

**On horizontal compressed air receiver:**

## **BOGE screw compressor C 9 R 270 air-cooled**

- INTEGRATED CONSTRUCTION
- OPTIMISED FOR EFFICIENCY
- EXTREMELY QUIET
- OPTIMISED ADJUSTMENT COMPRESSED AIR GENERATION

### **HIGHEST POWER WITH SMALLEST FOOTPRINT**

Short distances and less piping thanks to internal tubing – just one of the conceptual advantages of the integrated compact compression modules which make the C series from BOGE particularly reliable and efficient. These screw compressors are fully fitted with a compressed air receiver and are your first point of call for continuous compressed air supply: it is easy to see how consistently the C series simplifies maintenance tasks, especially when limiting downtimes to an absolute minimum.

### **Most important characteristics:**

#### **BOGE COMPACT MODULE**

The optimised rotor profile of the BOGE compact compressor with oil-injection cooling guarantees optimal operation and high energy efficiency thanks to its components. The intelligent design of the overall unit results in extremely low internal pressure losses and particularly smooth running.

#### **INNOVATIVE COOLING AIR AND SOUNDPROOFING CONCEPT**

To combine cooling and sound insulation in an intelligent manner, the cooling air is passed through a hood lined with soundproofing material. In combination with highly efficient aftercoolers, this aims to ensure lowest compressed air outlet temperatures and optimal cooling of all built-in components.

#### **OPTIMISED HOUSING CONCEPT**

Whether a micro oil separator cartridge or a high-performance oil filter, thanks to the generous sizes of the doors and panels, all parts are easily accessible for maintenance. The result? Minimal maintenance and service costs.

## TECHNICAL DATA

Effective free air delivery of complete unit measured according to ISO 1217 Part C .....	<b>1,060 m<sup>3</sup>/min</b>
at maximum compressor overpressure .....	<b>10,0 bar</b>
Rated capacity of main drive motor .....	<b>7,50 kW</b>
Protection type / insulation class of the motor .....	<b>IP 55 / F</b>
Operating voltage .....	<b>400 V / 50 Hz</b>
Control voltage .....	<b>24 V AC / 24 V DC</b>
Cooling air flow volume (if connected to ducting) .....	<b>1.500 m<sup>3</sup>/h</b>
Suction or ambient temperature (min to max) .....	<b>+5...+45 °C</b>
Compressed air outlet temperature above ambient temperature (on compressor) .....	<b>11 K</b>
Residual oil content in compressed air .....	<b>&lt; 3 mg/m<sup>3</sup></b>
Receiver volume .....	<b>270 l</b>
Permissible maximum receiver pressure .....	<b>11,0 bar</b>

## DIMENSIONS AND WEIGHT

<b>silenced version</b> (acc. to dimensional drawing): .....	<b>M 2200.1092</b>
Unit sound pressure level (in accordance with DIN EN ISO 2151) .....	<b>68 dB(A)</b>
Width .....	<b>1.880 mm</b>
Depth .....	<b>927 mm</b>
Height .....	<b>1.549 mm</b>
Compressed air connection (ball valve) .....	<b>G ½</b>
Weight .....	<b>370 kg</b>

## Characteristics of the BOGE C 9 R 270:

- For fully-balanced start-up and gentle, intrinsically-safe operation for all components, we recommend **BOGE intake regulation**. Upon shutdown of the unit, it seals hermetically..
- The highly efficient **BOGE GM drive system** permits longer service lives with the help of (depending on use) dynamically modified belt tension. Together with the “Premium Efficiency” IE 3 drive motors, this results in optimised power demand.
- The comprehensive control, operation and monitoring concept found as part of the **BOGE compressed air management system** will help you choose the most cost-efficient operating mode. This ensures intrinsically safe operation of the compressor. Individual fault message displays, permanent target compression temperature and pressure display, precise and simple pressure setting via the keyboard as well as frost protection for the compressor up to -10°C upon delivery are just some of the features provided as standard.
- the machine unit is fully decoupled from vibration losses in the system
- Every system complies with the current EMC regulations. An **integrated belt protection casing**, which also protects the belt against dirt and impurities, offers secure protection against accidental contact.

## OPTIONS LISTED FOR THIS SERIES

Please note that equipment in this list may be contradictory or may not be available for individual models of the series. For the correct selection, please refer to the current product price list.

- **BOGE focus 2.0 control** The microprocessor control with a multicolour 5" LCD clear text display for fault and maintenance messages, combined with base load switching for up to 4 compressors, ensures automatic optimisation and economical operation. An RFID interface for authorising operating personnel, a USB interface for updates and data logging, and an Ethernet interface for transmitting signals come as standard.
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- **Mains disconnecting device (EMERGENCY STOP switch)** 3-phase 400-690 V integrated into switch cabinet
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- **High-pressure hose 500 mm** for vibration-free compressed air connection to the mains or downstream components
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- Idling operation for extremely short cycle times
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- First fill BOGE Syprem SX
  - First fill BOGE HighLub 6000
  - First fill BOGE FoodLub-H1 SX for use in the food and pharmaceutical industries
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- Transport preservation
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- Oil separation tank manufactured in accordance with AS 1210
  - Oil separation tank with China stamp
  - Combi-receiver with single TÜV-approval
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- Master control trinity, installed at delivery
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- Connection for trinity master control system, comes as standard
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- Connection for **airtelligence** master control system, comes as standard
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- Connection for **airtelligence** PROVIS master control system, comes as standard
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- Mounted condensate drain (230 V / 50 Hz) connected electrically
  - Connection with fuse protection for separate refrigerant dryer 230 VAC, at a supply voltage of 400 V +N +PE
  - Load separation switch for integrated refrigerant compressed air dryer
  - Internal connection with fuse protection for heatless adsorption dryer 230 VAC, at a supply voltage of 400 V +N +PE
  - Internal connection with fuse protection for heatless adsorption dryer 230 VAC, only active in the loading phase of the compressor, at a supply voltage of 400 V +N +PE
  - Connection for heatless adsorption dryer 230 VAC, with synchronisation control at a supply voltage of 400 V +N +PE
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- Connection for external control contact for remote On/Off switching, with coupling relay (other voltages upon request)
  - Preselection local/remote via key-switch instead of preselection via parameters

- serial interface RS485 (Modbus RTU) for connection to the remote diagnostics tool airstatus or integration into client visual display system insofar as the internal interface is occupied
  - Profibus interface in separate casing for wall mounting
  - Automatic (load-free) restart following loss of voltage (programmable)
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- Alarm module for **base** control provides messages for stand-by/operation/collective fault on isolated contacts
  - Message 'load cycle' on isolated contact
  - Relay module for connection to base load change control or isolated contacts
  - 2 relay modules for connection of base load change control or isolated contacts
  - 3 relay modules for connection of base load change control or isolated contacts
  - 4 relay modules for connection of base load change control or isolated contacts
  - 5 relay modules for connection of base load change control or isolated contacts
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- Intake filter monitoring (display/maintenance message)
  - Oil filter monitoring (display/maintenance message)
  - Direction of rotation monitoring (display/fault message)
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- **Commissioning** by certified BOGE service technician
  - **Commissioning** by certified BOGE service technician excluding travel
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- **BOGE bestcair** Five-year warranty on all category A exchanged parts (compressor airends up to 36,000 operating hours), cf. **bestcair** warranty conditions at the end of this document  
**Only for compressors installed in Germany**

Subject to technical modifications.

The identified performance values refer to compressors with standard features.

## **A sound basis: intuitive operation for perfect control:** **base control**

Even the BOGE **base** control basic control unit offers – in addition to the basic functions of a compressor control unit – automatic frost protection and the BOGE leak monitor as standard. The main LC display shows operating variables and statuses – fully supported by clear, understandable symbols. All settings can be updated by entering the corresponding code. The power failure and auto-restart function after an outage can also be set. Optionally, isolated notifications (ready, mode, fault, idle) can also be made.

## **Most important characteristics:**

### **TRANSPARENT CONTROL**

The control unit allows simple, reliable and clear management of all operating parameters on two levels. The main display shows the parameters network pressure, temperature, operating mode (Load run / idle) and the connection for the external control contact – output release.

### **LEAK MONITOR INCLUDED**

The control unit come with a BOGE leak monitor as standard. During compressor idle periods, the BOGE leak monitor automatically measures the leakage in the compressed air network. As a result, drops in pressure can be detected and localised, and compressed air production can be optimised easily.

### **INTEGRATION AND SOFTWARE UPDATES**

With the help of a ModBus Interface module, the control unit can be integrated into a higher-level control concept. The integrated test mode for the outputs permits simple troubleshooting. Software updates can be carried out via an adapter onsite, and the monitoring of operating hours is also possible via isolated warning and error messages.

### **NEEDS-BASED CONTROL AND MONITORING**

The **base** control adapts to the specific needs of each local user and automatically selects the most efficient operating mode ensuring optimised motor switching. Network pressure and follow-up time brackets the short time operation) are adjustable via the keypad.

Subject to technical modifications.

**Total investment security? Under warranty:**  
**BOGE bestcair 5-year warranty program**

To ensure optimum running safety of your BOGE screw compressor, we recommend joining the free BOGE bestcair warranty program. BOGE bestcair offers a five-year warranty on all category A exchanged parts of your oil-lubricated screw compressors.

**Certified service**

All service tasks are carried out by BOGE certified service technicians. Only original spare parts and operating materials are used. With BOGE bestcair, the efficiency of your system will remain the same as day 1 for a period of five years!

**Optimum investment security**

The BOGE bestcair warranty is valid for all category A\* exchanged parts required for operation. This covers all relevant parts – in case of any issues, replacements can be made quickly and easily. No limit to operating hours and without hidden acquisition costs.

**Controlled sequence**

Compressors are set up by BOGE certified service technicians. For every maintenance check, an original cairpac maintenance pack and original BOGE Syprem oil are used. Nothing more is required for the 5-year BOGE warranty.

Subject to technical modifications.

## **BOGE commissioning:**

Commissioning is carried out by a qualified BOGE service technician according to the manufacturer's specification. BOGE commissioning comprises the following work:

### **BOGE performance:**

- Check the electrical fuse rating according to BOGE specification
- Oil level check
- Checking of direction of rotation of the compressor unit and the fan
- Commissioning according to manufacturer's specification
- Setting the pressure values to the conditions of use
- Issue of BOGE commissioning certificate (see IBN certificate / bestcair IBN certificate at myBoge)
- Instruction of operating personnel (one-off, unless otherwise agreed) on the day of commissioning

The system must be fully equipped with pipework and be electrically connected ready for operation. Fuses of suitable strength must be provided for commissioning and be used by the in-house electrician.

Additional work not included in the agreed scope can be carried out against a separate order and invoice at the current BOGE hourly rates and spare part prices. and spare part prices.

### **Exclusions:**

If not mentioned explicitly in our offer the following goods and services do not form part of our scope of delivery (services on site):

- All construction work on site
- Unloading and attachment of components
- Field assembly and installation of system components
- Power input and power supply on site
- Power and control cabling outside compressor and system components
- Piping between separately supplied compressors and system components or accessories
- Connection of delivered compressors and components or accessories to existing system on site
- Air ducts, heat insulation
- Fittings, valves etc. beyond offered components
- Factory acceptance test in the presence of customers or third parties
- Tools, consumables, lifting and mounting equipment for assembly
- Disposal of packaging materials

Additional work, overtime hours and overnight accommodation costs as well as waiting times not attributable to us will be invoiced separately.