KAESER COMPRESSORS

QUOTATION

Kaeser Compressors, Inc.
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Mr. Joe Boynton
City of Concordia Water
4517 S Hwy 23
Concordia MO 64020

Reference	Customer no.	Quotation no.	Date
SX 7.5 Aircenter	10381618	86893880	02/19/2024

Dear Mr. Boynton:

We are pleased to present the following proposal for your review. With Kaeser Compressors, you can be confident your organization will benefit from years of engineering expertise, premium products, and a nationwide service network. Our products reduce life cycle costs with years of reliable service, simple maintenance and high energy efficiency-making them the smart investment.

Kaeser will be providing our standard equipment and instrumentation. Kaeser's scope of supply is as shown on the quote. Items not quoted will not be provided. Kaeser must take blanket exception to any specifications provided with this RFQ.

Thank you for the opportunity to prove Kaeser Compressors offers the best product solutions for your needs, as well as the customer service you deserve.

Sincerely,

Zane Morerod
Territory Manager

I hereby represent that: I am an authorized signatory for this company; agree to the terms of this order; and by signing below I authorize Kaeser to process an order in accordance with this quotation.

_____ _____
Printed Name Title

_____ _____
Authorized Signature Date

KAESER COMPRESSORS **QUOTATION**

KAESER complete system

Type: AIRCENTER SX 7.5 (air cooled)

equipped with the SIGMA CONTROL 2 controller

The AIRCENTER SX 7.5 offers more than just the capacity to efficiently produce, treat and store compressed air using a unit with minimal footprint: users also benefit from advanced technology and a modern design that take plug-&-work functionality to a new level. All system components – the rotary screw compressor, refrigerated dryer and underslung compressed air receiver – are enclosed in a single housing and therefore are contained in one visually appealing unit. Energy-efficiency, ease of maintenance, long service life and optimal coordination of all components were given pride of place during all design phases.

Technical specifications (Performance parameters at **125 psig gauge working pressure**, relative to the entire system, including fans. In accordance with ISO 1217:2009 Annex C.)

Flow rate at 125 psig	**28.25 cfm**
Power consumption of entire system at 125 psig	**7.0 kW**
Specific power	**8.73**
Max. gauge pressure	**125 psig**
Drive motor efficiency, full load	89.5 %
Drive motor rated capacity	7.5 hp
Drive motor speed	3540 rpm
Drive motor protection rating	IP 54
Electrical supply	208/230/460V / 3 / 60Hz
Sound pressure level	66 dB(A)
Air receiver volume	52.8 US gal
Cooling oil fill volume	0.7 US gal

Compressor cooling oil type	S460

Specifications are subject to change without notice.

KAESER COMPRESSORS **QUOTATION**

Technical specifications - Type: AIRCENTER SX 7.5

Refrigerated dryer differential pressure	2.3 psi
Pressure dew point at ambient temperature 68 °F rel. humidity 30%	37 °F
Refrigerant	R-513A
Refrigerant charge	0.44 lb
Global warming potential	631
CO2 equivalent	0.13 t
Ambient temperature (max./min.)	115 °F / 40 °F
Compressed air connection	3/4 NPT
Dimensions (W x D x H)	23.250 IN x 42.875 IN x 61.500 IN
Weight	661 lb

Specifications subject to change without notice.

Available options

Connection to control system	Not applicable
Filters	No
Adjustable machine feet	No
Modulating control	No
Compressor cooling oil type	

Product information

For images and further details, please refer to the brochure at https://www.kaeser.com/int-en/products/rotary-screw-compressors /rotary-screw-compressors-with-fluid-cooling/with-belt-drive/

Project planning note:

Please note that additional compressed air treatment components may be required for your proposal. Compressed air always contains a certain amount of solid matter/particulates, moisture and residual oil content (hydrocarbons in

aerosol/vapor form). Depending on the application, a certain standard of treatment may be required (see ISO 8573). We would be pleased to advise you further on this matter.

Type: AIRCENTER SX 7.5

Decisive product advantages

AIRCENTER

KAESER airend with energy-saving SIGMA PROFILE

Every KAESER airend comes with energy-saving SIGMA PROFILE rotors. Meticulous manufacturing and calibrated precision anti-friction bearings guarantee a long service life and maximum reliability. Single-stage compression with cooling fluid injection ensures optimal cooling, lubrication and sealing of the rotors.

Cooling system with double-flow fans

The cooling system features an innovative double-flow fan (patent pending) that not only ensures exceptional performance, but which also keeps sound emissions to an absolute minimum. Separate air streams for compression air and incoming cooling air for the air/fluid cooler and motor ensure reserve capacity even at high ambient temperatures to 115 °F. Intake of motor cooling air and compression air directly from outside the enclosure delivers highly effective motor cooling while also boosting compression efficiency. Furthermore, sound levels are exceptionally low as the air flows through the cooling system at low speed.

Exceptional efficiency

Energy costs account for more than 70 percent of compressed air production costs. This can amount to a significant sum even for smaller compressed air systems, which is why KAESER is committed to supplying compressors with maximum energy efficiency using cutting-edge technology. When planned and integrated into a larger system, KAESER compressors lay the foundation for unsurpassed reliable and cost-effective compressed air production.

Maintenance friendly

All maintenance work can be carried out from one side of the unit. The left housing cover is easily removed to allow excellent component accessibility, but fluid levels can be visually inspected even without opening the enclosure, thanks to the observation window. They additionally feature an operating opening for easy access to the test button on the electronic condensate drain for the refrigerated dryer.

Type: AIRCENTER SX 7.5

Decisive advantages

AIRCENTER

Energy saving control of the add-on dryer

To avoid unnecessary energy wastage in the refrigerated dryer during phases when the compressor is at standstill, the attached dryers are regulated in a timed cycle to shut down at intervals but remain ready for instant operation.

Electronic level-controlled Eco-Drain condensate drain

Condensate is removed from the dryer by an Eco-Drain automatic condensate drain that operates without loss of compressed air. When the collector tank is full, the level sensor opens a diaphragm valve and the condensate is drained off. The electronics keep the valve open until the tank is empty and close it again before compressed air can escape. Functional monitoring with SIGMA CONTROL 2.

Space-saving modular construction

The refrigerated dryer is installed in a separate enclosure to prevent exposure to heat from the compressor package and augment operational reliability. All components are easily accessible, simplifying and speeding up all maintenance work.

Premium quality heat exchanger

The generously dimensioned and contaminant-proof heat exchanger system is equipped with an energy-saving air/air and air/refrigerant heat exchanger. The integrated, specially adapted condensate tank ensures optimal separation.

Type: AIRCENTER SX 7.5

SIGMA CONTROL 2 compressor controller

The control center

The industrial-duty operator interface features a clear display panel and robust keys. All relevant information can be viewed at a glance. User-friendliness is further enhanced by the logical menu structure and the ability to display data in any one of 30 selectable languages.

Security with RFID

SIGMA CONTROL 2 provides a high level of security with its integrated RFID (Radio Frequency Identification) functionality. This technology not only ensures secure log-in for users and/or KAESER service engineers, but also safeguards the system against unauthorized changes or operation, in accordance with German operator liability provisions.

Communication

The SIGMA CONTROL 2 communicates internally with the compressor via inputs and outputs. The Ethernet interface fitted as standard enables integration into the SIGMA NETWORK. Network connectivity permits remote monitoring: the built-in web server can display the operating panel, menu structure, operating parameters and message history anywhere and at any time.

Updates and data storage

Software updates and operating parameters can be quickly uploaded and transferred via the convenient SD card slot. This minimizes service costs while also enabling use of the SD card for (long-term) storage of key operational data.

"Prepared connection to process control" option

Optional (pluggable) bus communication modules (Profibus DP, Modbus TCP, Profinet, Devicenet) enable external communication with building and process control systems for remote control and remote monitoring of the compressor. Digital and analog inputs and digital outputs that can be assigned using the control unit make it possible to connect external sensors and actuators.

KAESER COMPRESSORS **QUOTATION**

Type: AIRCENTER SX 7.5
SIGMA CONTROL 2

Control systems
- Modular design comprising of control unit and integrated inputs and outputs, power supply and web server. Designed for use with KAESER rotary screw compressor series SX - ASK.
- "Traffic-light" LEDs for at-a-glance operational status
- Fully automatic monitoring and control; Dual, Quadro, and Vario control.
- Timer for compressor functions (on, off) or external outputs
- Baseload function for operation of two compressors
- Web server with remote display of operational data; clear text display, choice of 30 languages

Hardware
- Advanced processor hardware; all components designed for industrial operating conditions.
- Graphical display, LED indicators and tactile membrane keys; real-time clock, battery back-up
- Precision electronic pressure transducer

Control cabinet
- Dust and water-resistant, IP 54
- Input/output modules with clearly coded bushes for the signal sensor connection cable [1)]
- Terminal strip for additional floating contacts [1)]

Interfaces
- SD card slot for updates
- Adapter for communications modules [1)]
- USS bus for frequency converter; RFID reader, Ethernet

Approvals and certifications
- CE, cUlus, EMV; marine certifications GL, ABS, LRS, DNV (available only if the "Prepared connection to process control" option is selected)

Note on [1)]: available only if the "Prepared connection to process control" option is selected.

KAESER COMPRESSORS **QUOTATION**

KAESER FILTER
Type: F9KE - KE - Extra

Maintenance-friendly, low-cost clean air.

KAESER FILTERS are key to the preparation of compressed air to all ISO 8573-1 purity classes, and they perform their role with very low pressure differentials. Their maintenance-friendly design means it is easy to correctly open and close the filter housing, enabling the filter element to be changed quickly and with minimal fuss.

Technical Data (performance parameters at 101.5 psi operating pressure, based on 14.5 psi(a) and 68°F. Aerosol test concentration 10 mg/m³). Subject to alteration without notice!

Flow rate	**31.8 cfm**
Differential pressure in new condition (dry)	**<0.73 psi**
Initial pressure differential when saturated	<2.9 psi
Maximum residual aerosol content	<0.01 mg/m³
Operating pressure, max./min.	232 psig / 30 psig
Ambient temperature max./min	122 °F / 38 °F
Compressed air inlet temperature	38 °F / 150 °F
Compressed air connection	3/4 NPT
Condensate drain version	Automatic
Dimensions (W x D x H)	4.764 IN x 3.583 IN x 13.740 IN
Weight	8 lb

Application:

For use downstream from compressed air drying. For removal of aerosols and solid particles for high compressed air quality.

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Technical specifications - Type: F9KE

Standard equipment:

Corrosion-protected aluminum enclosure	Standard
Locking screw for faultless opening and closing	Standard
Differential pressure gauge (mechanical)	Standard
Flow-optimized element head	Standard
Large filter surface area thanks to deep-fold filter media	Standard
Stable, surface-treated polyester drainage layer	Standard
Stable element frame made from a perforated stainless steel plate	Standard

Options:

Differential pressure monitoring	Pressure diff. gauge
Wall bracket kit	
Connector set	
Silicone-free version (VW factory standard 3.10.7)	No
Special paint, filter bowl	

Project planning note:

· Please note that additional compressed air treatment components may be required for your proposal. Compressed air always contains a certain amount of solid matter/dust, moisture and residual oil content (hydrocarbons in aerosol vapor form). Depending on the application, a certain standard of treatment may be required (see ISO 8573). We will be pleased to provide further advice and information.

Type: F9KE

Decisive advantages

KAESER FILTER

Certifiably clean air

KAESER utilizes modern, deep-pleated filter media in its coalescence and particulate filters to remove particles and aerosols, while in activated carbon filters, high-efficiency carbon mats retain oil vapors. This, combined with innovative flow optimization, results in a high degree of filtration efficiency and low pressure losses. The outstanding performance characteristics of KAESER FILTERS are determined in accordance with ISO 12500 and certified by the independent testing body, Lloyd`s Register.

Minimal pressure losses. Maximal savings.

The cost-effectiveness of a compressed-air filter depends on its pressure loss. Kaeser filters benefit from generously dimensioned housings and filter surfaces, innovative flow optimization, and high-performance filter media. As a result, pressure losses are up to 50 % lower than those of other commercially available filters, and remain almost constantly so for the duration of the filter element's service life. This relieves upstream compressors and offers the potential of considerable cost and CO2 savings.

Maintenance friendly design. Safe handling.

Kaeser filters are equipped with generously dimensioned, corrosion-proof aluminum housings and robust filter elements. Additionally, the practical bayonet cap automatically ensures the correct positioning of the housing and element seals. Both seals are a constituent part of the filter element to ensure that the filter housing can only be sealed when a filter element has been inserted. A locking screw prevents the accidental opening of the housing while under pressure and serves to vent the housing.

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Kaeser Condensate Filter (KCF)
Models:
KCF 25, KCF 50, KCF 100, KCF 200, KCF 400

Maximum Pressure at Inlet	232 psig
Maximum Ambient Air Temperature	140 ºF
Minimum Ambient Air Temperature	41 ºF
Estimated Weight	KCF 25 7.7 lbs, KCF50 12.7 lbs KCF100 19.5 lbs, KCF200 70.5 lbs KCF400 92.6 lbs
Number of Inlet Connections:	2 (KCF 25, KCF 50, KCF 100) 4 (KCF 200, KCF 400)

Kaeser Condensate Filter designed for the performance specified herein and including the following standard features and accessories:

- Lightweight - easily handled and positioned for filling
- Crafted of rotation-molded polyethylene
- Uses coated polypropylene absorbent technology
- Single absorbent cartridge incorporates two-stage separation
- Self-contained single element is easily replaced and suitable for landfill disposal
- Typical cartridge life is 6 months. Compressor type, lubricant, and ambient conditions affect service life.
- Condensate can be discharged under pressure into the unit
- No electricity required
- No hard piping required
- No moving parts
- Water purity sampling port with shut-off valve on models 25, 200, and 400

Maintenance
- Easily removable lid
- Filter cartridges are equipped with lifting handles
- Disconnecting of inlet lines not required for filter change

Options
- Immersion heater with thermostat for low ambient installations
- High pressure relief chamber (up to 580 psig at inlet)
- High condensate level alarm
- Flow splitter that permits the simultaneous use of up to four parallel piped units for large air flow applications

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PRICE SUMMARY

Item	Description	Material	QTY	UM	Unit price USD	Total USD
20	**Rotary Screw Compressor**					
	AIRCENTER SX 7.5 125psi SC2 TriVolt. US	100899.11	1.000	PC	11,747.37	11,747.37
	Model	AIRCENTER SX 7.5				
	Electrical connection	208/230/460V / 3 / 60Hz				
	Max. working pressure	125.0 psig				
	Connection to control center	Not applicable				
	Compressor fluid sort	SIGMA FLUID S-460				
	Wired 460V					
30	**Condensate Drain**					
	CAT Kit Aircenter SX 7.5, 125 psi	ANCATKIT4	1.000	PC	1,230.00	1,230.00
	Items from 40 to 50 are included in the price					
40	**Fittings for CAT KIT 4**	ANFITTINGS4	1.000	PC		
50	**Compressed Air Filter**					
	Filter F9KE	102107.11311	1.000	PC		
	Model	F9KE				
	Degree of filtration	KE - Extra				
	Comp. air connection	3/4 NPT				
	Condensate drain	Automatic				
	Diff. pressure monitoring	Pressure diff. gauge				
60	**Startup for Compressors**	USSTARTUPC	1.000	PC		
	Startup is a Kaeser technician preparing your unit for operation and reviewing proper operation and maintenance. Startup is required to initiate your warranty and does not include installation. Standard warranty: 1 year compressor package, 2 year major components. Details at www.kaeser.com/warranty					
70	**Condensate treatment unit**					
	KCF 25 with Optional Mounting Kit	ANKCF25MTGKT	1.000	PC	585.00	585.00
	Items from 80 to 130 are included in the price					

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Item	Description	Material	QTY	UM	Unit price USD	Total USD
80	**Adapter 3/8"NPT x 3/8"Tube Black**	AN5463K503	1.000	PC		
90	**Condensate treatment unit KCF 25 Condensate Treatment System**	ANKCF25	1.000	PC		
100	**Tubing braided flex. 3/8"ID 10ft length**	AN52375K33	1.000	PC		
110	**Hose clamp 2-ear**	AN6541K39	4.000	PC		
120	**Thread cutting screw 1/4"-20**	AN98024A420	2.000	PC		
130	**KCF 25 Mounting Kit Drawing - TD 1093**	ANKCF25MKDWG	1.000	PC		
140	**Hose Flex 0.75"x12"MPT Metal 232psi**	ANVD-.75	1.000	PC	71.00	71.00
	TOTAL PRICE					**13,633.37**

Terms of payment
Within 30 days
Payment terms are subject to credit approval.

Delivery(Incoterms®2020)
FCA US Shipping Point
If prepay and add shipping is requested the freight charges will be added to the invoice.

Quotation valid until:
04/19/2024

Delivery time
4-6 weeks from order confirmation.
Delivery time is subject to change without notice, please check the availability with your Territory Manager when placing an order.

Contractual basis
Terms and conditions:
Kaeser quotations are offered with Kaeser's standard Terms and Conditions of Sale and Use and Terms and

Conditions of Service. All additional or different terms and conditions must be agreed to by written contract with Kaeser corporate office, Fredericksburg, Virginia. Any modifications made by the recipient to the information provided on this Quote will not be honored. Kaeser's Terms and Conditions are available at www.us.kaeser.com/terms and upon written request.