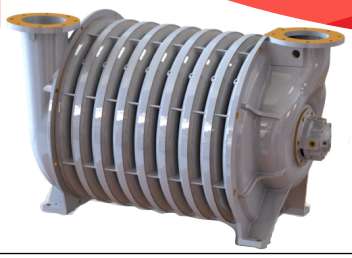
Berryman Equipment Company

MULTISTAGE CENTRIFUGAL BLOWERS
MODEL BEC8



Specifications

TECHNICAL DATA

Number of Stages ..... 1 through 10

Inlet Connection ..... 8 ″ (203.2 mm) flange, ASA 125# / ANSI150# 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..... 25 PSIG (1.76 kg/cm^2)

Seals (air) ..... Carbon Ring or Labyrinth

Seals (gas) ..... Stuffing box type/carbon ring (four each end)/custom available

Bearings ..... Ball, 10-year minimum life per AFBMA L_{10} standard

Lubrication ..... Oil or grease

Impeller Diameter ..... 24.00 in (609.6 mm)

Impeller Tip Speed ..... 372 ft/s (113 m/s) @ 3550 RPM

First Critical Speed ..... 4323 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 Tolerence ..... .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

MATERIALS

Casing ..... Cast iron ASTM A48 grade 25/30

Bearing Caps & Housings ... Cast iron ASTM A48 grade 25/30

Oil Reservoir ..... Cast aluminum ANSI AA319

Shaft ..... Carbon steel AISI 4140 (stainless steel available)

Impellers ..... Cast aluminum ANSI AA319 or fabricated aluminum ANSI AA6061 with cast Al AA356 hub stainless steel/custom alloys available

Seals (air) ..... Zinc-Alloy, ZA-12 or Fine Grain High Density Electro-Graphite

Seals (gas) ..... Cast aluminum ANSI AA319 stuffing box with braided packing

Interstage Baffle Rings ..... Stainless steel ASTM A240 304

Tie Rods ..... .75 in (19.1 mm) diameter, high strength steel

Blower Base ..... Welded structural steel ASTM A36 ASME/AWS D1.1 WPS's available

Motor Pedestal ..... Welded steel plate ASTM A36

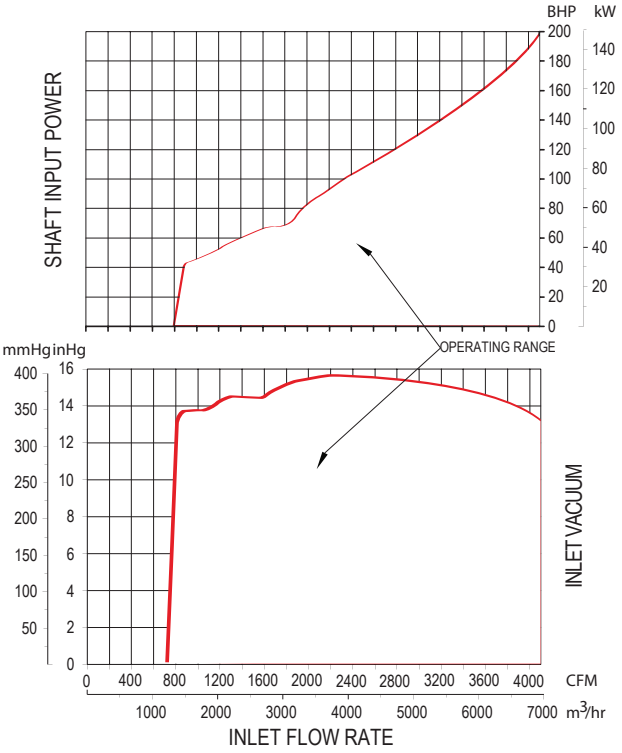
Joint Sealing Compound ..... RTV silicone

Base Isolation Pads ..... Neoprene rubber

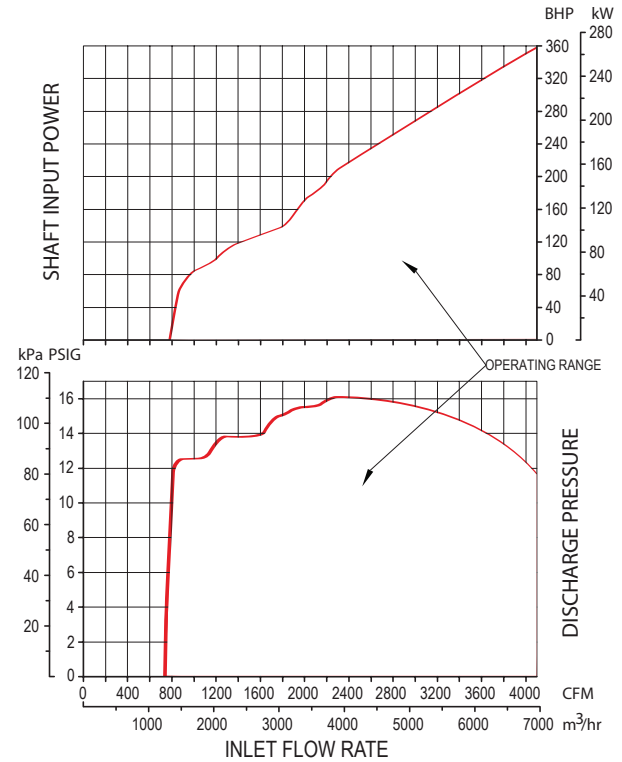
Finish ..... BEC standard

Performance

MODEL BEC8 EXHAUSTER



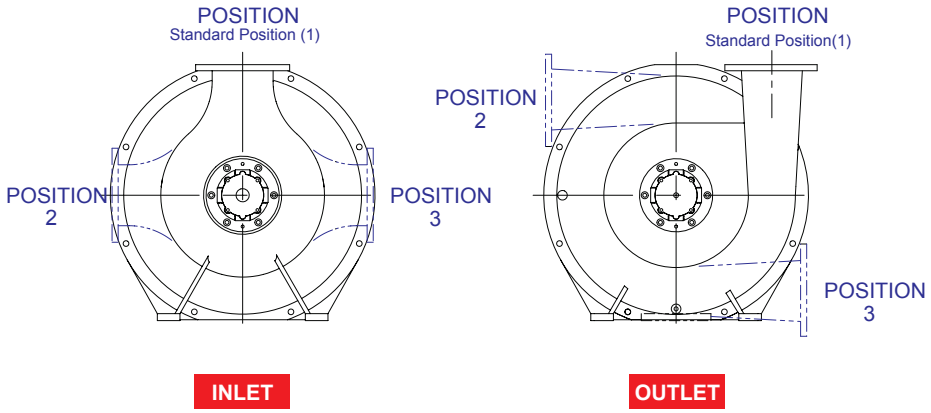
MODEL BEC8 BLOWER



Curves are based on atmospheric conditions of 1 Atm, 68F/20C, 36% RH, and 3550 rpm

Inlet and Outlet Orientation Options

The orientation of the inlet and outlet is selectable from different positions, as shown below:

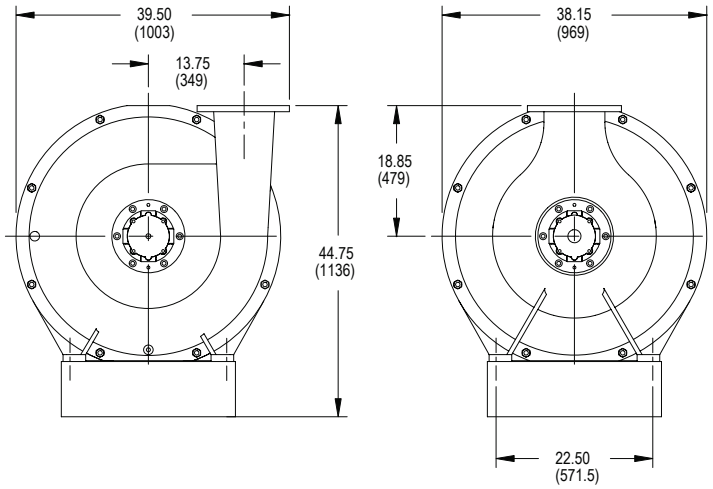


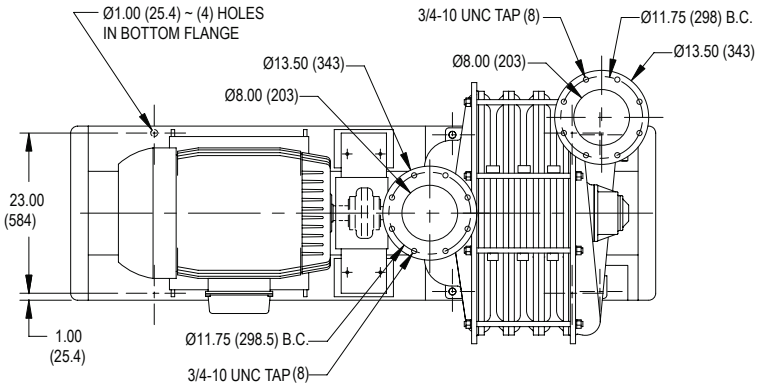
Weight

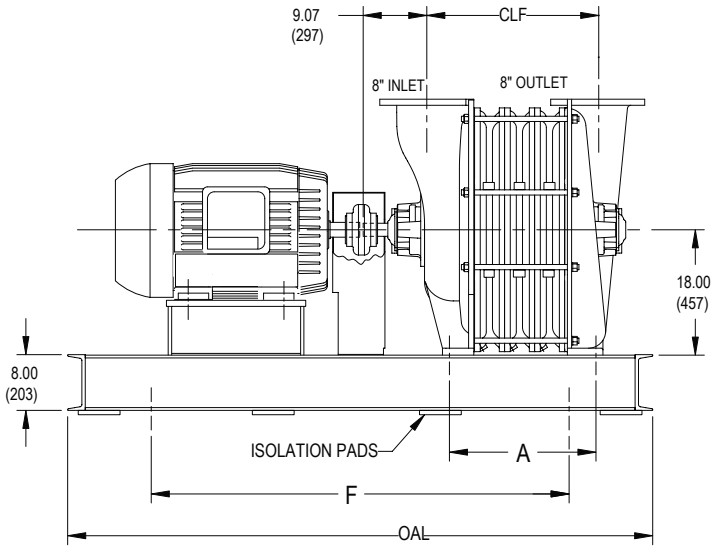
Model	lb	kg
BEC8-01	1380	626
BEC8-02	1590	721
BEC8-03	1800	816
BEC8-04	2010	912
BEC8-05	2230	1011
BEC8-06	2410	1093
BEC8-07	2640	1198
BEC8-08	2930	1329
BEC8-09	3170	1438
BEC8-10	4400	1996

Note: Approximate weight of blower

General Arrangement







Model	Dimensions * A	CLF	F**	OAL**
BEC8-01	8.25 (210)	11.75 (298)	36.7 (932)	60 (1524)
BEC8-02	12.56 (319)	16.06 (408)	48.7 (1237)	72 (1829)
BEC8-03	16.88 (429)	20.38 (518)	48.7 (1237)	72 (1829)
BEC8-04	21.19 (538)	24.69 (627)	60.7 (1524)	84 (2133)
BEC8-05	25.50 (648)	29.00 (737)	60.7 (1524)	84 (2133)
BEC8-06	29.81 (757)	33.31 (846)	72.7 (1847)	96 (2438)
BEC8-07	34.12 (867)	37.62 (956)	72.7 (1847)	96 (2438)
BEC8-08	38.44 (976)	41.94 (1065)	84.7 (2151)	108 (2743)
BEC8-09	42.70 (1084)	46.25 (1175)	84.7 (2151)	108 (2743)
BEC8-10	47.05 (1195)	50.56 (1284)	93 (2362)	117 (2972)

* Dimensions provided are approximate. Noet use for construction purposes.

** Dimension vary based on motor frame size.