LAMSON
An Ingersoll Rand Business

## Multistage Centrifugal Blower 42 Series

Hoffman and Lamson present state-of-the-art technology in Multistage Centrifugal Blowers. 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 pressure 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: 1-8 ( 60 \& 50 Hz )
- Inlet Connection: 6" Flange, ANSI 125\# Drilling
- Outlet Connection: 6" Flange, ANSI 125\# Drilling
- Operating Speed: 3550 RPM ( 60 Hz ), 2925 RPM ( 50 Hz )
- Casing Pressure: 25 PSIG (1.73 bar)
- Air Seals: Carbon Ring Type
- Bearings: Anti-friction, designed for extended L10 life
- Lubrication: AEON ${ }^{\circledR}$ CF Grease - Oil Optional
- Impeller: 24.0 inches (610 millimeters) Diameter (statically balanced)
- Impeller Tip Speed: 372 feet/second (113 meters/second)
- Drive Type: Direct Coupled (Inlet drive is standard)
- Drive Shaft: 1.625 inches (41.28 millimeters) Diameter
- Vibration: . $235 \mathrm{in} / \mathrm{sec}$. ( $5.97 \mathrm{~mm} / \mathrm{sec}$.) 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 Cap: ASTM A48 Class 30 Gray Cast Iron
- Tie Rods: ASTM F1554 GR. 36 Zinc Plated Thrd. Rod
- Carbon Ring Seal: ASTM C695 Fine Grain Molded Graphite
- Joint Sealing: RTV Silicone Compound
- Shaft: ASTM A108 Grade 1045 HRS - 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


## Performance Air Map

Inlet Air Volume, m³/min


STANDARD CONDITIONS: 14.7 PSIA [1 Bar], $68^{\circ} \mathrm{F}$ [ $20^{\circ} \mathrm{C}$ ], $36 \%$ RH, Speed: 3550 RPM

## General Arrangement



Dimensional Data - inches [millimeters]

| FRAME | A | F | G | R |
| :---: | :---: | :---: | :---: | :---: |
| 4201 | $48.75[1238]$ | $9.25[235]$ | $24.75[629]$ | $4.50[114]$ |
| 4202 | $60.75[1543]$ | $12.69[322]$ | $36.75[933]$ | $2.00[51]$ |
| 4203 | $60.75[1543]$ | $16.13[410]$ | $36.75[933]$ | $4.50[114]$ |
| 4204 | $72.75[1848]$ | $19.56[497]$ | $48.75[1238]$ | $2.00[51]$ |
| 4205 | $72.75[1848]$ | $23.00[584]$ | $48.75[1238]$ | $2.00[51]$ |
| 4206 | $72.75[1848]$ | $26.44[672]$ | $48.75[1238]$ | $4.50[114]$ |
| 4207 | $84.75[2153]$ | $29.88[759]$ | $60.75[1543]$ | $2.00[51]$ |
| 4208 | $84.75[2153]$ | $33.31[846]$ | $60.75[1543]$ | $2.00[51]$ |

## Flange Orientation

INLET END VIEW
OUTLET END VIEW


Weight - lb [kg] \& Inertia - lb-ft ${ }^{2}\left[\mathrm{~kg}-\mathrm{m}^{2}\right]$

| FRAME | PKG. LESS MOTOR | BARE UNIT | WK2 |
| :---: | :---: | :---: | :---: |
| 4201 | $749[340]$ | $590[268]$ | $9[0.38]$ |
| 4202 | $925[420]$ | $760[345]$ | $18[0.76]$ |
| 4203 | $1103[500]$ | $930[422]$ | $27[1.14]$ |
| 4204 | $1294[587]$ | $1100[499]$ | $36[1.53]$ |
| 4205 | $1494[678]$ | $1300[590]$ | $46[1.91]$ |
| 4206 | $1666[756]$ | $1470[667]$ | $55[2.29]$ |
| 4207 | $1836[833]$ | $1640[744]$ | $64[2.67]$ |
| 4208 | $2035[923]$ | $1810[821]$ | $73[3.06]$ |

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## 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
