



# Screw Compressors

## AS Series

Capabilities from: 64 to 143 cfm

Pressures from: 80 to 217 psig

# AS Series

## Built for a lifetime.™

*Kaeser Compressors has pushed the boundaries of compressed air efficiency once again with the latest generation of AS series rotary screw compressors. Not only do these compressors deliver more compressed air for sustainable energy savings, they also combine ease of use with exceptional reliability and simple maintenance.*

## 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' compressed air needs. Kaeser's expertise and world-wide reputation for superior reliability and efficiency offer great performance and peace of mind.

## Rugged reliability

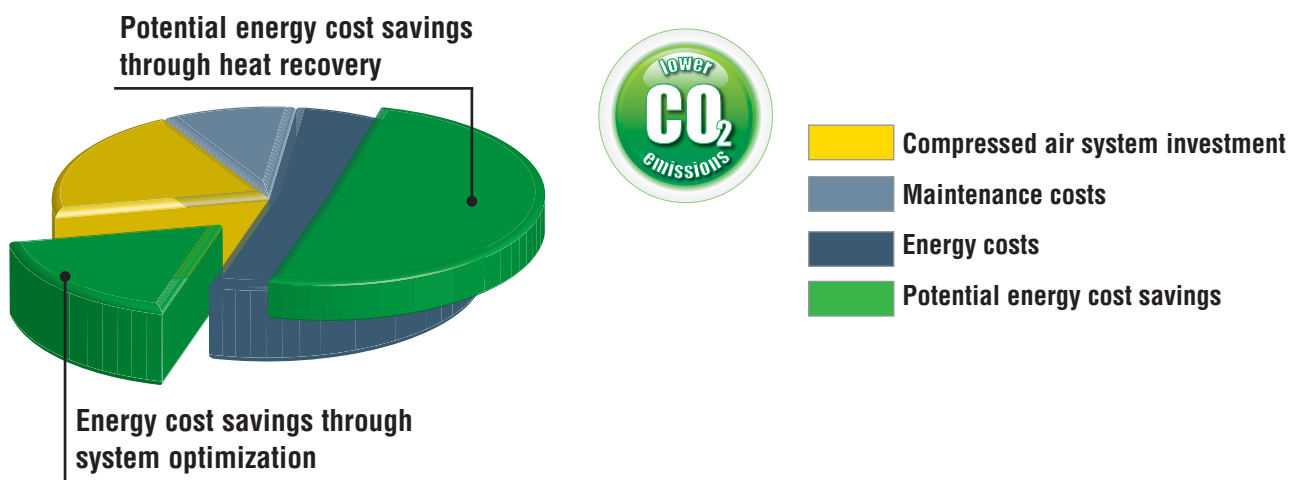
Kaeser's screw compressors meet our rigorous "built for a lifetime" standard. Designed and built with Kaeser's generations of compressed air experience, you can rest assured that these compressors will continue to deliver the air you need with the exceptional reliability you expect from a Kaeser compressor.

## Service-friendly

From the ground up, these compressors have been designed with the user in mind. Fewer wearing parts and using premium quality materials ensure reduced maintenance requirements, longer service intervals, and extended service life. A smart component layout with generously sized maintenance doors simplifies service and lowers your operating costs.

## Guaranteed efficiency

In our systems design approach, Kaeser chooses the components that work together in the most energy efficient way possible. Each and every component — from inlet filter to discharge flange — has been carefully selected with performance in mind. In fact, the AS series is up to **30% more efficient than the competition**. With Kaeser's superior system controls, we guarantee an efficient system with lower operating costs, however small or large your demand may be.





# Designed for reliability, simplicity, and performance



## Sigma Profile airend

Our power-saving, proprietary airend design delivers pressures up to 217 psig. Kaeser uses an airend specifically designed for the AS series. It is precision-machined to close tolerances and optimized in size and profile to match the low airend speeds with their best specific performance. Unlike the competition, Kaeser Compressors makes many different airends so we can apply them at the optimal speed and performance.

## High-efficiency coolers with filter mat

Conveniently located on the outside of the unit, our standard high-efficiency coolers provide maximum cooling resulting in exceptionally low approach temperatures



for more moisture separation at the compressor discharge and better air quality. A filter mat simplifies cooler maintenance. Dirt and dust build up on the outside of the filter, where it is easily seen and removed. This extends cooler service intervals and increases thermal reserve for harsher conditions.



## TEFC motor with reduced voltage starter

Premium-efficiency, totally enclosed, fan cooled (TEFC) motors with Class F insulation are standard for long life in harsh environments. Tri-voltage 208-230/460 or 575 V, 3-phase, 60 Hz is standard. Other voltages are available. Magnetic Wye-Delta reduced voltage starters ensure low starting current and smooth acceleration.

## Efficient separator system

A three-stage separator (ASME or CRN) combines centrifugal action and a 2-stage coalescing filter to reduce fluid carry over to 2 ppm or less. Quick release fittings, drain and fill ports are arranged for fast and easy fluid changes from sump and cooler without any pumping device. The easy-to-read fluid level indicator can be checked through a window in the service panel while the compressor is running.



## Belt drive with automatic tensioning

A ribbed single belt drive efficiently transfers power from motor to airend. Our unique automatic tensioning device maintains proper tension to maximize energy efficiency, prolong belt life, and simplify routine maintenance. The belt tension can easily be verified through a window in the service panel.



## Radial cooling fan

A powerful radial fan pulls air through the coolers and creates a vacuum within the cabinet that effectively cools the motor, even under severe operating conditions.





## Intelligent control and protection

To protect your investment and ensure the most efficient operation possible, these compressors come standard with our Sigma Control 2™. This intelligent controller includes 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 immediate service is required. It also tracks preventive maintenance intervals and provides notice when PMs are due. An RFID sensor provides secure access and simplifies managing maintenance intervals. An SD card slot with included SD card enables fast, easy software updates, storing key operational parameters, and offers long-term data storage for analyzing energy consumption and compressor operation. Sigma Control 2 has superior communications capabilities. An Ethernet port and built-in web-server come standard in the controller making integration into the Sigma Network possible.

The optional Sigma Control 2 with communications port can be fitted with communication modules like ModBus, EtherNet/IP, Profibus®,

Devicenet®, Profinet®, or other industrial communications interfaces as a plug-in option for seamless integration into plant control/monitoring systems.

*See our Sigma Control 2 brochure for more information.*

## Enclosure

Our superior cabinet design reduces noise and footprint while offering easy access for service. A heavy-duty metal enclosure with a durable powder-coated finish keeps noise in but dirt and dust out. Thick sound insulation keeps sound levels as low as 67 dB(A), up to 10 dB(A) quieter than comparable units.

Service doors open wide and provide easy access to all maintenance items. Electrical components are housed in a spacious, ventilated control cabinet. Wiring is neatly arranged and terminals are clearly identified.

Internal and external vibration isolators eliminate stress on piping and wire connections, further increasing reliability.

## Fluid cooling system

All units are filled with Kaeser premium fluid to cool, clean, and lubricate the airend. A thermostatically controlled combination valve ensures perfect fluid temperature regulation and incorporates a cooler by-pass and spin-on fluid filter. Main air and fluid lines are made of rigid pipe with flexible pipe connections. A 10 micron spin-on fluid filter is easily accessible. This filter extends fluid life and protects the airend. The fluid level is easily checked while the compressor is running.

## Parallel cooling design

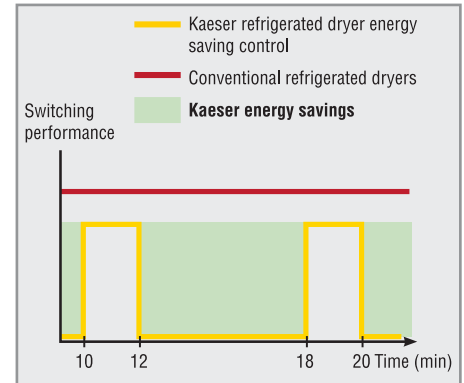
Two separate cooling air inlet zones for the coolers and drive motor ensure optimum cooling. Drawing ambient air directly across the coolers and motor through separate zones eliminates preheating and results in longer lubricant life and a cooler running motor. This also results in much lower approach 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. Top exhaust allows for easy heat recovery and reduces the system footprint.

# Integrated dryer option

The AS Series is available with an integrated refrigerated dryer. The dryer is located in a separate cabinet so it is not exposed to preheated air or contaminants from the compressor package.



## Energy-saving control

The integrated refrigerated dryer in Kaeser units provides high efficiency performance thanks to its energy-saving control. The dryer is active only when compressed air actually needs to be dried: This approach achieves the required compressed air quality with maximum efficiency.



## Refrigerated dryer with Eco-Drain

The refrigerated dryer also features a zero loss Eco-Drain. The advanced level-controlled condensate drain eliminates the compressed air losses associated with solenoid valve control. This saves energy and considerably enhances the reliability of the compressed air supply.



## Aluminum plate heat exchanger

The dryer's aluminum heat exchanger is corrosion and contamination-resistant. Even with fluctuating airflow, the separate stainless steel condensate separator reliably removes the accumulating condensate from the air.

# Service-friendly design

*AS series rotary screw compressors feature an open package layout. All of the major components are easily accessible, reducing preventive maintenance time by as much as 50% when compared to other similarly sized units.*

*When you consider the energy efficiency savings and the maintenance costs savings, it's clear that owning a Built for a lifetime™ Kaeser compressor will save you money, year after year.*

## Ease of maintenance

Many features make our AS models easy to service.

Sigma Control 2 with secure RFID access signals when PM is due

Service doors open wide for easy access

Cleanable filter mat on coolers (not shown)

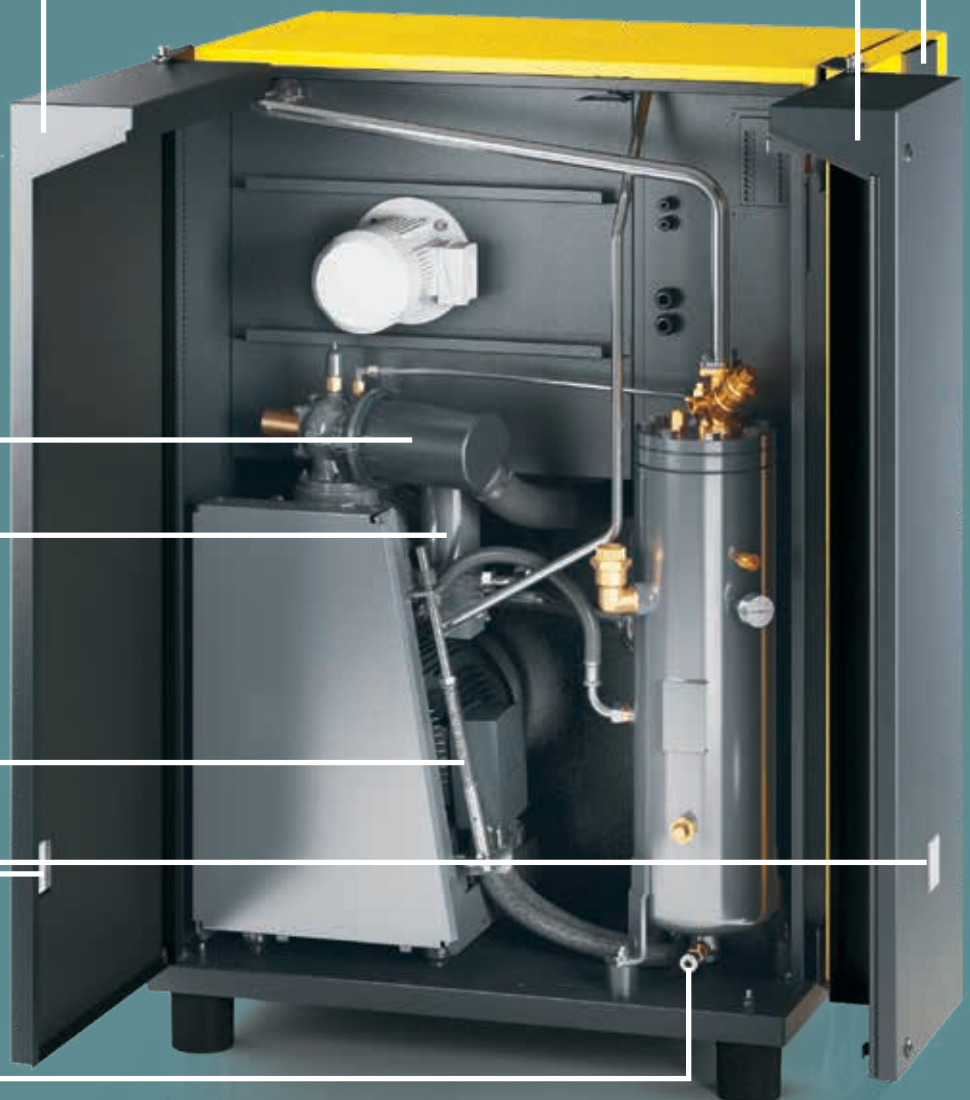
Cartridge style 1 micron inlet filter

Spin-on 10 micron fluid filter

Single piece, multi-ribbed belt with automatic tensioner

Side panel windows to view fluid level and belt tension

Quick fluid change system with drain hose (hose not shown)



# Technical Specifications

Model	Pressure Range (psig)	Capacity (cfm) <sup>(1)</sup>	Rated Motor Power (hp)	Sound Level dB(A) <sup>(2)</sup>	Dimensions W x D x H (in.)	Weight (lb.) <sup>(3)</sup>
AS 20 AS 20T	125	98.9	20	67	31½ x 43 <sup>7</sup> / <sub>8</sub> x 60¼ 31½ x 57 <sup>5</sup> / <sub>8</sub> x 60¼	1070
	160	84.8				1279
	217	64.3				
AS 25 AS 25T	125	120.1	25	69	31½ x 43 <sup>7</sup> / <sub>8</sub> x 60¼ 31½ x 57 <sup>5</sup> / <sub>8</sub> x 60¼	1114
	160	102.4				1323
	217	84.8				
AS 30 AS 30T	125	141.3	30	71	31½ x 43 <sup>7</sup> / <sub>8</sub> x 60¼ 31½ x 57 <sup>5</sup> / <sub>8</sub> x 60¼	1158
	160	121.8				1367
	217	99.9				

<sup>(1)</sup> Performance rated in accordance with CAGI/ISO 1217 test code. <sup>(2)</sup> Per ISO 2151 using ISO 9614-2.

<sup>(3)</sup> Weights may vary slightly depending on airend model.

**Note:** Other pressures available from 80 to 217 psig.

**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.

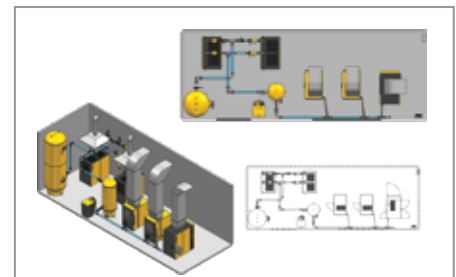
# CAGI

## 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.** CAGI data sheets for our screw compressor units are available at

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



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**Built for a lifetime.**



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