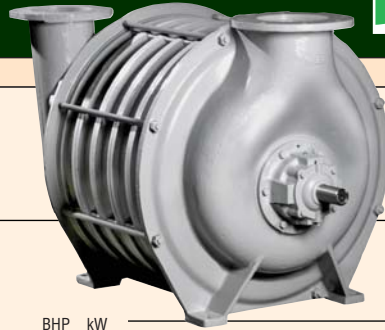


# Model 88

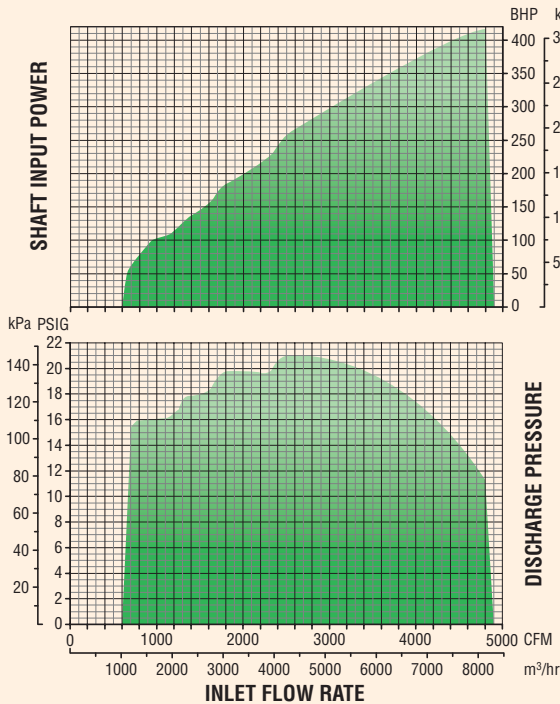
**HSI** MULTISTAGE CENTRIFUGAL BLOWERS



## General Performance

## Specifications Standard

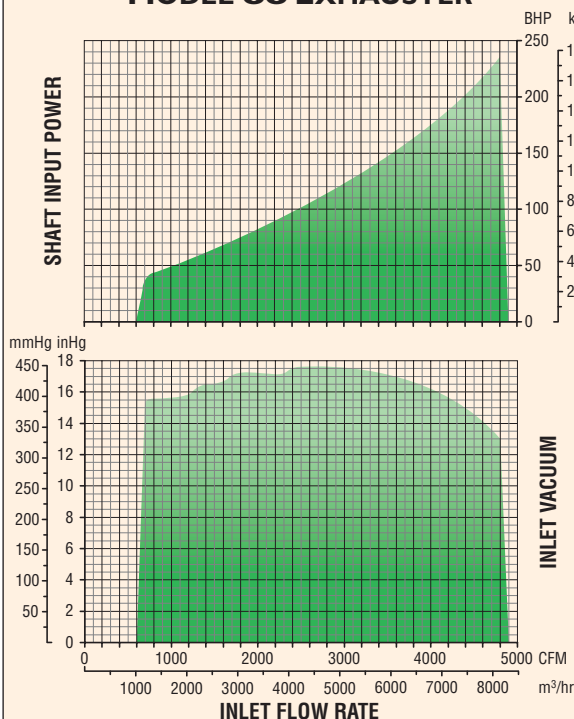
### MODEL 88 BLOWER



### TECHNICAL DATA

Number of Stages .....	1 through 12
Inlet Connection .....	10" (254 mm) flange, ASA 25# / ANSI 150# drilling
Outlet Connection .....	8" (203 mm) flange, ASA 25# / ANSI 150# drilling
Operating Speed.....	3550 RPM (60 Hz), 2960 RPM (50 Hz)
Casing Pressure.....	25 PSIG (1.76 kg/cm <sup>2</sup> )
Seals (air).....	Labyrinth type
Seals (gas).....	Stuffing box type/carbon ring (four each end)/custom available
Bearings .....	Ball, 10-year minimum life per AFBMA L <sub>10</sub> 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, Belt driven or Inlet driven (standard) or Outlet driven, V-Belt or Gear 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

### MODEL 88 EXHAUSTER



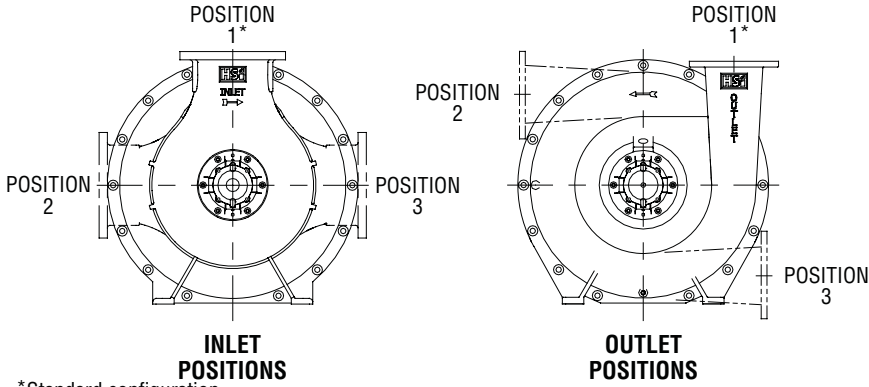
### MATERIALS OF CONSTRUCTION

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 aluminum ANSI AA356
Seals (gas).....	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 WPS's available
Motor Pedestal.....	Welded steel plate ASTM A36
Joint Sealing Compound .....	RTV silicone
Base Isolation Pads.....	Neoprene rubber
Finish .....	HSI standard

# MODEL 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:

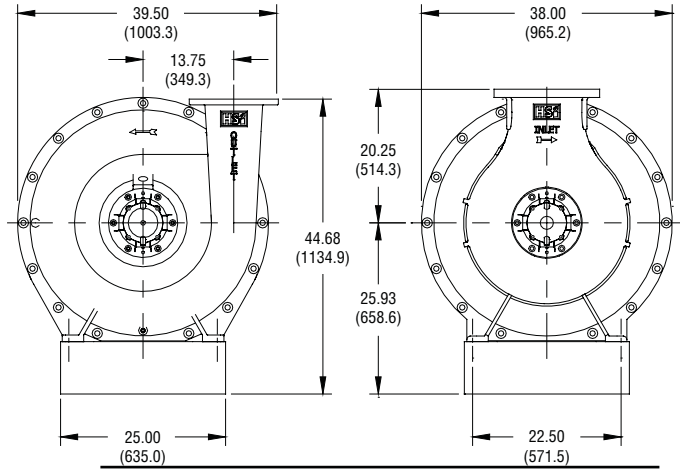
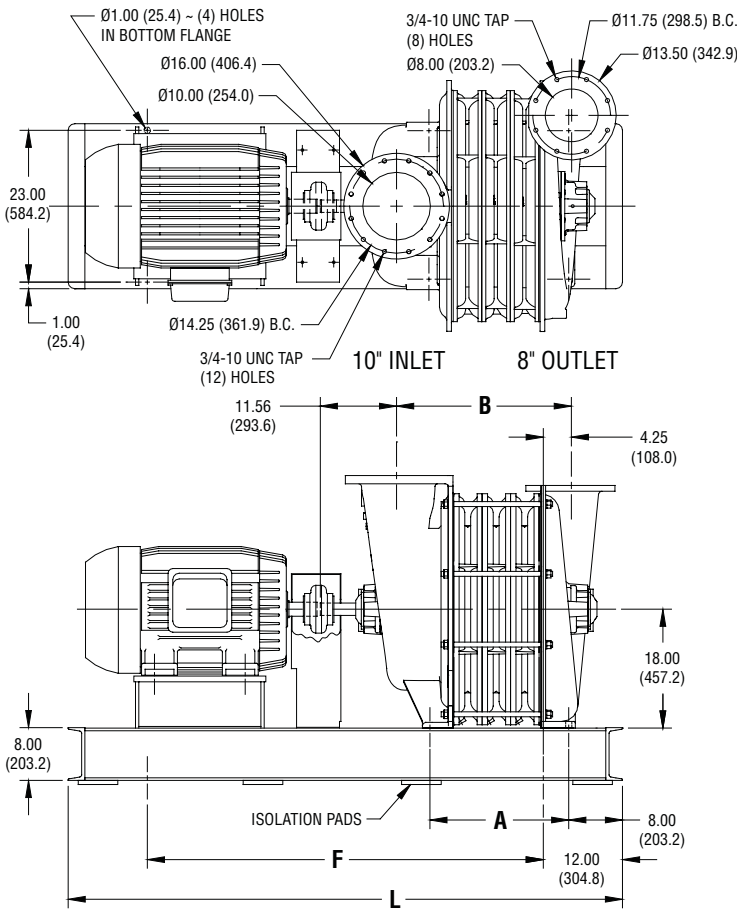


## Weight and Inertia

Model	Weight*		Wk <sup>2</sup>	
	lb	kg	lb-ft <sup>2</sup>	kg-m <sup>2</sup>
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.

## General Arrangement



Model	Dimensions*			
	A	B	F <sup>†</sup>	L <sup>†</sup>
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.



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