Sauer HP compressors *water-cooled*

The Sauer Navy compressors of the series WP 5000 have been specially designed for the use on combat ships destroyers, frigates or submarines. They are available with AC- or DC-motor and can be delivered for surface ships or special highly sophisticated submarine versions. Their special feature is the vertical crankshaft with the 4 cylinders radially arranged around it with the motor direct coupled on top of the compressors.

As an alternative for submarine applications, Sauer offers the unique axial swash type compressor of the TGM design with low space requirement and noise emission.

Technical Data

Water-cooled compressors series – radial/star type — **WP 5000/5500**

Type	Stages	Cylinder	Speed rpm	Charging Capacity m³/h (FAD)	Power required kW	Weight kg	Length mm	Width mm	Height mm	Frequenzy Hz
WP 5500 @ 250 bar	4	4	1170 1470 1770	53 66 81	14,2 21,6 26,0	930	970	810	1325	60 50 60
WP 5000 @ 250 bar	4	4	1170 1470 1770	105 133 162	28,5 43,2 52,0	1650	1215	1095	1570	50 60 50
WP 5500 @ 350 bar	4	4	1170 1470 1770	52 65 80	15,3 23,3 28,0	930	970	810	1325	60 50 60
WP 5000 @ 350 bar	4	4	1170 1470 1770	100 130 160	30,7 46,5 56,0	1650	1215	1095	1570	50 60 50

Water-cooled compressors series – vertical/in-line type — **WP 3230 – 4262**

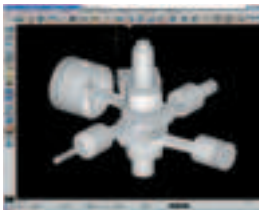
Type	Stages	Cylinder	Speed rpm	Charging Capacity m³/h (FAD)	Power required kW	Weight kg	Length mm	Width mm	Height mm	Frequenzy Hz
WP 3230-500 @ 230 bar	3	2	970 1170	25 30	8 10	650	1400	750	1180	50 60
WP 4253/ 4254 @ 250 bar	4	2	750	80	29	1700	1700	770	1280	50/60
WP 4261/ 4262 @ 250 bar	4	2	750 1200	80 130	29 48	1700 1800	1700 1750	770 770	1280 1280	50/60 50/60
WP 4261/ 4262 @ 350 bar	4	2	800 1200	80 130	33 56	1700 1800	1700 1750	770 770	1280 1280	50/60 50/60

Water-cooled & axial swash plate type compressors series TGM (Girodin-Sauer)

Type	Stages	Cylinder	Speed rpm	Charging Capacity m³/h (FAD)	Power required kW	Weight kg	Length mm	Width mm	Height mm	Frequenzy Hz
TGM 15/30 @ 250 bar	4	4	1070	15	6,5	360	1000	650	780	50/60
TGM 60/100 @ 250 bar	4	4	620 850	60 80	20 28	1100 1100	1135 1135	940 940	1300 1300	50/60 50/60
TGM 150/250 @ 250 bar	4	4	680	150	45	2000	1800	940	1500	50/60

Performance data with 5% tolerance, referred to 20° C and an air pressure of 1013 mbar.
Charging Capacity according to international navy standards.

Series up to 350 bar



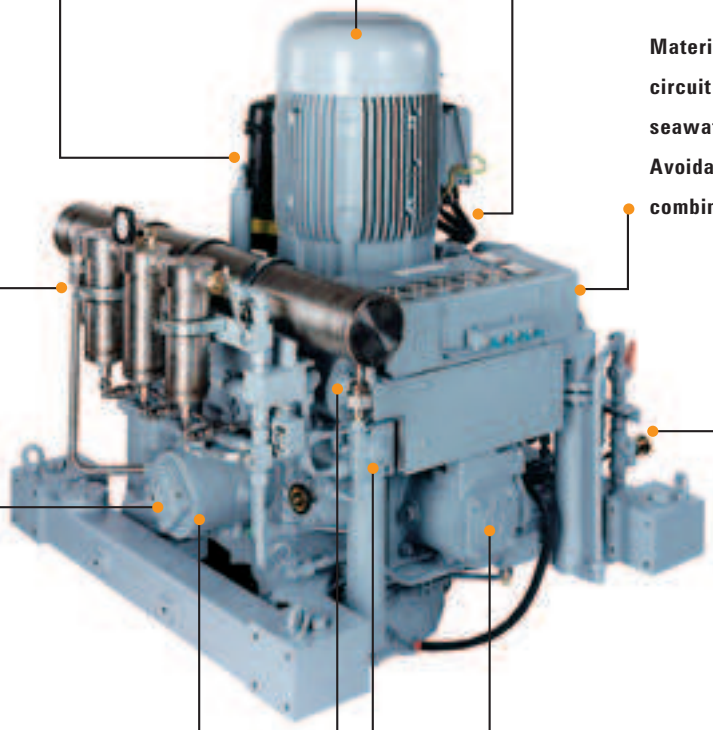
Special suction and delivery dampers available for lowest air borne and pipe noise.

Direct drive by AC or DC motors via an elastic coupling.

Vertical arrangement of the crankshaft with cylinders radial round it ensures lowest vibration and structure borne noise values.

If requested the compressor can be equipped with a low maintenance Interstage Membrane Dehydrator (IMD) or traditional dessicant dryer in a module.

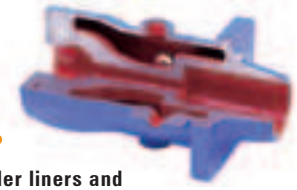
Material selection for cooling water circuit suitable for most aggressive seawater conditions.
Avoidance of dissimiliar material combination in all parts of the circuit.



High effecient valves for longest maintenance intervals – prearranged in the valves covers for easy and quick maintenance.

Sophisticated integrated drainage system for lowest drain noise.

Submarine versions designed for cooling water pressure up to 50 bar.



Straight cooler tubes, drawable to both sides of the cooler for easy cleaning and installation. The floating design prevent heat stress in the bundle and consequential damages.

High-efficient separators after each cooler for best air quality.
Oil content in the highpressure air of less than 1 ppm.

Dry cylinder liners and hermetic separation of the water circuits from the oil – and air circuits for highest reliability.

■ WP 5000 with AC motor and IMD (integrated membran dryers).