J.P. SAUER & SOHN
MASCHINENBAU GMBH

Sauer Compressors

for Industry

- reliable
- competent
- advanced

Ein Mitglied der
SAUER-Gruppe

Sauer Compressors

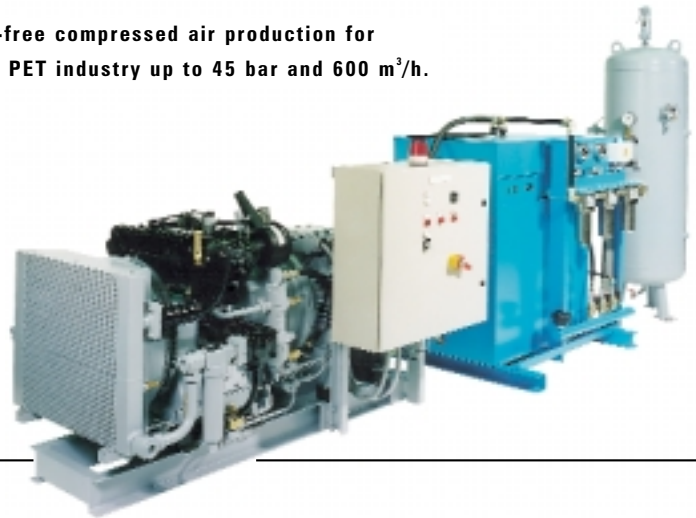
Sauer truck-mounted high-pressure compressors up to 40 bar for deep drilling systems.

Sauer piston compressors for pressures up to 350 bar are used in industry for controlling processes and production methods which require high-pressure air or inert gases. Long years of experience confirm that Sauer compressors are highly reliable and highly developed – meeting even the most demanding applications.

One of our major concerns is a competent, comprehensive customer service. From the project phase to sales through to after-sales, we are there for our customers with advice and specific solutions to ensure optimum economics over the entire compressor life cycle.

As well as compressors, we supply high-quality accessories, engineering services and installation, for complete system solutions and modules through to complete turnkey systems.

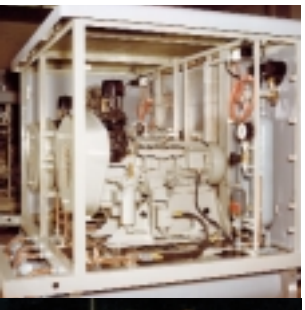
Oil-free compressed air production for the PET industry up to 45 bar and 600 m^3/h.



for Industry

Sauer turnkey compressor stations up to 350 bar for supplying and distributing energy in Georgia.

Our range



High-pressure compressors 200 bar for charging accumulators.

Mobile diesel power station, Saudi Arabia:
Sauer compressors are used as engine starter for all known manufacturers of diesel power station suppliers.

2-stage *air-cooled medium-*

Technical Data

Medium-pressure reciprocating compressor, air-cooled, Final pressure 30 bar

Type	Stage	Cylinder	Speed rpm	Flow rate l/min	Power consumption kW	Weight kg	Dimensions mm Length	Width	Height
WP 15 L	2	2	1450	230	3,4	120	815	600	630
WP 22 L	2	2	1450	290	4,4	135	855	600	630
WP 33 L	2	2	1450	405	6,5	185	890	600	630
WP 45 L	2	2	1470	750	9,6	310	1210	745	820
WP 65 L	2	2	1470	985	12,8	320	1250	745	820

Final pressure 35 bar

Type	Stage	Cylinder	Speed rpm	Flow rate l/min	Power consumption kW	Weight kg	Dimensions mm Length	Width	Height
WP 15 L	2	2	1450	230	3,5	120	815	600	630
WP 22 L	2	2	1450	290	4,5	135	855	600	630
WP 33 L	2	2	1450	400	6,7	185	890	600	630
WP 45 L	2	2	1470	730	9,8	310	1210	745	820
WP 65 L	2	2	1470	955	13,1	320	1250	745	820

Final pressure 40 bar

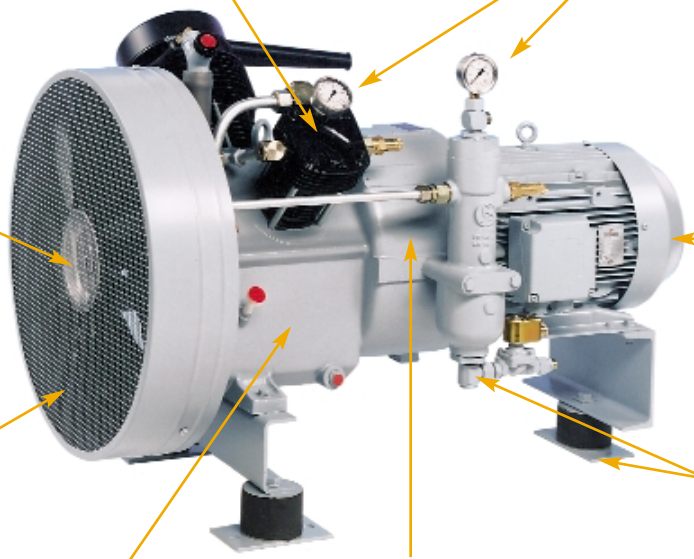
Type	Stage	Cylinder	Speed rpm	Flow rate l/min	Power consumption kW	Weight kg	Dimensions mm Length	Width	Height
WP 15 L	2	2	1450	220	3,6	120	815	600	630
WP 22 L	2	2	1450	280	4,6	135	855	600	630
WP 45 L	2	2	1470	715	10,0	310	1210	745	820
WP 65 L	2	2	1470	930	13,3	320	1250	745	820

Capacity ratings to DIN 1945/ISO 1217. Capacity ratings for other output pressures or RPMs on demand. Weights and dimensions for standard units with IP 55 AC motors and flexible mounting. We reserve the right to make technical changes. To convert capacities to m^3/h, multiply capacities in l/min by 0.06.

Clear, easy to follow controls and monitoring equipment, simple to maintain thanks to easily accessible components, such as compressor valves.

Modern lamellar valves for high efficiency and long intervals between services.

Reliable cooling, thanks to crankshaft-mounted fan wheel.



Electric motors to IP 55. Adequate power reserves thanks to insulation class F used to class B. Diesel motor drive possible if required.

Cooling and construction designed for ambient temperatures up to 60 °C.

Integral separator and elastic mounting fitted as standard.

Integrated elastic clutch, low maintenance and reliable.

Robust industrial design: all compressors are type-tested by leading classification companies such as Lloyd's Register, German Lloyd or Bureau Veritas.

Ruggedised compressors combining high performance with all-round reliability

Their design and construction makes our compressors ideal for use in industry. The combination of mature technology, selected materials and solid design makes for outstanding results: Exceptionally long working life, above-average power and capacity reserves and particularly high availability, thanks to their thrashability.

Long tried and tested in international merchant shipping and naval fleets, our compressors also show what they can do in the most demanding industrial applications.

3-stage air-cooled medium-

Technical Data

Medium-pressure reciprocating compressor, air-cooled, Final pressure 30 bar

Type	Stage	Cylinder	Speed rpm	Flow rate l/min	Power consumption kW	Weight kg	Dimensions mm Length	Width	Height
WP 81 L	3	3	1470	1160	15,0	415	1345	945	900
WP 101 L	3	3	1470	1550	20,0	430	1385	945	900
WP 121 L	3	3	1470	1830	24,0	655	1565	925	955
WP 151 L	3	3	1470	2250	30,0	700	1575	925	955
WP 271 L	3	4	1470	3330	41,0	900	1800	1070	1100
WP 311 L	3	4	1470	4330	50,0	960	1835	1070	1100

Final pressure 35 bar

Type	Stage	Cylinder	Speed rpm	Flow rate l/min	Power consumption kW	Weight kg	Dimensions mm Length	Width	Height
WP 81 L	3	3	1470	1075	15,4	415	1345	945	900
WP 101 L	3	3	1470	1560	19,5	430	1385	945	900
WP 121 L	3	3	1470	1820	24,6	655	1565	925	955
WP 151 L	3	3	1470	2230	31,0	700	1575	925	955
WP 271 L	3	4	1470	3290	42,5	900	1800	1070	1100
WP 311 L	3	4	1470	4290	51,5	960	1835	1070	1100

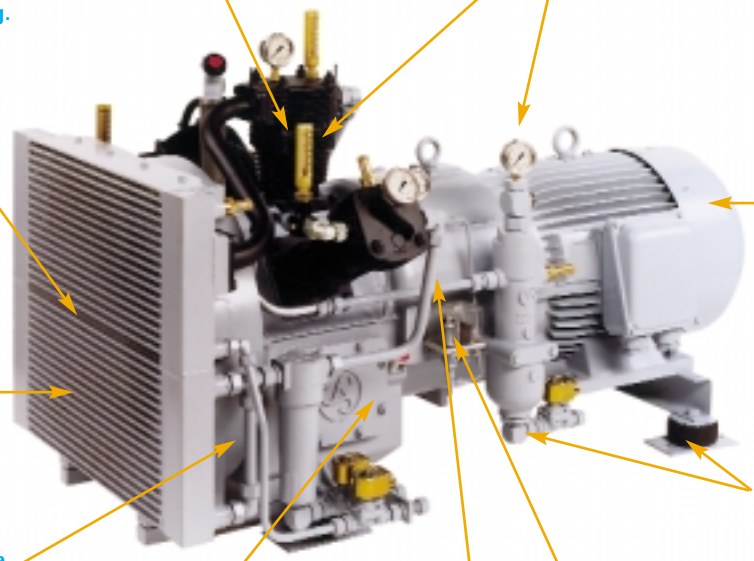
Final pressure 40 bar

Type	Stage	Cylinder	Speed rpm	Flow rate l/min	Power consumption kW	Weight kg	Dimensions mm Length	Width	Height
WP 81 L	3	3	1470	1065	15,8	415	1345	945	200
WP 101 L	3	3	1470	1550	20,0	430	1385	945	200
WP 121 L	3	3	1470	1800	25,2	655	1565	925	955
WP 151 L	3	3	1470	2220	32,0	700	1575	925	955
WP 271 L	3	4	1470	3250	44,0	900	1800	1070	1100
WP 311 L	3	4	1470	4250	53,0	960	1835	1070	1100

Final pressure 70 bar

Type	Stage	Cylinder	Speed rpm	Flow rate l/min	Power consumption kW	Weight kg	Dimensions mm Length	Width	Height
WP 126 L	3	3	970 1470	1080 1670	16,0 24,0	730	1500	880	1090

Capacity ratings to DIN 1945/ISO 1217. Capacity ratings for other output pressures or RPMs on demand. Weights and dimensions for standard units with IP 55 AC motors and flexible mounting. We reserve the right to make technical changes. To convert capacities to m^3/h, multiply capacities in l/min by 0.06.



Customer-led and service-driven: a special blend of support and performance

The performance of our machines is matched only by our customer support: outstanding service you can rely upon at any time. Our business traditions are based on straight dealing, where honesty is always welcome and a handshake still counts.

Our full range stocks mean we can deliver components required immediately – even for earliest generation compressor parts.

3- to 4-stage *air-cooled high-*

Technical Data

High-pressure reciprocating compressor, air-cooled, Final pressure 100 bar

Type	Stage	Cylinder	Speed rpm	Flow rate l/min	Power consumption kW	Weight kg	Dimensions mm Length	Width	Height
WP 3232	3	3	970 1470	180 280	3,7 5,6	291	920	710	970
WP 4331	4	4	970 1470	360 550	7,9 12,0	460	1340	870	920
WP 4341	4	4	970 1470	615 930	11,0 16,5	550	1400	940	920

Final pressure 150 bar

Type	Stage	Cylinder	Speed rpm	Flow rate l/min	Power consumption kW	Weight kg	Dimensions mm Length	Width	Height
WP 3232	3	3	970 1470	170 260	3,9 6,0	291	920	710	970
WP 4331	4	4	970 1470	355 540	8,6 13,0	460	1340	870	920
WP 4341	4	4	970 1470	610 925	11,6 17,5	550	1400	940	920

Final pressure 200 bar

Type	Stage	Cylinder	Speed rpm	Flow rate l/min	Power consumption kW	Weight kg	Dimensions mm Length	Width	Height
WP 3232	3	3	970 1470	160 250	4,2 6,4	291	920	710	970
WP 4331	4	4	970 1470	350 530	9,0 13,7	460	1340	870	920
WP 4341	4	4	970 1470	605 915	12,6 19,0	550	1400	940	920

Final pressure 250 bar

Type	Stage	Cylinder	Speed rpm	Flow rate l/min	Power consumption kW	Weight kg	Dimensions mm Length	Width	Height
WP 3232*	3	3	970 1470	160 240	4,5 6,8	291	920	710	970
WP 4331	4	4	970 1470	340 520	9,5 14,4	460	1340	870	920
WP 4341	4	4	970 1470	595 900	13,5 20,5	550	1400	940	920

*for both speeds max. 230 bar

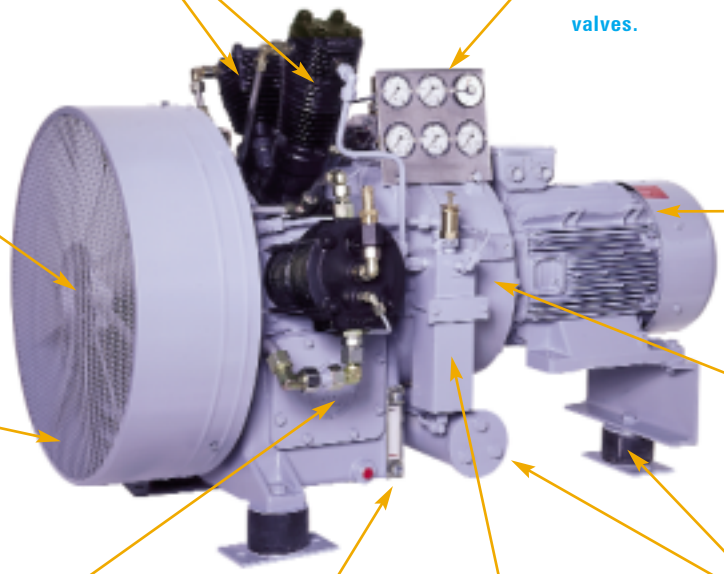
Final pressure 300 bar

Typ	Stage	Cylinder	Speed rpm	Flow rate l/min	Power consumption kW	Weight kg	Dimensions mm Length	Width	Height
WP 4331	4	4	970 1470	335 515	10,0 15,2	480	1340	870	920
WP 4341	4	4	970 1470	590 890	14,5 22,0	550	1400	940	920

Final pressure 350 bar

Type	Stage	Cylinder	Speed rpm	Flow rate l/min	Power consumption kW	Weight kg	Dimensions mm Length	Width	Height
WP 4331	4	4	970 1470	335 510	10,4 15,8	480	1340	870	920
WP 4341	4	4	970 1470	580 875	15,5 23,5	550	1400	940	920

Capacity ratings to DIN 1945/ISO 1217. Capacity ratings for other output pressures or RPMs on demand. Weights and dimensions for standard units with IP 55 AC motors and flexible mounting. We reserve the right to make technical changes. To convert capacities to m^3/h, multiply capacities in l/min by 0.06.



Modern concentric valves:
high efficiency, low maintenance.

Clear, easy to follow controls and monitoring systems, simple to maintain due to easily accessible components, such as compressor valves.

Crankshaft-mounted fan wheel for reliable cooling.

Electric motors to IP 55. Adequate power reserves thanks to insulation class F, used to class B. Diesel drive possible if required.

Cooling and construction designed for ambient temperatures up to 60 °C.

Integrated elastic clutch, low maintenance and reliable.

Robust industrial design:
All our compressors are type-tested by leading classification companies like Lloyd's Register, German Lloyd or Bureau Veritas.

Integrated condensate collecting pot and elastic mounting come as standard.

Reliable compressed oil lubrication via direct-drive, externally accessible geared pump.

Integrated intermediate separator between compression stages ensures top quality compressed air.

Expert advice on everything you need

We believe that providing our clients with complete, competent support services is all part of the product. We can provide the technical design, professional installation and servicing and maintenance if so required.

We always find out what our clients really need first, analysing their requirements to ensure we offer the correct, complete solution.

3- and 4-stage *compressors*

Technical Data

Medium-pressure compressor modules, air-cooled for the compression of helium, hydrogen and argon. Gastight version.

Operating Pressure 40 bar

Type	Stage	Cylinder	Speed rpm	Flow rate l/min	Power consumption kW	Weight kg	Module - Dimensions mm Length	Width	Height
WP 156 L	3	3	970 1470	1120 1700	19,2 29,8	1650	2200	1700	1930
WP 276 L	3	4	970 1470	1650 2480	29,0 44,0	1850	2500	1800	1930

High-pressure compressors, air-cooled for the compression of helium, hydrogen and argon. Gastight version.

Operating Pressure 200 bar

Type	Stage	Cylinder	Speed rpm	Flow rate l/min	Power consumption kW	Weight kg	Dimensions mm Length	Width	Height
WP 3232	3	3	970 1470	118 183	3,8 5,9	291	920	775	945
WP 4331	4	4	970 1470	255 390	8,4 12,1	480	1410	790	945
WP 4341	4	4	970 1470	466 715	12,5 18,5	725	1410	1050	1050

High-pressure compressor modules, air-cooled. For the compression of nitrogene.

Operating Pressure 200 bar

Type	Stage	Cylinder	Speed rpm	Flow rate l/min	Power consumption kW	Weight kg	Module - Dimensions mm Length	Width	Height
WP 3232	3	3	970 1470	160 250	4,2 6,4	835	2155	1300	1915
WP 4331	4	4	970 1470	255 390	8,4 12,1	1000	2155	1300	1915
WP 4341	4	4	970 1470	466 715	12,5 18,5	1250	2155	1300	1915

Operating Pressure 250 bar

Type	Stage	Cylinder	Speed rpm	Flow rate l/min	Power consumption kW	Weight kg	Module - Dimensions mm Length	Width	Height
WP 4331	4	4	970 1470	340 520	9,5 14,4	1000	2155	1300	1915
WP 4341	4	4	970 1470	595 900	13,5 20,5	1250	2155	1300	1915

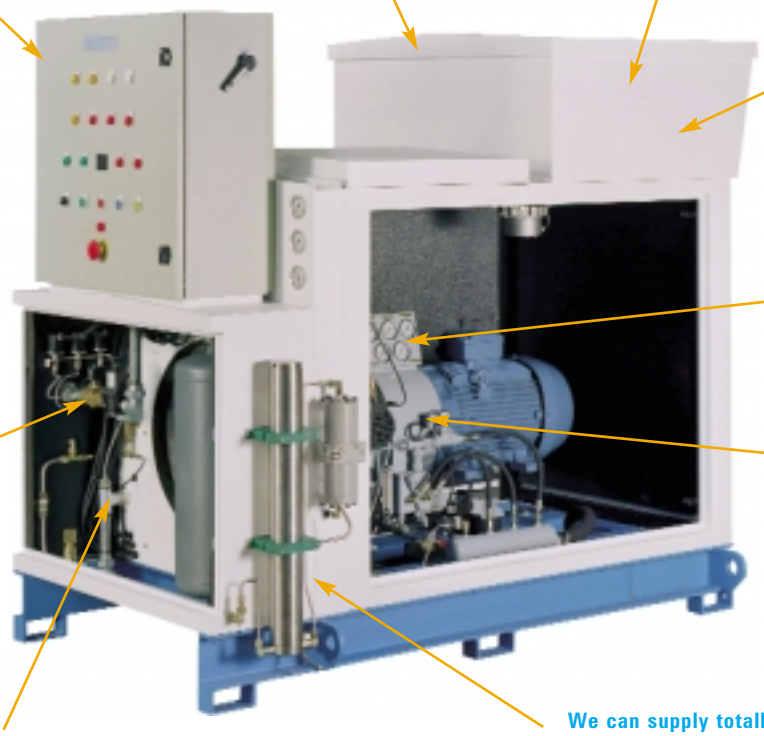
Operating Pressure 300 bar

Type	Stage	Cylinder	Speed rpm	Flow rate l/min	Power consumption kW	Weight kg	Module - Dimensions mm Length	Width	Height
WP 4331	4	4	970 1470	335 515	10,0 15,2	1000	2155	1300	1915
WP 4341	4	4	970 1470	585 890	14,5 22,0	1250	2155	1300	1915

Operating Pressure 350 bar

Type	Stage	Cylinder	Speed rpm	Flow rate l/min	Power consumption kW	Weight kg	Module - Dimensions mm Length	Width	Height
WP 4331	4	4	970 1470	330 510	10,4 15,2	1000	2155	1300	1915
WP 4341	4	4	970 1470	575 875	15,5 23,5	1250	2155	1300	1915

Capacity ratings to DIN 1945/ISO 1217. Capacity ratings for other output pressures or RPMs on demand. Weights and dimensions for standard units with IP 55 AC motors and flexible mounting. We reserve the right to make technical changes. To convert capacities to m^3/h, multiply capacities in l/min by 0.06.



Flexible design for any application

Our range of machines is as versatile as their uses. We supply compressors worldwide up to 350 bar for virtually any industry, and have the experience and competence to supply anything our clients need.

Non-standard voltages and frequencies, water-cooled, earthquake-proof, ex-proof version, designs with diesel engines and compressors for outdoor use are just a few examples of the special designs we supply.

Our products are also designed on a modular basis, so you can add new components or whole modules for preparing, storing and distributing compressed air anytime.

Water-cooled medium- and

Technical Data

Medium-pressure compressor, water-cooled, Final pressure 30 bar

Type	Stage	Cylinder	Speed rpm	Flow rate l/min	Power consumption kW	Weight kg	Dimensions mm Length	Width	Height
WP 200	2	2	970 1470	1450 2250	21,0 32,0	820 770	1570 1530	1000 1000	890 890
WP 240	2	2	950 1450	1750 2650	25,0 37,0	820 820	1570 1570	1000 1000	890 890
WP 400	2	3	950 1450	3150 4750	43,0 63,0	1350 1350	1750 1750	1165 1165	1090 1090

High-pressure reciprocating compressor, water-cooled, Final pressure 100 bar

Type	Stage	Cylinder	Speed rpm	Flow rate l/min	Power consumption kW	Weight kg	Dimensions mm Length	Width	Height
WP 3100	3	3	970 1470	1815 2750	38,6 58,0	1400	1750	1165	1090

Final pressure 200 bar

Type	Stage	Cylinder	Speed rpm	Flow rate l/min	Power consumption kW	Weight kg	Dimensions mm Length	Width	Height
WP 5500	4	4	970 1470	630 970	13,7 20,8	930	970	810	1325
WP 5000	4	4	970 1470	1370 2080	27,4 41,5	1650	1215	1095	1570

Final pressure 250 bar

Type	Stage	Cylinder	Speed rpm	Flow rate l/min	Power consumption kW	Weight kg	Dimensions mm Length	Width	Height
WP 5500	4	4	970 1470	630 970	14,2 21,6	930	970	810	1325
WP 5000	4	4	970 1470	1370 2080	28,5 43,2	1650	1215	1095	1570

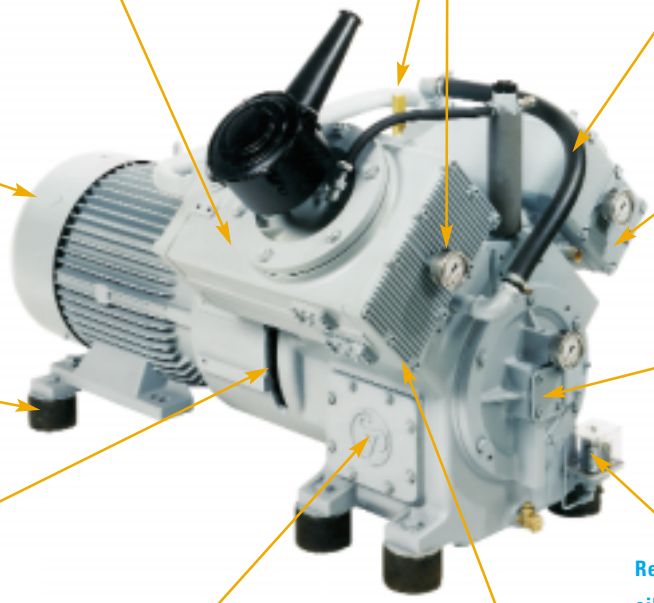
Final pressure 300 bar

Type	Stage	Cylinder	Speed rpm	Flow rate l/min	Power consumption kW	Weight kg	Dimensions mm Length	Width	Height
WP 5500	4	4	970 1470	630 970	14,8 22,4	930	970	810	1325
WP 5000	4	4	970 1470	1360 2060	29,6 44,8	1650	1215	1095	1570

Final pressure 350 bar

Type	Stage	Cylinder	Speed rpm	Flow rate l/min	Power consumption kW	Weight kg	Dimensions mm Length	Width	Height
WP 5500	4	4	970 1470	620 930	15,3 23,3	930	970	810	1325
WP 5000	4	4	970 1470	1350 2050	30,7 46,5	1650	1215	1095	1570

Capacity ratings to DIN 1945/ISO 1217. Capacity ratings for other output pressures or RPMs on demand. Weights and dimensions for standard units with IP 55 AC motors and flexible mounting. We reserve the right to make technical changes. To convert capacities to m^3/h, multiply capacities in l/min by 0.06. To calculate cooling water required in l/min.: power required in kW x 1.4 (related to $\Delta T = 10$ K).



An alliance of advanced technology and user-friendly operation

With our long tradition of technology and ongoing research and development, our machines are highly mature and the most advanced in this market segment.

When designing our compressors, we concentrate on the essentials – maximum functionality –, because that's what counts, with form following function, using tried and tested, classic mechanical engineering principles for ease of use, with the main maintenance points readily accessible.

Erzhausen power station –

■ Erzhausen reservoir power station – for power on demand

Erzhausen reservoir power station is situated in the Leine valley, between Hanover and Göttingen. Power stations like this are a form of hydro-electric power, and are used to supply energy quickly on demand at peak load times or if other power stations fail. To ensure reliable power supplies, these peak load power stations are designed to run up to power and be feeding electricity into the grid within no more than 60 seconds.

Water is stored in a man-made reservoir: if the need arises, it is released and flows down through turbines, which drive the generators.

The Erzhausen station has a storage capacity of 940 MWh and a rated output of 220 MW.

■ A tough brief

Erzhausen has been operating since 1964; to ensure it keeps working well into the future, it was modernised extensively in 1998–9.

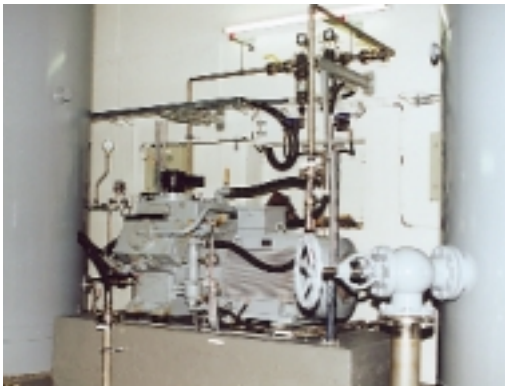
This included replacing the existing air compressors. These special water-cooled compressors have a tough job: they help expel the water from the turbines and storage pumps, ensuring the turbines run up to speed and stay there with minimum losses and load. These compressors are also used in compressing working air, brake and control air.

■ Sauer expertise ... from start to finish

Right from the design phase, Sauer & Sohn used computerised **compressed air consumption measurement** to determine precisely how much compressed air Erzhausen needed, and advise the client comprehensively and professionally. Working to power station regulations and standards, it was necessary to:

Determine compressor type and capacity, **remove the old ones, fit and commission the new ones**, including **controlling and monitoring the compressed air distribution** and **integrating them into the control systems**.

With our comprehensive, professional advice, Sauer & Sohn were able to support the power station operators right from the design phase, including aspects such as scaling and shellfish in compressor components exposed to cooling water, which we know how to avoid.



Sauer expertise ... in action

As our result of our leading edge high-pressure compressors designed to meet our clients' requirements, our **professional advice** and competitive products, Sauer & Sohn won the complete contract to supply the new compressed air supply to Erzhausen reservoir power station.

Four of the six existing air compressors were replaced by new Sauer Compressors WP 400 – 30 bar – 360 m^3/h, water-cooled. Two of the old compressors were kept, upgraded and included in the compressed air system.

With everything under one roof, Sauer & Sohn can guarantee all components and services are delivered on time and ensure that everything works together properly.

Our W series models are designed for a long working life, high availability and above-average power reserves, giving customers precisely what they want. We also guarantee **components will be available for at least 20 years** and can **supply** components needed urgently **within 24 hours.**

Our project services include:

- *Project/contract management*
- *Compressed air measurement and analysis*
- *Design and conception of compressed air systems*
- *Supply and installation of turnkey air compressors, including local controls*
- *Integration in electrical and control systems*
- *Integration of compressors in air fan system as a whole*
- *Complete condensate disposal*
- *Customised documentation*
- *Dismantling and disposing of old systems*

J.P. SAUER & SOHN
MASCHINENBAU GMBH

Ein Mitglied der
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Quality Assurance
DIN ISO 9001
EN 29001
certified

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