Gardner Denver

Gardner Denver Machinery Inc.
1800 Gardner Expressway Quincy, Il. 62301

LAMSON

LAMSON CENTRIFUGAL BLOWERS, 1 Lamson St., P O. Box 4857 Syracuse, NY 13221,(315) 433-5500, FAX (315) 433-5451, 1 (800) 543-7736

LAMSON PRODUCT DATA

CENTRIFUGAL AIR SYSTEMS

BLOWER EXHAUSTERS

TECHNICAL DATA
RAC 1800 SERIES

DESIGN

Air or gas
Number of stages ..... 1-7 (60 & 50 Hz)
Inlet or outlet driven ..... Inlet standard
Inlet connection ..... 20" flange, matches 125# ANSI
Outlet connection ..... 18" flange, matches 125# ANSI
Operating speed ..... 3,560 RPM (60Hz)
2,975 RPM (50Hz)
Maximum casing pressure ..... 25 PSIG (1.72 bar)
Seals (air) ..... Labyrinth, carbon ring available
Seals (gas) ..... Carbon ring type
Bearings ..... Ball, life per AFBMA spe. #B-10
Lubrication ..... Oil
Impeller diameter 28.0 (711.2)
Impeller tip speed ..... 26,096 FPM (7,954m/m)
Direct drive ..... Shaft diameter at coupling
1 and 2 stage 1.875 (47.63)
3, 4 and 5 stage 2.875 (73.03)
6 and 7 stage 3.375 (85.73)
Vibration tolerance ..... 1.25 mils measured in vertical plane at top of bearing housing (.032mm)

Unit Weights & Inertia Data				
Stage	Weight* Bare Machine		Base & Motor Pedestal	WK²	
1	3,880	(1,760)	Consult Factory	24	(1.0)
2	5,010	(2,272)		50	(2.1)
3	6,150	(2,790)		76	(3.2)
4	7,280	(3,302)		102	(4.3)
5	8,410	(3,815)		128	(5.4)
6	9,550	(4,332)		154	(6.5)
7	10,670	(4,840)		180	(7.6)

*+150# (68.0) per ft. additional for motor length

CAPACITIES

Blower ..... 5,000-17,000 SCFM, 17 PSIG max
8,500-28,900 Sm³/H, 1.17 bar
Exhauster ..... 5,000-17,000 ICFM, 16" Hg max
8,500-28,900 Im³/H, 406mm Hg

MATERIALS OF CONSTRUCTION

Casing ..... Cast iron ASTM A48 grade 25/30*
Bearing housing/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

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). WK² given in lb-ft² and (kg-m²).
2. Specifications subject to change without notice.
3. *Under Meehanite License.