KAESER COMPRESSORS®



Rotary Screw Compressors

SX Series

With the world-renowned SIGMA PROFILE

Flow rate up to 0.81 m³/min, Pressure up to 15 bar

www.kaeser.com

SX series

Long-term savings

Operators today expect high efficiency and availability from all compressors – and the more compact models are no exception. It's therefore no surprise that our SX series rotary screw compressors meet these expectations in full: they not only generate more compressed air for less energy, but also leave nothing to be desired when it comes to versatility, user-friendliness, ease of maintenance, and environmentally sustainable design.

More compressed air for your money

The performance of SX rotary screw compressors has received a significant boost in comparison with previous models, thanks to the optimised airend and consequent minimisation of internal pressure losses.

Energy-saving performance

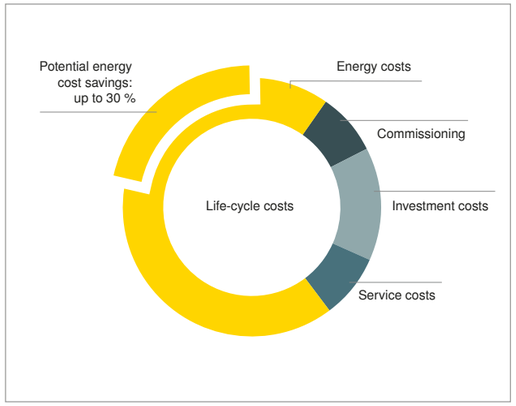
The economic efficiency of a machine depends on the total costs incurred throughout its entire service life. Since energy costs constitute the largest share of these, SX models are designed with maximum energy efficiency in mind. The optimised rotary screw airend with its renowned SIGMA PROFILE provides the basis for this, whilst Premium Efficiency (IE3) motors, the SIGMA CONTROL controller, and a clever cooling system with dual-flow fan all contribute significantly to energy-saving operation.

Intelligent design

SX models impress with their intelligent, user-focused design. For example, the left-hand enclosure panel can be removed in a few simple steps to allow excellent visibility of the system's intelligently arranged components, whilst all maintenance points are easily accessible. When closed, the sound-insulating housing panels ensure a comfortable operating noise level. The enclosure's three intake openings provide separate air flows for highly efficient cooling of the system, drive motor, and control cabinet. Thanks to their compact design, SX series compressors are the perfect choice for applications where space is at a premium.

Modular system concept

SX series compressors are available in standard versions, as versions equipped with an add-on energy-saving refrigeration dryer, and as AIRCENTER compressed air stations including refrigeration dryer and mounted atop an air receiver. This intelligent modular design concept results in a multitude of potential applications.



Energy-efficiency: The essential requirement

Procurement and servicing costs amount to only a small proportion of a compressor's total life-cycle costs. It is energy that accounts for the majority of expenditure.

For decades, our driving impulse has been to perfect the efficiency of your compressed air station. We strive not only to reduce energy costs, but also to optimise service expenditure and guarantee constant compressed air availability for your processes.

Quiet and powerful, durable and reliable



Image: SX 6

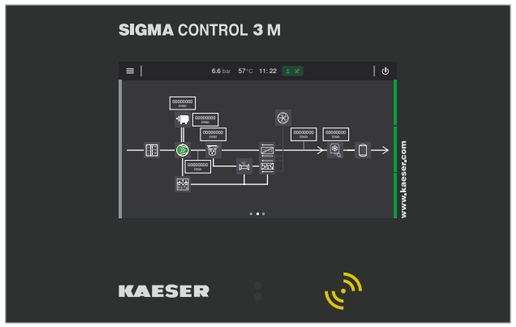
SX series

Design is in the details



Energy savings with the SIGMA PROFILE

At the heart of every SX system lies a premium-quality airend featuring the energy-saving SIGMA PROFILE. KAESER airends are equipped with flow-optimised rotors, which contribute significantly to the complete system's class-leading specific package input power.



SIGMA CONTROL controller

Comprehensive overview of components and assemblies – including live values in real time. Intuitive icons show current system health status. Detailed views and settings options open at the click of a button.



IE3 – Energy-saving motors

Naturally, every KAESER SX series rotary screw compressor features a highly efficient, energy-saving IE3 Premium Efficiency drive motor.



Highly effective cooling

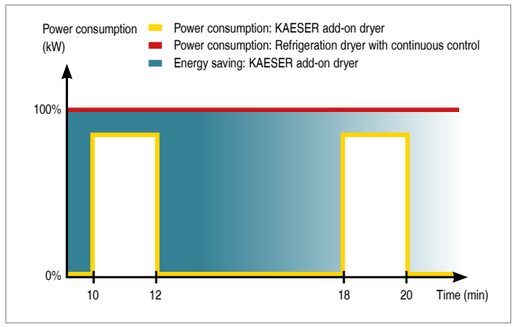
The cooling system operates using a high-efficiency dual-flow fan and special separate airflow channels for cooling the motor, fluid/compressed air aftercooler, and control cabinet. This not only achieves optimum cooling performance, low compressed air discharge temperatures and minimal noise levels, but also more efficient compression.

With integrated space-saving refrigeration dryer



SX with energy-saving dryer

The compressed air refrigeration dryer is installed in a separate housing, which shields it from compressor exhaust heat and increases operational reliability. Moreover, the dryer's automatic cut-out function ensures energy-saving performance.



Energy-saving control

The integrated refrigeration dryer in SX T systems is highly efficient thanks to its energy-saving control. It is active only when compressed air is actually flowing through it: as a result, application-oriented compressed air quality is achieved with maximum efficiency.



Quieter than ever before

Progress treads quietly with SX systems: the innovative cooling air flow provides optimum sound insulation while delivering enhanced cooling performance. Normal conversation can take place right beside the running compressor.



Maintenance-friendly

All maintenance work can be carried out from one side of the machine. The left-hand housing cover is removable, allowing convenient access to all maintenance points.



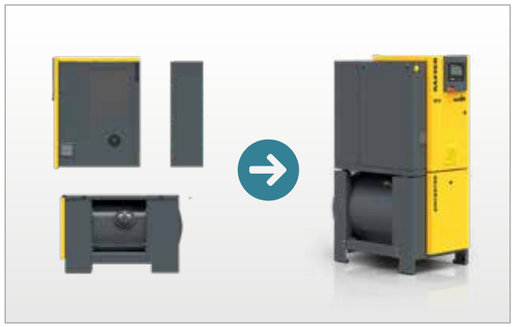
Image: SX 6 T



Image: AIRCENTER SX 6

AIRCENTER

The compact and efficient compressed air station



Plug & Play

All that's needed to install this compact, complete compressed air station is to connect it to a power supply and the air distribution network – no further installation work is required.



Durable air receiver

The 200-litre air receiver is especially designed for installation in AIRCENTER systems. All surfaces are coated – both inside and out – to ensure corrosion protection and long service life.



Service-friendly design

The left-hand housing panel is easily removed and allows convenient access to all maintenance points. Sight glasses enable the fluid level, condensate drain, and drive belt tension to be inspected during operation.



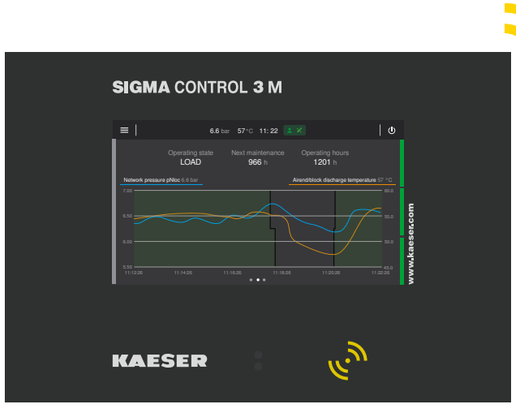
KAESER FILTER for clean air

Thanks to lowest possible differential pressure, genuine KAESER FILTER products (optional) guarantee an efficient supply of compressed air to all purity classes in accordance with ISO 8573-1, whilst also enabling fast, clean filter element changes.

SIGMA CONTROL internal compressor controller

SIGMA CONTROL

Intelligent, future-oriented, and efficient – the integrated SIGMA CONTROL compressor controller represents the future of cutting-edge compressed air systems. With its innovative platform concept for hardware and software, KAESER has set new standards in the control of stationary compressors. The SIGMA CONTROL not only boosts energy efficiency, but also enhances reliability and simplifies operation, whilst the touch display places intuitive control right at your fingertips. Clear visualisations provide an optimal overview of machine status, operating data, and maintenance information at all times. Fast navigation takes you directly to the principal functions – no lengthy scrolling or searching required.





Maximum control with KAESER Connect

With our KAESER Connect app, you always have an eye on your compressor. All values are displayed in real time, allowing you to remain continuously informed about the current status of your compressed air system. Push notifications keep you up to speed with developments: important updates, KPIs, maintenance counter information, and machine states are delivered directly to your mobile device. The machine report provides even more transparency and can be sent quickly and easily to your smartphone or E-mail. This way you can monitor your compressed air system efficiently, conveniently and with maximum security – wherever you are.

Future-proof

Modular system architecture with universal, configurable IoT interfaces enables flexible adaptation to new requirements and technologies.

Higher efficiency

Intelligent control significantly reduces the energy consumption of your compressed air system.

Maximum dependability

Smart maintenance planning, early detection of deviations during operation, and detailed status messaging ensure reliable and interruption-free function.

Comprehensive compatibility

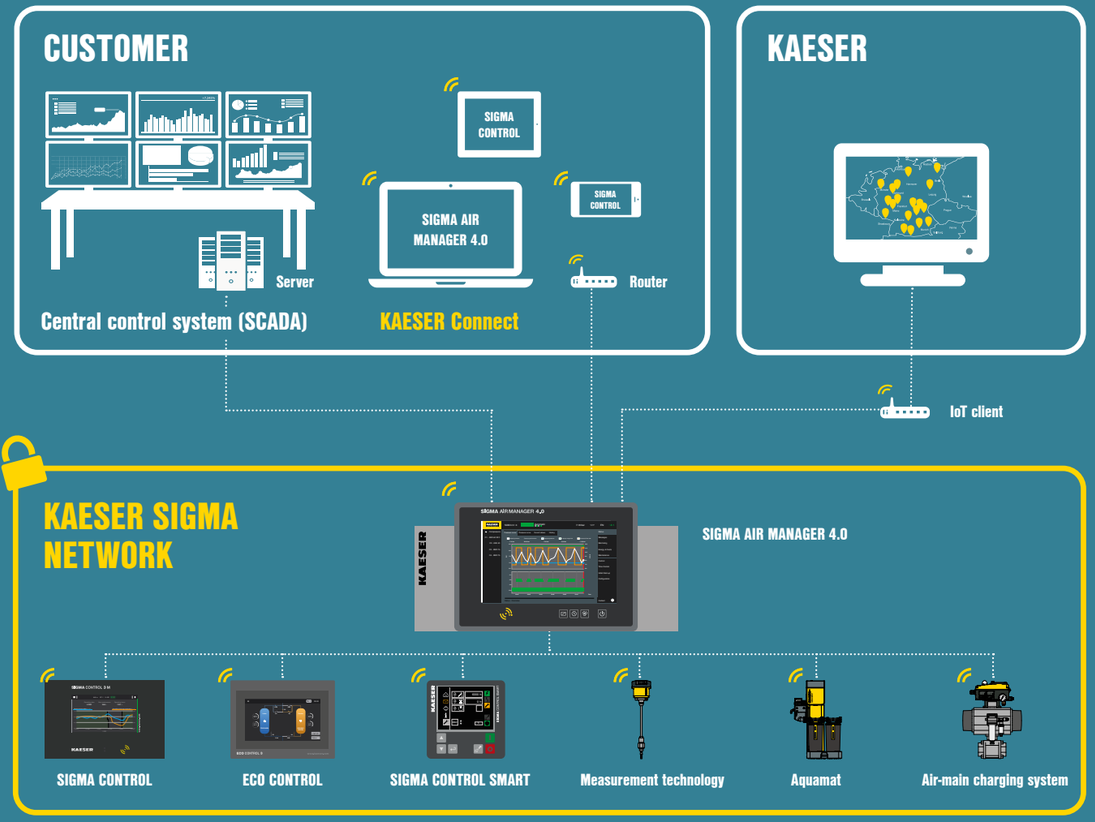
Compatible with all KAESER compressors, whether current or previous models.

SIGMA AIR MANAGER 4.0 compressed air management system

SIGMA AIR MANAGER 4.0

Adaptive, efficient and networked: demand-oriented compressed air management takes on a whole new meaning with the SIGMA AIR MANAGER 4.0. This advanced master controller coordinates operation of multiple compressors, as well as dryers or filters, with exceptional efficiency. A patented, simulation-based optimisation process determines future demand based on past compressed air consumption profiles. Thanks to networking of all components in the compressed air station via this intelligent master controller and the secure KAESER SIGMA NETWORK, comprehensive monitoring, energy management and predictive maintenance are all possible.





Technical data

Standard versions

Model	Working pressure	Flow rate, *) complete system at working pressure	Max. gauge pressure	Drive motor nominal power	Refrigeration dryer model	Dimensions W x D x H	Compressed air connection	Sound pressure level **)	Weight
	bar	m³/min	bar	kW	kW	mm		dB(A)	kg
SX 3	7.5	0.34	8	2.2	–	590 x 632 x 970	G ¾	59	140
	10	0.26	11						
SX 4	7.5	0.45	8	3	–	590 x 632 x 970	G ¾	60	140
	10	0.36	11						
	13	0.26	15						
SX 6	7.5	0.60	8	4	–	590 x 632 x 970	G ¾	61	145
	10	0.48	11						
	13	0.37	15						
SX 8	7.5	0.80	8	5.5	–	590 x 632 x 970	G ¾	64	155
	10	0.67	11						
	13	0.54	15						

T versions with integrated refrigeration dryer (refrigerant R-513A)

SX 3 T	7.5	0.34	8	2.2	ABT 4	590 x 905 x 970	G 3/4	59	185
	10	0.26	11						
SX 4 T	7.5	0.45	8	3	ABT 4	590 x 905 x 970	G 3/4	60	185
	10	0.36	11						
	13	0.26	15						
SX 6 T	7.5	0.60	8	4	ABT 8	590 x 905 x 970	G 3/4	61	190
	10	0.48	11		ABT 4				
	13	0.37	15						
SX 8 T	7.5	0.80	8	5.5	ABT 8	590 x 905 x 970	G 3/4	64	200
	10	0.67	11						
	13	0.54	15		ABT 4				

AIRCENTER versions with refrigeration dryer and air receiver

AIRCENTER 3	7.5	0.34	8	2.2	ABT 4	590 x 1090 x 1560	G ¾	59	285
	10	0.26	11						
AIRCENTER 4	7.5	0.45	8	3	ABT 4	590 x 1090 x 1560	G ¾	60	285
	10	0.36	11						
	13	0.26	15						
AIRCENTER 6	7.5	0.60	8	4	ABT 8	590 x 1090 x 1560	G ¾	61	290
	10	0.48	11		ABT 4				
	13	0.37	15						
AIRCENTER 8	7.5	0.80	8	5.5	ABT 8	590 x 1090 x 1560	G ¾	64	300
	10	0.67	11						
	13	0.54	15		ABT 4				

*) Flow rate, complete system as per ISO 1217: 2009 Annexe C/E: intake pressure 1 bar(a), cooling and air intake temperature +20 °C
**) Sound pressure level as per ISO 2151 and basic standard ISO 9614-2, tolerance: ±3dB (A)

Technical data for integrated refrigeration dryer

Model	Refrigeration dryer power consumption	Pressure dew point	Refrigerant	Refrigerant charge	Global warming potential	CO_2 equivalent	Hermetic refrigeration circuit
	kW	°C		kg	GWP	t	
ABT 4	0.18	+3	R-513A	0.17	629	0.11	Yes
ABT 8	0.28	+3	R-513A	0.24	629	0.15	Yes

Equipment

Complete system

Operation-ready, fully automatic, super-silenced, vibration damped, all panels powder coated; suitable for use in ambient temperatures up to +45 °C.

Airend

Cooling fluid injection for optimal rotor cooling; genuine KAESER single-stage airend with SIGMA PROFILE.

Electric motor

Premium Efficiency IE3 motor, quality German manufacture, IP 54.

Fluid and air flow

Honeycomb-structure intake filter, pneumatic inlet and venting valve, cooling fluid separator tank with triple separation system; safety valve, minimum pressure check valve, thermostatic valve and fluid filter in cooling fluid circuit, fluid/compressed air combination cooler.

Refrigeration dryer (on T version)

Equipped as standard with dew point measurement via Pt100 sensor and electronic level-controlled condensate drain incl. alarm contact. Refrigerant compressor with energy-saving cycling cut-out function; linked to compressor motor operating state when shut down. Alternatively, continuous operation can be selected by the user.

Electrical components

IP 54 control cabinet with ventilation, automatic star-delta protection combination, overload relay, control transformer.

SIGMA CONTROL

Modular system with control unit and integrated inputs/outputs, designed for use with KAESER rotary screw compressors, traffic-light operating state display, fully automatic monitoring and control; Dual, Quadro, Dynamic, and Vario control modes, time switch for compressor functions (On, Off) or external outputs, base load sequencing function for operation of two compressors, high-performance processor hardware; all components designed for industrial conditions, capacitive touchscreen with optical bonding, Time-of-Flight and other internal sensors, SD card slot for updates, USS bus communications module adapter for frequency converter, RFID reader, Ethernet interface for connection to KAESER SIGMA NETWORK.

Connection to centralised control systems available via optional communications modules for: Profibus DP, Modbus TCP, Profinet, and DeviceNet.

More compressed air for less energy

The world is our home



As one of the world's largest manufacturers of compressors, blowers and compressed air systems, KAESER KOMPRESSOREN is represented throughout the world by a comprehensive network of wholly owned subsidiaries and authorised distribution partners in over 140 countries.

By offering innovative, efficient and reliable products and services, KAESER KOMPRESSOREN's experienced consultants and engineers work in close partnership with customers to enhance their competitive edge and to develop progressive system concepts that continuously push the boundaries of performance and technology. Moreover, decades of knowledge and expertise from this industry-leading systems provider are made available to each and every customer via the KAESER group's advanced global IT network.

These advantages, coupled with KAESER's worldwide service organisation, ensure that every product operates at the peak of its performance at all times, providing optimal efficiency and maximum availability.

KAESER COMPRESSORS (SA) (Pty) Ltd.
236 Albert Amon Road – P.O. Box 5031 – Meadowdale – Germiston, Johannesburg, 1614
Tel 0027 11 974 5002 – Fax 0027 11 974 6696 – E-mail: info.southafrica@kaeser.com
www.kaeser.co.za

P-651.0ZA Specifications subject to change without notice. 1/26