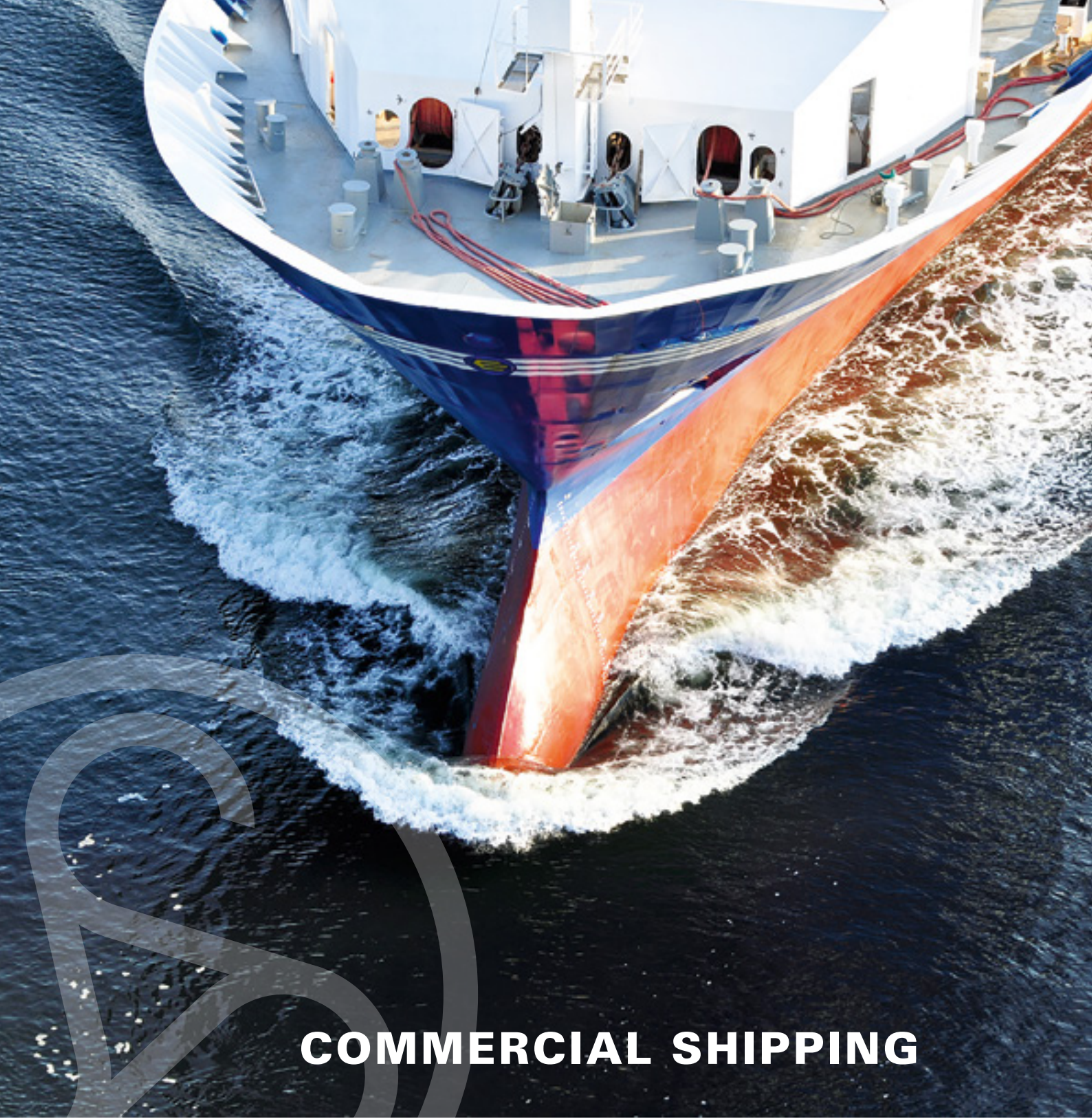


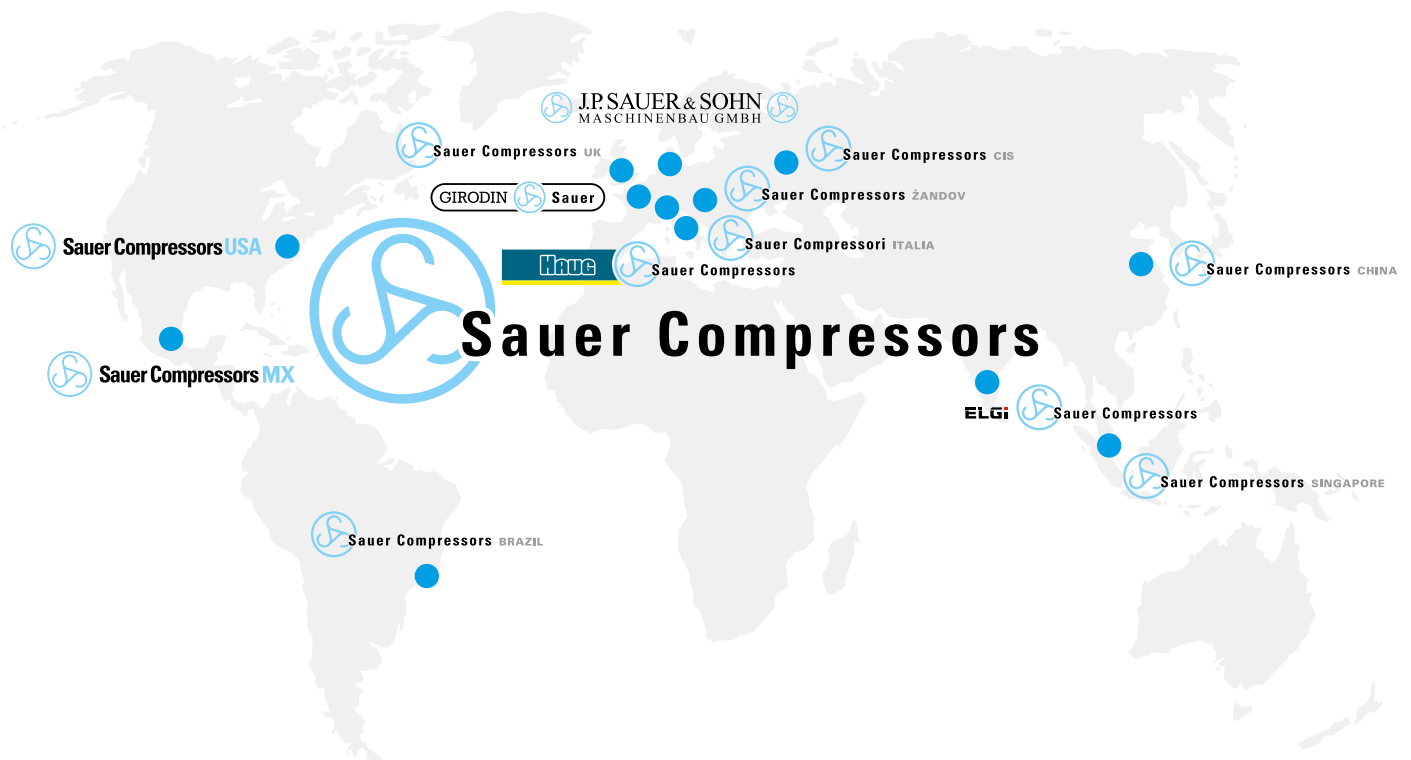
Sauer Compressors



COMMERCIAL SHIPPING

Dependable up to 500 bar – anywhere, anytime, anygas.

We are close – anywhere in the world.



For your local contact please visit our website
www.sauercompressors.com

International commercial shipping with its stringent requirements for quality and reliability is Sauer's traditional area of activity. Our starting- and working-air compressors have proven their reliability in this demanding market. They are among the most modern and most economic compressors available today.

In particular the low maintenance 3-stage air-cooled starting-air compressors have established themselves as benchmark for modern and cost effective starting-air compressors due to

- **less temperature**
- **less maintenance cost**
- **less installation cost**

As Sauer Compressors' latest machine exclusively developed for commercial shipping, the Levante series has quickly established itself as a go-to for the maritime industry. In its latest incarnation, the 3-stage air-cooled compressor comes with a fill-up capacity of up to 460 m³/h at a pressure of 30 barg. Due to its robust and compact construction, the low-maintenance compressor can fit into any engine room without taking up much valuable space. To improve inter-cooling efficiency, the air flow has been optimised by installing the newly developed and patented Sauer CubeCooler between the motor and the compressor – enabling the recooling temperatures to be reduced by a third. For maximum usability and comfort, the Levante comes with an integrated gauge panel and an operator-friendly HMI.

The electronic compressor control MLC 4.0 presents a new high-end addition to Sauer Compressors' range of controls. With its 7" touchscreen and its intuitive operation it provides excellent usability. Given its easy integration into higher-level systems, the new control enables the high connectivity required to meet the demands of tomorrow's vessels.

Our product range

3-stage air-cooled!



//// *Passat*

3-stage air-cooled starting-air compressors up to 270 m³/h

page 4



//// *L3vante*

3-stage air-cooled starting-air compressors up to 460 m³/h

page 6



Your advantages by using 3-stage air-cooled compressors

page 8



//// *Mistral*

2-stage air-cooled starting-air compressors up to 80 m³/h

page 10



//// *Typhoon*

2-stage water-cooled starting-air compressors up to 440 m³/h

page 12



//// *SC series*

Control- and working-air compressors up to 700 m³/h

page 14



//// *SC series*

SCR compressors for NO_x reduction

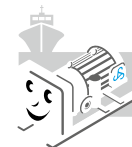
page 16



//// *Controls*

Compressor controls and accessories

page 17



Sauer Service for Commercial Shipping

page 19



3-stage air-cooled!

Passat

3-stage air-cooled starting-air compressor

The 3-stage air-cooled compressors of the PASSAT series feature among the best-sellers in Sauer's product range. By combining 3-stage compression with air cooling, they offer low compression temperatures together with unmatched reliability, efficiency and ease of maintenance.

High performance valves for long maintenance intervals

Compression in 3 cylinders arranged in W-shape ensure lowest vibration

Fan wheel directly installed on the crankshaft; intrinsic protection of rotating parts

Integrated condensate filter after the 2nd stage

Reliable pressure oil lubrication by a directly driven gearwheel pump, which can be accessed from the outside

Monitoring: Safety valves, traditional thermometer, and pressure gauges for all stages. Monitoring of lubrication oil pressure and outlet temperature of the compressed air are standard features

Integrated flexible coupling, safe and low-maintenance

Attached final separator with automatic drainage and flexible mounting is included in the standard scope of delivery

PASSAT WP 81 L Marine
PASSAT WP 101 L Marine



Seavision

2 x Passat WP 271 L Marine | 1 x Passat WP 121 L Marine | 2 x SC 31



M/T Amazon Fortitude

2 x Passat WP 151 L Marine | 1 x Mistral WP 226 L Marine

Technical data

PASSAT series | Technical data for a final pressure of 30 barg

Type	Final pressure barg	Stages	Cylinder	Speed rpm	Charging capacity m ³ /h	Power consumption kW	Heat dissipation kJ/sec	Weight kg	Length mm	Width mm	Height mm
WP 81 L Marine	30	3	3	1,180	63	13.0	20	440	1,345	965	900
				1,480	80	15.6	21				
				1,780	95	19.6	24				
WP 101 L Marine	30	3	3	1,180	80	16.0	18	440	1,383	965	900
				1,480	100	20.0	23				
				1,780	120	24.4	28				
WP 121 L Marine	30	3	3	1,180	100	19.0	22	655	1,565	945	955
				1,480	125	25.3	29				
				1,780	150	31.1	36				
WP 151 L Marine	30	3	3	1,180	116	23.0	27	700	1,575	945	955
				1,480	146	30.0	35				
				1,780	175	38.0	44				
WP 271 L Marine	30	3	4	1,180	180	34.5	39	940	1,765	1,068	1,097
				1,480	224	43.0	48				
				1,780	270	52.0	58				

Performance data with 5% tolerance, referred to 20 °C and an air pressure of 1,013 mbar. Charging capacity according to ship building regulations.

Performance data on final pressure deviating from 30 barg upon request. Weights and dimensions for standard units with three-phase A. C. motor, IP 54, and flexible mounting.



3-stage air-cooled!

////// **L3vante**

The next generation

BIGGER

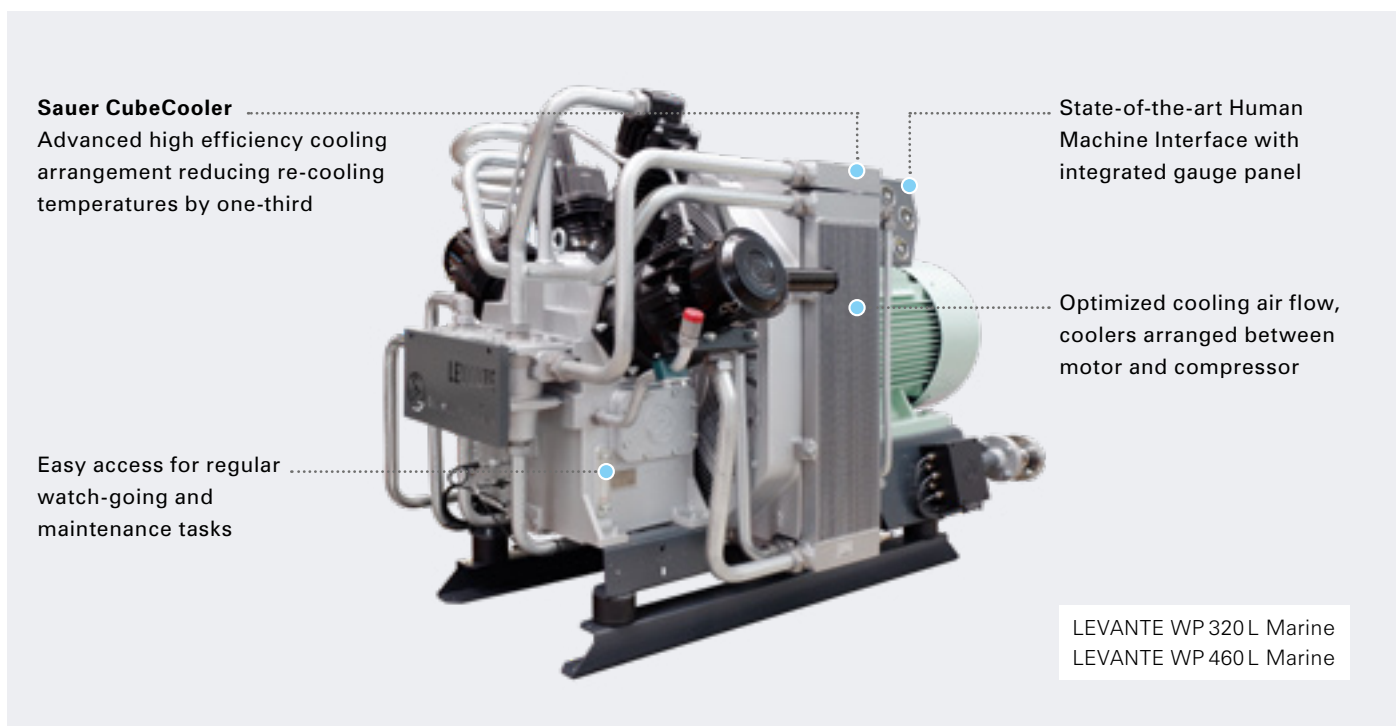
- Extended capacity range from 360 to 460 m³/h
- Enhanced safety
- Improved cost benefit due to more simple engine room outfitting

BETTER

- Advanced high efficiency cooling arrangement
- Lowest vibration due to superior mass balance
- State-of-the-art Human Machine Interface

BUT STILL BASIC

- Classical, robust design of running gear and technical layout
- Fits into every engine room with a minimum of interfaces
- Easy access, easy inspection and maintenance-friendly design
- All known benefits of Sauer Easy Care available



CMA CGM Benjamin Franklin

4 x Passat WP 311 L Marine



MSC Gülsün – the world's largest container ship with 23,756 TEU

4 x Levante WP 320 L Marine



Technical data

LEVANTE series | Technical data for a final pressure of 30 barg

Type	Final pressure barg	Stages	Cylinder	Speed rpm	Charging capacity m ³ /h	Power consumption kW	Heat dissipation kJ/sec	Weight kg	Length mm	Width mm	Height mm
WP 180 L Marine	40	3	3	980 1,180	150 180	31.0 37.0	32 39	950	1,900	1,400	1,500
WP 275 L Marine	40	3	3	1,480 1,780	220 265	51.0 60.0	54 63	950	1,900	1,400	1,500
WP 320 L Marine	40	3	4	980 1,180	279 330	45.0 57.0	47 60	1,350	1,900	1,400	1,500
WP 460 L Marine	40	3	4	1,480 1,780	400 460	71.0 90.0	81 94	1,400	1,900	1,400	1,500

Performance data with 5% tolerance, referred to 20 °C and an air pressure of 1,013 mbar. Charging capacity according to ship building regulations. Performance data on final pressure deviating from 30 barg upon request. Weights and dimensions for standard units with three-phase A. C. motor, IP 54, and flexible mounting.



3-stage air-cooled!

Advantages of Sauer 3-stage air-cooled compressors

Today the Sauer Passat 3-stage air-cooled design is the leading starting air compressor in the world of shipping. Used by all major shipyards and shipowners as a standard – well known for its high quality and competitiveness.

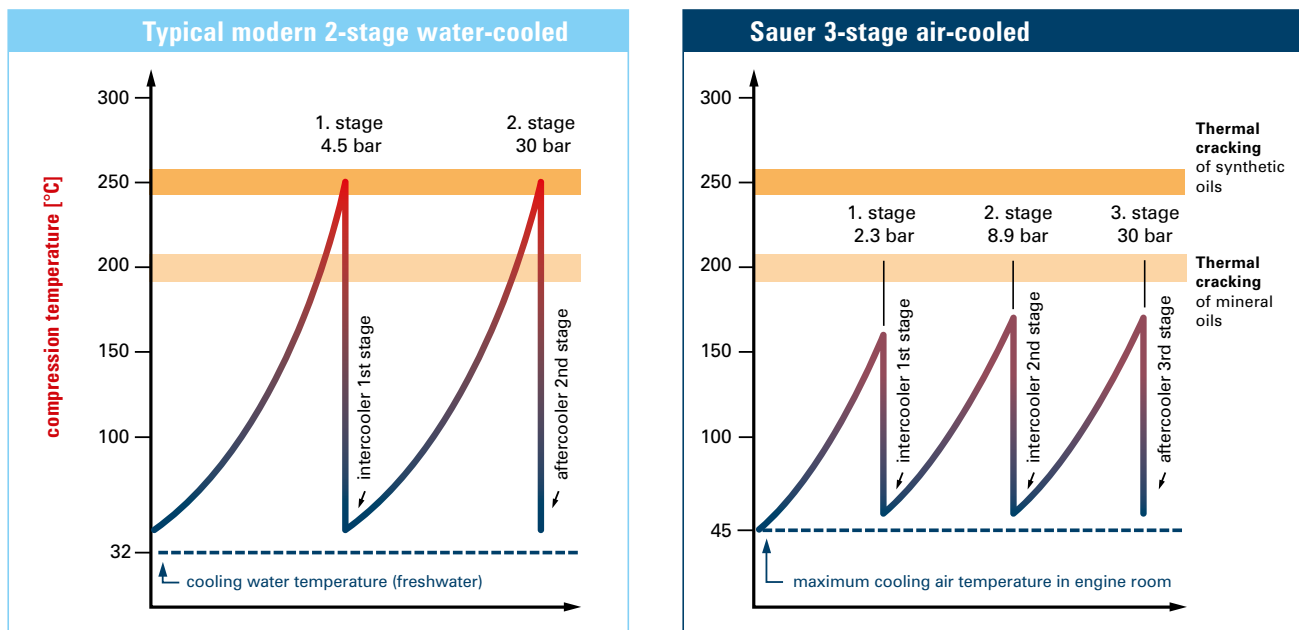
Less temperature due to lower stage pressure ratio!

In former times air-cooled compressors were limited to 80 m³/h due to the high compression temperatures (above 250°C). With the development of the 3-stage air-cooled compressors more than 30 years ago, a new generation of compressors appeared in the market. The 3 stages are the reason for the lower temperatures (less than 170°C) and make satisfactory cooling by air possible.

Due to the laws of physics air is heated during compression. The final compression temperature depends on the compression-ratio in each stage. By dividing up the total compression-ratio into 3 stages, lower compression temperatures in the cylinders and valves can be achieved compared to 2-stage water-cooled compressors.

Sauer 3-stage air-cooled compressors – standard for international shipping.

Temperature rise of air during compression



Temperatures rise so far during compression. Temperatures calculated based on the laws of physics and technical regulations. Above mentioned temperatures occur in the cylinders/valves and cannot be compared with temperatures displayed on compressors by standard thermometers.

//// Passat



//// Lovante



3-stage air-cooled compressors

Less maintenance cost due to longer maintenance intervals!

Due to the lower compression temperatures the thermal cracking of the lubricating oil will not be reached and consequently the compressor valves will not be soiled by oil coke. Thus Sauer Compressors can guarantee maintenance intervals up to 4,000 hours for the valves which reduce the maintenance costs compared to 2-stage water-cooled compressors. The reduced compression temperatures allow the use of standard mineral oil SAE 30 as it is used e.g. in 2- and 4-stroke diesel engines. The use of expensive synthetic oil is not required for proper performance.

Sauer 3-stage air-cooled compressors – for lowest operation costs of your ship.

- Extended life time of the valves (up to 4,000 hours) with less maintenance costs due to lowest compression temperatures
- Reduced crew costs due to easy maintenance
- Designed for use with standard mineral oil SAE30
- No corrosion or water leakages
- Operation of air-cooled compressors independent from central CW system, as emergency compressor



3rd stage air-cooled valve after 2,500 hours



2nd stage water-cooled valve after 800 hours

Less installation cost due to no cooling water system!

By abolishing the cooling water circuit with its flanges, packings, fittings and cooling water pumps, a higher reliability and an easier control and supervision of the compressors is achieved.

The simple way of cooling is also the reason for more and more shipyards to prefer air-cooled compressors. In addition to the fact that an auxiliary with less interfaces is installed, the weight and space is smaller thus enabling lighter and less expensive foundations. In total, cost savings of up to 7,500 USD per ship are possible during installation. The ventilation of the engine room has not to be increased, the compressors just need to be taken into consideration in the arrangement of the ventilation.

Sauer 3-stage air-cooled compressors – the most competitive option also for shipyard and shipowner.

- Available from 60 up to 460 m³/h capacity
- Final pressure up to 45 barg
- More than 15,000 units sold since 1970
- Suitable for continuous running 24/7
- Separator mounted after each stage
- Reliable and safe operation up to 60°C

Fits in every engine room.

No additional air duct

No cooling water



Self-regulating cooling

Any place

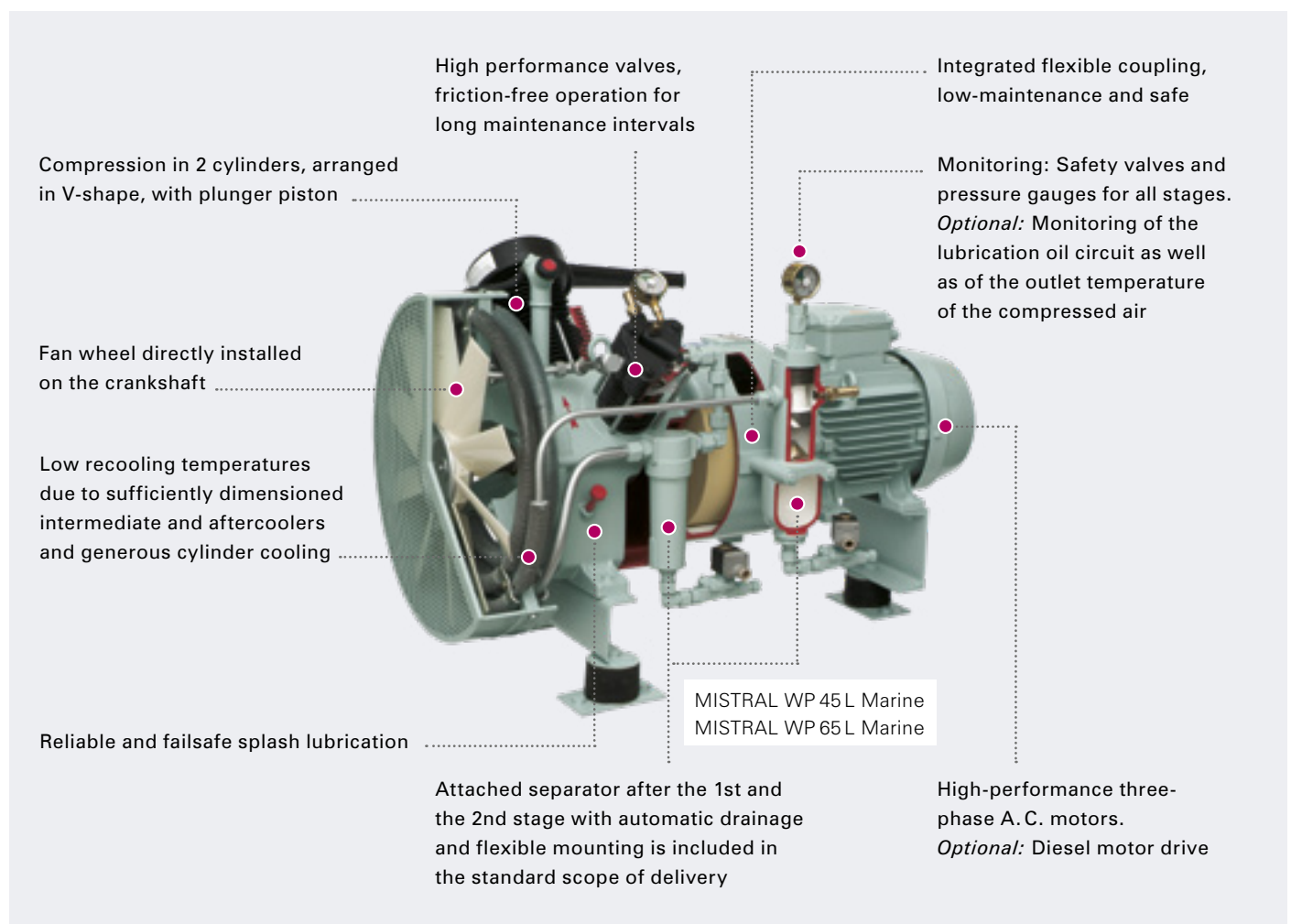
//// Mistral

2-stage air-cooled starting-air compressors

Today, Sauer's 2-stage air-cooled starting-air compressors are among the most modern and low maintenance compressors available worldwide. More than a thousand of these dependable compressors are delivered to our customers every year.

General advantages

- Low installation cost due to absence of cooling water circuit
- Light-weight and less space required for installation
- Reliable and safe to operate, even at ambient temperatures up to 60°C
- Suitable for even the most difficult ambient conditions



//// Mistral MarineDiesel

- Diesel driven for Black-Start and Emergency
- Hand- or electric start
- Available as Mistral WP 15 L, WP 22 L, WP 45 L and WP 65 L



Technical data

MISTRAL series | Technical data for a final pressure of 30 barg

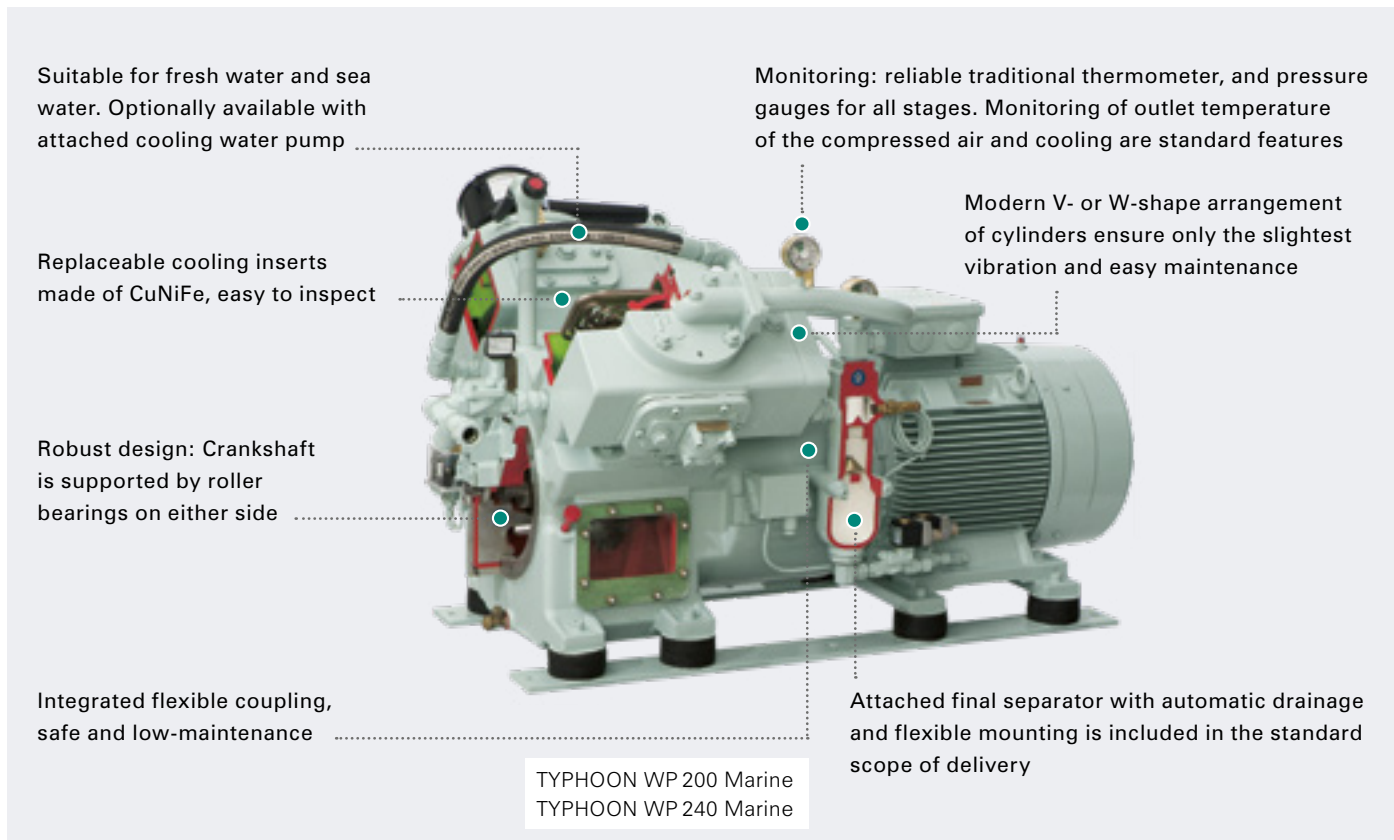
Type	Final pressure barg	Stages	Cylinder	Speed rpm	Charging capacity m³/h	Power consumption kW	Heat dissipation kJ/sec	Weight kg	Length mm	Width mm	Height mm
H 25	30	2	2	50 double-strokes/min	1.8	Hand air compressor		28	312	230	200
WP 15 L Marine	30	2	2	1,180 1,480 1,780	12.0 15.0 18.0	2.7 3.4 4.1	3 4 5	135	855	600	630
WP 22 L Marine	30	2	2	1,180 1,480 1,780	17.0 21.0 25.0	3.5 4.4 5.4	4 5 6	135	855	600	630
WP 33 L Marine	30	2	2	1,180 1,480 1,780	23.0 30.0 35.0	5.1 6.5 7.8	6 7 9	145	890	600	630
WP 45 L Marine	30	2	2	1,180 1,480 1,780	40.0 50.0 60.0	7.6 9.6 11.5	9 11 13	318	1,214	742	820
WP 65 L Marine	30	2	2	1,180 1,480 1,780	53.0 67.0 80.0	10.2 12.8 15.4	12 15 18	328	1,254	742	820

Performance data with 5% tolerance, referred to 20 °C and an air pressure of 1,013 mbar. Charging capacity according to ship building regulations. Performance data on final pressure deviating from 30 barg upon request. Weights and dimensions for standard units with three-phase A. C. motor, IP 54, and flexible mounting. H 25 is also available with 30 and 63 l vessel.

//// Typhoon

2-stage water-cooled starting-air compressors

The 2-stage water-cooled compressors of the TYPHOON series offer a proven alternative for cases in which air-cooled compressors are not suitable. Decades of experience and continuous further development of these robust machines ensure maximum reliability and efficiency.





OOCL Hong Kong
5 x Typhoon WP 400 Marine

Technical data

TYPHOON series | Technical data for a final pressure of 30 barg

Type	Final pressure max. barg	Stages	Cylinder	Speed rpm	Charging capacity m ³ /h	Power consumption kW	Heat dissipation kJ/sec	Weight kg	Length mm	Width mm	Height mm
WP 100 Marine	30	2	2	1,180	80	15.9	22	500	1,340	700	850
				1,480	100	19.5	29				
				1,780	120	23.6	35				
WP 200 Marine	30	2	2	1,180	133	26.0	28	770	1,459	1,025	886
				1,480	166	33.7	37				
				1,780	200	39.6	43				
WP 240 Marine	30	2	2	1,180	166	32.1	35	850	1,535	1,025	886
				1,480	208	40.9	45				
				1,780	250	48.8	54				
WP 400 Marine	30	2	3	1,180	292	52.2	57	1,350	1,810	1,165	1,095
				1,480	366	72.5	80				
				1,780	440	81.5	89				

Performance data with 5% tolerance, referred to 20 °C and an air pressure of 1,013 mbar. Charging capacity according to shipbuilding regulations. Performance data on final pressure deviating from 30 barg upon request. Weights and dimensions for standard units with three-phase A. C. motor, IP 54, and flexible mounting. Cooling water requirement referred to a $\Delta t = 10$ K

Control- and working-air compressors

Sauer SC screw compressors, unlike piston compressors, compress air in rotating screws, and operate without valves.

Sauer SC screw compressors offer much more than industry compressors since they are the synthesis of thousands of industry compressors and of our fundamental knowledge of the requirements of international shipping. The particular design features of Sauer's SC screw compressors ensure trouble-free operation on the seven seas.

As an alternative to the screw compressor, Sauer is able to deliver reciprocating **piston compressors** based on the well-known range of starting-air compressors. Compared with screw compressors, these types are more suitable for shorter operation intervals due to their lower energy consumption as they are start-stop controlled.

The distinct advantages of piston compressors are the standardised parts and the similarity in terms of design with air-cooled starting-air compressors. If you choose your ship compressors carefully, your starting-, control- and working-air compressors will all have the same wearing parts.

Our recommendation

Sauer delivers both types of compressors. For requirements under 100 m³/h, we recommend that you use piston compressors and for performance requirements over 300 m³/h, we recommend screw compressors. For the 100 m³/h to 300 m³/h range we also recommend screw compressors, provided that the annual operation time is higher than 4,000 hours.

For more information or references please do not hesitate to contact us at sales@sauercompressors.de



//// SC series

SC 15 & SC 22



//// Mistral

WP 146 L Marine & WP 226 L Marine



//// Typhoon

WP 200 Marine & WP 240 Marine

Technical data

SC series | Screw compressor, air-cooled | Technical data for a final pressure of 8 barg

Type	Version	Final pressure max. barg	Motor rpm	Capacity m ³ /h	Power consumption kW	Heat dissipation kJ/sec	Weight kg	Length mm	Width mm	Height mm
SC 15	MA 50	12	3,000	80	11.0	10.6	320	1,140	660	1,040
	MA 60		3,600	95	12.5	11.5				
SC 22	MA 50	12	3,000	106	14.9	14.4	340	1,140	660	1,040
	MA 60		3,600	117	15.5	15.9				
SC 26	MA 50	12	3,000	150	18.0	17.8	450	1,275	810	1,175
	MA 60		3,600	170	19.0	21.1				
SC 31	MA 50	12	3,000	170	21.0	21.1	485	1,275	810	1,175
	MA 60		3,600	200	25.0	25.4				
SC 42	MA 50	12	3,000	235	27.5	27.6	580	1,275	810	1,175
	MA 60		3,600	270	30.5	30.6				
SC 52	MA 50	12	3,000	280	35.0	35.4	585	1,275	810	1,175
	MA 60		3,600	310	37.5	38.9				
SC 61	MA 50	12	3,000	390	44.0	43.2	995	1,520	850	1,400
	MA 60		3,600	420	51.0	49.7				
SC 76	MA 50	12	3,000	460	53.8	52.8	1,095	1,610	850	1,400
	MA 60		3,600	520	63.4	60.9				
SC 85	MA 50	12	3,000	670	75.0	95.0	approx. 1,450	approx. 1,660	approx. 1,320	approx. 1,810
	MA 60		3,600	740	90.0	114.0				
SC 99	MA 50	12	3,000	760	90.0	115.0	approx. 1,450	approx. 1,660	approx. 1,320	approx. 1,810
	MA 60		3,600	780	99.0	125.0				

Note: Higher capacity available – please ask for a quote.

MISTRAL series | Piston compressor, air-cooled | Technical data for a final pressure of 10 barg

Type	Final pressure max. barg	Stages	Cylinder	Speed rpm	Capacity m ³ /h	Power consumption kW	Heat dissipation kJ/sec	Weight kg	Length mm	Width mm	Height mm
WP 33 L Marine	20	2	2	1,180	25	4.6	6.0	145	890	600	630
				1,480	32	5.9	9.0				
				1,780	37	7.0	10.0				
WP 65 L Marine	20	2	2	1,180	58	8.7	15.0	328	1,254	742	820
				1,480	72	10.9	17.0				
				1,780	84	13.2	20.0				
WP 146 L Marine	10	2	2	1,180	118	17.5	19.0	500	1,415	869	877
				1,480	150	22.0	24.0				
				1,780	180	26.0	29.0				
WP 226 L Marine	10	2	3	1,180	220	24.6	27.0	720	1,720	1,028	1,014
				1,480	275	33.2	37.0				
				1,780	330	41.6	46.0				

TYPHOON series | Piston compressor, water-cooled | Technical data for a final pressure of 10 barg

Type	Final pressure max. barg	Stages	Cylinder	Speed rpm	Capacity m ³ /h	Power consumption kW	Heat dissipation kJ/sec	Weight kg	Length mm	Width mm	Height mm
WP 100 Marine	12	2	2	1,180	85	14.3	17	500	1,340	700	850
				1,480	107	17.6	21				
				1,780	125	21.3	26				
WP 200 Marine	12	2	2	1,180	145	23.4	28	770	1,459	1,025	886
				1,480	180	30.3	37				
				1,780	215	35.6	44				
WP 240 Marine	12	2	2	1,180	178	28.9	35	850	1,535	1,025	886
				1,480	223	36.8	45				
				1,780	268	43.9	54				
WP 400 Marine	12	2	3	1,180	312	47.0	57	1,350	1,818	1,165	1,095
				1,480	386	65.3	80				
				1,780	460	73.4	89				

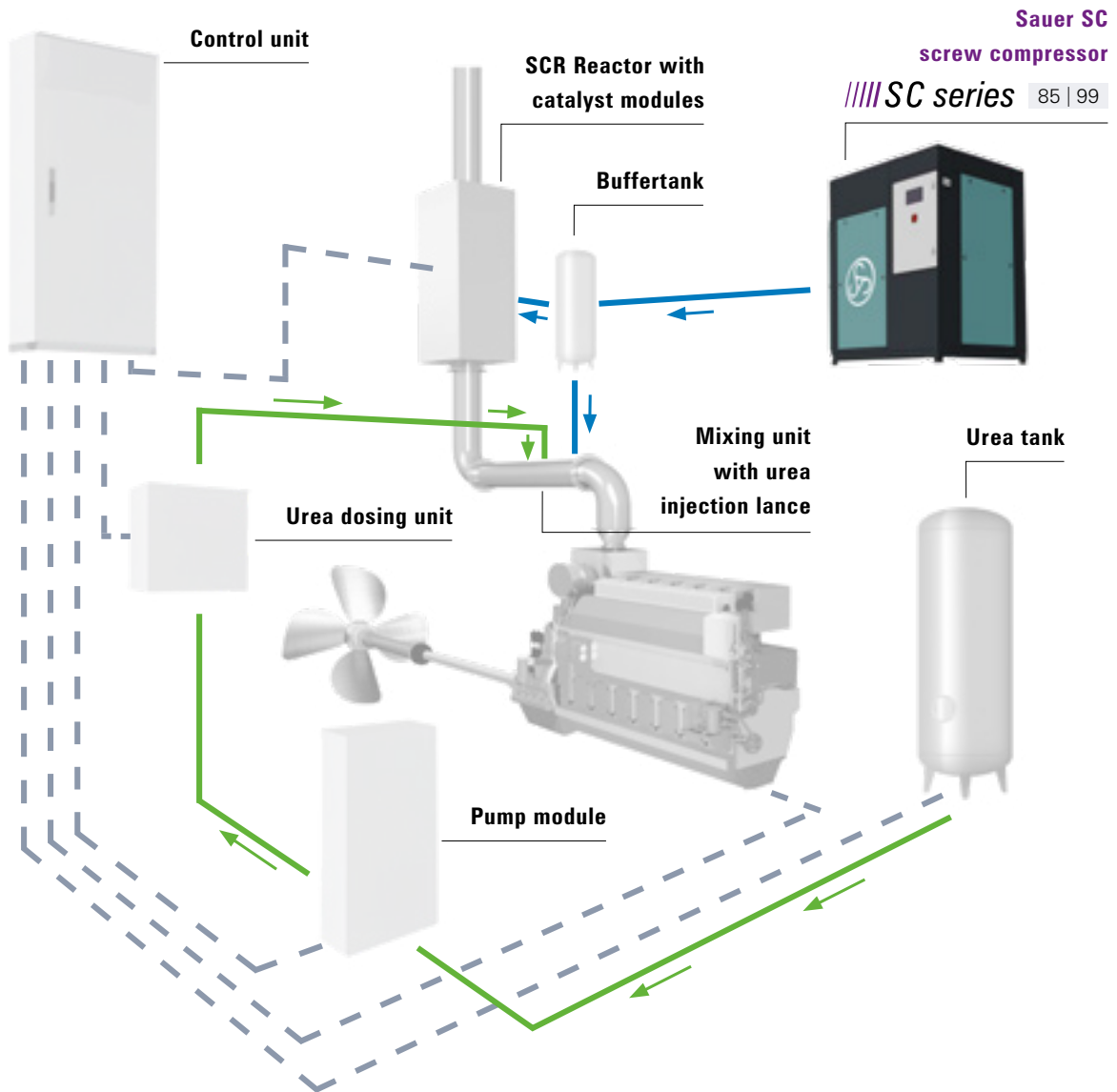
Performance data with 5% tolerance, referred to 20 °C and an air pressure of 1,013 mbar. Capacity of screw compressors according to ISO 1217 Annex C. Weights and dimensions for standard units with three-phase A. C. motor, IP 54, and flexible mounting. Water-cooled screw compressors upon request. *Larger capacity up to 2,000 m³/h or capacity for other final pressures upon request.

Sauer Compressors for SCR systems



SCR system for NO_x reduction

Exhaust gas purification is crucial. To supply state-of-the-art SCR systems for the reduction of nitrogen oxides with compressed air, the Sauer SC 85 and SC 99 screw compressors deliver a volume flow of up to 700 m³/h with a maximum power of 99 kW.



Technical data

SC series | Screw compressor, air-cooled | Technical data for a final pressure of 8 barg

Type	Version	Final pressure max. barg	Motor rpm	Capacity m ³ /h	Power consumption kW	Heat dissipation kJ/sec	Weight kg	Length mm	Width mm	Height mm
SC 85	MA 50	12	3,000	670	75.0	95.0	approx.	approx.	approx.	approx.
	MA 60		3,600	740	90.0	114.0	1,450	1,660	1,320	1,810
SC 99	MA 50	12	3,000	760	90.0	115.0	approx.	approx.	approx.	approx.
	MA 60		3,600	780	99.0	125.0	1,450	1,660	1,320	1,810

Note: Higher capacity available – please ask for a quote.

Controls

Sauer Marine Logic Control (MLC)

- State-of-the-art electronic compressors controls
- Robust design for marine ambient conditions
- In compliance with all classification requirements

MLC

The established standard

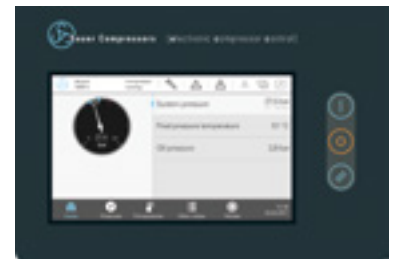
- ✓ Fully automatic compressor control
- ✓ 3,2" LCD display
- ✓ All relevant information at a glance
- ✓ Simple and easy operation
- ✓ Integrated lead-lag control
- ✓ Eco+ Sea and Maneuver mode
- ✓ 19 supported languages
- ✓ Standard modbus connection



MLC 4.0

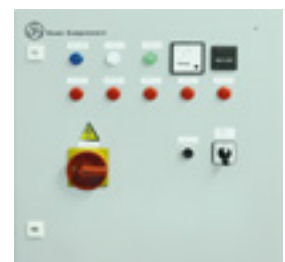
Ready for tomorrow's vessels

- ✓ Fully automatic compressor control
- ✓ 7" TFT touchscreen display
- ✓ Intuitive interface design according to DIN EN ISO 9241-110:2006
- ✓ Embedded guides for fast parameter setting and safe updates
- ✓ Intelligent maintenance instructor
- ✓ Advanced lead-lag control
- ✓ Eco+ Sea and Maneuver mode
- ✓ 30+ supported languages
- ✓ Extended connectivity features, compatible with all standard protocols



Sauer Relay Compressor Control (RCC)

- Relay compressor control
- Robust design for marine ambient conditions
- In compliance with classification requirements
- Optional Sauer EcoBox available for lead / lag control and selection of starting sequence of compressors



Accessories



Air and gas treatment

Sauer Compressors provides a range of downstream equipment, such as filters for air as well as refrigerant and adsorption type dryers. These solutions are available for pressures ranging from 8 to 40 barg.



Condensate management

To prevent traces of oil and other contaminants from being released into the environment, we provide a variety of condensate collection pots for use with our oil-lubricated compressors.



Starting- and working-air receivers

When it comes to storing the compressed air, Sauer customers can choose from a variety of options. The portfolio includes both vertical and horizontal receivers for pressures up to 40 barg.

Any other accessories needed? Please let us know.

sales@sauercompressors.de

Sauer Service – immediate action

“A product is only as good as the support provided by the company who sold it.”

If you have ever had to wait for a spare part or a service technician to get your system up and running, you will fully agree with this statement. When you select Sauer Compressors you are not only choosing the most reliable and low maintenance products, you are choosing outstanding customer service.

**Our product support includes,
but is not limited to:**

- World wide service organizations
- Maintenance and service schedules
- Inspection and service contracts
- Supply of Genuine Sauer Spare Parts
- Technical support and troubleshooting
- Training
- High quality spare part production



service@sauercompressors.de

Find your local Sauer Partner:
www.sauercompressors.com

Technical service

- Commissioning, repairs and maintenance
- Investigation of damages, recommendation for repair and avoidance of such damages in the future
- Close contact between the service department and the design and quality department at Sauer
- Well trained engineers are available for any service worldwide
- 24/7 service support

Worldwide service

Subsidiaries and service organizations located in more than 60 countries worldwide including the USA, Germany, France, UK, China, Czech Republic, Italy, Brazil, India, Singapore, Switzerland, Mexico and Russia.

- Service stations and service engineers on all continents and major ports
- Fast delivery of the Genuine Sauer Spares from Sauer Service stations
- In 36 hours to nearly any place in the world

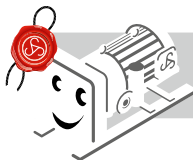


Sauer Service – as individual as your needs

The Sauer Service products

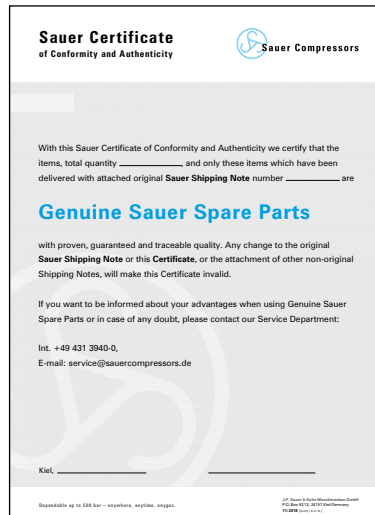
Always state-of-the-art

Genuine Sauer Spare Parts



Use Genuine Sauer Spare Parts and open the door to all advantages of the Sauer Service.

- Guaranteed lifetime for all spare parts
- Highest available quality
- Maintenance kits available
- No general overhaul
- All spare parts ex stock
- Guaranteed availability for at least 35 years
- Free technical support and bulletins by Sauer Service
- 100 % quality control – all parts packed and marked individually
- Delivery with Sauer Certificate of Conformity and Authenticity



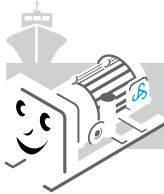
service@sauercompressors.de

Find your local Sauer Partner:
www.sauercompressors.com



Your maintenance has never been so easy

Sauer Easy Care

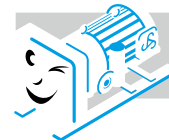


Sauer Easy Care is a simple and easy maintenance concept with guaranteed maintenance intervals for highest operational reliability at lowest costs.

- Based on three maintenance kits only
- Established in 2009 it convinced hundreds of chiefs and superintendents
- Up to 25 % maintenance cost reduction
- Clear maintenance routines result in less downtime
- Reduced overhead in purchase and logistics
- No more general overhaul necessary – never
- Competitive and reliable operating costs per running hour

The smartest service solution

Sauer Fix Budget



Sauer Fix Budget is your trouble-free package without surprises for the budget. All parts to keep your compressors in perfect condition are covered by fixed annual fees per vessel.

- It is a life time warranty for your compressors
- Projectable budgets can be planned for years, no surprising “peaks” will occur
- More than 75 ship owners/managers around the world are satisfied users of Sauer Fix Budget since 2001
- More than 1,500 vessels with 5,000 compressors are under contract

Interval (Operating hours)	50 h after commissioning	50 h after 4,000 h maintenance or repair	1,000 h or after one year of operation at the latest	2,000 h or after two years of operation at the latest	3,000 h or after three years of operation at the latest	4,000 h or after four years of operation at the latest
MAINTENANCE WORK						
Sauer Easy Care kit part number			069 269A	069 177A	069 269A	069 178A
Changing the air filter insert	✓		✓	✓	✓	✓
Changing the oil	✓	✓	✓	✓	✓	✓
Cleaning the oil strainer			✓	✓	✓	✓
Checking 1st stage valve				✓	✓	✓
Checking 2nd stage valve				✓	✓	✓
Replacing 1st stage valve					✓	✓
Replacing 2nd stage valve					✓	✓
Replacing 3rd stage valve					✓	✓
Replacing piston rings, gudgeon pins and piston gudgeon pin bearings of all stages					✓	✓
Replacing the flexible coupling element					✓	✓
Servicing the solenoid drain valves (order-related)					✓	✓
Checking the safety valves					✓	✓



Sauer Easy Care: Sample maintenance schedule

Sauer Training

To keep your technical knowledge up-to-date, Sauer offers numerous comprehensive and practical training courses. The courses can take place either in one of our worldwide training centres or on-site with your own compressor. Divided into various categories, the training provides users, operators, maintenance personnel and service technicians with the knowledge they need – all tailored to your specific requirements.

Training options

- In-house training
- On-site training
- Repair and depot level training
- On-the-job training
- Train the trainer seminars
- Sauer training container



service@sauercompressors.de

Find your local Sauer Partner:
www.sauercompressors.com



Anywhere, anytime, anygas – anything else?

In addition to high-quality compressors, control systems, accessories and services, Sauer Compressors customers benefit from:

Engineering assistance

Through our local representations we can assist engineering teams locally and offer support with regard to integrating our products. In this way, we ensure our customers make the most of their installation.

Special painting and coating

Customers can choose any colour for their yacht's compressors as we are able to provide special painting and coating to the highest quality regardless of the colour selected. Our state-of-the-art in-house paint shop fulfils the latest requirements of commercial shipping and the offshore industry. In our facility we are capable of painting and coating surfaces up to protection level C5M according to ISO 12944, the highest standard in the offshore industry. We provide complete documentation for all processes. Customers also benefit from the experience of our specialised personnel, including a FROSIO Inspector Level III.

Factory acceptance tests and third-party inspection

For Sauer Compressors, quality is not a promise – it's a fact! All our compressors are subjected to a 12-hour endurance test at final pressure and issued a high level 3.1 inspection certificate after the final inspection. Upon request, third-party inspections can be performed. For our helium compressors, we have devised an extensive 16-hour test procedure that is unprecedented in the industry. Both static and dynamic leak rates are tested with the noble gas itself. As a result, operators benefit from 'true' helium compressors providing unparalleled leak tightness.

Installation and commissioning

Even the best product's performance will suffer if the installation is faulty. Upon request, our expertly trained service technicians will set up the newly acquired Sauer product and integrate it into established systems at our customer's facility. Thanks to our local representations, this service is available anywhere in the world. After the initial setup, the installation is thoroughly tested and finally commissioned. To ensure maximum performance, low operating costs and a long service life, we offer in-house trainings for the operating staff.

Exchange/FastLane option

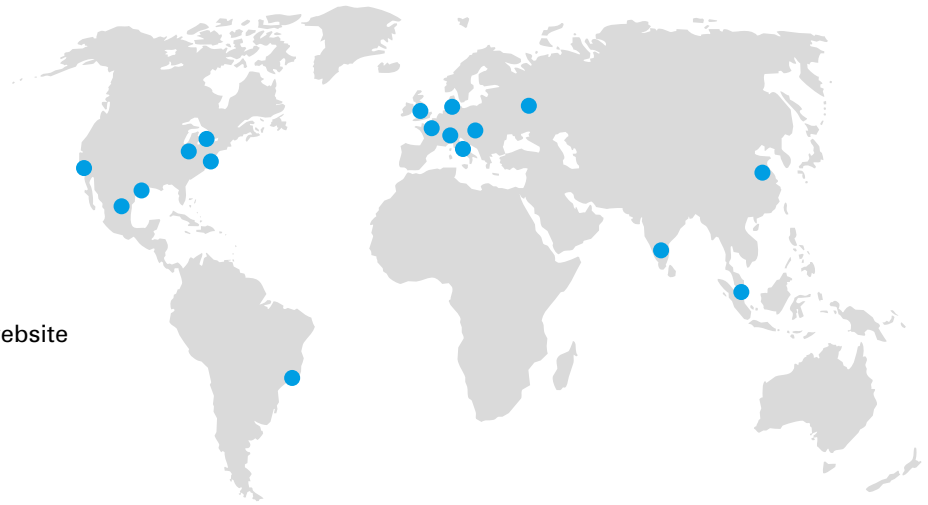
In case of an emergency or breakdown of your compressor, we hold at least one unit of our most common piston compressor types in stock. So we are able to help you within 48 hours and deliver to almost every location worldwide.

Certifications





Sauer Compressors



Find your local partner at our global website
www.sauercompressors.com

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Germany
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HAUG Sauer Kompressoren AG
Industriestrasse 6
9015 St. Gallen
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www.haug.ch

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