

MULTI STAGE AND HIGH SPEED CENTRIFUGAL BLOWERS

# Water & Wastewater Treatment Solutions





# HOFFMAN® & LAMSON®

# Solutions for Water & Wastewater Treatment

With several hundred thousand installations worldwide, the Hoffman and Lamson brand heritage brings over 100 years of quality innovation and experience to our water and wastewater treatment solutions. Whether you're treating water for a clean water supply or treating wastewater, HOFFMAN & LAMSON offers the widest and most comprehensive range of blowers/exhausters and engineered package solutions of any manufacturer. We know that every treatment facility has its own unique design and output capacities. As experts in blower technology, we can match these requirements. From our HOFFMAN & LAMSON multistage centrifugals to our regenerative blowers/exhausters, we offer the latest technology best suited to maximize productivity and minimize energy costs for your operation.

What's more, we offer the latest in application specific controls and monitoring equipment, factory service programs, genuine HOFFMAN & LAMSON parts and quality lubricants. Specify HOFFMAN & LAMSON, your one source for water and wastewater treatment application solutions.

For the efficient, reliable performance you expect and your operation demands, you need HOFFMAN & LAMSON.

# HOFFMAN & LAMSON Centrifugal Products

Process Air for Water & Wastewater Treatment Applications



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# **AERATION SOLUTIONS**



#### HOFFMAN & LAMSON Multistage Centrifugal Blowers/Exhausters

- Airflow to 70,000 m<sup>3</sup>/h
- Pressure to 1800 mbar g
- Vacuum to 550 mbar abs.

HOFFMAN & LAMSON multistage centrifugals are the proven standard for water and wastewater treatment applications requiring continuous low-noise operation with minimal maintenance requirements. Primarily used for aeration and aerobic digestion, HOFFMAN & LAMSON multistage centrifugals can be throttled via an inlet buterfly valve making them an excellent choice for controlling dissolved oxygen concentrations (DO) in the wastewater. HOFFMAN & LAMSON exhausters can also be used in sludge digestion to exhaust the digester gases, for channel aeration and in filter backwash applications.

#### **HOFFMAN & LAMSON 900 SERIES**

Hoffman & Lamson introduces the 900 series, the first line of multistage centrifugal blowers with a true 50Hz design. The optimized design offers up to 8% higher efficiency and high pressure capabilities (when compared to 60Hz blowers that are modified for 50Hz operation).

Hoffman & Lamson multistage centrifugal blowers and exhausters are the ideal solution when it comes to processes that require uniform pressure, pulse-free flow and oil-free operation.

- Flow Range: 17,000 40,000M<sup>3</sup>/hr
- Pressure: 3.4 160.3 KPa(g)
- Speed: 2970 RPM
- Designed for optimum performance
- Direct coupled motor
- Higher pressure capability
- Quiet: no gear box needed
- Small footprint
- Bearing of 10 years or more
- Constructed of cast iron with a carbon steel shaft and alumininium impellers







#### High Speed Turbo Blower Revolution Plus

The HOFFMAN & LAMSON's Revolution Plus icombines the world's most advanced blower management system with a significantly smaller physical footprint than traditional blowers to set a new standard for blower design, performance, and efficiency. The first high speed centrifugal in its class, the Revolution Plus uses innovation and advanced technology to deliver energy savings of up to 45%; increased reliability with little to no maintenance, and comes factory pre-wired and tested in an ergonomically designed sound enclosure for plug-and-play operation.



#### **Monitoring & Controls Systems**

When you're responsible for a water or wastewater treatment plant, you need control systems to properly operate your blowers/exhausters. It's important to protect vital equipment from conditions that may lead to catastrophic mechanical failure, costly downtime or voiding your manufacturer's warranty. We offer several options that are designed for wastewater system dissolved oxygen (DO) applications, that reduce energy consumption while protecting your equipment.

HOFFMAN & LAMSON monitoring and control systems safeguard a variety of conditions that include motor current, motor temperature, blower vibration, bearing temperature, bearing oil level, discharge air temperature, inlet vacuum and outlet pressure.



- Airflow to 2000 m<sup>3</sup>/h
- Pressure to 800 mbar g
- · Vacuum to 550 mbar abs.

The LAMSON TURBOTRON regenerative blower/exhauster is designed to provide continuous flow, low noise, and pulse-free air, with the versatility to perform in numerous water and wastewater, air and gas applications. The regenerative solution features a revolutionary impeller design, achieving multistage compression with a single impeller. Since there is only one moving part and no timing gears, it is virtually maintenance free.

The LAMSON TURBOTRON regenerative blower/exhauster can be specified for use as a quiet choice for grit aeration, channel aeration, aerobic digestion and digester gas booster applications. It is available as an individual blower/exhauster unit or as a complete engineered package.





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### HOFFMAN & LAMSON CERTIFIED™

# Service & Support

Restore performance and efficiency, maintain reliability and lower total cost of ownership with OEM quality parts, factory trained technicians, and over a century of engineering, design and manufacturing expertise that you can only get from HOFFMAN® & LAMSON®.





#### Repairs & Remanufacturing

Our factory trained technicians completely disassemble, clean, inspect, re-balance and repair your blower to its original factory specifications, using genuine certified parts. When repairs are complete, each machine is rigorously tested to factory standards and covered by our HOFFMAN & LAMSON CERTIFIED product warranty. We even restore the exterior coating to return a product that looks and performs as good as new.



#### Field Service

Factory trained, and located around the globe, our Field Service Technicians will help you identify necessary repairs, prevent costly downtime, and increase mean time between failures.



#### Testing & Analysis

Our certified service locations offer a complete range of blower testing that includes:

- ASME
- Mechanical Run Test
- Hydrostatic
- Overspeed
- Dye Penetrant



### Remanufactured Blowers

Whether it's for emergency or back up, we have the parts you need where and when you need them. Our available inventory includes impellers, shafts, bearings, seals, lubricants, repair kits and more. From our global distribution centers we can deliver many common and critical parts including our AEON® centrifugal blower lubricant in as little as 48 hours.

# Replacement OEM Parts

Our factory trained technicians completely disassemble, clean, inspect, re-balance and repair your blower to its original factory specifications, using genuine certified parts. When repairs are complete, each machine is rigorously tested to factory standards and covered by our HOFFMAN & LAMSON CERTIFIED product warranty. We even restore the exterior coating to return a product that looks and performs as good as new.

#### Genuine AEON® Centrifugal Blower Lubricant

Proper bearing lubrication is key to maintaining your blower's efficient, reliable performance. Formulated using a polyalphaolefin synthetic base fluid with a high quality lithium complex thickener, AEON Grease & Oil provides outstanding protection against wear, rust, corrosion, and high temperature degradation.

- Factory Recommended
- Wide application range operating temperatures range from -58°F to 350°F (-50°C to 177°C)
- Provides enhanced bearing protection and optimum bearing life
- Reduces wear, rust, and corrosion
- Reduces unplanned downtime and maintenance costs

AEON Centrifugal Blower Lubricant is available in oil, grease and as an auto lubricating system.

#### **Equipment Upgrades**

Need to make performance or reliability improvements on an existing blower installation? Our performance upgrades are available for most HOFFMAN & LAMSON blower models, and many are available as field upgrades - returning your blower to service as quickly as possible.

- MAX Seal Dry running mechanical seal reduces fugitive emissions
- Cooling fan extension reduces blower bearing temperature









# HOFFMAN® & LAMSON® Products & Systems



#### HOFFMAN & LAMSON Multistage Centrifugal Blowers

HOFFMAN & LAMSON Multistage Centrifugal Blowers are the ideal solution for processes that require uniform pressure, pulse-free flow, and oil-free operation. With designs optimized for 60 and 50 Hz markets, we offer efficient performance backed by a history of reliable operations.



#### HOFFMAN Revolution Plus High Speed Turbo Blowers & Compressors

The HOFFMAN REVOLUTION High Speed Centrifugal Blower utilizes advanced centrifugal engineering technologies that deliver up to 45% energy savings, provide increased reliability with little or no maintenance, and come factory pre-wired and tested in an ergonomically designed sound enclosure for plug-and-play operation.



#### Controls & Energy Management

Considering an efficiency upgrade? HOFFMAN & LAMSON upgrades and High Speed Centrifugal Blower solutions deliver increased efficiency and improved reliability.



#### Support, Service & OEM Parts

Restore blower performance and maintain system reliability with HOFFMAN & LAMSON OEM Service, support, and parts – available through our global network of HOFFMAN &

LAMSON CERTIFIED™ Service & Distribution Centers.





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