

**Quiet, compact and powerful:**

## **BOGE screw compressor C 14 PMDR 270**

- HIGHEST EFFICIENCY
- COMPACT DESIGN
- EXTREMELY QUIET
- SIMPLE MAINTENANCE

Thanks to the integrated frequency control with permanent magnet motor and integrated dryer, the compact C series BOGE compressors can achieve the highest efficiency values: as the compressed air requirement drops, the compressor's power consumption also drops; idling is minimised and pressure variations are smoothed out. Soft starts and stops conserve the material and prolong service life. The integrated refrigerant dryer ensures consistently high compressed air quality.

### **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.

#### **BASE CONTROL MACHINE CONTROL**

Switching to the most economical operating state and ensuring intrinsically safe running of the compressor is the job of the base control with its intelligent control and monitoring concept which comes as standard. Individual fault message displays, permanent temperature and pressure displays and compressor frost protection ex works are just some of the features.

#### **INTEGRATED FREQUENCY CONTROL WITH DIRECT DRIVE**

To maximise compressor and system efficiency, the free air delivery can be adjusted steplessly via frequency control to fluctuating compressed air demands. This reduces periods of idling and system pressure – while remaining at constant network pressure.

#### **SIMPLE MAINTENANCE**

The best way to keep maintenance and service costs can be seen in our components which are easy to access from the front of the device: one single service opening for both micro oil separator cartridge and high-performance oil filter means one thing – simple maintenance.

## TECHNICAL DATA

Effective free air delivery of complete unit (minimum).....	<b>0,300 m<sup>3</sup>/min</b>
Effective free air delivery of the complete system (maximum).....	<b>1,500 m<sup>3</sup>/min</b>
according to ISO 1217 Annex F, at positive compressor operating pressure .....	<b>10,0 bar</b>
Rated capacity of main drive motor.....	<b>11,0 kW</b>
Protection type / insulation class of the motor.....	<b>IP 55 / F</b>
Operating voltage (compressor).....	<b>400 V / 50 Hz</b>
Control voltage (compressor).....	<b>24 V AC / 24 V DC</b>
Operating/control voltage (dryer).....	<b>230 V / 50 Hz</b>
Cooling air flow volume (compressor).....	<b>2.000 m<sup>3</sup>/h</b>
Cooling air volumetric flow rate (dryer).....	<b>320 m<sup>3</sup>/h</b>
Suction or ambient temperature (min to max).....	<b>+5...+40 °C</b>
Compressed air outlet temperature above ambient temperature (on compressor) .....	<b>15 K</b>
Pressure dew point at inlet conditions according to DIN ISO 7183.....	<b>+3 °C</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>M1200.1268</b>
Sound pressure level standard (acc. to DIN EN ISO 2151) .....	<b>73 dB(A)</b>
Width .....	<b>1.744 mm</b>
Depth.....	<b>804 mm</b>
Height.....	<b>1.404 mm</b>
Compressed air connection (ball valve) .....	<b>G ¾</b>
Weight.....	<b>409 kg</b>

## 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.

- 
- **Cyclone separator** with Bekomat including fitting kit
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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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- 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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- 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
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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**

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.