

# Rotary Lobe Blowers

## Omega Series Blower Blocks

Flows to 5650 cfm

Pressures up to: 15 psig

Vacuum down to: 15" HgV

# Omega Series Blower Blocks

## Superior Quality and Performance

*Kaeser's Omega line of positive displacement blowers has a well-earned reputation for unmatched efficiency and reliability. Omega blowers are designed for operation in a wide range of conditions (from 15 psig to 15" HgV) with reduced pulsation and lower noise levels. When it comes to blower design and construction, Kaeser never compromises on quality. Our rigid quality control and testing procedures ensure optimum performance and durability.*

## Innovation you can trust

With a cutting edge research and development team committed to building industry-leading products, Kaeser continues to deliver better solutions to meet our customers' process air needs. Kaeser's expertise and world-wide reputation for superior reliability and efficiency offer superior performance and peace of mind.

## Versatile and easy installation

Omega blowers can be mounted horizontally or vertically to suit the specific application and are easily installed into a machine's design. Additionally, our design and applications team is always ready to assist with proper selection and installation. Omega blocks are also available as complete blower packages with integrated controls and a suite of system sensors for the best in efficiency, monitoring, and reliability.

## Heavy duty design

All Omega blowers share a durable design that includes rigid casings, cast bearing supports, and one-piece rotors. The substantial casing construction and proprietary port design ensure smooth, quiet operation at all speeds. The precision machined, case-hardened, straight-cut timing gears and oversized cylindrical roller bearings provide years of reliable service. Piston ring seals ensure optimum internal sealing and oil-free air.

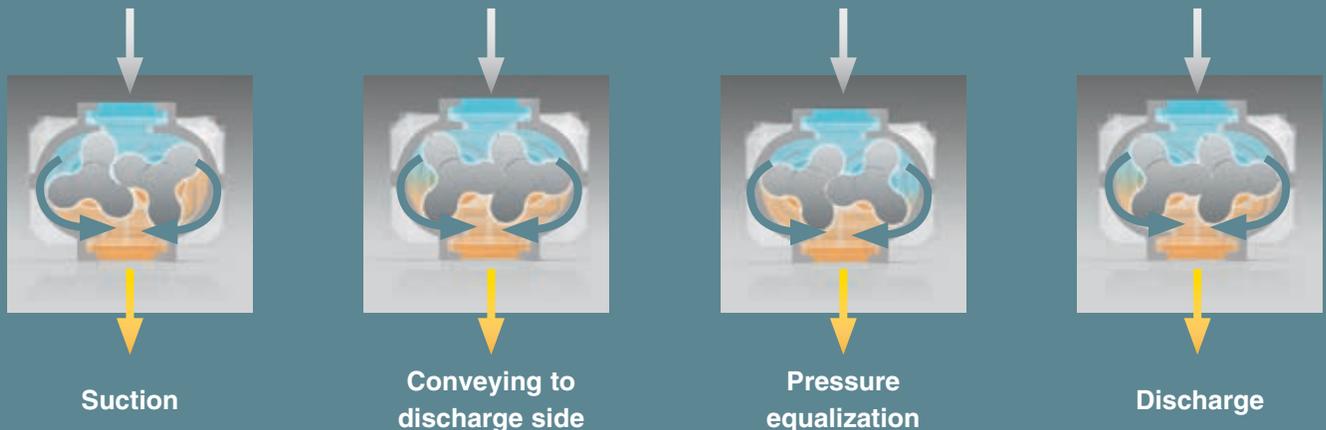
## Rugged reliability

Kaeser's blower blocks meet our rigorous "built for a lifetime" standard. Designed and built with Kaeser's generations of manufacturing experience, you can rest assured that they will continue to deliver the exceptional reliability you expect from Kaeser. As a matter of fact, each bare blower comes with an unbeatable 24-month warranty and a 60-month warranty when installed in one of Kaeser's blower packages.



## How it Works

Kaeser positive displacement blowers operate by trapping inlet air between the rotors and casing then lightly compressing as it reaches the discharge port. The heat generated by compression dissipates with the flow medium. Our casing channel helps equalize the internal and discharge pressures to reduce pulsations and minimize noise.



# Outstanding durability and performance

## One-piece rotors and sealing strips

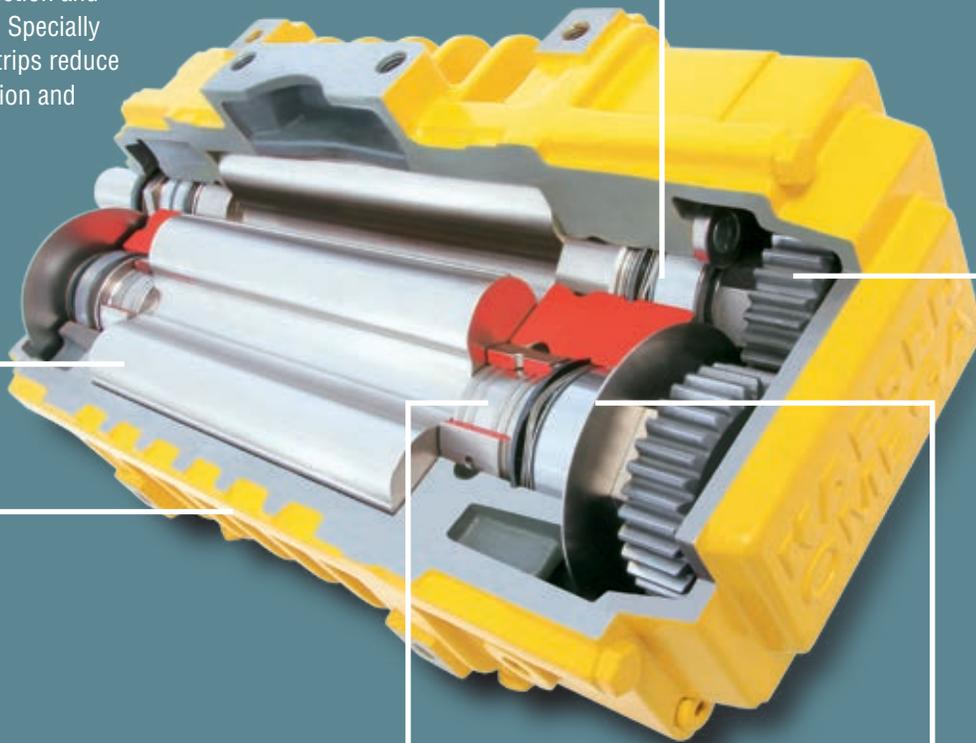
While some manufacturers use hollow rotors and pressed shafts, Kaeser uses one-piece, ductile iron rotors balanced to the closest tolerances for smooth, efficient operation at all speeds and pressures. The single-piece design ensures durability and prevents warping and breaking. Oversized shaft diameters mean more rigid construction and minimal shaft deflection. Specially designed rotor sealing strips reduce sensitivity to contamination and thermal overloading.

## Heavy-duty bearings

Larger cylindrical roller bearings withstand 100% of the widely varying radial forces without risk of shaft damage. Operational life over 100,000 hours is typical.

## Straight-cut gears

Timing gears are case-hardened and precision ground to minimize vibration and mechanical noise. Straight-cut design prevents axial loading and ensures accurate rotor-to-rotor timing for improved efficiency.



## Superior casing

The distinctive ribbed housing ensures strength, rigidity, and aids in heat dissipation. Integral bearing supports and head plates are machined into the castings for additional strength and to maintain alignment in even the most demanding applications. Our unique port design ensures smooth, quiet operation at all speeds.

## Piston-ring sealing

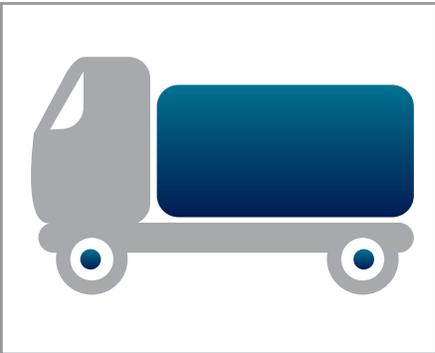
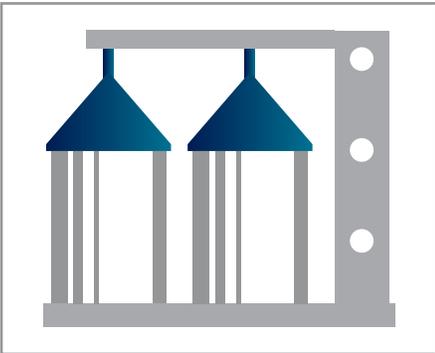
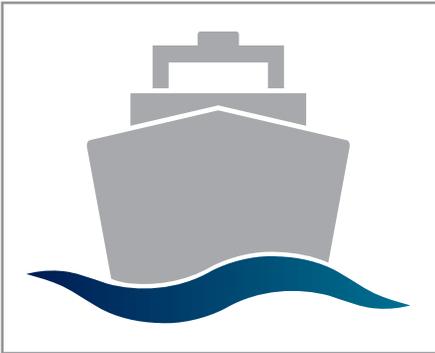
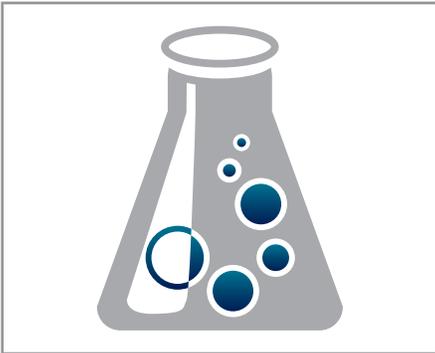
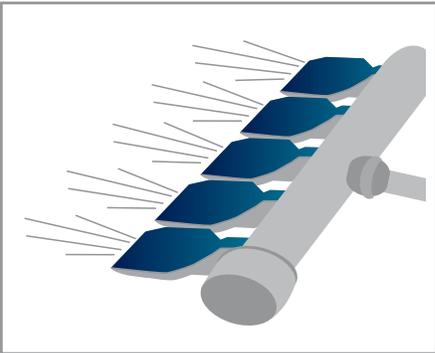
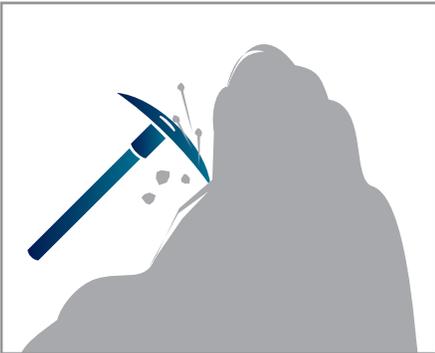
Heat-treated, metal labyrinth seals on both air and oil side seals ensure performance and long life. The vented seal cavity ensures oil-free air delivery.

## Reliable splash lubrication

Drive and gear end splash rings ensure reliable lubrication that removes heat and flushes contaminants from bearings and gears. Easy-to-read oil sight glasses take the guesswork out of oil maintenance.

# Applications

*Kaeser's Omega Series blower blocks are used in a wide range of applications including pneumatic conveying, drinking and wastewater treatment (filter cleaning and aeration), liquid homogenization, forced air systems for combustion equipment, and much more. Whatever your needs are, you can trust that Kaeser's blowers will meet them and exceed your expectations.*



# Technical Specifications

Model	Max. Delivery (cfm)	Max. Speed (rpm)	Max. Pressure Drop		Max. Drive Power (hp)	Dimensions			Connection Flange DN PN 6 (mm)	Adapter Connection <sup>2</sup> (in.)	Weight (lbs.)	
			Pressure (psig)	Vacuum (in. HgV)		Length <sup>1</sup> (in.)	Width (in.)	Height (in.)				
21P	176	6200	15	15	13	12-3/4	8-1/8	6-11/16	50	2 NPT	71	
22P	223	6000			17	14-3/16	9-1/8		79			
23P	297	5800			20	16-5/16	10-1/8		93			
24P	374	5450	11.6	15	21	18-7/8	8-1/8	80	3 NPT	112		
41P	438	5000	31		15-9/16	11-13/16	9-7/16			100	4 NPT	190
42P	562	4800	42		17-1/2							220
43P	795	4500	58	21-7/16	251							
52P	1000	4200	15	15	74	21-7/16	14-15/16	11-7/16	150	6 ANSI	359	
53P	1466	4200			100	26-9/16					452	
61P	1155	3900			14.5	86					27-3/8	21-5/16
62P	1469	3800	15	15	109	30-5/16	17-5/16	13	200	8 ANSI	589	
63P	2076	3500			147	36-1/4					719	
64P	2620	3400			11.6	147					42-1/8	18-7/8
82P	3415	3000	15	15	245	32-1/2	18-1/8	1323				
83P	4566	2700			268	40-15/16	24 5/8	24	300	N/A	1962	
84P	5509	2500			11.6	335	49-7/16	27-15/16			2535	

**NOTES:**  
<sup>1</sup> Without drive shaft  
<sup>2</sup> Optional

Specifications are subject to change without notice.

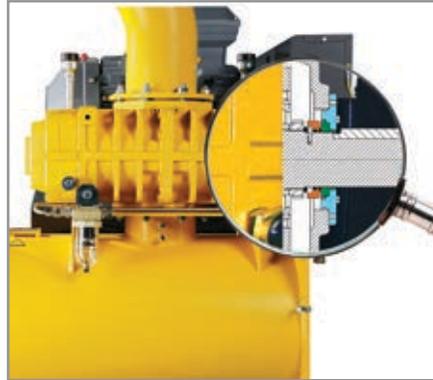
# Blowers for special applications

Kaeser offers a variety of blower designs for your special application. Consult factory for sizing and availability.



## Rotary vacuum pump (WVC Series) Flows to 2800 cfm and Ultimate vacuum (0.002 Torr)

When producing fine vacuum in combination with a corresponding backing pump, the WVC significantly increases pump suction capacity and vacuum performance. The use of a frequency converter is particularly beneficial, as the converter enables simultaneous activation of rotary vacuum and backing pumps at atmospheric pressure, thereby significantly reducing pumping time.



## Gas tight blowers (N Series) Flows to 5500 cfm Pressures up to 15 psig

For nitrogen and other gas conveying applications, Kaeser's Omega N series blower is available up to 5500 cfm. Our single-envelope design can be configured into special packages with an input shaft sliding-ring seal.



## Steam blowers (B Series) Flows to 3780 lbs./hr.

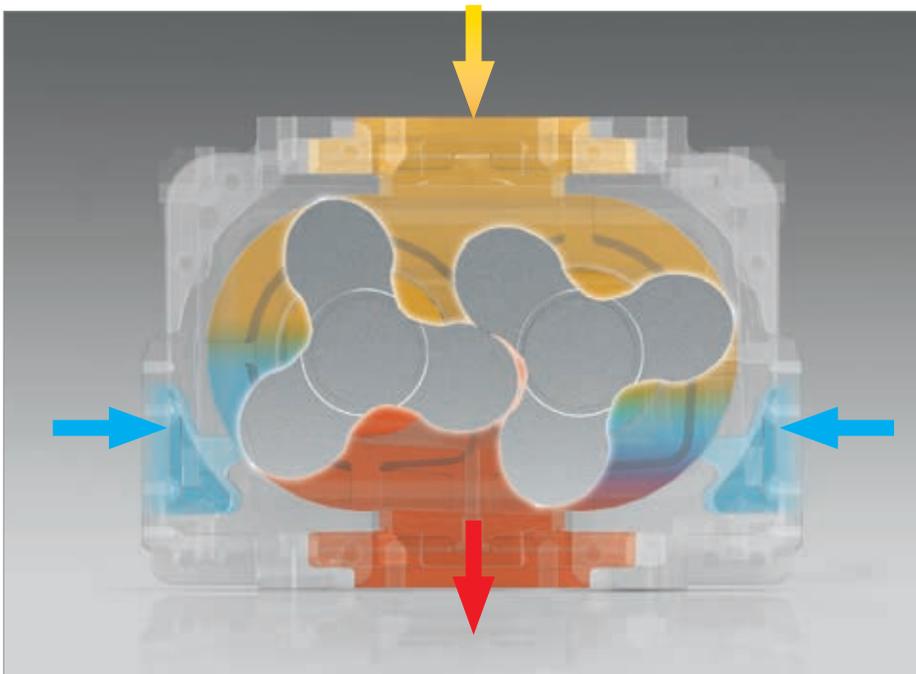
Kaeser's Omega B series blowers are specifically designed for compression of water vapor with vacuum operation in combination with water injection cooling. They feature Ni-Resist 3 casings, G-X8 CrNi stainless steel rotors, and Teflon® shaft seals with stainless steel shaft sleeves.

## Vacuum blowers (PV Series) Flows to 4300 cfm at 27" HgV

For use in vacuum ranges up to 27" Hg vacuum. Kaeser's PV blowers have a unique design with pre-inlet injection cooling that is resistant to contamination in the air stream.

### How it works

Low pressure air is trapped between the rotors and the casing at the inlet of the blower (yellow). As the rotors turn toward the discharge (red), ambient air enters through the pre-inlet cooling ports (blue). This air provides the cooling needed for continuous process vacuums to 27" Hg in a single stage with no need for contacting seals or liquid injection.



# The world is our home

As one of the world's largest compressed air systems providers and compressor manufacturers, Kaeser Compressors is represented throughout the world by a comprehensive network of branches, subsidiary companies and factory trained partners.

With innovative products and services, Kaeser Compressors' experienced consultants and engineers help customers to enhance their competitive edge by working in close partnership to develop progressive system concepts that continuously push the boundaries of performance and compressed air efficiency. Every Kaeser customer benefits from the decades of knowledge and experience gained from hundreds of thousands of installations worldwide and over ten thousand formal compressed air system audits.

These advantages, coupled with Kaeser's worldwide service organization, ensure that our compressed air products and system deliver superior performance with maximum uptime.



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[www.kaeser.com](http://www.kaeser.com)

**Kaeser Compressors, Inc.**  
511 Sigma Drive  
Fredericksburg, VA 22408 USA  
Telephone: 540-898-5500  
Toll Free: 800-777-7873  
[info.usa@kaeser.com](mailto:info.usa@kaeser.com)

**Kaeser Compressors Canada Inc.**  
3760 La Vérendrye Street  
Boisbriand, QC J7H 1R5 CANADA  
Telephone: (450) 971-1414  
Toll free: (800) 477-1416  
[info.canada@kaeser.com](mailto:info.canada@kaeser.com)

**Kaeser Compresores de México  
S de RL de CV**  
Calle 2 #123  
Parque Industrial Jurídica  
76100 Querétaro, Qro.  
Telephone: 01 (442) 218 64 48  
[sales.mexico@kaeser.com](mailto:sales.mexico@kaeser.com)

**Kaeser Compresores de  
Guatemala y Cia. Ltda.**  
Calz. Atanasio Tzul 21-00, zona 12  
El Cortijo II, Bodega 501  
01012-Guatemala City  
Telephone: +502 2412-6000  
[info.guatemala@kaeser.com](mailto:info.guatemala@kaeser.com)

