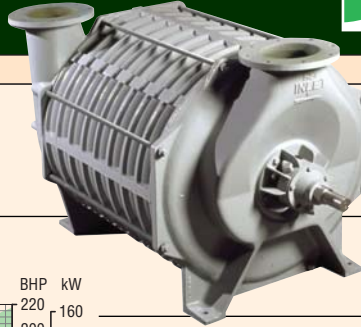


Model 82

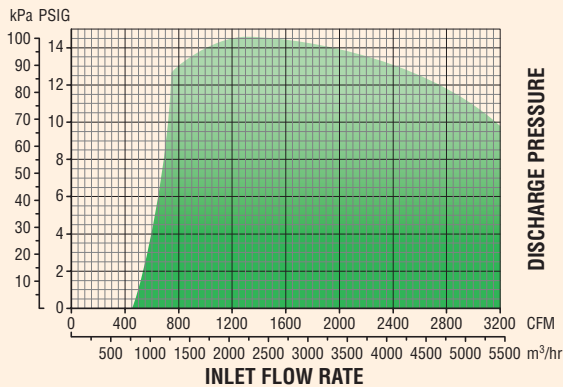
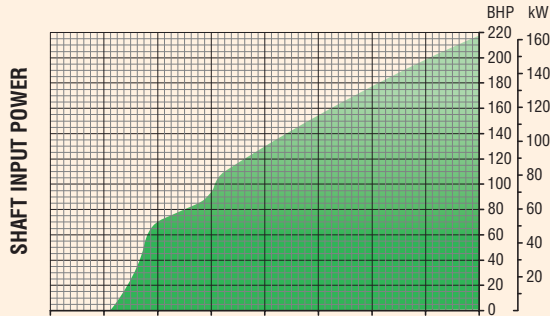
HSI MULTISTAGE
CENTRIFUGAL
BLOWERS



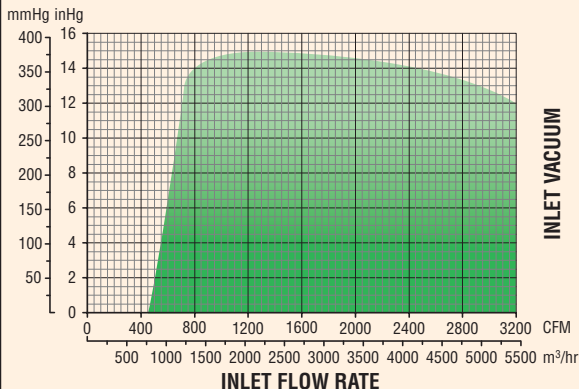
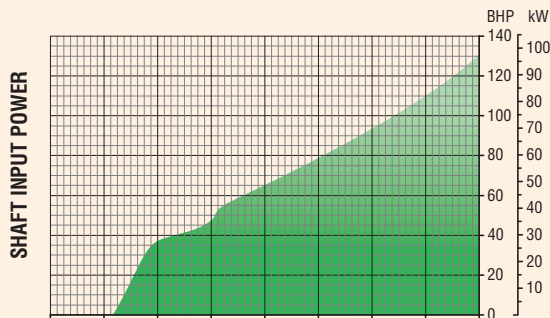
General Performance

Specifications Standard

MODEL 82 BLOWER



MODEL 82 EXHAUSTER



TECHNICAL DATA

- Number of Stages 1 through 9
- Inlet Connection 8" (203.2 mm) flange, ASA 125# / ANSI 150# drilling
- Outlet Connection 8" (203.2 mm) flange, ASA 125# / ANSI 150# drilling
- Operating Speed..... 3550 RPM (60 Hz), 2960 RPM (50 Hz)
- Casing Pressure..... 20 PSIG (1.41 kg/cm²)
- Seals (air)..... Labyrinth type
- Seals (gas)..... Stuffing box type/custom available
- Bearings..... Ball, 10-year minimum life per AFBMA L₁₀ standard
- Lubrication..... Grease (oil available)
- Impeller Diameter..... 24.10 in (612.1 mm)
- Impeller Tip Speed 373 ft/s (114 m/s) @ 3550 RPM
- First Critical Speed 4701 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 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

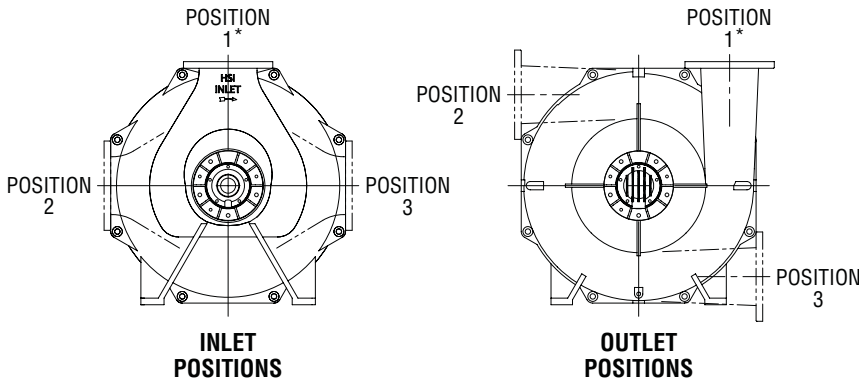
MATERIALS OF CONSTRUCTION

- 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 babitt 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 Rods75 in (19.1 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

MODEL 82 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:



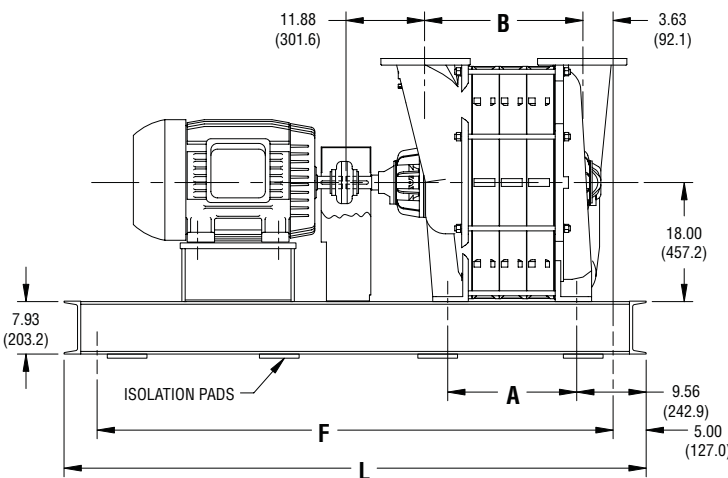
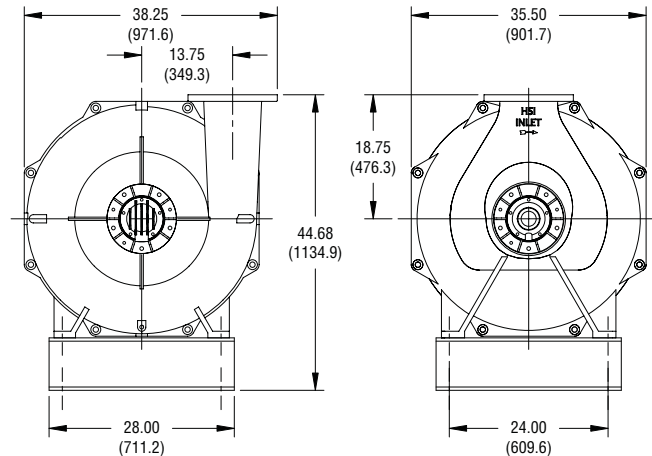
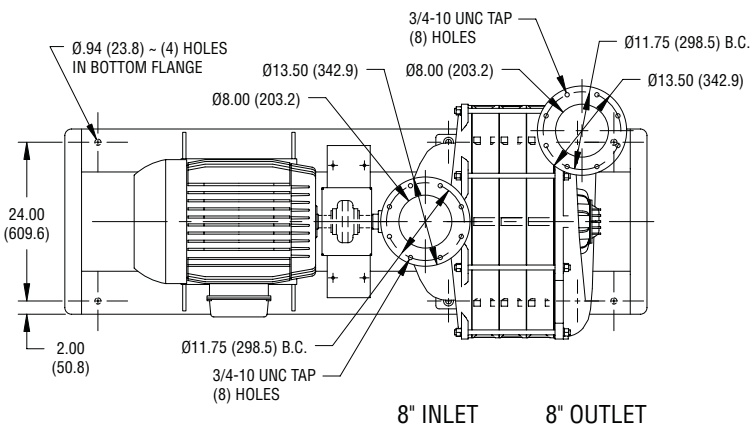
*Standard configuration.

Weight and Inertia

Model	Weight*		Wk ²	
	lb	kg	lb-ft ²	kg-m ²
8201	560	254	11	0.44
8202	860	390	21	0.87
8203	1160	526	31	1.29
8204	1460	662	41	1.71
8205	1760	798	51	2.14
8206	2060	934	61	2.56
8207	2360	1070	71	2.98
8208	2660	1207	81	3.41
8209	2960	1343	91	3.85

*Approximate weight for blower only.

General Arrangement



Model	Dimensions*				
	A	B	F [†]	L [†]	
8201	7.13 (181)	11.56 (294)	58 (1473)	68 (1727)	
8202	11.25 (286)	15.69 (398)	58 (1473)	68 (1727)	
8203	15.38 (391)	19.81 (503)	71 (1803)	81 (2057)	
8204	19.50 (495)	23.94 (608)	71 (1803)	81 (2057)	
8205	23.63 (600)	28.06 (713)	83 (2108)	93 (2362)	
8206	27.75 (705)	32.19 (818)	83 (2108)	93 (2362)	
8207	31.88 (810)	36.31 (922)	83 (2108)	93 (2362)	
8208	36.00 (914)	40.44 (1027)	94 (2388)	104 (2642)	
8209	40.13 (1019)	44.56 (1132)	94 (2388)	104 (2642)	

*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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