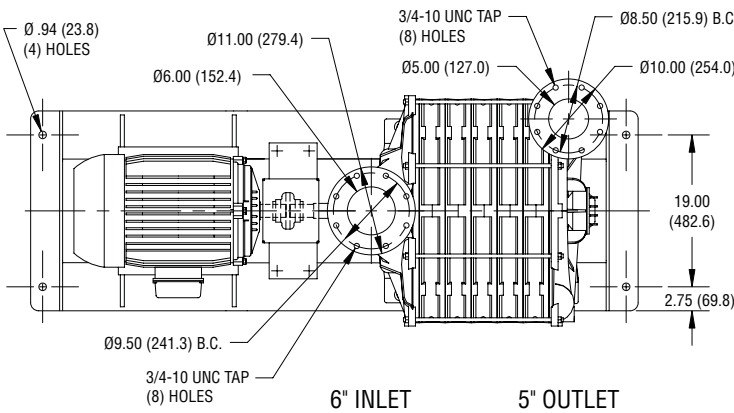
*Standard configuration.

Weight and Inertia

Model	Weight*		Wk ²	
	lb	kg	lb-ft ²	kg-m ²
5201	530	240	6	0.27
5202	657	298	12	0.53
5203	780	354	19	0.78
5204	910	413	25	1.04
5205	1137	516	31	1.30
5206	1163	528	37	1.56
5207	1290	585	43	1.82
5208	1417	643	49	2.08
5209	1543	700	55	2.34
5210	1670	757	61	2.60

*Approximate weight for blower only.

General Arrangement



Model	Dimensions*			
	A	B	F†	L†
5201	4.63 (117)	8.50 (216)	47 (1194)	50 (1270)
5202	7.88 (200)	11.75 (298)	56 (1422)	59 (1499)
5203	11.13 (283)	15.00 (381)	56 (1422)	59 (1499)
5204	14.38 (365)	18.25 (464)	66 (1676)	69 (1753)
5205	17.63 (448)	21.50 (546)	66 (1676)	69 (1753)
5206	20.88 (530)	24.75 (629)	77.5 (1969)	80.5 (2045)
5207	24.13 (613)	28.00 (711)	77.5 (1969)	80.5 (2045)
5208	27.38 (695)	31.25 (794)	77.5 (1969)	80.5 (2045)
5209	30.63 (778)	34.50 (876)	88 (2235)	91 (2311)
5210	33.88 (860)	37.75 (959)	88 (2235)	91 (2311)

*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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