

# Screw Compressors

## SX, SM, and SK Series

Capabilities from: 8.8 to 89 cfm

Pressures from: 80 to 217 psig



# SX, SM, and SK Series

## Built for a lifetime.™

*Kaeser Compressors' SX, SM, and SK series of rotary screw compressors are the perfect solution for smaller compressed air systems. 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.

### Kaeser reliability

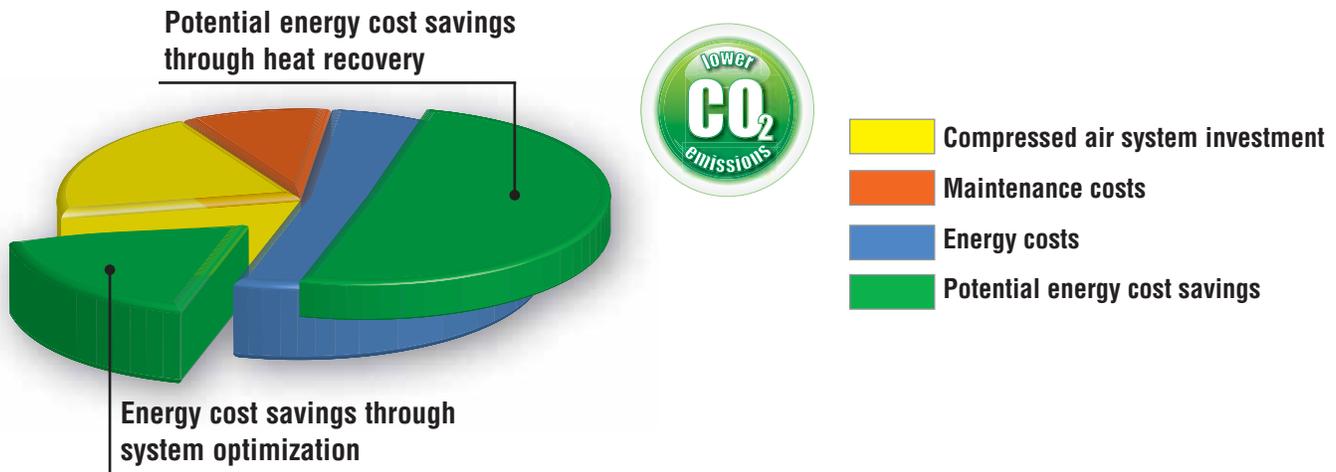
Kaeser's screw compressors meet our rigorous "built for a lifetime" standard. Designed and built with Kaeser's generations of compressed air experience, you can rest assured that these compressors will continue to deliver the air you need with the exceptional reliability you expect from a Kaeser compressor.

### 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 smarter component layout with easy, single panel access simplify service and lower your operating costs.

### Kaeser 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 pipe connection — has been carefully selected with performance in mind. In fact, the SX, SM, and SK series are up to 30% more efficient than the competition. With Kaeser's superior system controls, we guarantee an efficient compressor with lower operating costs.



# Service-friendly Design

The SX, SM, and SK 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

- 1** Easy single panel access for routine service
- 2** Maintenance reminders on controller
- 3** Single piece, multi-ribbed belt. SM and SK units also include an automatic tensioner
- 4** Spin-on 10 micron fluid filter
- 5** Cartridge style 1 micron inlet filter\*
- 6** Quick fluid change system with drain hose (hose not shown)
- 7** Side panel windows to view fluid level and test the auto drain (on T versions and AirCenters)
- 8** Cleanable filter mat on coolers (not shown)



# Designed for Reliability, Simplicity, and Performance



## Sigma Profile™ Airend

Our power-saving, proprietary airend design delivers pressures up to 217 psig. It is precision-machined to close tolerances and optimized in size and profile to match the low airend speeds with their best specific performance.



## TEFC Motor with Reduced Voltage Starter

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



## Sigma Control™ Basic

A simple and reliable interface offers convenient pressure control and system monitoring with status display and maintenance reminders. Displays include discharge pressure and temperature, load and service hours, as well as fault indicators. Sigma Control 2 is optional (see facing page).

## Belt Drive with Automatic Tensioning

A ribbed single belt drive efficiently transfers power from motor to airend. The SM and SK series feature our unique automatic tensioning device that 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.



## 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.



## 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 safely checked through a window in the service panel while the compressor is running.





## Double-flow Cooling Fan

Our patent-pending double-flow fan design increases air flow through the unit while reducing overall power requirements and sound levels.

## 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 61 dB(A), up to 10 dB(A) quieter than comparable units.

Lockable panels 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 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.

## 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.



-  Fresh cooling air
-  Recirculated air
-  Exhaust air

*The SX, SM, and SK units can be installed in a corner and still provide easy access for maintenance.*



## Intelligent control and protection

To protect your investment and ensure the most efficient operation possible, these compressors are available with our Sigma Control 2™ as an option. 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 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. A 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.

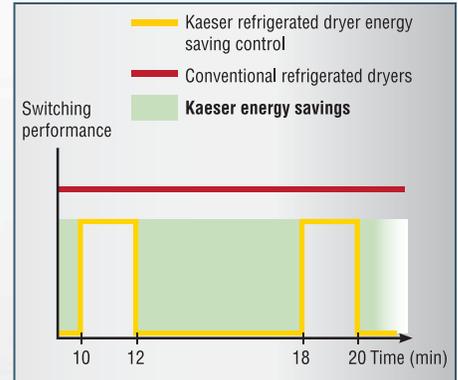
Sigma Control 2 has superior communications capabilities. An Ethernet port and built-in web-server enable remote viewing. ModBus, Profinet, Profibus, Devicenet, and other industrial communications interfaces are also available as plug in options for seamless integration into plant control/monitoring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

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

# Integrated Dryer Option

## Premium compressed air quality

The integrated dryer is perfectly sized for the full flow of the compressor. 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.



### Stainless steel plate heat exchanger

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



### Eco-Drain

The integrated 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.

# Complete Compressed Air Systems

## Life Just Got Easier

*Whether you prefer separate components or fully integrated packages, Kaeser offers everything for a complete, high-quality air system.*

### The AirCenter™

To simplify your compressed air system, Kaeser offers the AirCenter. This unit combines essential system components in one easy-to-install package. AirCenters come completely assembled and include a refrigerated dryer with automatic condensate drain, receiver tank, and an optional filtration package. These super quiet and energy efficient units are compact and perfect for installations where space is limited.



Duplex AirCenter



SM AirCenter

# Technical Specifications

Model	Operating Pressure (psig)	Capacity at Operating Pressure (cfm) <sup>(1)</sup>	Motor (hp)	Dimensions L x W x H (in)	Weight (lb) <sup>(2)</sup>	Sound Level dB(A) <sup>(3)</sup>
SX 3*	125	12	3	23 <sup>1</sup> / <sub>4</sub> x 24 <sup>7</sup> / <sub>8</sub> x 38 <sup>1</sup> / <sub>8</sub>	309	61
SX 3T*	160*	9		23 <sup>1</sup> / <sub>4</sub> x 36 x 38 <sup>1</sup> / <sub>8</sub>	408	
SX 3 AirCenter*				23 <sup>1</sup> / <sub>4</sub> x 42 <sup>3</sup> / <sub>4</sub> x 61 <sup>1</sup> / <sub>2</sub>	628	
SX 4	125	16	4	23 <sup>1</sup> / <sub>4</sub> x 24 <sup>7</sup> / <sub>8</sub> x 38 <sup>1</sup> / <sub>8</sub>	309	62
SX 4T	160	13		23 <sup>1</sup> / <sub>4</sub> x 36 x 38 <sup>1</sup> / <sub>8</sub>	408	
SX 4 AirCenter	217	9		23 <sup>1</sup> / <sub>4</sub> x 42 <sup>3</sup> / <sub>4</sub> x 61 <sup>1</sup> / <sub>2</sub>	628	
SX 5	125	21	5	23 <sup>1</sup> / <sub>4</sub> x 24 <sup>7</sup> / <sub>8</sub> x 38 <sup>1</sup> / <sub>8</sub>	320	63
SX 5T	160	17		23 <sup>1</sup> / <sub>4</sub> x 36 x 38 <sup>1</sup> / <sub>8</sub>	419	
SX 5 AirCenter	217	13		23 <sup>1</sup> / <sub>4</sub> x 42 <sup>3</sup> / <sub>4</sub> x 61 <sup>1</sup> / <sub>2</sub>	639	
SX 7.5	125	28	7.5	23 <sup>1</sup> / <sub>4</sub> x 24 <sup>7</sup> / <sub>8</sub> x 38 <sup>1</sup> / <sub>8</sub>	342	66
SX 7.5T	160	24		23 <sup>1</sup> / <sub>4</sub> x 36 x 38 <sup>1</sup> / <sub>8</sub>	441	
SX 7.5 AirCenter	217	19		23 <sup>1</sup> / <sub>4</sub> x 42 <sup>3</sup> / <sub>4</sub> x 61 <sup>1</sup> / <sub>2</sub>	661	
SM 7.5	125	32	7.5	24 <sup>3</sup> / <sub>4</sub> x 30 x 43 <sup>3</sup> / <sub>8</sub>	440	66
SM 7.5T	160	27		24 <sup>3</sup> / <sub>4</sub> x 42 <sup>1</sup> / <sub>4</sub> x 43 <sup>3</sup> / <sub>8</sub>	606	
SM 7.5 AirCenter	217	19		24 <sup>3</sup> / <sub>4</sub> x 47 <sup>1</sup> / <sub>4</sub> x 67 <sup>1</sup> / <sub>2</sub>	886	
SM 10	125	42	10	24 <sup>3</sup> / <sub>4</sub> x 30 x 43 <sup>3</sup> / <sub>8</sub>	460	67
SM 10T	160	35		24 <sup>3</sup> / <sub>4</sub> x 42 <sup>1</sup> / <sub>4</sub> x 43 <sup>3</sup> / <sub>8</sub>	628	
SM 10 AirCenter	217	27		24 <sup>3</sup> / <sub>4</sub> x 47 <sup>1</sup> / <sub>4</sub> x 67 <sup>1</sup> / <sub>2</sub>	882	
SM 15	125	53	15	24 <sup>3</sup> / <sub>4</sub> x 30 x 43 <sup>3</sup> / <sub>8</sub>	490	68
SM 15T	160	44		24 <sup>3</sup> / <sub>4</sub> x 42 <sup>1</sup> / <sub>4</sub> x 43 <sup>3</sup> / <sub>8</sub>	650	
SM 15 AirCenter	217	34		24 <sup>3</sup> / <sub>4</sub> x 47 <sup>1</sup> / <sub>4</sub> x 67 <sup>1</sup> / <sub>2</sub>	904	
SK 15	125	71	15	29 <sup>1</sup> / <sub>2</sub> x 35 <sup>1</sup> / <sub>4</sub> x 49 <sup>5</sup> / <sub>8</sub>	688	67
SK 15T	160	59		29 <sup>1</sup> / <sub>2</sub> x 49 x 49 <sup>5</sup> / <sub>8</sub>	853	
SK 15 AirCenter	217	46		29 <sup>1</sup> / <sub>2</sub> x 53 <sup>7</sup> / <sub>8</sub> x 74	1276	
SK 20	125	88	20	29 <sup>1</sup> / <sub>2</sub> x 35 <sup>1</sup> / <sub>4</sub> x 49 <sup>5</sup> / <sub>8</sub>	705	68
SK 20T	160	77		29 <sup>1</sup> / <sub>2</sub> x 49 x 49 <sup>5</sup> / <sub>8</sub>	871	
SK 20 AirCenter	217	63		29 <sup>1</sup> / <sub>2</sub> x 53 <sup>7</sup> / <sub>8</sub> x 74	1294	

## 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 can be found at [www.kaeser.com/cagi](http://www.kaeser.com/cagi)

\*SX 3 pressure limited to 160 psig.

<sup>(1)</sup> Performance rated in accordance with CAGI/ISO 1217 test code. <sup>(2)</sup> Weights may vary slightly depending on airennd model.

<sup>(3)</sup> Per ISO 2151 using ISO 9614-2.

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

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

# KAESER COMPRESSORS

*Built for a lifetime.™*

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