

Rotary Screw Compressors SXC »Compact« Series

With the world-renowned SIGMA PROFILE 

FAD 0.26 to 0.8 m³/min, Pressures 8 – 11 – 15 bar



What do you expect from your compressed air system?

Compressed air should always be available in the correct volume and quality to meet your company's requirements. Condensate-free compressed air, tailored to the application, not only ensures maximum reliability, but also significantly reduces maintenance costs.

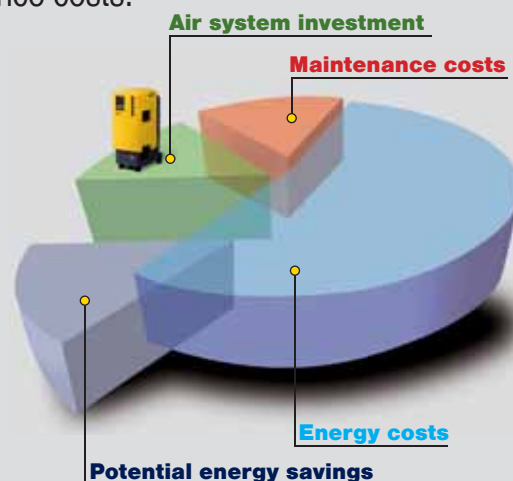
At least two key components are required to achieve this: A compressor and a compressed air dryer. This combination is completed with the addition of a compressed air receiver.

However, each of these units usually requires its own floor space, which is often at a premium.

Even if sufficient room is available, the principle of 'Space is Money' still applies. Therefore, the ideal solution would be a compact compressed air system that requires minimal floor space.

The SXC solution

The SXC series from Kaeser Kompressoren provides the perfect space-saving solution: SXC systems incorporate a powerful rotary screw compressor, a high efficiency refrigeration air and an air receiver within a single compact unit, consequently eliminating the need for additional floor space. SXC units therefore fulfil all of your compressed air needs: they are efficient, quieter than quiet, require minimal maintenance, offer outstanding reliability, are simple to install and deliver the very best in air quality.



- 1 Air filter
- 2 Rotary screw airend
- 3 Drive motor
- 4 Cooler with fan
- 5 Compressor controller
- 6 Separator
- 7 Air receiver
- 8 Refrigeration dryer

SXC – The all-in-one compressed air system

Intelligent design

The turnkey SXC screw compressor range from Kaeser Kompressoren combines exceptional efficiency and cost-effective performance with super-quiet compressed air production, treatment and storage. Under the SXC's double-skinned rotation-sintered polyethylene enclosure hides a complete compressed air supply system: The innovative SXC is based on a unique tower concept which integrates a screw compressor, a refrigeration dryer and a compressed air receiver within a single compact unit. Using perfectly matched components and ensuring exceptional user-friendliness, the SXC is the ideal choice for users in the trade and craft sector who are looking for a dependable supply of quality compressed air.



EFF1
motor

Made in Germany!



Energy-saving SIGMA PROFILE

Each KAESER rotary screw compressor airend uses SIGMA PROFILE rotors, specially developed by KAESER, that require approximately 10-20 percent less energy than conventional rotors with the same air delivery capacity. This consequently provides best in-class performance.



SIGMA CONTROL basic

With its efficient start-stop control, the SIGMA CONTROL basic ensures optimised compressed air system performance at all times and constantly monitors the entire SXC package.



Even quieter

The new cooling system combines optimum sound damping with enhanced cooling. Normal conversation can take place right next to the running compressor.



Efficient cooling

SXC units feature a clever cooling air system whereby the fan (controlled by the SIGMA CONTROL basic) is responsible for the fluid cooler. The drive motor has its own fan on the motor shaft. Continuous operation therefore poses no problem for the SXC.



Powerful – Efficient – Quiet

As the most efficient way to achieve a given drive power, KAESER uses large, low speed rotary screw airends. This ensures that the specific power is always within the optimal range. SXC series units use a flexible V-belt drive system to precisely determine airend speed dependent upon the airend being used. Low airend speed also means that components are subjected to less wear and consequently last longer, whilst noise emissions are also significantly reduced in comparison with high speed airends. This is particularly important for compressors installed directly in work environments.

SXC – The compact compressed air system...



...with energy-saving rotary screw compressor

There are also significant benefits to saving energy even with smaller rotary screw compressors. For example, a 20 % reduction in energy consumption with a 5.5 kW machine and 1000 operating hours per year translates into an annual saving of 1100 kWh and 0.66 tonnes less CO₂ emissions.



...with refrigeration dryer

The thermally shielded refrigeration dryer is installed beneath the rotary screw compressor. At the heart of the system is a stainless steel plate heat exchanger with an integrated condensate separator. The condensate is removed without pressure loss via an electronic ECO DRAIN condensate drain. All of these features combine to ensure reliable and efficient compressed air drying.



...with integrated air receiver

SXC units are equipped with an internally coated compressed air receiver. The receiver performs 3 important functions: It cools the compressed air, pre-separates condensate and stores compressed air. Accumulating condensate is reliably and efficiently removed via an electronically controlled condensate drain.



EFF1
motor

Internal view: All-in-one SXC compact compressed air system

Maintenance-friendly

All maintenance and service points are easily accessible once the SXC's removable enclosure is effortlessly lifted away. The electronic condensate drain can be inspected via a grille. Needless to say, the SXC is designed for maximum ease-of-maintenance.



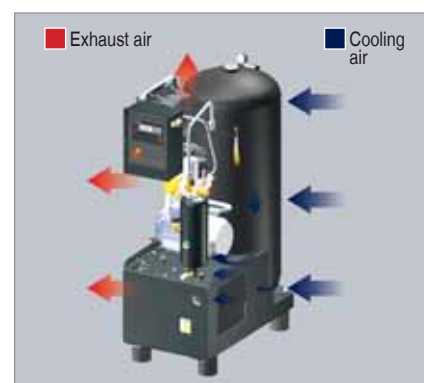
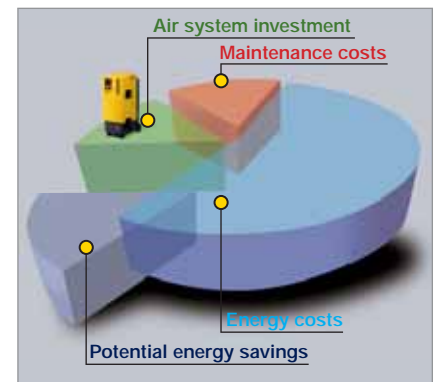
Simple installation

SXC units are so simple to install – Just connect the compressor and refrigeration dryer to the power supply, hook up the condensate treatment system and there you have it: a ready-to-use supply of quality compressed air.



Energy savings

Energy costs account for over 70 percent of total compressed air costs. This can amount to a significant sum even for smaller compressed air systems, which is why KAESER uses the very latest technology to ensure that every compressor provides best possible energy efficiency. Every kWh saved equates to a 0.6 kg reduction in CO₂ emissions (as per the energy mix in Germany).



Efficient cooling

Kaeser compressors are renowned for their innovative cooling systems and the SXC models are no exception, as they feature 3 fans for optimised cooling performance. One fan (with independent drive motor) cools the fluid in the rotary screw compressor and is controlled to switch on and off according to temperature via the SIGMA CONTROL basic. The second fan is installed on the main drive motor to ensure sufficient cooling for the motor, whilst the third fan provides cooling for the condenser on the refrigeration dryer. This advanced cooling system therefore enhances the SXC's dependability and helps guarantee consistent compressed air quality.

Tailored control

The SIGMA CONTROL basic provides the perfect energy-saving solution for users who require a single compressor for their air supply, but who also may also wish to expand the compressed air system in the future. Featuring fully automatic start-stop control and adjustable switching parameters, this user-friendly control system monitors key operational data such as network pressure, airtend temperature and direction of rotation to ensure optimised compressed air reliability and efficiency at all times.



Equipment

Complete unit

Ready for operation, fully automatic, super silenced, vibration damped, double-walled rotation-sintered polyethylene enclosure.

Sound insulation

Soundproof enclosure, anti-vibration mounts, double vibration damped.

Airend

Genuine KAESER single-stage rotary screw airend with SIGMA PROFILE rotors and cooling-fluid injection for optimised rotor cooling.



Electric motor

German made premium efficiency (EFF1) electric motor to IP54 and insulation class F for additional reserve.

V-belt drive

Maintenance-free elasticised V-belt. No further adjustment necessary.

Fluid and air flow

Honeycombed dry-air filter, check-valve at inlet, pneumatic vent valve, cooling fluid reservoir with dedicated separator cartridge, pressure release valve, minimum pressure/ check valve, micro-filter in cooling fluid system.

Cooling

Air cooled; aluminium cooler for cooling fluid with separate fan motor, second fan on drive motor shaft.

Air receiver

Internally coated, electronically controlled condensate drain.

Electrical components

Control cabinet to IP 54, automatic star-delta starter (from 3kW); motor-overload protection; control transformer.

Refrigeration dryer

Equipped with stainless steel plate heat exchangers, integrated condensate separator, electronically controlled condensate drain, insulated refrigerant loop.

SIGMA CONTROL basic



- User-friendly with clear icons and large display
- Fully automatic start-stop control for compressor
- Monitoring of network pressure, airend temperature, direction of rotation, drive motor and compressor load

- Hours counter for service, load hours and compressor operating hours
- Adjustable service interval, selectable pressure and temperature units (bar / psi / MPa / °C / °F)
- System set pressure individually adjustable
- Adjustable switching parameters
- Volts-free contact
- Group alarm
- Electronic pressure transducer

Professional planning

SXC compressed air system



- 1 SXC compact compressed air system
- 2 Micro-filter
- 3 Air-main charging system
- 4 Aquamat condensate treatment

Only properly designed air systems can meet the demands for air quality, availability and efficiency that are placed on a modern compressed

air supply. Therefore let KAESER design your compressed air supply system.

Dimensions



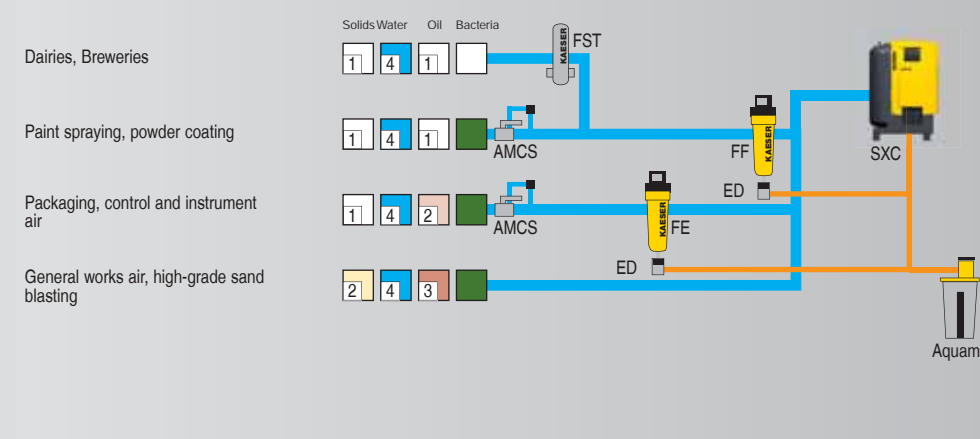
Technical Specifications – SXC

Model	Operating pressure bar	FAD *) Complete unit at operating pressure m³/min	Max. working pressure bar	Rated motor power kW	Refrigeration dryer power consumption kW	Refrigerant	Pressure dew point °C	Dryer differential pressure bar	Air receiver l	Dimensions W x D x H mm	Sound level **)	Weight kg
SXC 3	7.5 10	0.34 0.26	8 11	2.2	0.25	R 134 a	+6	0.2	215	620 x 980 x 1480	65	285
SXC 4	7.5 10 13	0.45 0.36 0.26	8 11 15	3.0	0.25	R 134 a	+6	0.2	215	620 x 980 x 1480	66	285
SXC 6	7.5 10 13	0.60 0.48 0.37	8 11 15	4.0	0.35	R 134 a	+6	0.2	215	620 x 980 x 1480	67	290
SXC 8	7.5 10 13	0.80 0.67 0.54	8 11 15	5.5	0.35	R 134 a	+6	0.2	215	620 x 980 x 1480	69	300

* Performance data to ISO 1217; 1996. Annex C. ** Sound level to PN8NTC 2.3 at 1m distance. free-field measurement

Choose the required grade of treatment according to your field of application:
Air treatment using a refrigeration dryer (+3°C pressure dew point)

Examples: Selection of treatment classes to ISO 8573-1 1)



Explanation:

ED = Eco-drain
Electronic level-controlled condensate drain
AMCS = Air-main charging system

FE = Micro-filter
Separates oil droplets and solid particles
FST = Sterile filter
For sterile compressed air

FF = Micro-filter
Separates aerosol oil and solid particles
Aquamat = Condensate treatment system

Contaminants

+	Solids	-
+	Water/Condensate	-
+	Oil	-
+	Bacteria	-

Degree of filtration:

Klasse ISO 8573-1	Solid particles ¹⁾		Humidity ²⁾ Pressure dew point (x = liquid water in g/m³)	Total oil content ²⁾ mg/m³
	Max. particle size µm	Max. particle concentration mg/m³		
0	e.g. Consult Kaeser regarding pure air and cleanroom technology			
1	0.1	0.1	≤ -70	≤ 0.01
2	1	1	≤ -40	≤ 0.1
3	5	5	≤ -20	≤ 1
4	15	8	≤ +3	≤ 5
5	40	10	≤ +7	-
6	-	-	≤ +10	-
7	-	-	x ≤ 0.5	-
8	-	-	0.5 < x ≤ 5	-
9	-	-	5 < x ≤ 10	-

¹⁾ As per ISO 8573-1:1991
(The specification for particle content is not measured as per ISO 8573-1:1991, as the limits defined therein for Class 1 are to be applied to 'Clean Rooms')

²⁾ As per ISO 8573-1:2001



Worldwide sales and service network: KAESER – Always there

With over 3000 employees worldwide, Kaeser is one of the world's foremost compressor manufacturers and providers of compressed air systems. Kaeser is represented in every major industrial nation throughout the world by 38 subsidiary companies and 48 authorised partners.



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| Argentina | Costa Rica | Guatemala | Luxemburg | | | |
| Australia | Croatia | Hungary | Malaysia | | | |
| Austria | Cyprus | Iceland | Mauritius | | | |
| Bahrain | Czech Republic | India | Mexico | | | |
| Bangladesh | Denmark | Indonesia | Morocco | | | |
| Belarus | Ecuador | Ireland | Norway | Qatar | South Africa | The Netherlands |
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