



HOFFMAN



LAMSON

An Ingersoll Rand Business



Multistage Centrifugal Exhauster 510 Series

Hoffman and Lamson present state-of-the-art technology in Multistage Centrifugal exhausters. 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 exhausters are ideally suited for operations where a variable flow at constant vacuum is required, typically a central vacuum house keeping system. Hoffman and Lamson are worldwide leaders in Multistage Centrifugal Blower technology with thousands of units installed around the globe.

Technical Data

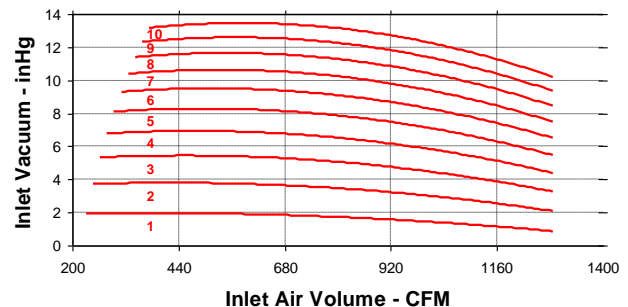
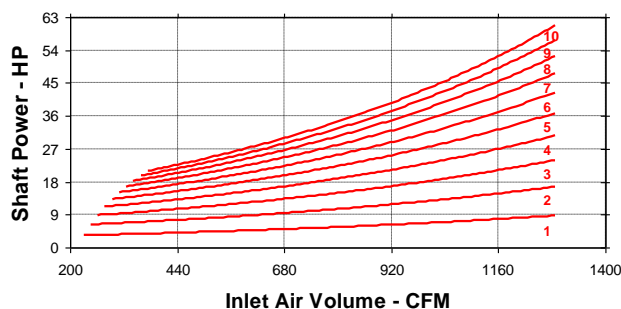
- Number of Stages: 1-10 (60 & 50 Hz)
- Inlet Connection: 5" Flange, ANSI 125# Drilling
- Outlet Connection: 5" Flange, ANSI 125# Drilling
- Operating Speed: 3550 RPM (60 Hz), 2925 RPM (50 Hz)
- Casing Pressure: 25 PSIG (1.73 bar)
- Air Seals Labyrinth: Type - Carbon Ring Optional
- Bearings: Anti-friction, designed for extended L10 life
- Lubrication: AEON® CF Grease - Oil Optional
- Impeller: 22.0 inches (559 millimeters) Diameter (statically balanced)
- Impeller Tip: Speed 338 feet/second (103 meters/second)
- Drive Type: Direct Coupled (Inlet drive is standard)
- Drive Shaft: 1.625 inches (41.28 millimeters) Diameter
- Vibration: .235 in/sec. (5.97 mm/sec.) Peak Velocity
- Rotor: Balanced Per ISO 1940, ANSI S2.19

Material Standard

- Casing: ASTM A48 Class 30 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
- 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

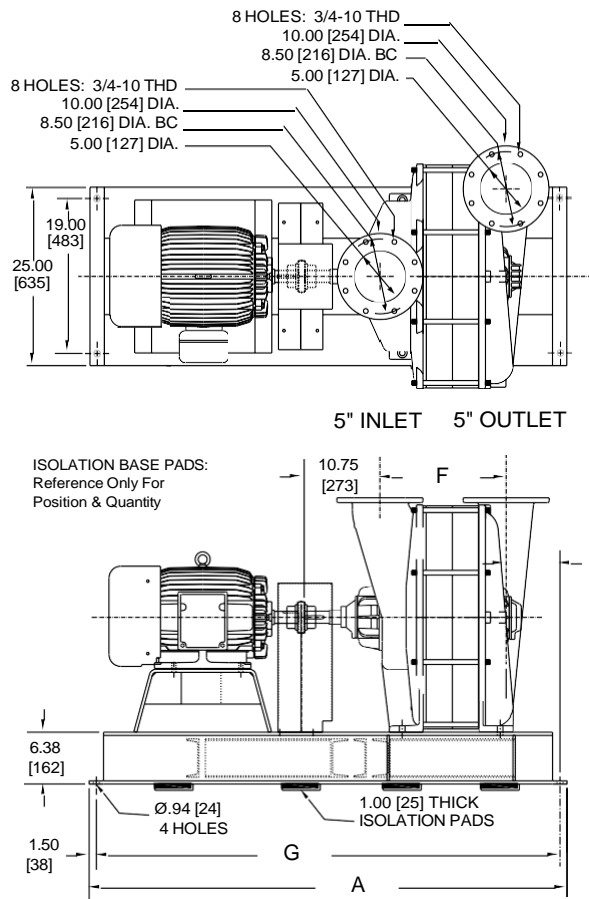
VACUUM PERFORMANCE

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

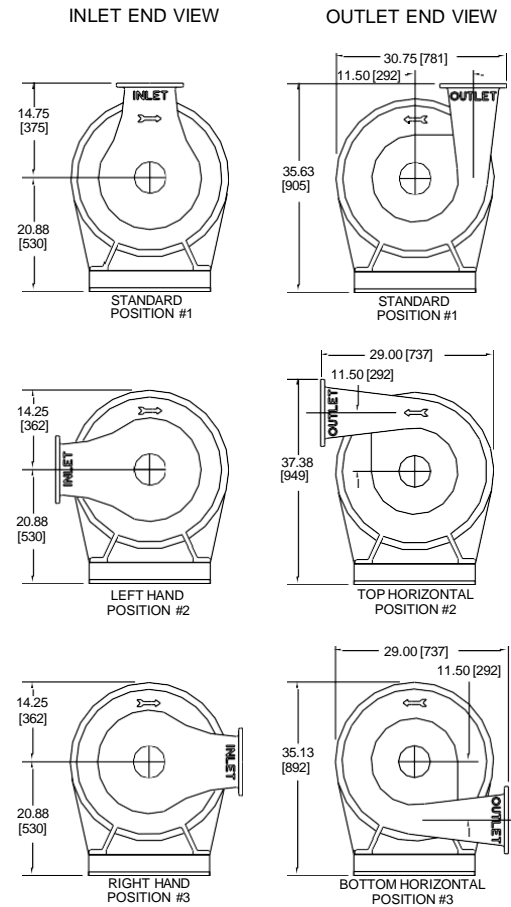


STANDARD CONDITIONS: 14.7 PSIA [1 Bar], 68°F [20°C], 36% RH, Speed: 3550 RPM

General Arrangement



Flange Orientation



Dimensional Data - inches [millimeters]

FRAME	A	F	G	R
511	53.00 [1346]	8.00 [203]	50.00 [1270]	7.19 [183]
512	59.00 [1499]	11.25 [286]	56.00 [1422]	7.19 [183]
513	67.00 [1702]	14.50 [368]	64.00 [1626]	10.44 [265]
514	67.00 [1702]	17.75 [451]	64.00 [1626]	7.19 [183]
515	76.00 [1930]	21.00 [533]	73.00 [1854]	10.44 [265]
516	76.00 [1930]	24.25 [616]	73.00 [1854]	7.19 [183]
517	84.00 [2134]	27.50 [699]	81.00 [2057]	10.44 [265]
518	84.00 [2134]	30.75 [781]	81.00 [2057]	7.19 [183]
519	94.00 [2388]	34.00 [864]	91.00 [2311]	10.44 [265]
5110	94.00 [2388]	37.25 [946]	91.00 [2311]	7.19 [183]

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

FRAME	PKG. LESS MOTOR	BARE UNIT	WK2
511	839 [381]	450 [204]	6 [0.25]
512	1012 [460]	600 [272]	12 [0.49]
513	1190 [541]	750 [340]	18 [0.74]
514	1340 [609]	900 [408]	23 [0.98]
515	1547 [703]	1050 [476]	29 [1.23]
516	1697 [771]	1200 [544]	35 [1.47]
517	1867 [849]	1350 [612]	41 [1.72]
518	2017 [917]	1500 [680]	47 [1.96]
519	2269 [1031]	1650 [748]	53 [2.21]
5110	2419 [1100]	1800 [816]	58 [2.45]

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

