

# Model 186

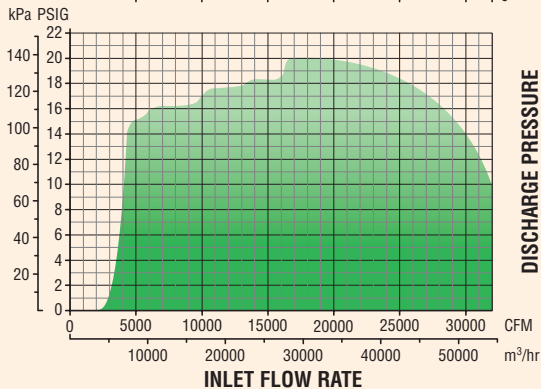
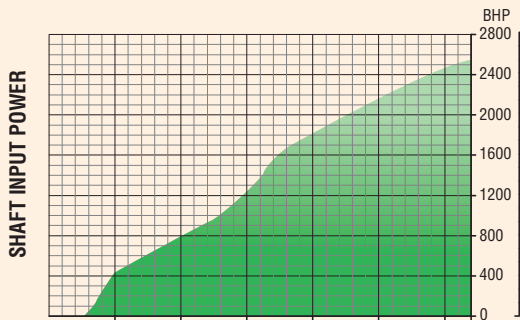
**HSI** MULTISTAGE  
CENTRIFUGAL  
BLOWERS



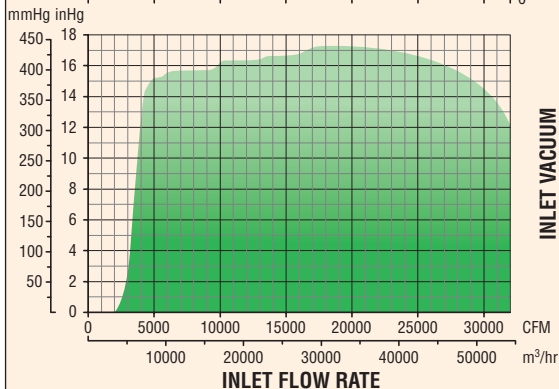
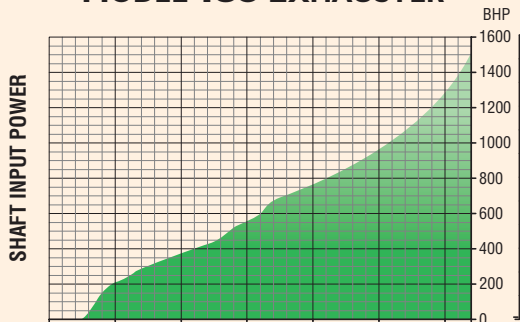
## General Performance

## Specifications Standard

### MODEL 186 BLOWER



### MODEL 186 EXHAUSTER



### TECHNICAL DATA

Number of Stages .....	1 through 6
Inlet Connection .....	24" (609.6 mm) flange, ASA 125# / ANSI 150# drilling
Outlet Connection .....	18" (457.2 mm) flange, ASA 125# / ANSI 150# drilling
Operating Speed.....	3550 RPM (60 Hz), 2960 RPM (50Hz)
Casing Pressure.....	25 PSIG (1.76 kg/cm <sup>2</sup> )
Seals (air).....	Labyrinth type
Seals (gas).....	Carbon ring type (four each end)/custom available
Bearings.....	Ball, 10-year minimum life per AFBMA L <sub>10</sub> standard
Lubrication.....	Oil
Impeller Diameter.....	34.00 in (863.6 mm)
Impeller Tip Speed .....	527 ft/s (161 m/s) @ 3550 RPM
First Critical Speed .....	4530 RPM (5-stage)
Drive Type .....	Direct coupled, Inlet driven (standard) or Outlet driven
Shaft End .....	3.625 in (92.08 mm) diameter at coupling
Vibration Tolerance .....	.25 in/s (6.4 mm/s) ISO overall specification, 1.25 mil/s (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 aluminum ANSI AA356/Bronze, SAE 660
Seals (gas).....	Isostatically molded, high density, fine grain electro-graphite
Interstage Baffle Rings .....	Stainless steel ASTM A240 304
Tie Rods .....	.875 in (22.2 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

