

Screw Compressors

SK SERIES

Capacities from: 40 to 78 cfm

Pressures from: 80 to 217 psig



Rotary Screw Compressor

Maximum Reliability and Efficiency

For years, customers have depended on Kaeser for reliable equipment and complete compressed air system solutions. Our research and development team continues to produce industry-leading compressor technology to meet virtually any compressed air application requirement. The new SK series rotary screw compressors are no exception.

These new 15 and 20 hp models combine our optimized Sigma Profile™ single-stage airend, high-efficiency motors, heavy-duty construction and simple modern controls into a compressor built for years of reliable service. A new cabinet design and component layout reduce noise levels and footprint while offering easier access during preventive maintenance.

Manufactured in a rigorous quality control program, Kaeser products are made to provide years of reliable service in the widest range of applications.

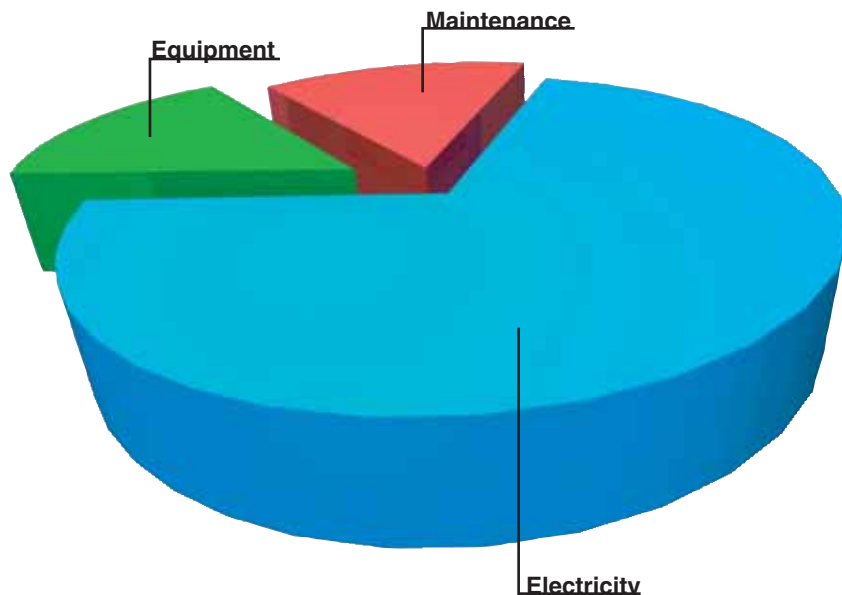
70% of Your Long Term Compressor Cost is Electricity

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 cost of the compressor itself. Over a period of ten years, energy may add up to 70% of your overall costs for buying, operating, and maintaining an air system.

That's why it is important to consider energy efficiency when evaluating a new compressor.

Kaeser's proprietary Sigma Profile compresses air efficiently. It delivers up to 20% more cfm per horsepower than other airend designs. Combined with high-efficiency motors and our unique automatic belt tensioning device, this results in a compressor designed to achieve significant savings.

Every Kaeser product demonstrates our commitment to providing unrivaled quality and performance at the lowest overall cost.



1 Sigma Control™ Basic

A simple and reliable interface offers convenient pressure control and system monitoring with status displays and service indicators. Displays include discharge pressure and temperature, load and service hours as well as fault indicators.

2 Sigma Profile Airend

Our power-saving, proprietary airend design delivers pressures up to 217 psig. Kaeser uses a newly designed airend for this SK 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, up to 20% less energy than comparable airends.



3 TEFC Motor with Reduced Voltage Starter

High-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. EPAAct compliant. Magnetic Wye-Delta reduced voltage starters ensure low starting current and smooth acceleration.





4 Belt Drive with Automatic Tensioning

A new 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.



5 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 without opening or stopping the compressor.



6 High-Efficiency Coolers with Filter Mat

Conveniently located on the outside of the unit, our standard high-efficiency coolers provide maximum cooling resulting in approach temperatures as low as 11°F 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.



7 Integral Refrigerated Dryer Option

The SK 15 and 20 models are available with an integral refrigerated dryer, moisture separator and electronic Eco-Drain. The dryer uses CFC-free R134a refrigerant. The dryer is controlled through the Sigma Control Basic and requires no additional electrical hook up.



Heat Exchanger and Moisture Separator

The dryer features plate-type heat exchangers and moisture separator, with stainless steel construction for long life.



Condensate Drain

The Eco-Drain has a robust aluminum housing and patented pilot air-controlled valve technology to ensure many years of reliable service even when subjected to harsh condensate. These drains are controlled by reliable capacitance sensors. These energy-saving drains remove condensate - but not valuable compressed air.

Optimized Air Flow Design

Air is drawn into separate cooling zones for the drive motor and coolers. This "split cooling" design eliminates pre-heating, increasing cooling efficiency without increasing power consumption. Cooler temperatures also



promote longer lubricant and motor life. Cooling air is exhausted through a single port at the top of the cabinet. Ducting this air enables heat recovery and further reduces noise.

Air for compression enters through a separate grill on the right side of the cabinet. It is then filtered through a two-stage air intake filter. This filter protects the airend and extends fluid change intervals.



Rear side shown

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 noise levels as low as 65dB(A), up to 10 dB(A) quieter than comparable units.

Hinged and locked panels provide easy access to all maintenance items, which are accessible from the front. The fluid level indicator is visible through a conveniently placed window in the front cover.

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

Electrical components are housed in a spacious, ventilated control cabinet. Wiring is neatly arranged and terminals are clearly identified.

Fluid Cooling System

All units are filled with Kaeser Premium Fluid to cool, clean, and lubricate 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 within easy reach of the front cover. This filter extends fluid life and protects the airend. The fluid level is easily checked while the compressor is running.

Ease of Maintenance

Many features make our SK models easy to service, including:

- Easy access from front
- Automatic belt tensioning device
- Quick fluid change system
- Front panel window to view fluid level indicator
- Spin-on 10 micron fluid filter
- Cartridge style 4 micron inlet filter
- Cleanable filter mat

Other Options:

- An optional five year warranty is available.
- Some models available with Sigma Frequency Control (variable speed drive).



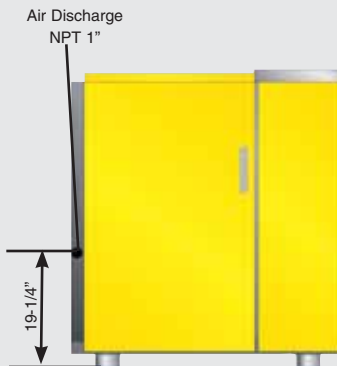
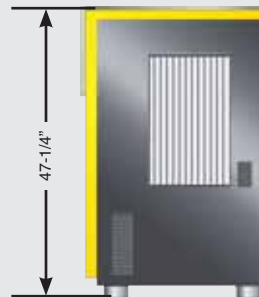
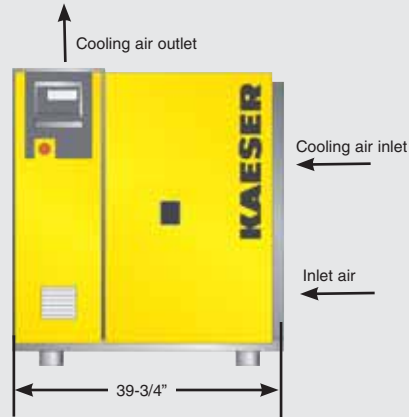
SFC 11T (SK with optional SFC drive and integral refrigerated air dryer.)

- Programming Module - enables the Sigma Control™ Basic to be connected to a supervisory compressor controller. Simply plug in the module and the SK can be controlled, along with other compressors, by the Sigma Air Manager or other master controller.
- PC-based Sigma Control system with Intel™ processor and real-time operating system. Monitors all critical compressor and control system functions and compressor maintenance items. Message history offers easy troubleshooting and record keeping. Integrated database offers plain text display in up to 30 languages and has RS 232, RS 485, and Profibus ports built-in with open architecture for integration into master control systems.

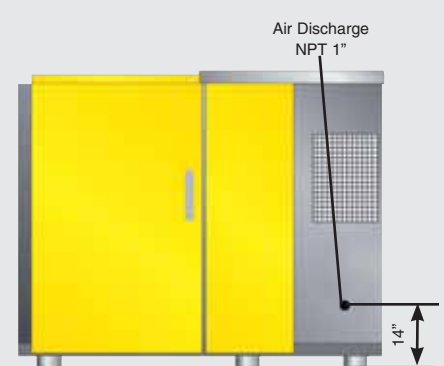
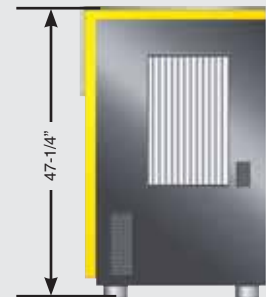
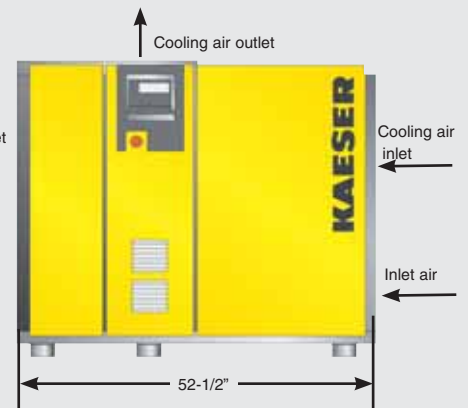
Dimensions

Dimensions are for reference only — please contact Kaeser for dimensional drawings. For SFC option dimensions, please see SFC literature.

Standard Units (or with optional SFC)



With Optional Dryer (with or without SFC)



Compressed Air System Design

Kaeser's team of engineers are always at your service to help design or optimize your compressed air system. With decades of experience in system design, special applications and energy audits, our entire team can meet your unique requirement.

Using specialized tools such as our Air Demand Analysis and Kaeser Energy Saving System we can provide an accurate assessment of your existing installation and use predictive models to demonstrate how proposed changes will improve your system performance.

Then, using a state-of-the-art CAD software, Kaeser can lay out the proposed system and produce traditional two-dimensional and three-dimensional drawings. This is a huge benefit in project planning. It helps you visualize not only new equipment, but also how it will fit into the building along with existing equipment, piping, walls, vents, etc. This helps ensure smooth installation, good access for service and reliable operation.

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

Specifications

Model	Operating Pressure (psig)	Capacity at Operating Pressure (cfm)	Motor (hp)	Standard Units Air-cooled, Sound-proofed	
				Dimensions L x W x H (in)	Weight (lb)
SK 15 SK 15 T	125	64	15	SK - 39 ³ / ₄ x 29 ¹ / ₈ x 47 ¹ / ₄ SK T - 52 ¹ / ₂ x 27 ³ / ₄ x 47 ¹ / ₄	SK - 710 SK T - 840
	160	54			
	217	40			
SK 20 SK 20 T	125	78	20	SK - 39 ³ / ₄ x 29 ¹ / ₈ x 47 ¹ / ₄ SK T - 52 ¹ / ₂ x 27 ³ / ₄ x 47 ¹ / ₄	SK - 710 SK T - 840
	160	65			
	217	48			

Standard units are air-cooled and sound proofed.
For details on our SFC 11 model, please refer to our SFC literature.
Specifications are subject to change without notice.



Built for a lifetime.™

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Certified Management Systems



The Air Systems Specialist

With over 85 years of experience, Kaeser is the air systems specialist. Our extensive 100,000 square foot facility allows us to provide unequalled product availability. With service centers nationwide and our 24-hour emergency parts guarantee, Kaeser customers can rely on the best after-sales support in the industry. Kaeser stands committed to providing the highest quality air system for your specific compressed air needs.

