



# Marine Compressed Air Systems

KAESER's reliable marine compressors  
with SIGMA PROFILE

**MADE  
IN  
GERMANY**

# Marine air systems

## Full compressed air power ahead

KAESER KOMPRESSOREN offers a complete range of rotary screw compressors, blowers and air treatment components specifically designed for marine compressed air use, including application-specific service air, compressed air for nitrogen generation and blower air for wastewater treatment systems on large cruise ships.

KAESER marine products are certified by all of the marine classification societies and are valued as much for their reliability as they are for their energy efficiency and long service life.

### Dependable and durable

Compressed air production is a matter of trust. Above all, this key energy source has to be there when you need it. The outstanding quality of KAESER compressors and rotary blowers provides you with that peace of mind. Strong vertical integration combined with an optimised mix of seasoned experience and creative technical innovation strength stand behind these quality aspirations.

### Energy efficient

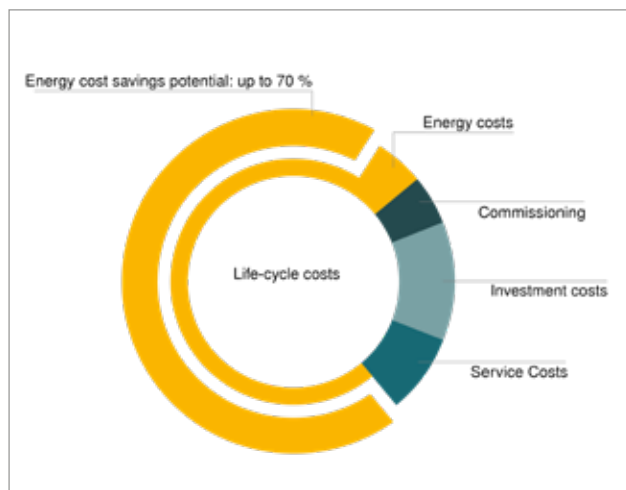
In view of continuously soaring energy prices, it's no surprise that efficient energy usage is becoming an evermore important consideration in today's business environment. KAESER KOMPRESSOREN recognised this very early on, and the name is now synonymous with energy-efficient systems and compressed air solutions. At the heart of every rotary screw compressor lies a premium quality airend equipped with KAESER's renowned SIGMA PROFILE rotors which deliver more air with less energy consumption.

### Tailored solutions

Our extensive range of proven, dependable products comprising compressors, air treatment components and rotary blowers is available for every conceivable application, enabling our trained experts to provide a specially tailored compressed air system solution for any requirement and any operating environment.

### Made in Germany

The reliability, durability and energy efficiency of KAESER products have not come about by chance, but are the result of rigorous development and precision manufacturing. Every airend and blower block is meticulously built in accordance with KAESER's renowned quality standards by highly skilled workers at the company's factories in Coburg and Gera, located in central Germany.



### KAESER life cycle management

Initial purchase price and service costs account for just a small fraction of a compressor's total life-cycle costs – energy costs account for the largest share by far.

We have been committed to keeping your compressed air production costs to a minimum for over 40 years and we place as much emphasis on reducing maintenance and service costs as we do on ensuring maximum compressed air quality and availability.



# Nitrogen when you need it

## Dependable nitrogen generation

With the screw compressor range from 15 – 5100 m<sup>3</sup>/h and a constant pressure up to 14 bar KAESER suits for every application on each ship. The world-wide recognized quality, made in Germany, sets standards. The engineering follows strictly the demands of the marine customers: Compact in dimensions, easy installation and very good access to the maintenance components are provided in each compressor size. Our self-developed Sigma Control ensures a safe operation and at once supervises all relevant parameters.

**KAESER compressors are a long life guarantee for your nitrogen demand.**



### Compact and ready-to-run

KAESER rotary screw compressors are compact, ready-to-run powerhouses. An optional variable speed drive with infinitely variable speed control provides additional flexibility and maintains consistent pressure. A quality refrigeration dryer delivers the dried compressed air necessary for nitrogen generation.



### Certified compressor control

The innovative SIGMA CONTROL compressor controller ensures energy-efficient operation and optimised communication capability – in a choice of over 30 languages. With its integrated Web server, users can access compressor data via Intranet / Internet.



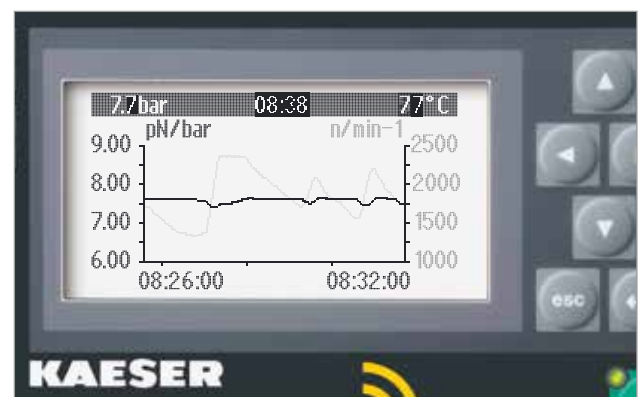


Image: HSD 782  
 Motor power: 360 to 630 kW  
 FAD: 2.590 to 5.110 m³/h  
 Standard pressure: 8 to 14 bar (g)



### Redundancy and energy savings

The efficient SIGMA PROFILE rotors used in HSD series systems double your savings: Two identical, independently controllable rotary screw compressor packages maximise uptime and generate a dependable supply of compressed air and, in turn, nitrogen.



### Consistent pressure...

...for consistent nitrogen delivery. Operating pressure is reliably maintained within  $\pm 0.1$  bar. In turn, the consequent ability to reduce maximum system pressure also reduces energy costs. The relationship between pressure consistency and speed can be viewed directly on the SIGMA CONTROL display.



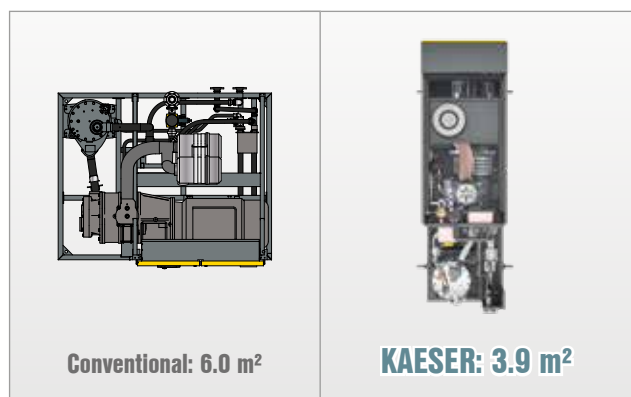
Image: ESD 445  
 Motor power: 200 to 315 kW  
 FAD: 1.420 to 3.030 m³/h  
 Standard pressure: 8 to 14 bar(g)

1m



### Energy saving SIGMA PROFILE

At the heart of every KAESER rotary screw compressor system lies a premium quality airend featuring energy saving SIGMA PROFILE rotors. Operating at low speed, KAESER's airends are equipped with flow-optimised rotors for superior efficiency.



### Compact design

Space on ships is at a premium, which is why KAESER developed these compact powerhouses. They may look small in the machine room, but make no mistake, their performance is second to none.

# Efficient generation

More nitrogen, more savings...

The use of highest efficiency motors, self-developed and produced airends and lowest possible internal pressure losses sum up in a double-digit advantage in efficiency against our competition. Well dimensioned coolers provide a very low compressed air outlet temperature. Oil separation is effected via large oil separator tanks with a long service interval of oil filter and a very low oil carry over in the compressed air. An installed cyclone separator, produced by KAESER and service free, quits to a high extent the humidity in the compressed air. All in all, far less energy is required by a KAESER compressor to produce compressed air of highest quality.



## The future, today: IE4 motors

KAESER is currently the only compressed air systems provider to equip its compressors with super premium efficiency IE4 motors as standard, thereby delivering maximum performance and energy efficiency.



## Integrated centrifugal separator

The newly developed KAESER stainless steel centrifugal separator included in the package removes condensate, thereby reducing the workload of downstream dryers and securing their efficiency.



# Working air

Dependable assistant for every voyage

Working air is required on every ship under the harshest conditions. With the standard working air range of 15 – 750 m<sup>3</sup>/h Kaeser has the solution for every requirement. As option it can be provided with integrated refrigeration dryer and frequency control. Marine certification is of course possible according to all classification companies.

**KAESER will accompany you during the long compressor life as a partner you can count on!**



## Compact and powerful

AIRCENTER systems are compact, all-in-one compressed air packages comprising a KAESER rotary screw compressor, an energy-saving refrigeration dryer and an integrated air receiver. The AIRCENTER SK 22 shown above has a footprint of only approximately one square metre.



## 30 languages: SIGMA CONTROL

The SIGMA CONTROL ensures efficient compressor control. The large display, RFID reader and 30 selectable languages ensure simple communication and maximum security. Multiple interfaces for exceptional flexibility. The SD card slot makes updates quick and easy.



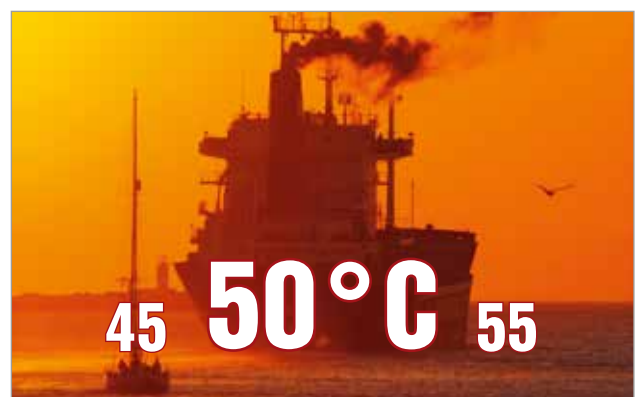


Images: AIRCENTER SK 22 , ASK 28, CSD 105 T SFC, SX 3 T  
 Motor power: 5.5 to 132 kW  
 FAD: 27 to 720 m³/h  
 Standard pressures: 8 to 14 bar(g)



### Excellent maintenance access

Excellent accessibility to all maintenance and service-relevant components minimises service effort and therefore costs. KAESER KOMPRESSOREN's newly developed centrifugal separator with electronic condensate drain is fitted as standard on ASD-HSD series compressors.



### Reliability you can count on

KAESER rotary screw compressors are highly resilient when it comes to extreme operating environments. Even in hot machine room conditions they continue to operate efficiently and dependably. Models suited to ambient temperatures up to 50 and 55 °C (standard: +45 °C) are available.



Image source: shutterstock.de

# Low pressure air

Rotary blowers with OMEGA PROFILE rotors for marine applications

## Clarify, trim, convey

Supply and disposal facilities are required wherever there are people – even if temporarily. That is why appropriately dimensioned wastewater treatment systems are essential on cruise ships where crew and passengers total into the thousands.

KAESER KOMPRESSOREN offers durable, energy-efficient, compact rotary blowers in various sizes and ratings to deliver a dependable supply of oxygen to the bacteria cultures in on-board clarifiers.

Rotary blowers are also used in anti-heeling systems which maintain a ship's trim during loading and unloading. KAESER blower blocks feature high precision 5f 21 spur-ground timing gears with minimal backlash.

They play a major role in contributing to the block's outstanding volumetric efficiency. Because spur-ground gears do not generate axial forces, cylinder roller bearings can be used, a feature unique to KAESER blower blocks.

Because cylinder roller bearings have ten times the dynamic loading capacity of self-aligning bearings, their service life is significantly longer (100,000 hours). The result: Maximum system availability and minimal maintenance costs. Moreover, Q 2.5 rotor balancing, as with turbine rotors, results in quieter operation, extended service life and reduced maintenance.



## Long-term dependability

Renowned throughout the world for their quality design, components and manufacture, KAESER products provide long-term machine and process availability you can count on. Quality features include durable rotor bearings, dependable power transmission, specifically dimensioned drive motors, torsion-free sound enclosures with effective cooling air flow, SIGMA CONTROL machine controller for efficient and dependable operation – there are too many to list!



## Dependable packages

Performing in all climatic conditions and with years of proven dependability, KAESER rotary blowers provide quality water treatment wherever you are.



## Robust, durable blower blocks

Precision manufacture, three-lobe rotors, spur-ground gears and cylinder roller bearings: These are just some of the key factors that ensure the efficiency and durability of KAESER rotary blower blocks.

# Fish farming air

## Efficient feeding systems

Operators of fish farms, whether on-shore or off-shore, rely on a reliable supply of blower and / or compressed air in order to ensure continuous, correctly dosed food distribution. This is another area where the many advantages of KAESER products score points. KAESER's comprehensive range of rotary screw compressors and blowers means that the perfect system, or combination of systems, can be precisely tailored to suit any need. All KAESER blowers and compressors are designed and built to provide maximum durability and reliability. Moreover, impressive energy efficiency helps keep the largest part of total system costs to a minimum, whilst low maintenance requirement reduces costs even further.



### Ready-to-run

Ready-to-run COMPACT blowers with OMEGA PROFILE rotors include all necessary sensors, a star-delta starter (or OFC frequency converter) and are CE and EMC certified. These systems minimise work and costs required for design, installation, certification, documentation and commissioning.

### Efficient rotary screw compressors

KAESER rotary screw compressors and treatment components deliver the right amount of compressed air at the required quality to suit any need. This is also achieved economically thanks to impressive energy efficiency.



### Versatile rotary blowers

A suitable KAESER rotary blower is available for every conceivable requirement, whether it be a stand-alone unit or blower station, ready-to-connect package or a unit to be incorporated into a system with a master controller.

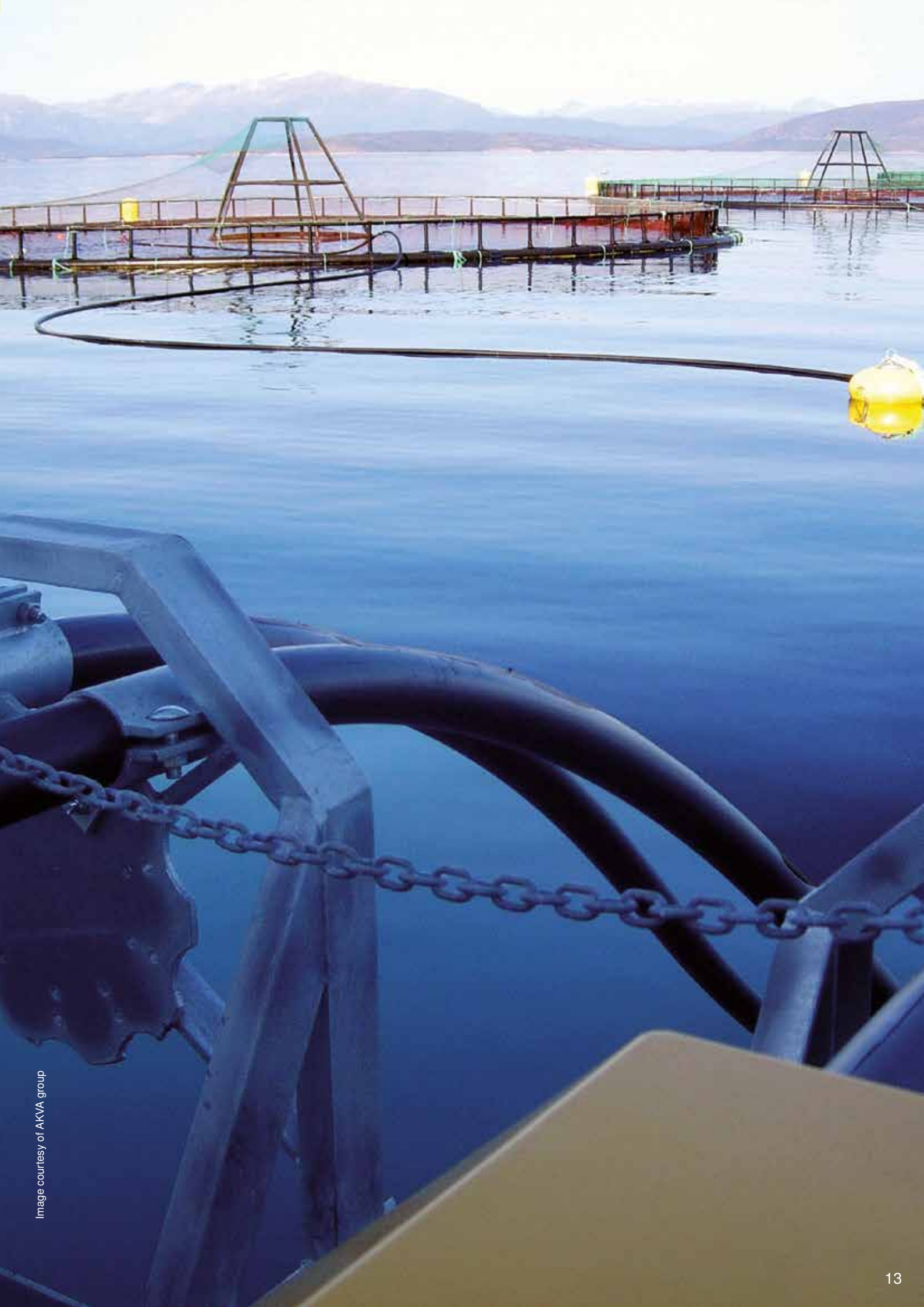


Image courtesy of AKVA group



# Sea-land interface

## A smooth transition

Compressed air is the first choice when it comes to moving bulk goods. Whether loading or purging, rotary blowers from KAESER KOMPRESSOREN are reliable, long-term partners for energy efficient air supply. "Built for a lifetime" also applies to all land-based KAESER rotary screw compressors no matter what the application. Specialised marine use includes keeping port and fjord entrances free from ice during the winter months for example.



### Moving bulk goods

KAESER KOMPRESSOREN offers a wide range of rotary blower systems and packages of various capacities for conveying bulk goods. According to requirement, the blower packages include completely integrated power electronics and are delivered ready for connection.



### For ice-free ports

Depending on the specific situation, rotary screw compressors or blowers are used to keep port entrances or navigation channels ice-free. If they are made by KAESER KOMPRESSOREN, the same thing applies in both cases: more air, more savings.



### Sound protection for Dolphin & Co.

KAESER portable compressors to provide air bubble curtains installed on wind turbine platform construction vessels to protect whales and dolphins from noise caused by the sound of the battering rams.

# Service everywhere

KAESER Service is just a moment away – no matter where you are. Globally networked and coordinated centrally from Coburg, qualified KAESER service specialists are available if needed at the next port of call as soon as the ship has docked.

14 specialised marine hubs around the globe are available any time support is needed. KAESER service engineers, service men and spare parts are there whenever and wherever required, to guarantee the safe operation at any place in the world.

A computerized parts logistics, constant availability of original KAESER spare parts and a world-wide network of KAESER subsidiaries ensure the optimal spare part disposal.

Complete service kits for regular maintenance on board are available.

● Marine Stock/Service Hubs

## Integrated process control

Global networking and data communications mean that diagnostics can be carried out remotely and therefore enable on-demand maintenance of KAESER products. This leads to increased availability and maximises the overall cost-effectiveness of your compressed air supply.





## Risk-free genuine KAESER spares

KAESER's service personnel use only genuine maintenance and spare parts with proven long-term quality to ensure functional reliability and long life. Only KAESER original parts guarantee tested quality and optimum air supply performance.



# Rotary screw compressors

## Design and features



Image: T SFC Version

- (1) Intake filter
- (2) Inlet valve
- (3) Airend
- (4) Drive motor
- (5) Fluid separator tank
- (6) Compressed air aftercooler
- (7) Centrifugal separator
- (8) Condensate drain (ECO DRAIN)
- (9) Fluid cooler
- (10) Fluid filter
- (11) Radial fan
- (12) Integrated refrigeration dryer
- (13) Switching cabinet with integrated SFC frequency converter

## Complete unit

Ready-to-run, fully automatic, vibration-isolated, suitable for ambient temperatures up to +55 °C. Service-friendly, compact design. Optionally available with integrated refrigeration dryer and / or integrated frequency converter. Integrated centrifugal separator with condensate drain for pre-separation of air moisture (from ASD).

## Airend

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

## Fluid and air flow

Dry-air filter with pre-separation, inlet silencer, pneumatic inlet and vent valves, cooling-fluid separator reservoir with three-stage separator system, pressure release valve, minimum pressure check valve, thermostatic valve and fluid filter in cooling fluid system, plate-type or shell and tube heat exchanger for fluid and compressed air cooling, air-cooled to ASD series / air-, water- and seawater-cooling available from BSD (45 kW) series.

## Electrical components

PREMIUM EFFICIENCY IE3 and SUPER PREMIUM EFFICIENCY IE 4 motors, special marine version. Control cabinet IP 54 enclosed, control cabinet ventilation, automatic star-delta contactor configuration, overload relay, control transformer. SFC version also equipped with frequency converter.

## SIGMA CONTROL

Marine-certified compressor control system. "Traffic light" LED indicators show operational status at a glance, plain text display, 30 selectable languages, durable keys with icons, fully automated monitoring and control. Selection of multiple control modes as standard. Interfaces: Ethernet; additional optional communication modules for: Profibus DP, Modbus, Profinet and Devicenet. SD-card slot for datalogging and updates. RFID reader, web server.

# Technical Specifications

Standard version (440 V / 60 Hz - 3 Ph)

Model	Max. operating pressure	FAD *) Complete unit at max. working pressure		Rated motor power	Dimensions W x D x H	Air connection	Power supply		Cooling		Weight
	bar	m³/h	m³/min	kW	mm	m³/min	440 V / 60 Hz / 3 Ph	380 V / 50 Hz / 3 Ph	Air	Water	kg
<b>SX 4</b>	8 14	27 15	0.45 0.25	3	590 x 632 x 970	G 3/4	●	○	●	–	140
<b>SM 10</b>	8 14	55 34	0.93 0.56	5.5	630 x 790 x 1100	G 3/4	●	○	●	–	220
<b>SM 13</b>	8 14	78 47	1.30 0.79	7.5	630 x 790 x 1100	G 3/4	●	○	●	–	220
<b>SM 16</b>	8 14	95 61	1.58 1.02	9	630 x 790 x 1100	G 3/4	●	○	●	–	240
<b>SK 22</b>	8 14	120 79	2.00 1.31	11	750 x 895 x 1260	G 1	●	○	●	–	312
<b>SK 25</b>	8 14	150 107	2.50 1.78	15	750 x 895 x 1260	G 1	●	○	●	–	320
<b>ASK 28</b>	8 14	169 111	2.81 1.85	15	800 x 1110 x 1530	G 1 1/4	●	○	●	–	485
<b>ASK 34</b>	8 14	205 145	3.41 2.41	18,5	800 x 1110 x 1530	G 1 1/4	●	○	●	–	505
<b>ASK 40</b>	8 14	241 171	4.01 2.85	22	800 x 1110 x 1530	G 1 1/4	●	○	●	–	525
<b>ASD 50</b>	8 14	277 182	4.62 3.04	25	1460 x 900 x 1530	G 1 1/4	●	○	●	–	685
<b>ASD 60</b>	8 14	325 211	5.42 3.52	30	1460 x 900 x 1530	G 1 1/4	●	○	●	–	700
<b>BSD 75</b>	8 14	401 269	6.69 4.48	37	1590 x 1090 x 1750	G 1 1/2	●	○	○	●	940
<b>BSD 83</b>	8 14	491 317	8.19 5.29	45	1590 x 1090 x 1700	G 1 1/2	●	○	○	●	970
<b>CSD 105</b>	8 14	587 390	9.79 6.50	55	1760 x 1110 x 1935	G 2	●	○	○	●	1250
<b>CSD 125</b>	8 14	709 470	11.82 7.84	75	1760 x 1110 x 1935	G 2	●	○	○	●	1280
<b>CSDX 140</b>	8 14	843 570	14.04 9.50	75	2110 x 1290 x 1950	G 2	●	○	○	●	1740
<b>CSDX 165</b>	8 14	963 684	16.05 11.40	90	2110 x 1290 x 1950	G 2	●	○	○	●	1835
<b>DSD 205</b>	8	1222	20.36	110	3080 x 880 x 2000 **	DN 65 / PN 16	●	○	○	●	3000
<b>DSD 240</b>	8 14	1505 938	25.08 15.64	132	3080 x 880 x 2000 **	DN 65 / PN 16	●	○	○	●	3200 3300
<b>DSDX 305</b>	8	1794	29.90	160	3080 x 880 x 2000 **	DN 65 / PN 16	●	○	○	●	3620
<b>ESD 375</b>	14	1420	23.67	200	3540 x 1100 x 2250 **	DN 80 / PN 16	●	○	–	●	4300
<b>ESD 445</b>	8 8 14 14 14	2556 3031 1716 2080 2478	42.60 50.52 28.60 34.67 41.03	250 315 250 250 315	3540 x 1100 x 2250	DN 80 / PN 16	●	○	–	●	4400 4900 4250 4300 4350
<b>FSD 575</b>	8	3456	57.60	315							6000
<b>HSD 662</b>	8	3942	65.70	160 200							7900
<b>HSD 722</b>	8 14	4296 2840	71.60 47.30	200 200							8500
<b>HSD 782</b>	8 14	4704 3140	78.40 52.30	250 200							8600
<b>HSD 842</b>	8 14 14 14 14 14	5112 3440 3796 4152 4554 4968	85.20 57.33 63.26 69.25 75.90 82.80	250 200 250 250 315 315	3660 x 2000 x 2250	DN 150 / PN 16	●	○	–	●	8500 8700 8700 8800 8800 8900

\*) FAD complete system as per ISO 1217 : 2009, Annex C: absolute inlet pressure 1 bar (a), cooling- and air inlet temperature 20 °C

\*\*) Water-cooled version

● Standard ○ Option – Not available

# Technical Specifications

SFC – Version with variable speed drive (440 V / 60 Hz - 3 Ph)

Model	Max. operating pressure	FAD *) Complete unit at max. working pressure		Rated motor power	Dimensions W x D x H  mm	Air connection  m³/min	Power supply		Cooling		Weight  kg
	bar	m³/h	m³/min				440 V / 60 Hz / 3 Ph	380 V / 50 Hz / 3 Ph	Air	Water	
<b>SK 22 SFC</b>	8 14	37-119 33-82	0.6-2.0 0.6-1.4	11	750 x 895 x 1260	G 1	●	○	●	–	330
<b>SK 25 SFC</b>	8 14	48-157 49-115	0.9-3.3 0.8-1.9	15	750 x 895 x 1260	G 1	●	○	●	–	340
<b>ASK 34 SFC</b>	8 14	56-200 50-144	0.9-3.3 0.8-2.4	18.5	800 x 1110 x 1530	G 1 1/4	●	○	●	–	530
<b>ASK 40 SFC</b>	8 14	56-235 50-174	0.9-3.9 0.8-2.9	22	800 x 1110 x 1530	G 1 1/4	●	○	●	–	550
<b>ASD 50 SFC</b>	8 13	63-287 55-214	1.1-4.8 0.9-3.6	25	1540 x 900 x 1530	G 1 1/4	●	○	●	–	705
<b>ASD 60 SFC</b>	8 14	75-336 54-221	1.25-5.6 0.9-3.7	30	1540 x 900 x 1530	G 1 1/4	●	○	●	–	765
<b>BSD 75 SFC</b>	8 14	101-456 68-326	1.7-7.6 1.1-5.4	37	1665 x 1090 x 1700	G 1 1/2	●	○	○	●	1080
<b>CSD 85 SFC</b>	8 14	116-482 64-344	2.0-8.0 1.1-5.7	45	1760 x 1110 x 1935	G 2	●	○	○	●	1220
<b>CSD 105 SFC</b>	8 14	130-583 79-411	2.2-9.7 1.3-6.9	55	1760 x 1110 x 1935	G 2	●	○	○	●	1340
<b>CSD 125 SFC</b>	8 14	170-742 105-530	2.8-12.4 1.8-8.8	75	1760 x 1110 x 1935	G 2	●	○	○	●	1360
<b>CSDX 140 SFC</b>	8 14	202-807 111-585	3.4-13.5 1.9-9.8	75	2110 x 1290 x 1950	G 2	●	○	○	●	1758
<b>CSDX 165 SFC</b>	8 14	229-978 159-708	3.8-16.3 2.7-11.8	90	2110 x 1290 x 1950	G 2	●	○	○	●	1975
<b>DSD 205 SFC</b>	8 14	264-1269 294-918	4.4-21.0 4.9-15.3	110	2690 x 1730 x 2150 **	DN 65 / PN 16	●	○	○	●	3660
<b>DSD 240 SFC</b>	8 14	332-1442 293-999	5.53-24.03 4.89-16.66	132	2690 x 1730 x 2150 **	DN 65 / PN 16	●	○	○	●	3800
<b>DSDX 305 SFC</b>	8 14	409-1828 304-1300	6.81-30.64 5.1-21.67	160	2940 x 1910 x 2140 **	DN 80 / PN 16	●	○	○	●	4400
<b>ESD 375 SFC</b>	8 14	512-2172 378-1562	8.5-36.2 6.3-26.04	200	3200 x 2030 x 2140	DN 125 / PN 16	●	○	○	●	5705
<b>ESD 445 SFC</b>	8 14	633-2526 458-1822	10.55-42.10 7.63-30.37	250	3200 x 2030 x 2140	DN 125 / PN 16	●	○	○	●	5725
<b>FSD 575 SFC</b>	8 14	798-3606 684-2610	13.3-60.1 11.4-43.5	315	3240 x 2145 x 2410	DN 125 / PN 16	●	○	○	●	7510
<b>HSD 782 SFC</b>	8	707-4448	11.78-74.13	250 / 160	4370 x 2145 x 2250	DN 150 / PN 16	●	○	–	●	9450
<b>HSD 842 SFC</b>	8 14	707-5154 464-3677	11.78-85.9 7.73-61.28	315 / 200 250 / 288	4370 x 2145 x 2250	DN 150 / PN 16	●	○	–	●	9500

\*) FAD complete system as per ISO 1217 : 2009, Annex C: absolute inlet pressure 1 bar (a), cooling- and air inlet temperature 20 °C

\*\*) Water-cooled version

● Standard ○ Option – Not available

# Technical Specifications

T – version with integrated refrigeration dryer (refrigerant R 134a) (440 V / 60 Hz - 3 Ph)

Model	Max. operating pressure	FAD *) Complete unit at max. working pressure		Rated motor power	Dryer power consumption	Pressure dew point	Dimensions W x D x H	Air connection	Power supply		Cooling		Weight
	bar	m³/h	m³/min	kW	kW	°C	mm	m³/min	440 V / 60 Hz / 3 Ph	380 V / 50 Hz / 3 Ph	Air	Water	kg
<b>SM 10 T</b>	8	55	0.92	5.5	0.54	3	630 x 1090 x 1100	G 3/4	●	○	●	–	295
<b>SM 13 T</b>	8	78	1.30	7.5	0.54	3	630 x 1090 x 1100	G 3/4	●	○	●	–	315
<b>SM 16 T</b>	8	95	1.58	9	0.54	3	630 x 1090 x 1100	G 3/4	●	○	●	–	315
<b>SK 22 T</b>	8	120	2.00	11	0.8	3	750 x 1240 x 1260	G 1	●	○	●	–	387
<b>SK 25 T</b>	8	150	2.50	15	0.8	3	750 x 1240 x 1260	G 1	●	○	●	–	395
<b>ASK 28 T</b>	8	169	2.81	15	1.1	3	800 x 1460 x 1530	G 1	●	○	●	–	580
<b>ASK 34 T</b>	8	205	3.41	18.5	1.1	3	800 x 1460 x 1530	G 1	●	○	●	–	600
<b>ASK 40 T</b>	8	241	4.01	22	1.64	3	800 x 1460 x 1530	G 1 1/4	●	○	●	–	620
<b>ASD 50 T</b>	8	277	4.62	25	1.64	3	1770 x 900 x 1530	G 1 1/4	●	○	●	–	760
<b>ASD 60 T</b>	8	325	5.42	30	1.64	3	1770 x 900 x 1530	G 1 1/4	●	○	●	–	815
<b>BSD 75 T</b>	8	401	6.69	37	2.1	3	1990 x 1090 x 1700	G 1 1/2	●	○	○	●	1065
<b>BSD 83 T</b>	8	491	8.19	45	2.1	3	1990 x 1090 x 1700	G 1 1/2	●	○	○	●	1085
<b>CSD 105 T</b>	8	587	9.79	55	2	3 **	2160 x 1110 x 1935	G 2	●	○	○	●	1420
<b>CSD 125 T</b>	8	709	11.82	75	2.8	3 **	2160 x 1110 x 1935	G 2	●	○	○	●	1480
<b>CSDX 140 T</b>	8	843	14.04	75	3.2	3 **	2510 x 1290 x 1950	G 2	●	○	○	●	2005
<b>CSDX 165 T</b>	8	936	16.05	90	3.2	3 **	2510 x 1290 x 1950	G 2	●	○	○	●	2100
<b>DSD 205 T</b>	8	1222	20.36	110	4.4	3 **	2750 x 1730 x 2150	DN 65 / PN 16	●	○	○	●	3200
<b>DSD 240 T</b>	8	1505	25.08	132	4.4	3 **	2750 x 1730 x 2150	DN 65 / PN 16	●	○	○	●	3500

\*) FAD complete system as per ISO 1217 : 2009, Annex C: absolute inlet pressure 1 bar (a), cooling- and air inlet temperature 20 °C

\*\*) Dryer water-cooled

\*\*) Air-cooled dryer pressure dew point with T<sub>a</sub>=20 °C and 30% relative humidity; water-cooled dryer pressure dew point with T<sub>a</sub>=45 °C; 55% relative humidity (cooling water inlet 30 °C)

● Standard ○ Option – Not available

# Refrigeration dryers

Design and features

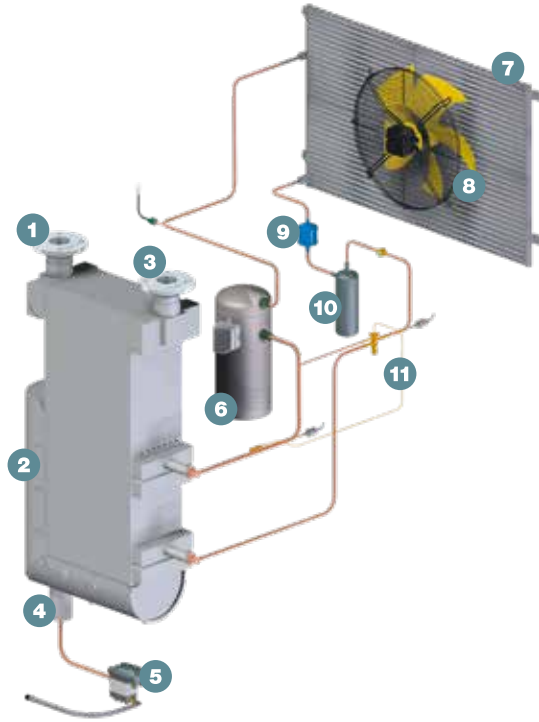


Image: SECOTEC TE 142

- (1) Compressed air inlet
- (2) SECOPACK LS heat exchanger system
- (3) Compressed air outlet
- (4) Condensate outlet
- (5) ECO-DRAIN condensate drain
- (6) Refrigerant compressor
- (7) Micro-channel condenser
- (8) Fan
- (9) Filter dryer
- (10) Refrigerant receiver
- (11) Expansion valve

## General design

Compact tower construction with removable side panels, all materials used are CFC-free; all cold components are insulated; the built-in control cabinet is enclosure-protected to IP 54, air to air heat exchanger, condensate separation system, automatic condensate drain.

## Refrigerant circuit

Hermetically-sealed refrigerant circuit features large heat-exchanger surface area and service valves; energy saving control.

# Screw Blowers

Design and features



Image: EBS 380 STC

- (1) SIGMA CONTROL control system
- (2) STC or SFC control cabinet
- (3) Intake silencer with filter
- (4) SIGMA B blower air end
- (5) V-belt
- (6) IE3 premium efficiency motor
- (7) Compressed air silencer
- (8) Pressure valve
- (9) Unloaded-start valve (optional)
- (10) Check valve (optional)
- (11) Expansion joint
- (12) Fan sound enclosure

## Plug and play

The turnkey blowers not only come complete with sensors, STC/OFC, SIGMA CONTROL and emergency stop switch, but are also ready-filled with oil and are fully certified. This significantly reduces the work and costs required for planning, installation, certification, documentation and commissioning.

## Exceptionally compact

Comprising a blower air end with drive, loss-free power transmission, silencers, sensors, control and electrical equipment, such as e.g. a frequency converter or star-delta, this compact powerhouse has a footprint of only 1.65 square metres.

# The world is our home

As one of the world's largest compressed air system providers and compressor manufacturers, KAESER KOMPRESSOREN is represented throughout the world by a comprehensive network of branches, subsidiary companies and authorised partners in over 140 countries.

With innovative products and services, KAESER KOMPRESSOREN's experienced consultants and engineers help customers to enhance their competitive edge by working in close partnership to develop progressive system concepts that continuously push the boundaries of performance and compressed air efficiency.

Moreover, the decades of knowledge and expertise from this industry-leading system provider are made available to each and every customer via the KAESER group's global computer network.

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



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