

# Screw Compressors

## ASD Series

Capacities from: 72 to 192 cfm

Pressures from: 80 to 217 psig

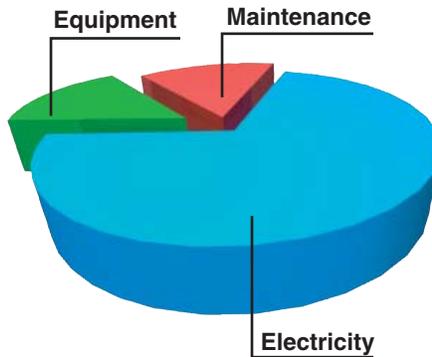


# Built for a lifetime

Maximum efficiency and reliability have long been synonymous with Kaeser Compressors. Our commitment to excellence drives us to continually enhance and optimize our compressed air system solutions. With a cutting edge research and development team committed to producing industry leading products, Kaeser constantly strives to offer lasting solutions for our customers' compressed air needs. The ASD series rotary screw compressor delivers on all accounts.

Kaeser's unique Sigma Profile airend and intelligent Sigma Control 2™ system, combined with the latest one-to-one drive technology mean that our ASD compressors can guarantee exceptional energy savings, without compromising on durability or ease of maintenance. Our customers expect excellence and we provide it.

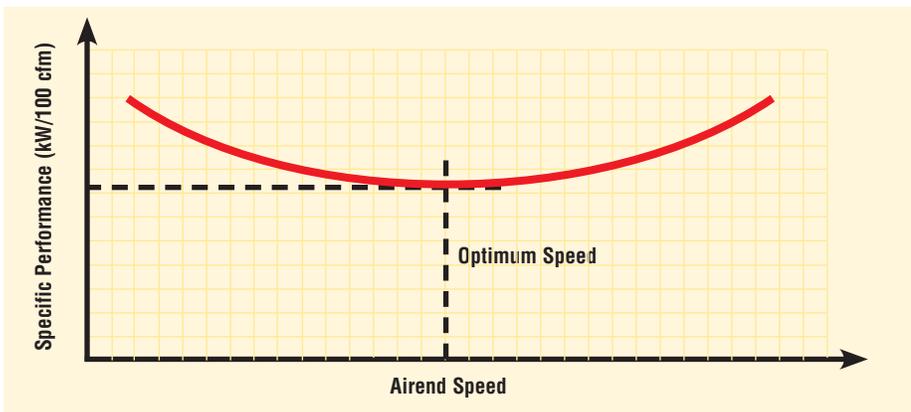
Built to perform. Built to last. Kaeser compressors are built for a lifetime.



## 70% of Your Long Term Compressor Cost is Electricity

Analyze the total cost of a compressed air system and you'll realize that power cost is significant. In just one year it could exceed the price of the compressor itself. Over a period of ten years, this could consume 70% of your overall air system costs. That's why it is important to investigate energy efficiency when considering a new compressor or designing an air system.

## A Perfect Match



Unlike the competition, Kaeser Compressors makes many different airends so that we can apply them at their optimal speed and performance.

## 1 Sigma Profile Airend

Our single-stage, flooded rotary screw airend delivers pressures up to 217 psig, and features our power saving Sigma Profile™ design. Our airends are precision machined and optimized in size and profile to match the airend speeds with their best specific performance (see *A Perfect Match* curve).



## 2 True Direct Drive

In our design, the motor is directly connected to the airend with a one-to-one coupling, providing maximum transmission efficiency. This true direct drive eliminates gear drive components, heat, and power losses. It is also maintenance free, increasing reliability and uptime. A cast housing is doweled and pinned to ensure perfect alignment.



## 3 Premium Efficiency Drive Motor

Kaeser uses only premium efficiency Totally Enclosed Fan Cooled (TEFC) motors with class F insulation for extra protection from heat and contaminants. Remote grease fittings make maintenance a breeze. 208-230/460 V or 575 V, 3-phase, 60 Hz. Other voltages are available.



## 4 Reduced Voltage Starting

Magnetic Wye-Delta reduced voltage starting is standard. This energy saving feature ensures low starting current and smooth acceleration.

# ASD Series



## 5 Inlet Filter

We protect our compressors with a two-stage, 1 micron air intake filter. This extends airend life and fluid change intervals. The filter may be cleaned several times before replacement and is easily serviced with no tools required.



## 6 Fluid Separation System

A combined fluid reservoir and separator tank with 3-stage separation system ensures very low fluid carry-over and pressure drop. Centrifugal action combined with two-stage coalescing doubles filter service life and the net carry over is only 1-3 ppm.

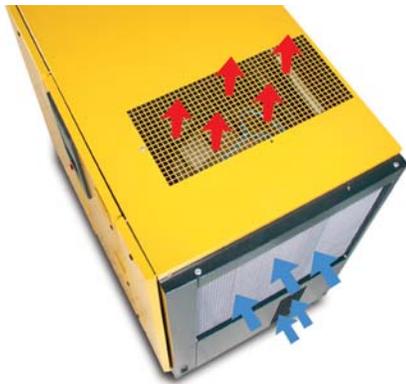
Our no-leak design features rigid steel piping, flexible connections, and vibration isolators. Each pressure vessel is ASME coded (CRN in Canada) and includes wet side/dry side fittings for manual check of differential pressure, an easy to read fluid level indicator, and our unique quick drain system.



## Unique Air Flow Design Enhances Cooling

In Kaeser's "split-cooling" design, two separate cooling air inlet zones for the coolers and drive motor ensure optimum cooling. Drawing ambient air directly across the coolers and motor through separate zones eliminates pre-heating and results in longer lubricant life and a cooler running motor. This also results in much lower approach temperatures, improving moisture separation and air quality.

To increase reliability and reduce maintenance costs, the coolers are conveniently located on the outside of the unit, where dust and dirt build-up are easily seen and can be removed without dismantling the cooler. Powerful radial fans pull air through the



coolers and create a vacuum within the cabinet that effectively cools the motor even under severe operating conditions. Top exhaust allows for convenient ducting and reduces the system footprint.



## Intelligent Control and Protection

To protect your investment and ensure the most efficient operation possible, we control this compressor with our Sigma Control 2™. This intelligent



controller comes standard with multiple pre-programmed control profiles so you can select the one that best fits your application. Sigma Control 2 monitors more than 20 critical operating parameters, shuts the unit down to prevent damage and signals if immedi-

ate service is required. It also tracks preventive maintenance intervals and provides notice when PMs are due. An RFID sensor provides secure access and simplifies maintenance.

Sigma Control 2 has superior communications capabilities. An Ethernet port and built-in web-server enable remote viewing. ModBus, Profibus, Devicenet and other industrial communications interfaces are also available as plug in options for seamless integration into plant control/monitoring systems. See our Sigma Control 2 brochure for details.

## Extremely Low Sound and Vibration

All ASD models come standard with Kaeser's superior cabinet that features complete metal enclosures with sound proofing liners and heavy-duty vibration isolation. Using one-to-one direct drive and our unique cooling airflow design with radial fans greatly reduces internal noise and vibration.

As a result, the ASD series is about 10 dB(A) quieter than conventional compressors of equal performance with sound levels as low as 66 dB(A).

## Optimized Efficiency

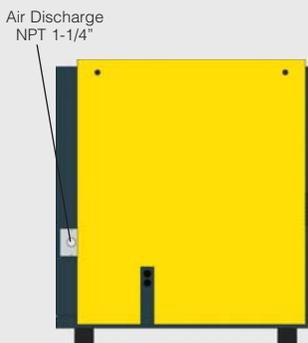
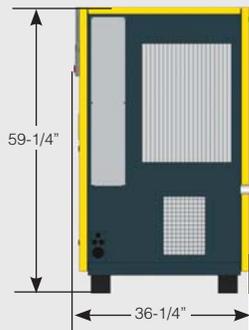
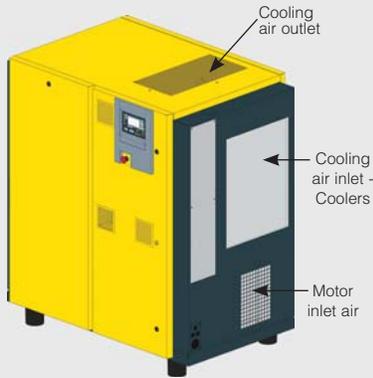
In ASD packages, one-to-one drive reduces the number of components needed compared to a gear drive unit thus increasing reliability and service life.

Kaeser has selected oversized airends specifically matched to produce the required output in flow and pressure. Compared to compressors using small, high-speed gear-driven airends, the ASD one-to-one drive provides triple savings: no-loss power transmission, improved power consumption, and reduced maintenance and related downtime costs.



**One-to-One Direct Drive**  
**Airend RPM = Motor RPM**

## Dimensions



Units with integral dryer have larger dimensions. Consult factory.

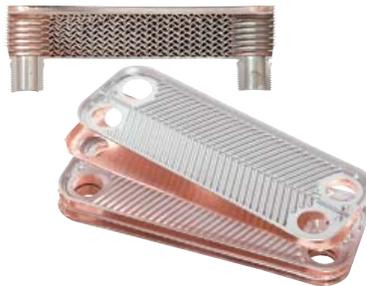
*Dimensions are for reference only — please contact Kaeser for dimensional drawings.*

## Options

### Refrigerated Dryer

All units are also available with a fully integrated refrigerated dryer.

- Environment friendly CFC-free R134a refrigerant
- Stainless steel plate type heat exchangers



- Moisture separator
- Automatic condensate drains
- Single point electrical hook-up



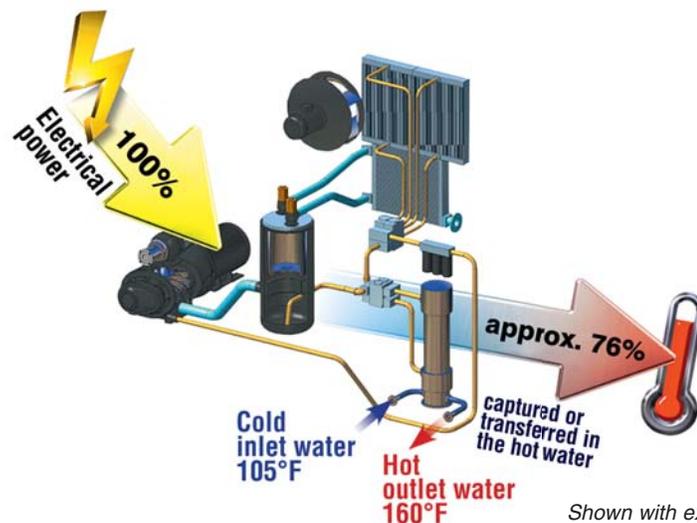
Moisture Separator



Eco-Drain

### Heat Recovery

Compressing air converts the electrical energy you buy into heat. ASD compressors are available with a heat recovery option to recover up to 76% of this energy. They can come ready to be connected to an external heat exchanger or with internal plate type heat exchangers. When you consider that a 40 hp compressor running full time at 7 cents/kW uses over \$30,000 per year in energy, the potential savings and benefits are significant.



Shown with external heat recovery

## CAGI Certified Performance

Our compressors' energy efficiency has been tested and confirmed by an independent laboratory as part of the Compressed Air and Gas Institute's *Rotary Screw Compressor Performance Verification Program*.



To find CAGI data sheets for this compressor, scan this QR code with your Smartphone or go to [www.kaeser.com/cagi](http://www.kaeser.com/cagi).

## ASD Series - Technical Specifications for Standard Units\*

Model	Pressure Range (psig)	Capacity (cfm) <sup>(1)</sup>	Rated Motor Power (hp)	Dimensions (in.)	Weight (lb.) <sup>(2)</sup>	Sound Level dB(A) <sup>(3)</sup>
ASD 25	125	112	25	53 <sup>1</sup> / <sub>8</sub> x 36 <sup>1</sup> / <sub>4</sub> x 59 <sup>1</sup> / <sub>4</sub>	1280	66
	175	89				
	217	72				
ASD 30	125	132	30	53 <sup>1</sup> / <sub>8</sub> x 36 <sup>1</sup> / <sub>4</sub> x 59 <sup>1</sup> / <sub>4</sub>	1440	67
	175	110				
	217	85				
ASD 40S	125	162	40	53 <sup>1</sup> / <sub>8</sub> x 36 <sup>1</sup> / <sub>4</sub> x 59 <sup>1</sup> / <sub>4</sub>	1470	67
	175	127				
	217	106				
ASD 40	125	191	40	53 <sup>1</sup> / <sub>8</sub> x 36 <sup>1</sup> / <sub>4</sub> x 59 <sup>1</sup> / <sub>4</sub>	1480	69
	175	159				
	217	123				

(1) Performance rated in accordance with CAGI/ISO 1217 test code. (2) Weights may vary slightly depending on airtend model. (3) Per ISO 2151 using ISO 9614-2.

NOTE: Other pressures available from 80 to 217 psig.

\* For units with SFC and/or dryer, please contact your local authorized Kaeser distributor.

**Specifications are subject to change without notice.**

## Compressed Air System Design

Kaeser's team of engineers are always at your service to help design or optimize your compressed air system.

Using our Air Demand Analysis (ADA) and Kaeser Energy Saving System (KESS) we can evaluate your existing installation and demonstrate how proposed changes will improve your system performance.

Kaeser can also produce two-dimensional and three-dimensional drawings of the proposed system. This is a huge benefit in project planning. It helps visualize new equipment and how it will fit into the building along with existing equipment, piping, walls, vents, etc. This facilitates installation planning.

From complex installations to challenging environments to limited space, Kaeser can design a system to meet your specific requirements for performance and reliability.

# KAESER COMPRESSORS

**Built for a lifetime.™**

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