Quality: Made in Germany:
Design features of the S series

Quality feature no.1

Service friendly layout – easy access
All BOGE S series screw compressors utilise the same layout and design concept, harnessing the laws of physics.
The system has 3 clearly designated sections.
The cool electrics and motor section, the service-friendly compressor section and the autonomous fan/cooler section.

Your benefits:
Optimum ease of access to all components – nothing is obstructed. BOGE screw compressors need fewer components than conventional models; this saves on service and spare parts costs and increases availability and operating reliability. All maintenance work can be done quickly and from one side, minimising maintenance costs.

Quality feature no. 2

Section 1:
Electric and drive section
Drive motor, switch cabinet and intake filter all sited in the cold cooling air intake area.

Your benefits:
The motor and switch cabinet – minimum IP 54 protection – are continuously cooled. This ensures the longest possible component life, which in turn increases the availability of the compressor.
By utilising the coolest possible intake air, BOGE ensures the highest possible free air delivery for the user.

Quality feature no. 3

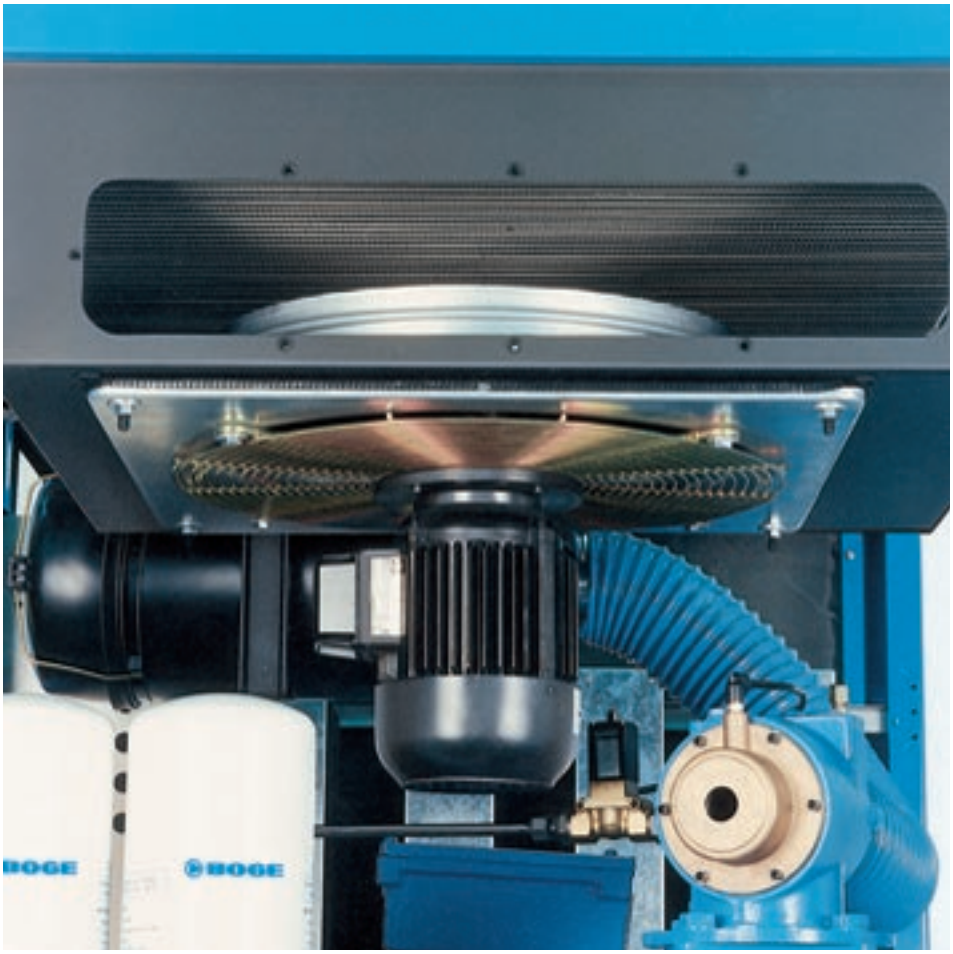
Section 2:
The Compressor section
The compressor section is compact and easily accessible. A horizontal oil separation vessel is at the lowest point, with a directly flanged airend and multi-function intake regulator mounted on top. A separator housing with final separator cartridge and minimum pressure valve complete this section. The whole set is mounted on a vibration damped sub-frame.

Your benefits:
Direct flanging of the airend and oil separator block eliminate the need for interconnecting hoses.

Quality feature no. 4

Section 3:
Cooling section
An autonomous fan/cooler assembly with forced air circulation sited at the top of the system in the cooling air exhaust is coupled with a generously dimensioned after-cooler assembly.

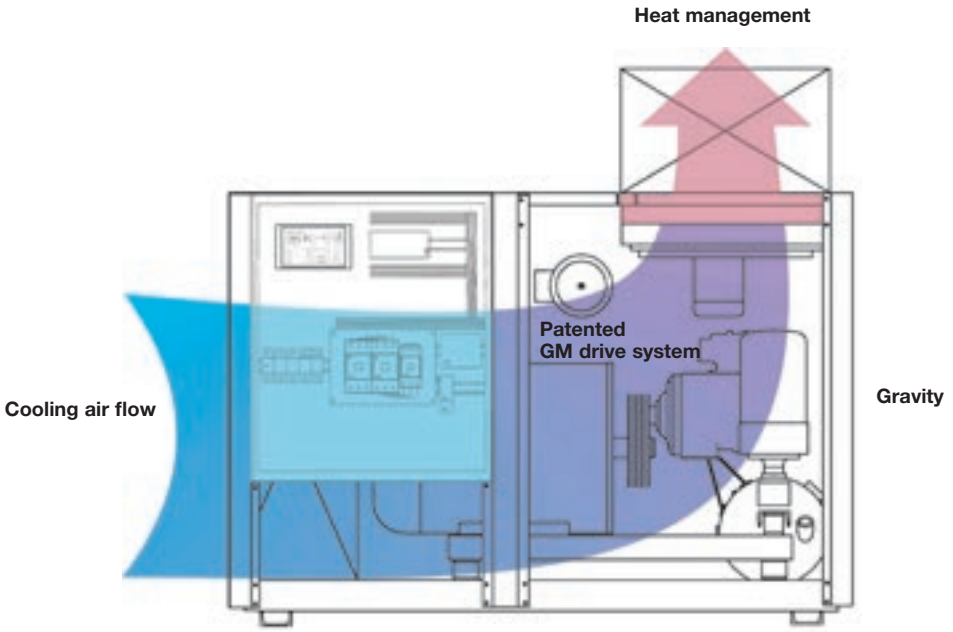
Your benefits:
This is the only area where high cooling air temperatures occur. The chimney effect designed into the system means that hot air automatically rises, leaving no hot spots inside the package during standstill.
The hot air can either be released directly into the atmosphere or ducted away. With the ducting system, hot cooling air can be exhausted to the outside in the summer or used for space heating in the winter.
Thanks to a cleverly designed maintenance cover, the cooler can be easily cleaned without the need for dismantling.

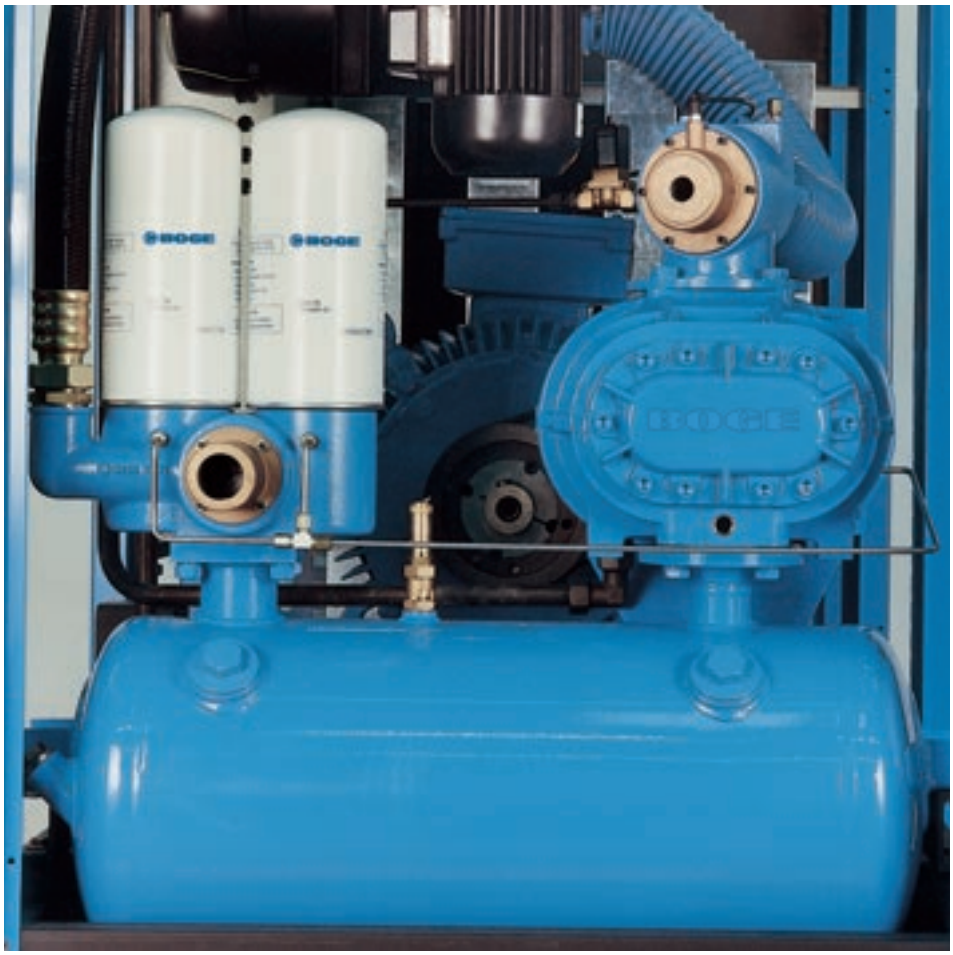


Quality feature no. 5

Optimised cooling air circulation
Cooling air is drawn into the side of the compressor and is exhausted upwards, utilising the laws of physics (hot air rises). The cooling process actually causes a slight vacuum in the package, which sucks the panels tightly against the frame.

Your benefits:
The panels are sealed against the frame in operation, which means that the optimum cooling air flow is guaranteed throughout the life of the compressor, ensuring a consistently low compressed air discharge temperature.
Discharge duct work can easily be fitted to take away the hot cooling air. In winter this can be utilised for room heating and in summer this can be ducted into the atmosphere. Additionally, a super-silencing hood can be utilised to provide very low sound pressure levels.





Quality feature no. 6

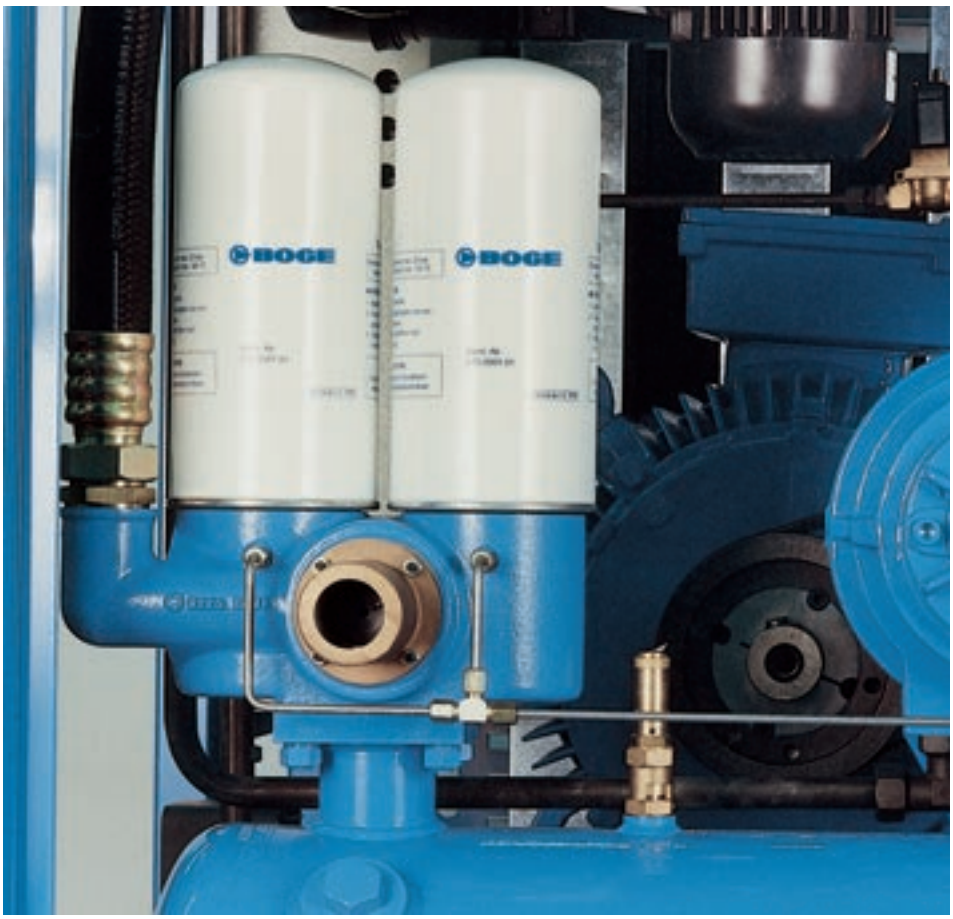
Innovative oil-separation
The cornerstone of the BOGE safety oil separation system is the horizontally mounted oil separation vessel with the direct flange mounted airend discharge linked to the external spin-on final separator cartridge.

Your benefits:
A separation system with no pressure losses which guarantees a very low residual oil content of only 1-3 mg/m³ in every operating mode. A spin-on separator cartridge that lasts longer and reduces the downstream treatment of compressed air. Both benefits prove the integrity of the BOGE oil separation design.

Quality feature no. 7

External oil separation cartridge
The final oil separation cartridge is mounted on an external oil separator block. The spin-on cartridges can be quickly changed without the need for special tools. The distance between the oil level in the horizontal separator vessel and the spin-on cartridge, in combination with the intensive oil pre-separation, guarantees minimum contamination of the spin-on cartridge resulting in a long service life.

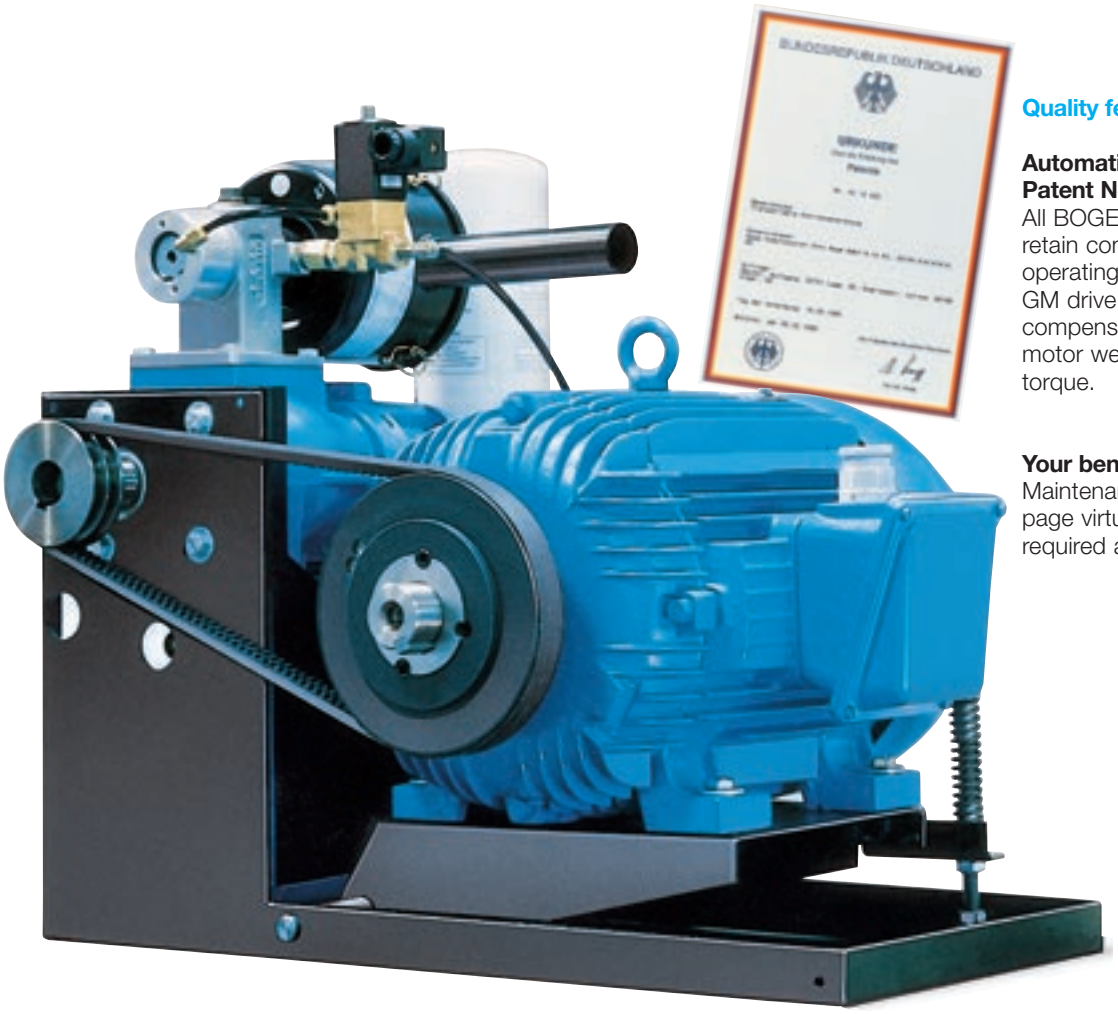
Your benefits:
- Extended service life of cartridge
- Very low residual oil content of only 1–3 mg/m³
- Reduced downtime due to easy change spin-on cartridge



Quality feature no. 8

Thermostatic oil control with integrated oil filter
The thermostatic oil control valve is installed in all BOGE screw compressors and ensures optimum oil injection temperature, both in the start-up phase and when the compressor is running. The oil filter removes impurities from the oil ensuring long reliable service life.

Your benefits:
Minimisation of condensation and dirt in the oil means long intervals between oil changes and maximised availability of the compressor system.



Quality feature no. 9

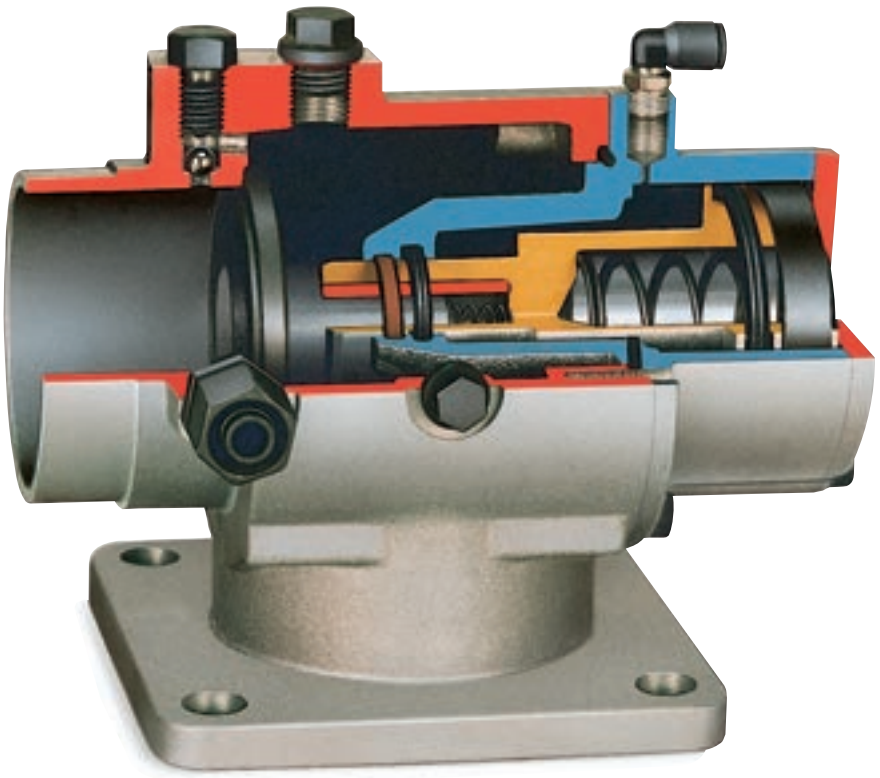
Automatic GM drive system
Patent No. 44 13 422
All BOGE belt-driven screw compressors retain constant belt tension in every operating phase, thanks to the patented GM drive system, which automatically compensates for the different forces of motor weight, start-up torque and running torque.

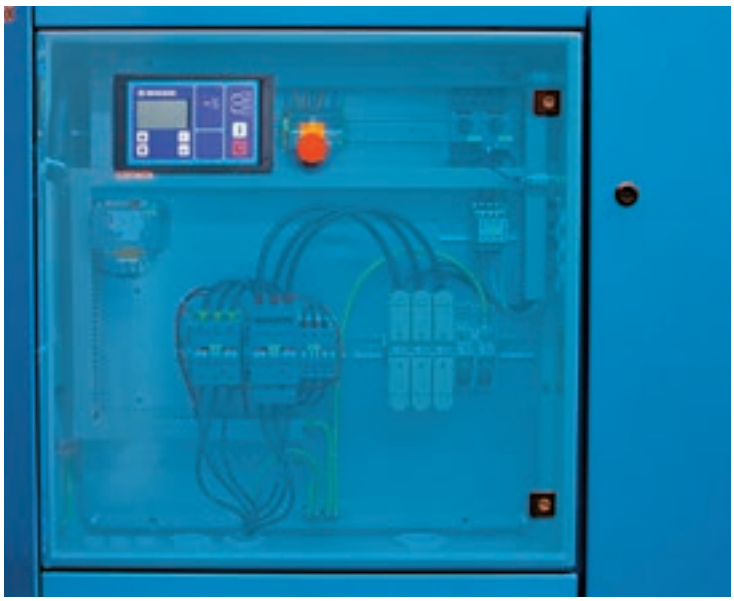
Your benefits:
Maintenance free operation, with belt slippage virtually eliminated, re-tensioning not required and little risk of dirt contamination.

Quality feature no. 10

Maintenance free multifunction intake regulator
An ingenious BOGE development which not only hermetically seals as an intake regulator but also allows a valve-less oil circuit with no need for an oil stop valve nor a check valve. The BOGE multifunction regulator design eliminates numerous hoses and connections found in conventional compressors.

Your benefits:
Off load the BOGE system unloads to atmospheric pressure which means that there are energy cost savings in start up. The multifunction regulator is intrinsically safe in operation which, means that in the event of a breakdown it fails safe. Hermetic sealing ensures that there can be no oil vapour escape in blow down, which means that the compressor stays clean for years.





Quality feature no. 11

Integral Switch Cabinet
An IP 54 switch cabinet is integrated into the cool end of the compressor package immediately below the BOGE control panel. It is fully pre-wired and ready for final electrical connection.

Your benefits:
- Continuous cooling of the cabinet extends service life of all electrical components
- Simplified fault diagnosis utilising the BOGE control menu
- Modular component construction facilitates quick change in the event of component failure
- IP 54 seal protects against ingress of dirt and moisture.

Quality feature no. 12

Easy maintenance
BOGE screw compressors are designed so that all maintenance is accessed from the front of the machine.

Your benefits:
- Versatility of installation
- Reduced maintenance time, saves money.

Quality feature no. 13

Easy transportation of the compressor
A rigid torsion-free base frame allows the compressor to be moved using a pallet truck or forklift truck. Alternatively it can be easily transported by crane. No foundations are required as the flexible supports on the sub-frame reduce the transmission of structure-borne sound.

Your benefits:
Safe transport by conventional means is guaranteed, with no problems.

Quality feature no. 14

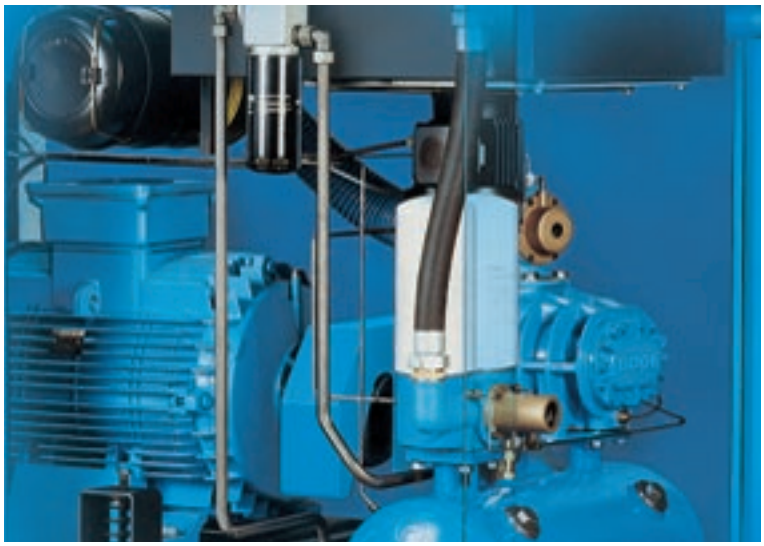
Electric motor
BOGE only use standard high efficient, Class F insulated, IP 55 motors with genuine power reserves.

Your benefits:
High efficiency motors are more energy efficient which helps reduce power costs. Operating within power capabilities also provides energy saving power costs. Running in the cool end of the package also increases operational reliability and availability.

Quality feature no. 15

Air intake filter
BOGE deliberately site the paper micro-filter cartridge air intake filter in the cool end of the compressor package. The generously dimensioned housing helps dampen intake noises. The filter cartridge is re-usable and can easily be cleaned without any delay.

Your benefits:
- Optimised volumetric efficiency by intaking the coolest air
- Intake noises virtually eliminated.
- Micro-filter protects the oil and airend from ingress of airborne dirt.



Quality feature no. 16

Internal piping
BOGE only use steel tubing with precision hydraulic screw connections for all internal oil and air/oil pipes. There is only one hose in the entire system on the clean air side.

Your benefits:
- No oil bearing hoses to deteriorate and fail or associated connections to leak providing lifetime maintenance cost reductions
- Interior of system stays oil-free and clean.

Quality feature no. 17

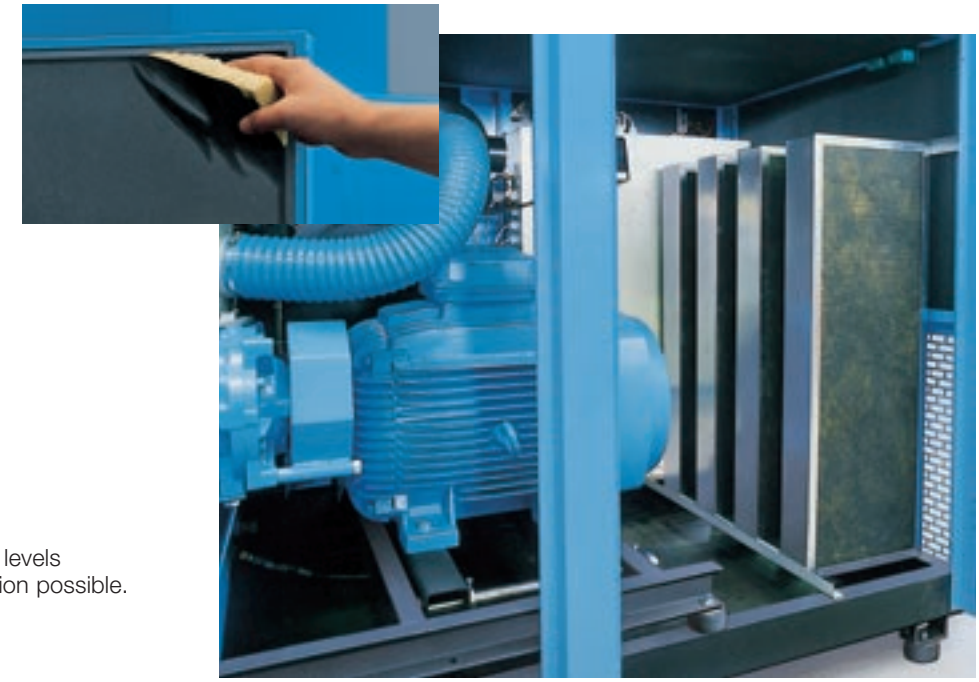
Flexible installation of the compressor
As an option (from S 31-2), cooling air intake can be located on the side (standard), on the rear or on the top.

Your benefits:
- Additional installation possibilities of positioning the compressor against a wall, in a corner or even at right angles
- Space saving installation solution.

Quality feature no. 18

BOGE silencing
The rubber feet, vibration damped sub-fame, nylon laminated sound insulated fibre mat acoustic lining with additional sound damping acoustic pods sited in the air intake duct (from S 31-2) all help to provide an extremely pleasant sound pressure level that varies little in load changes.
There are 3 silencing options available; standard intake sound damping pods, optional super silenced hood fitted over cooling air exhaust on top of cooler pack, optional ducting system fitted above the cooler pack.

Your benefits:
- Reduced sound pressure levels mean work place installation possible.

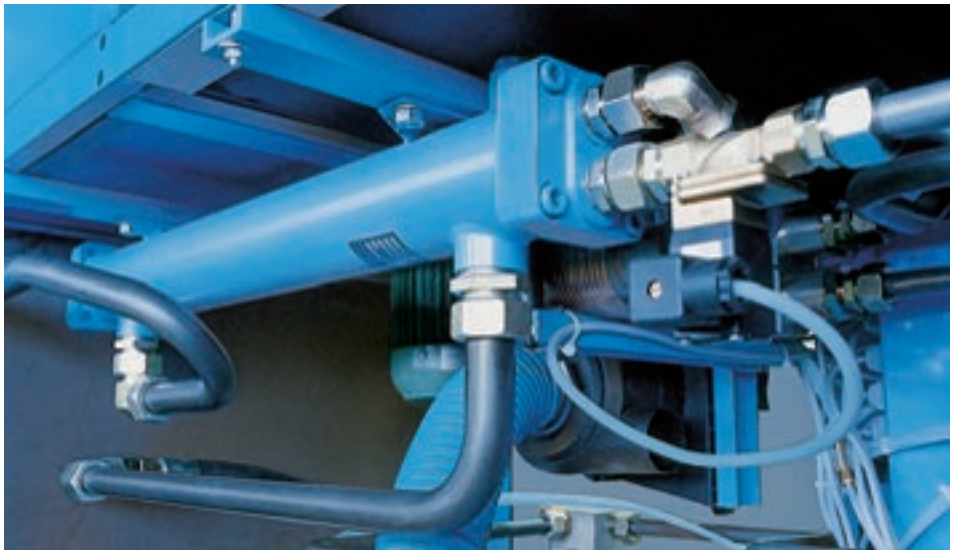


Quality feature no. 19

BOGE *Syprem 8000 S*
A high class full-synthetic premium oil, exclusive to BOGE, with excellent performance properties.
Syprem 8000 S is formulated as a special quality lubricant and cooling agent with an extremely high service life (up to 9000 operating hours possible).

Your benefits:
- Oil consumption and top-up requirements reduced
- Higher volumetric efficiency
- Energy saving

When BOGE LONGlife is used in a compressor from new it is possible to extend the warranty up to 5 years in combination with an approved maintenance agreement.



Quality feature no. 20

Water cooling
BOGE offers a water-cooled option above 22 kW. In some ambient conditions water cooling could be the ideal option for dissipating heat and maintaining the compressor efficiency.

Your benefits:
- Maintained efficiency in higher ambient conditions.

Quality feature no. 21

Proportional Control – PROP-control (option)
Proportional regulation controls the free air delivery between 50 percent and 100 percent at an absorbed power of between 78 and 100 percent. A continuously working throttle valve in the intake adjusts the amount of intake air according to the actual demand.

Practical application case
PROP-control prevents the compressor from cycling (switching on and off) where there is a fluctuating air demand. It works economically in the f.a.d. range between 50 and 100 percent.

Frequency control – F-control (option)
Frequency control regulates the f.a.d. between 25 and 100 percent with a power consumption between 28 and 103 percent. Output control is adjusted according to the compressor speed.

Practical application case
F-control economically controls fluctuating air demand in the case of reduced storage capacity or a tight pressure band. It can be used in a stand alone application or as the peak load compressor in a multiple compressor station.