

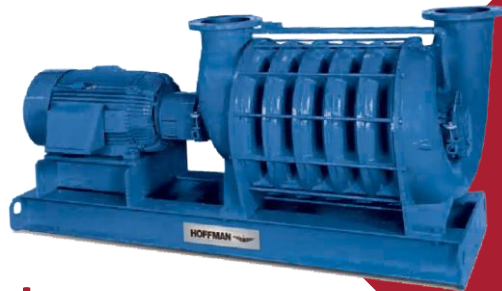


HOFFMAN



LAMSON

An Ingersoll Rand Business



Multistage Centrifugal Exhauster 310 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. Hoffman and Lamson are worldwide leaders in Multistage Centrifugal Blower technology with thousands of units installed around the globe.

Technical Data

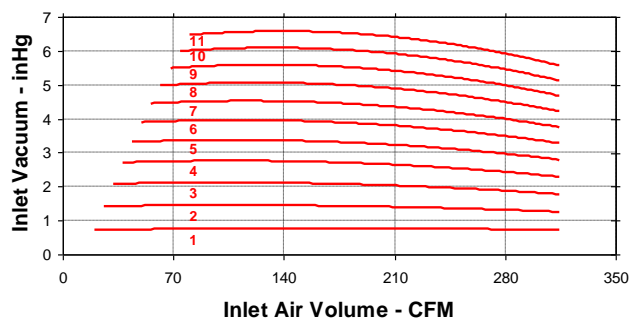
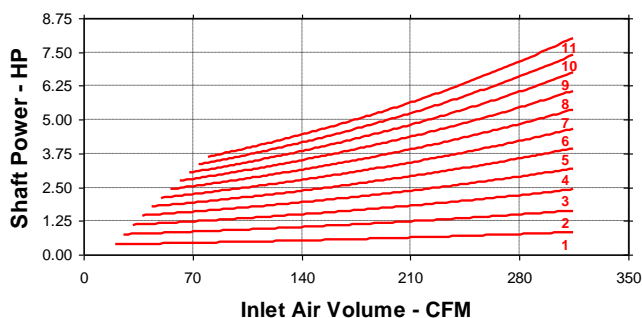
- Number of Stages: 1-11 (60 & 50 Hz)
- Inlet Connection: 3" Flange, ANSI 125# Drilling
- Outlet Connection: 3" Flange, ANSI 125# Drilling
- Operating Speed: 3550 RPM (60 Hz), 2925 RPM (50 Hz)
- Casing Pressure: 20 PSIG (1.38 bar)
- Air Seals: Labyrinth Type
- Bearings: Anti-friction, designed for extended L10 life
- Lubrication: AEON® CF Grease
- Impellers: 14.5 inches (368 millimeters) Diameter (statically balanced)
- Impeller Tip Speed: 221 feet/second (67 meters/second)
- Drive Type: Direct Coupled (Inlet drive is standard)
- Drive Shaft: 1.125 inches (29 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 30B Gray Cast Iron - HT200 equivalent
- Bearing Housings: ASTM A48 Class 30 Gray Cast Iron
- Bearing housing Inserts: ASTM B505 Bearing grade Bronze
- Bearing Cap: ASTM A48 Class 30 Gray Cast iron
- Tie Rods: ASTM F1554 GR.36 Zinc Plated Thrd. Rod
- Labyrinth Seal: ASTM B86 Z35631 Alloy Zinc Aluminum 12
- 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

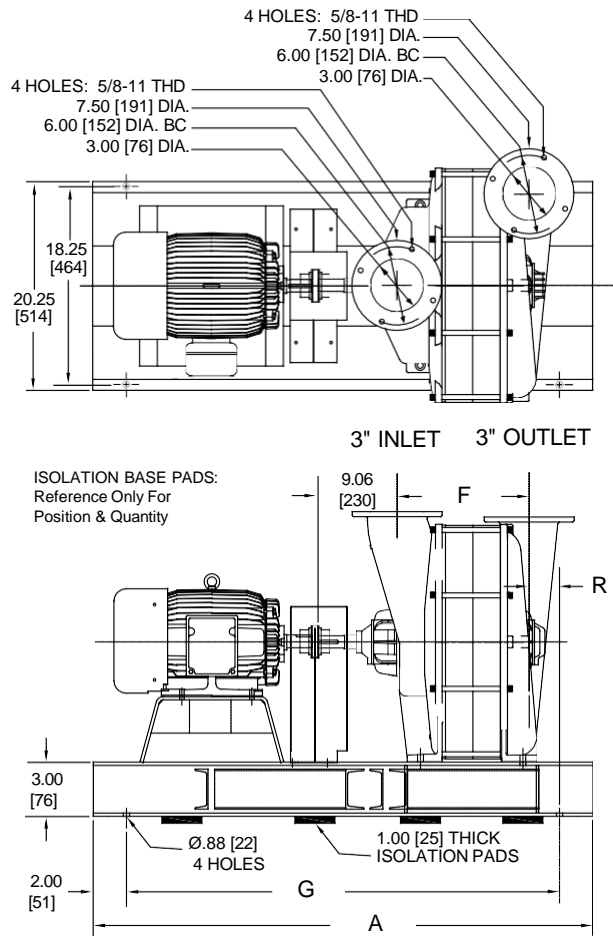
VACUUM PERFORMANCE

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

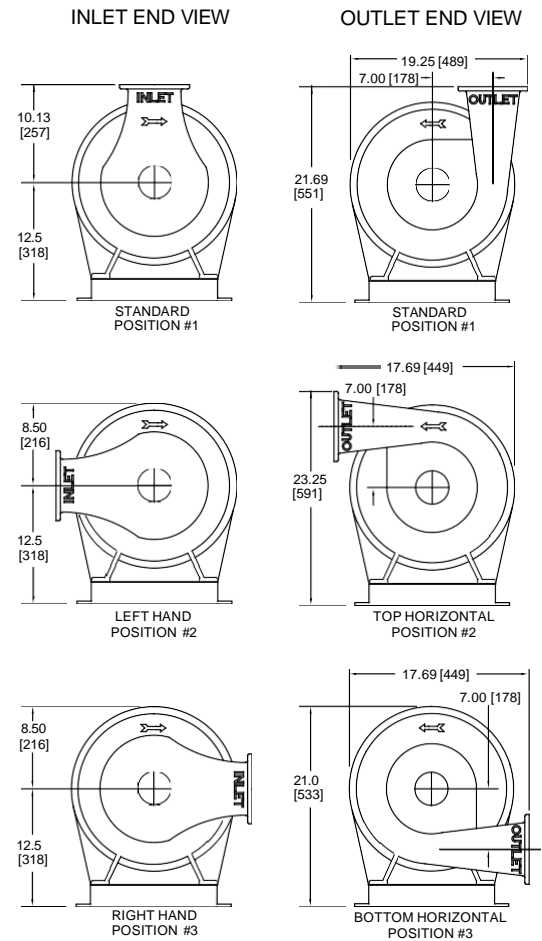


STANDARD CONDITIONS: 14.7 PSIA [1 Bar], 68°F [20°C], 36% RH, Speed: 3550

General Arrangement



Flange Orientation



Dimensional Data - inches [millimeters]

FRAME	A	F	G	R
3101	39.00 [991]	4.94 [125]	35.00 [889]	6.44 [164]
3102	39.00 [991]	7.13 [181]	35.00 [889]	4.25 [108]
3103	45.00 [1143]	9.31 [237]	41.00 [1041]	6.56 [167]
3104	45.00 [1143]	11.50 [292]	41.00 [1041]	4.38 [111]
3105	50.00 [1270]	13.69 [348]	46.00 [1168]	6.44 [164]
3106	50.00 [1270]	15.88 [403]	46.00 [1168]	4.25 [108]
3107	57.00 [1448]	18.06 [459]	53.00 [1346]	6.56 [167]
3108	57.00 [1448]	20.25 [514]	53.00 [1346]	4.38 [111]
3109	60.00 [1524]	22.44 [570]	56.00 [1422]	6.44 [164]
3110	60.00 [1524]	24.63 [626]	56.00 [1422]	4.25 [108]
3111	65.00 [1651]	26.81 [681]	61.00 [1549]	4.31 [110]

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

FRAME	PKG. LESS MOTOR	BARE UNIT	WK2
3101	230 [104]	150 [68]	2 [0.08]
3102	270 [122]	190 [86]	3 [0.13]
3103	319 [145]	230 [104]	4 [0.17]
3104	359 [163]	270 [122]	5 [0.21]
3105	407 [185]	310 [141]	6 [0.25]
3106	447 [203]	350 [159]	7 [0.29]
3107	513 [233]	405 [184]	8 [0.34]
3108	538 [244]	430 [195]	9 [0.38]
3109	582 [264]	470 [213]	10 [0.42]
3110	622 [282]	510 [231]	11 [0.46]
3111	679 [308]	560 [254]	12 [0.51]

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

