



Multistage Centrifugal Exhauster 850 Series

Hoffman and Lamson present state-of-the-art technology in Multistage Centrifugal exhauster. This model offers a wide range of design features and incorporates energy efficiency improvements, complying with the strictest operational requirements of a variety of applications. Multistage blowers are ideally suited for operations where a variable flow at constant vacuum is required. Hoffman and Lamson are worldwide leaders in Multistage Centrifugal Blower technology with thousands of units installed around the globe.

Technical Data

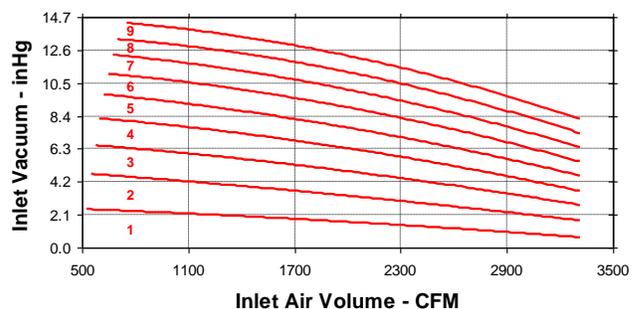
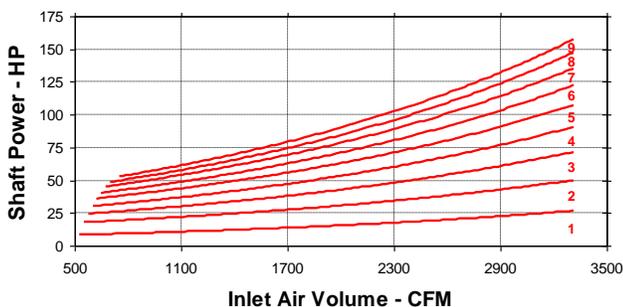
- Number of Stages: 1-9 (60 & 50 Hz)
- Inlet Connection: 8" Flange, ANSI 125# Drilling
- Outlet Connection: 8" Flange, ANSI 125# Drilling
- Operating Speed: 3550 RPM (60 Hz), 2925 RPM (50 Hz)
- Casing Pressure: 25 PSIG (1.73 bar)
- Air Seals: Labyrinth Type - Carbon Ring Optional
- Bearings: Anti-friction, designed for extended L10 life
- Lubrication: AEON® CF Grease – Oil Optional
- Impeller: 24.1 inches (612 millimeters) Diameter (statically balanced)
- Impeller Tip Speed: 373 feet/second (114 meters/second)
- Drive Type: Direct Coupled (Inlet drive is standard)
- Drive Shaft: 1.875 inches (47.63 millimeters) Diameter
- Vibration: .235 in/sec. (5.969 mm/sec.) Peak Velocity
- Rotor: Balanced Per ISO 1940, ANSI S2.19

Material Standard

- Casing: ASTM A48 Class 30B Gray Cast Iron - HT200 equivalent
- Bearing Housings: ASTM A48 Class 30 Cast Iron
- Bearing Cap: ASTM A48 Class 30 Cast Iron
- Tie Rods: ASTM F1554 GR.36 Zinc Plated Thrd. Rod
- Labyrinth Seal: ASTM B86 Z35631 Alloy Zinc Aluminum 12
- Carbon Ring Seal Optional: ASTM C695 Fine Grain Molded Graphite
- Joint Sealing: RTV Silicone Compound
- Baffle Rings: ASTM A240 Grade 304 Stainless Steel
- Shaft: ASTM A322 Grade 4140CT Hot Rolled Steel - Stainless Steel Optional
- Impeller: ASTM SC64C Sr-319 Cast Aluminum
- Blower Base: ASTM A36 Hot Rolled Structural Steel
- Motor Pedestal: ASTM A36 Hot Rolled Structural Steel
- Isolation Base Pads: Suitable Resilient Material
- Finish: Universal Primer - Acrylic Topcoat

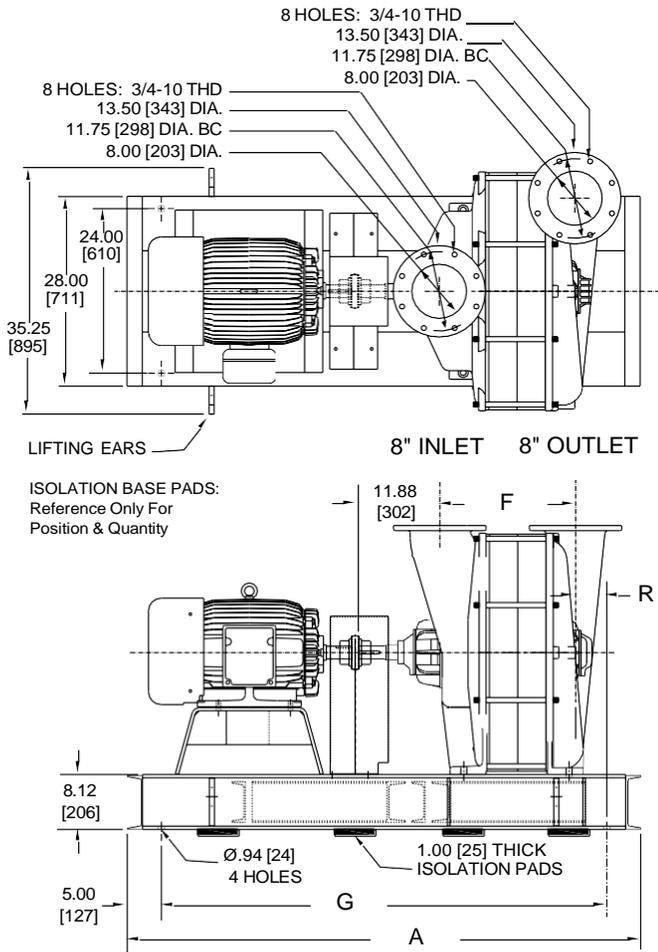
VACUUM PERFORMANCE

29.9 inHg [1 Bar], 68°F [20°C],
36% RH, Speed: 3550 RPM

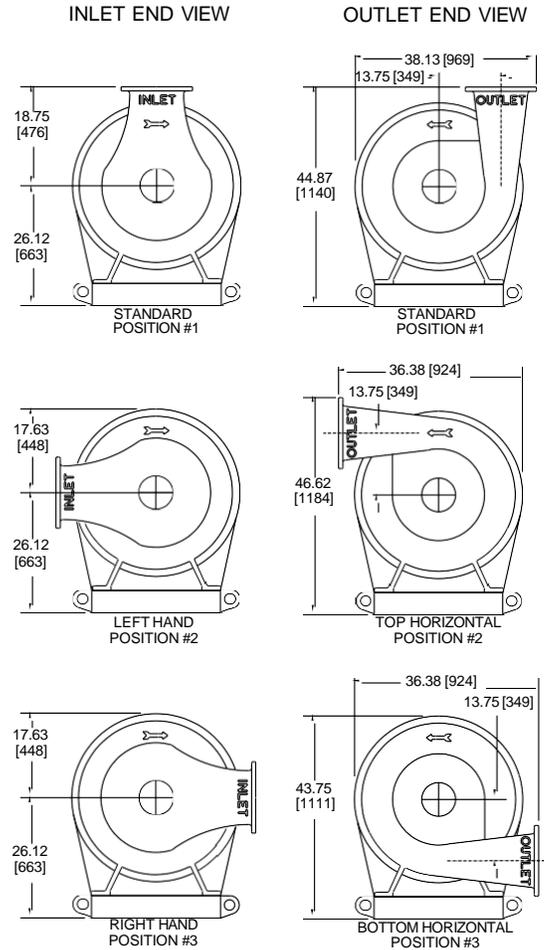


STANDARD CONDITIONS: 14.7 PSIA [1 Bar], 68°F [20°C], 36% RH, Speed: 3550 RPM

General Arrangement



Flange Orientation



Dimensional Data - inches [millimeters]

FRAME	A	F	G	R
851	62 [1574]	11.56 [294]	52 [1321]	4.56 [116]
852	68 [1727]	15.69 [399]	58 [1473]	4.56 [116]
853	75 [1905]	19.81 [503]	65 [1651]	4.56 [116]
854	88 [2235]	23.94 [608]	78 [1981]	8.69 [221]
855	88 [2235]	28.06 [713]	78 [1981]	4.56 [116]
856	102 [2591]	32.19 [818]	92 [2337]	8.69 [221]
857	102 [2591]	36.31 [922]	92 [2337]	4.56 [116]
858	117 [2972]	40.44 [1027]	107 [2718]	8.69 [221]
859	117 [2972]	44.56 [1132]	107 [2718]	4.56 [116]

Weight – lb [kg] & Inertia – lb-ft² [kg-m²]

FRAME	PKG. LESS MOTOR	BARE UNIT	WK2
851	1320 [599]	790 [358]	11 [0.45]
852	1630 [739]	1065 [483]	21 [0.90]
853	1945 [882]	1340 [608]	32 [1.35]
854	2295 [1041]	1615 [733]	43 [1.80]
855	2570 [1166]	1890 [857]	54 [2.25]
856	3025 [1372]	2165 [982]	64 [2.70]
857	3300 [1497]	2440 [1107]	75 [3.15]
858	3680 [1669]	2715 [1232]	85 [3.59]
859	3955 [1794]	2990 [1356]	97 [4.05]

Product Notes

1. Information is approximate, subject to change without notice, and not for construction use unless certified
2. Position #1 is standard inlet & outlet orientation
3. A and G dimensions may vary depending on motor frame size
4. Performances noted are typical and not job specific
5. Consult authorized sales representative for job specific blower or exhauster performance sizing
6. Factory ASME PTC-10 test offered for performance verification

