



# Multistage Centrifugal Exhauster

## 1600 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

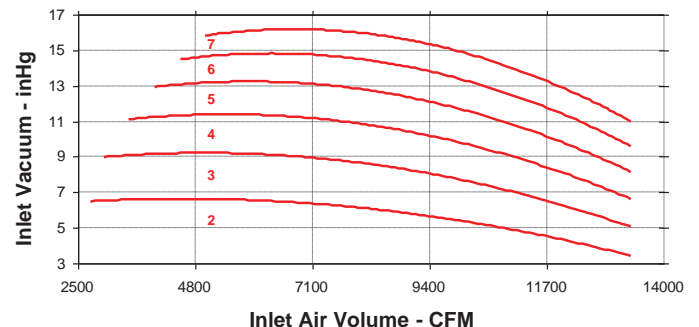
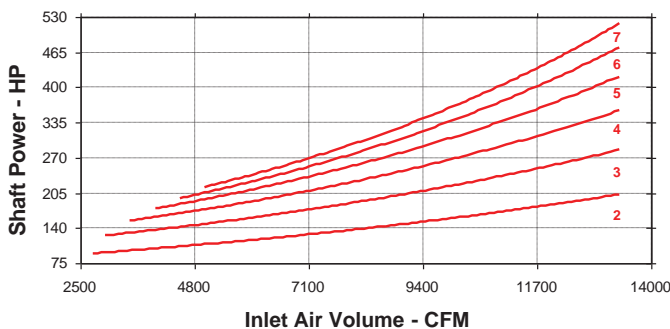
- Number of Stages: 2-7 (60 Hz) 2-8 (50 Hz)
- Inlet Connection: 16" Flange, ANSI 125# Drilling
- Outlet Connection: 14" Flange, ANSI 125# Drilling
- Operating Speed: 3550 RPM (60 Hz), 2925 RPM (50 Hz)
- Casing Pressure: 25 PSIG (1.73 bar)
- Air Seals: Labyrinth Type - Carbon Ring Optional
- Bearings: Anti-friction, designed for extended L10 life
- Lubrication: AEON® CF Oil
- Impeller: 28.0 inches (711 millimeters) Diameter (statically balanced)
- Impeller Tip Speed: 435 feet/second (133 meters/second)
- Drive Type: Direct Coupled (Inlet drive is standard)
- Drive Shaft Diameter 2nd Stage: 1.8745 inches (47.61 millimeters)  
3-8 Stage: 2.875 inches (73.03 millimeters)
- 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 Housing Inserts: ASTM B505 Bearing Grade Bronze
- Tie Rods: ASTM A108 C1045 Steel
- Labyrinth Seal: ASTM B86 Z35631 Alloy Zinc Aluminum 12
- Carbon Ring Seal Optional: ASTM C695 Fine Grain Molded Graphite
- Joint Sealing: RTV Silicone Compound
- MBR™ Baffle Rings: ASTM A36 Electroless Nickel Plated Steel
- Balance Piston: ASTM A36 HR Structural Steel (4-8 Stage)
- Shaft: ASTM A322 Grade 4140CT HRS Stainless Steel Optional
- Impeller: ASTM B26 A355-T6 Cast Aluminum
- Base & Motor Pedestal: ASTM A36 Hot Rolled Structural Steel
- Isolation Base Pads: Suitable Resilient Material
- Finish: Universal Primer - Acrylic Topcoat

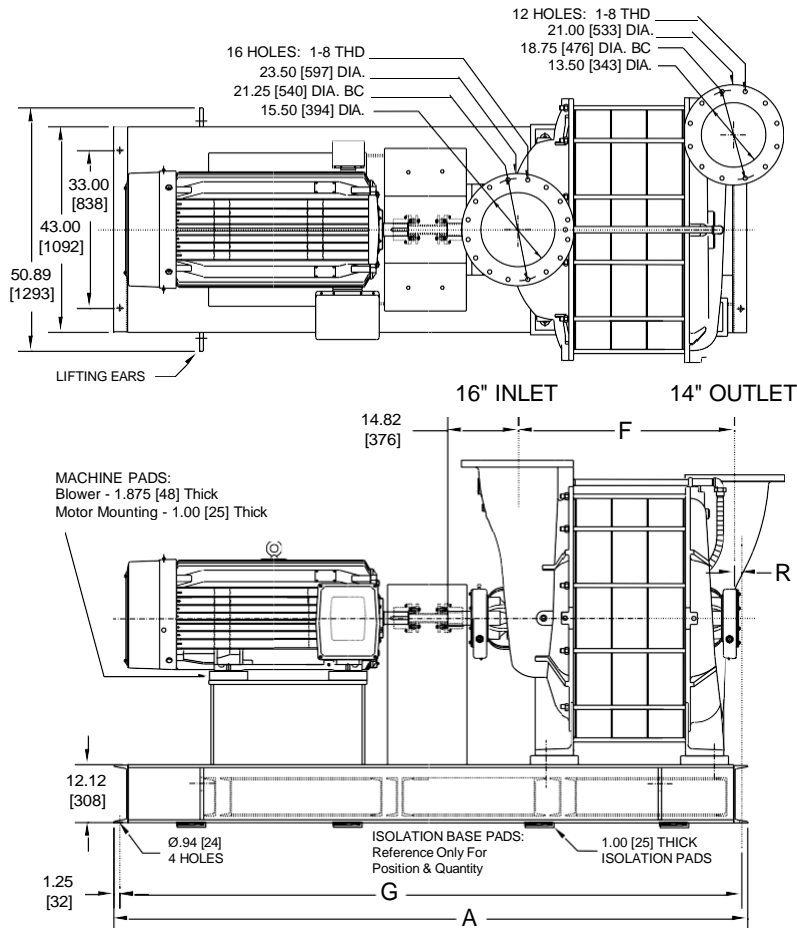
### VACUUM PERFORMANCE

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

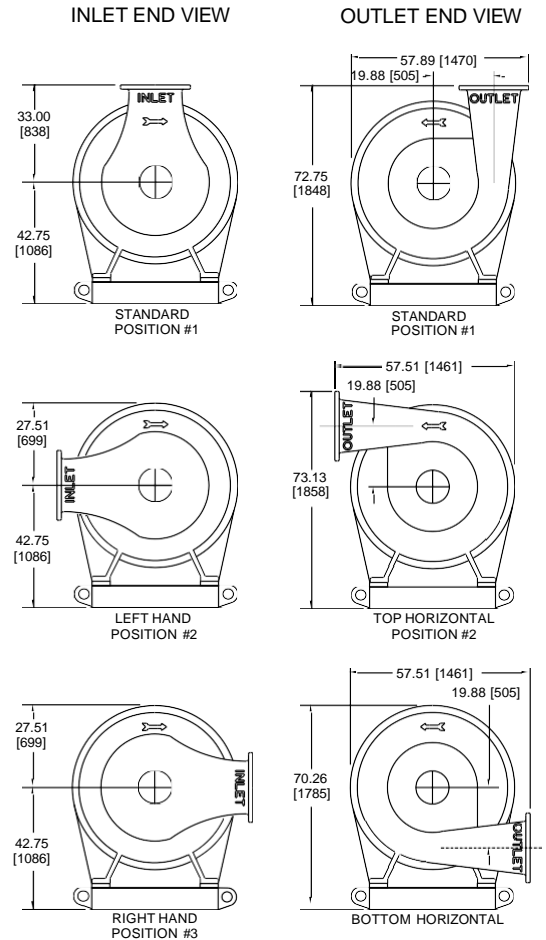


STANDARD CONDITIONS: 14.7 PSIA [1 Bar], 68°F [20°C], 36% RH, Speed: 3550 RPM

## General Arrangement



## Flange Orientation



## Dimensional Data - inches [millimeters]

FRAME	A	F	G	R
1602	102.00 [2591]	30.31 [770]	99.50 [2527]	1.50 [38]
1603	119.00 [3023]	37.81 [960]	116.50 [2959]	1.50 [38]
1604	126.00 [3200]	45.31 [1151]	123.50 [3137]	1.50 [38]
1605	141.00 [3581]	52.81 [1341]	138.50 [3518]	1.50 [38]
1606	159.00 [4039]	60.31 [1532]	156.50 [3975]	1.50 [38]
1607	174.00 [4420]	67.81 [1722]	171.50 [4356]	1.50 [38]
1608	174.00 [4420]	67.81 [1722]	171.50 [4356]	1.50 [38]

## Weight - lb [kg] & Inertia - lb-ft<sup>2</sup> [kg-m<sup>2</sup>]

FRAME	PKG. LESS MOTOR	BARE UNIT	WK2
1602	6650 [3016]	4150 [1882]	75 [3.15]
1603	7850 [3561]	5350 [2427]	115 [4.81]
1604	9050 [4105]	6550 [2971]	151 [6.33]
1605	10,500 [4763]	7750 [3515]	186 [7.82]
1606	11,700 [5307]	8950 [4060]	222 [9.33]
1607	13,150 [5965]	10,150 [4604]	258 [10.85]
1608	14,350 [6509]	11,350 [5148]	294 [12.34]

## 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

