



SMARTRONIC

Integrated compressor plant



ST30+ – ST110
(30 kW up to 110 kW)

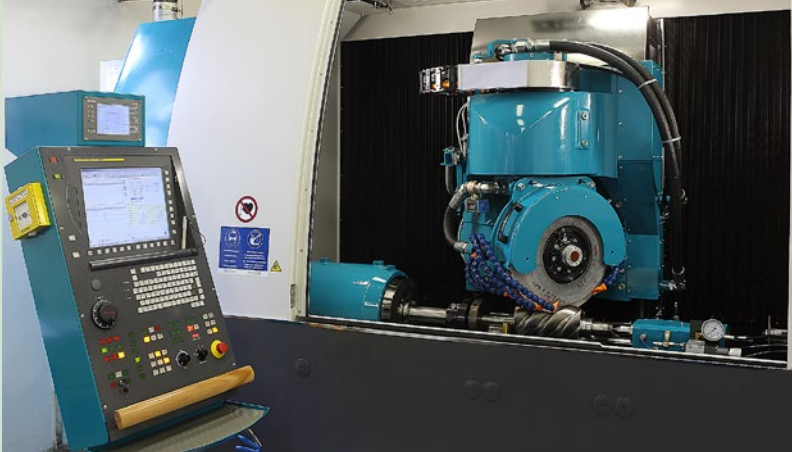
enough air for everyone



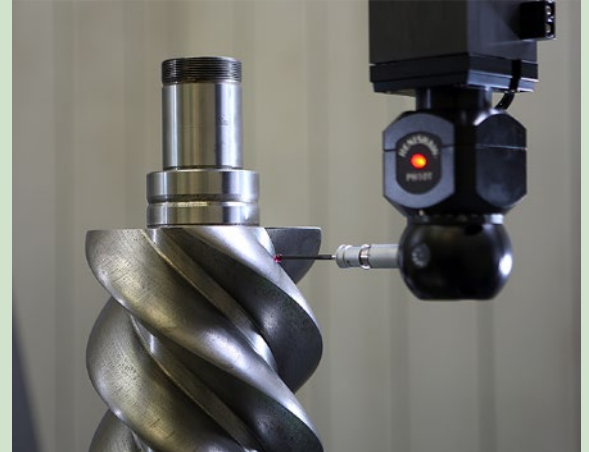
EUROPEAN UNION
European Regional Development Fund
Operational Programme Enterprise and Innovations for Competitiveness

ATMOS – A reliable partner

Tradition in engineering and manufacturing. Atmos has a long tradition in engineering and manufacturing. We have been successful for more than 110 years as producer of machines and compressors. Our first screw compressors were produced more than 50 years ago. Since then, we have developed and produced many new generations of compressors and have increased our range continuously.



Atmos components are produced with a tolerance of a thousand's millimeter. Own R&D and production of key components. Reliable and highly trained workforce in R&D and production



Exceptional quality because of most modern cutting, milling and precision measuring machinery

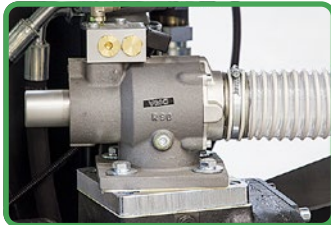
High performance coolers

The new arrangement of components has resulted in increased efficiency of our cooling system.



Suction regulator

Optional modulation regulation system.



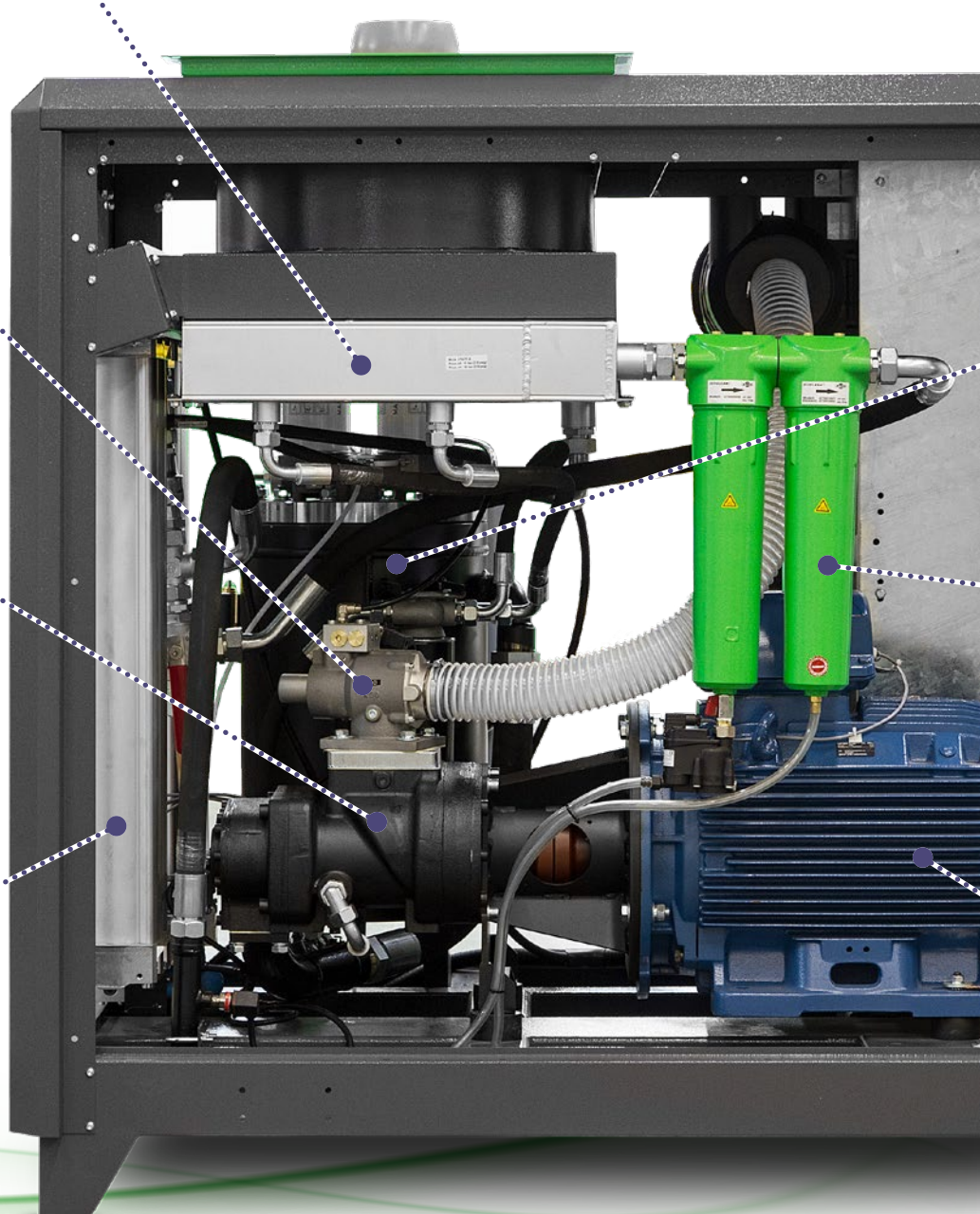
A150

New high performance screw compressor for maximum energy efficiency.



Fusion dryer

Most intelligent method to dry compressed air with a pressure dew point of up to -20°C .



High performance and efficiency



Screw block A150

The new ATMOS airend A150 is one of the key components for energy efficiency of the whole compressor unit. It was developed in co-operation with the Institute for Screw Compressors at the City University of London. As a result, we incorporated the latest research in the field of compressed air technology into the airend design. The ATMOS A150 is among the most efficient airends in our industry. That means that the compressor's energy consumption can be considerably lower than that of equivalent models from other manufacturers, with a direct positive impact on your electricity bill. During the development of the ATMOS A150, we have managed a considerable reduction of components, resulting in a very robust design. The airend is highly resistant against vibrations, resulting in extraordinary reliability and a very long lifetime.

Revolutionary compressed air dryer system



Fusion dryer

The most economical method of drying compressed air to achieve a negative pressure dew point. The dryer is integrated into the compressor, equipped with a condensate drain and a filter. The adsorption chambers are regenerated by heat recovery. The fusion dryer's operation is fully automated and adapts to the actual humidity of the compressed air. The required pressure dew point can be set on the compressor controller from +5 °C to -20° C.

Innovative solution



Logik 26-S – new advanced controller

The LOGIK control unit monitors, regulates and provides information on all major compressor functions. In addition to the main parameters such as pressure, temperatures and compressor status, LOGIK monitors and records data on working hours, on-load time, % load of compressors and number of starts per hour. The multi-lingual controller gives also access to the compressor's maintenance protocol, the ATMOSCare function that monitors maintenance intervals, the timer in the control unit and the historical record of errors and malfunctions. Optional remote control of the machine is possible by RS 485 protocol and Modbus. LOGIK also permits programming of up to three daily timetables per day as well as controlling multiple compressors in Master/Slave mode.



ATMOS Care – Protection for your compressor

Fine separators that have been in use for a longer time become clogged and have a higher ΔP . This increases the machine's energy demand significantly and may also result in damage or complete destruction of the compressor or downstream equipment. To help prevent this, our compressors are equipped with the Atmos Care electronic system, which monitors the service intervals for you and warns you in advance of the need for service.

- Atmos Care:**
- Guarantees savings in operating costs (energy saving, oil saving)
 - Protects the compressor and accessories from damage
 - Ensures timely and professional service and thus long service life of compressors



Most efficient

drying process of compressed air by heat recovery.



Filtration of compressed air.

Compressors with integrated fusion dryers are equipped as standard with condensate drains and compressed air filters



Extremely reliable motors



New controller LOGIK.

Contains many functions to improve efficiency and increase operator's comfort.



Frequency inverter.

The inverters for our variable speed range Vario are produced by Danfoss in Denmark.



Options

The **ATMOS proportional intake regulator** allows the compressor's stepless and smooth regulation, by adapting the machine's performance to the actual air consumption. This not only reduces electrical energy consumption, but also decreases the compressor's on-load time. Proportional regulation is a simple and efficient solution to decrease costs and extend the lifetime of your ATMOS compressor.



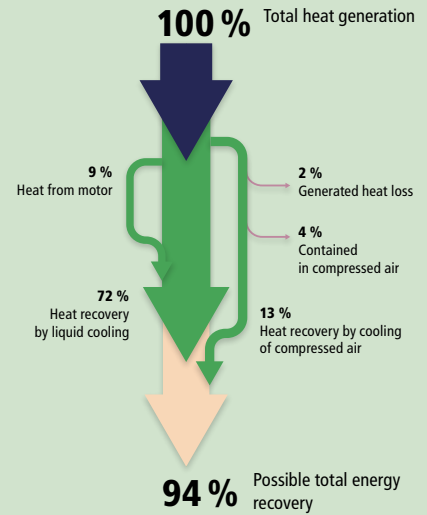
The **ARCHON master controller** is a touchpanel and based on the highly successful SIEMENS Simatic S7-1200 industrial platform. It is designed to control 3, 5, or 9 compressors. ARCHON can be programmed for up to 10 weekly timetables. Compressors can be selected by fixed priorities or by actual working hours of each machine. The sequence of selected machines can also be programmed in order to maximize the compressor station's efficiency. It is also possible to set up to 3 independent pressure bands that enable an adaptation of the machines to different demands. Communication is possible via Profinet or Modbus. The ARCHON's state-of-the-art technology also enables ATMOS to offer custom made solutions. Measurement of the entire station's power consumption, remote monitoring via integrated webserver, datalogging on SD card, connection to factory control/visualisation systems or frequency inverter monitoring are available as options.

Heat recovery

Our new heat exchanger ATMOS enables you to recover up to 72% of the energy that is used for the compressor's operation. The return on investment into our heat recovery system only takes a few months.

The heat exchanger is supplied as a compact external unit that is already prepared for the connections to oil and water circuits. This also enables you to retrofit your existing compressors with this energy-saving technology.

ATMOS Plus offers the possibility to prolong the basic warranty up to 48 months. ATMOS Plus does not only guarantee the compressor's constant availability, but also the machine's efficiency and longevity. By signing on for an ATMOS long-term warranty program, the user achieves stable maintenance costs, without the possibility of bad surprises in case of a breakdown. Apart from that, ATMOS Plus provides full peace of mind for the user because his machine is serviced by professional and factory-trained technicians, and usage of original spare parts and lubricants that ensure the reliable, safe, efficient and long-term operation of his compressor station.



Performance

TYPE		ST30+	ST30 Vario+	ST37	ST37 Vario	ST37+	ST37 Vario+	ST45	ST45 Vario	ST45+	ST45 Vario+	ST55	ST55 Vario	ST55+	ST55 Vario+	ST75	ST75 Vario	ST75 Vario+	ST90	ST90 Vario	ST110	ST110 Vario
Screw compressor		A150										SCA-14-G-R					SCA-20-G-R					
Installed motor power	[kW]	30	30	37	37	37	37	45	45	45	45	55	55	55	55	75	75	75	90	90	110	110
Free air delivery at 7,5 bar	[m³/min]	6,1	6,2	6,7	6,8	7,2	7,3	7,8	7,9	8,3	8,4	8,8	8,8	10,0	10,0	12,7	12,7	13,4	16,8	16,8	20,0	20,0
Free air delivery at 8,5 bar	[m³/min]	5,9	5,8	6,3	6,4	7,0	7,1	7,4	7,5	7,9	8,1	8,3	8,4	9,6	9,6	12,0	12,0	13,3	16,0	16,0	19,0	19,0
Free air delivery at 10 bar	[m³/min]	5,2	5,2	5,6	5,7	6,3	6,4	6,8	6,9	7,4	7,4	7,8	7,9	8,6	8,6	10,8	10,8	12,5	13,8	13,8	17,4	17,4
Free air delivery at 13 bar	[m³/min]	4,5	4,5	4,7	4,7	4,9	5,0	5,6	5,5	6,0	6,1	7,4	6,8	7,1	7,1	9,3	9,3	9,7	12,2	12,2	14,4	14,4

Weights and dimensions

TYPE		ST30+	ST30 Vario+	ST37	ST37 Vario	ST37+	ST37 Vario+	ST45	ST45 Vario	ST45+	ST45 Vario+	ST55	ST55 Vario	ST55+	ST55 Vario+	ST75	ST75 Vario	ST75 Vario+	ST90	ST90 Vario	ST110	ST110 Vario
Weight	[kg]	900	940	950	1000	990	1020	1010	1070	1040	1080	1150	1200	1180	1230	1500	1560	1590	1780	1820	2200	2250
Weight with integrated fusion dryer (FD version)	[kg]	960	1000	1010	1060	1050	1080	1070	1130	1100	1140	1210	1260	1240	1290	1560	1620	1650	-	-	-	-
Length (A)	[mm]	1876	1876	1876	1876	1876	1876	1876	1876	1876	1876	1876	1876	1876	1876	2429	2429	2429	2429	2432	2477	2477
Width (B)	[mm]	1288	1288	1288	1288	1288	1288	1288	1288	1288	1288	1288	1288	1288	1288	1288	1288	1288	1288	1262	1294	1294
Height (C)	[mm]	1680	1680	1680	1680	1680	1680	1680	1680	1680	1761	1761	1761	1761	1761	1764	1764	1764	1764	1764	1894	1894

