

**TECHNICAL DATA  
1400 SERIES**

**DESIGN**

Air or gas  
 Number of stages ..... 1-7 (60 Hz), 1 - 8 (50 Hz)  
 Inlet or outlet driven ..... Inlet standard  
 Inlet connection ..... 18" flange, matches 125# ANSI  
 Outlet connection ..... 14" or 16" flange,  
 matches 125# ANSI  
 Operating speed ..... 3,550 RPM (60 Hz)  
 2,960 RPM (50 Hz)  
 Maximum casing pressure ..... 25 PSIG (1.72 bar)  
 Seals (air) ..... Labyrinth, carbon ring available  
 Seals (gas) ..... Carbon ring type  
 Bearings ..... Ball, life per AFBMA spec #B-10  
 Lubrication ..... oil  
 Impeller diameter ..... 26.0 (660.4)  
 Impeller tip speed ..... 24,164 FPM (7,365 m/min)  
 Direct drive ..... Shaft diameter at coupling  
 1-2 stage: 1.875 (47.63)  
 3-8 stage: 2.875 (73.03)  
 Vibration tolerance ..... 1.25 mils measured in vertical  
 plane at top of bearing housing (.032 mm)

**CAPACITIES**

Blower ..... 2,300 - 13,500 SCFM, 12.6 PSIG max  
 3,910 - 22,950 Sm<sup>3</sup>/H, .87 bar  
 Exhauster ..... 2,000 - 14,500 ICFM, 13.8 Hg max  
 3,400 - 24,650 Im<sup>3</sup>/H, 351 mm Hg

**MATERIALS OF CONSTRUCTION**

Casing ..... Cast iron ASTM A48 grade 25/30 \*  
 Bearing housings ..... Cast iron with bronze insert  
 Bearing caps & oil reservoirs ..... Cast iron  
 Tie rods ..... Steel  
 Carbon ring seals ..... Carbon-graphite rings  
 with steel housing (stainless steel is optional)  
 Labyrinth seals ..... Cast iron, with babbitt insert  
 Joint sealing compound ..... RTV-Silicone rubber  
 Baffle rings ..... Electroless nickel plated steel  
 standard. Special material available  
 Shaft ..... Hot rolled carbon steel  
 Impellers ..... Cast aluminum alloy  
 Base & pedestal ..... Steel

**Unit Weight & Inertial Data**

Stages	Machine and base weight		WK <sup>2</sup>	
1	2,665	(1,209)	18	(.8)
2	3,400	(1,542)	36	(1.5)
3	4,130	(1,873)	54	(2.3)
4	4,850	(2,200)	72	(3.0)
5	5,540	(2,513)	90	(3.8)
6	6,220	(2,821)	108	(4.6)
7	6,910	(3,134)	126	(5.3)

**MISCELLANEOUS**

Finish ..... See page 25.10.16  
 Base pads ..... Molded synthetic rubber 0.5 (13) thick;  
 see page 25.23.09

**Notes:**

1. Dimensions given in inches and (mm). Weights given in lbs and (kg). WK<sup>2</sup> given in lb-ft<sup>2</sup> and (kg-m<sup>2</sup>).
2. Specifications subject to change without notice.
3. \* Under Meehanite License.