

Mobile High Pressure Compressor for Compressing Air and Breathing Air

Types

JUNIOR II-B | JUNIOR II-E | JUNIOR II-W

Production status: F02



JUNIOR II-B (including accessories)



JUNIOR II-E (including accessories)

General	
Medium	Air
Intake pressure	Atmospheric
Filling pressure	PN200 or PN300
Pressure setting, final pressure safety valve	225 bar or 330 bar
Working pressure	220 bar or 320 bar
Permissible ambient temperature range	+5...+45°C
Permissible altitude ¹	0...1000 m AMSL
Max. permissible tilt	5°
System type	Open
Standard operating voltage	400 V; 50 Hz
Other operating voltage	On request
Compressor oil, standard	Synthetic
Oil change interval	Every 2 years / 1,000 h
Colouring	RAL 7024, CYAN

¹ Operating compressors in altitudes > 1000 m AMSL on request

JUNIOR II

Compressor system	JUNIOR II-B	JUNIOR II-E	JUNIOR II-W
Charging rate ¹	100 l/min		
Purification System	P21/350		
Cooling air flow, min.	660 m ³ /h	660 m ³ /h	660 m ³ /h
Sound pressure level	86 dB[A]	82 dB[A]	83 dB[A]
Weight ²	45 kg	49 kg	52 kg
Dimensions (L×W×H) ²	785 × 370 × 440 mm	690 × 390 × 440 mm	690 × 400 × 440 mm
Dimensions (L×W×H) with automatic condensate drain system and control	885 × 410 × 435 mm (without control)	825 × 475 × 495 mm	825 × 475 × 495 mm

1 Measured during cylinder filling from 0-200 bar tolerance +/- 5% at + 20°C ambient temperature.

2 Standard model. Weight and dimensions may vary depending on accessories.

Drive system	JUNIOR II-B	JUNIOR II-E	JUNIOR II-W
Motor	Petrol 4-Stroke	Three-phase ⁶	Single-phase ⁶
Power	4.2 kW	2.2 kW	2.2 kW
Fuel consumption ¹	approx. 1 l/h	-	-
Tank volume	3.6 l	-	-
Operating voltage/frequency ²	-	400 V, 50 Hz ³	230 V, 50 Hz ^{4,5}
Rated current	-	4.6 A (at 400 V/50 Hz)	13.2 A (at 230 V/50 Hz)
Speed approx.	3,600 1/min	2,870 1/min	2,820 1/min
Protection class	-	IP55	IP54

1 Valid for 200 bar final pressure. 300 bar final pressure adds about 10% to consumption. Fuel consumption dependent on fuel quality, altitude, ambient temperature, speed setting and maintenance condition amongst other things.

2 Different voltage / different frequency available at extra charge on request.

3 Plug dimension: Motor protection plug 16 A.

4 Plug dimension: Schuko-plug. Plug only for units with 230 V / 50 Hz.

5 With integrated motor protection switch (only for 220/230/240 V).

6 Cable length 5m

STANDARD SCOPE OF SUPPLY

› Compressor block with following features

- Splash lubrication
- Micronic intake filter: 10 µm
- Intermediate coolers, air cooled
- Aftercooler, air cooled, outlet temperature approx. 10-15 °C above cooling air temperature
- Enlarged last stage cooler for improved cooling air flow and lower temperatures
- Intermediate separators after each stage (except 1st stage)
- Final separator for oil and water condensate after last stage
- Sealed safety valves after each stage
- TÜV approved final pressure safety valve
- Pressure maintaining and check valve after the final stage

Compressor block	
Charging rate ¹	100 l/min
Speed approx.	2,300 1/min
Number of stages	3
Number of cylinders	3
Cylinder bore 1st stage	60 mm
Cylinder bore 2nd stage	28 mm
Cylinder bore 3rd stage	12 mm
Stroke	24 mm
Direction of rotation (from flywheel side)	Left
Drive type	V-belt
Oil quantity	0.36 l

1 Measured during cylinder filling from 0-200 bar tolerance +/- 5% at + 20°C ambient temperature.

➤ Purification System P21/350 - Filter with integrated oil and water separator

- Final mechanical separator for the removal of oil-/ water condensate
- TRIPLEX long-life filter cartridge for drying & de-oiling, optional CO-removal (standard for combustion engine driven versions)
- Final safety valve, fitted to filter housing
- Pressure maintaining / non return valve, fitted to filter housing



Purification System
P21/350

Air quality as per DIN/EN 12021:2014

Contamination	Maximum content as per DIN EN 12021:2014	Air quality by BAUER
H ₂ O	25 mg/m ³	≤ 10 mg/m ³
CO	5 ppm(v)	Depends on cartridge ¹
CO ₂	500 ppm(v)	Depends on intake air ²
Oil	0.5 mg/m ³	≤ 0.1 mg/m ³

1 Only with BAUER special filter cartridge with Hopcalite up to a maximum concentration of 25 ppm CO in intake air. The compressed clean breathing air then contains a maximum of 5 ppm CO.

2 The level of CO₂ in the intake air must not exceed the maximum level of CO₂ as per DIN EN 12021:2014!

Purification System	P21/350
Operating pressure (Standard)	PN200 or PN300
Operating pressure max	330 bar
Pressure dew point	< -20 °C, equivalent to 3 mg/m ³ at 300 bar
Piping connections	G 1/4" (condensate drain G 1/8")
Filter housing volume	0.57 l
DGRL 2014/68/EU (PED)	Art. 4 / Par. 3
Processable air capacity (at ambient temperature 20°C and 300 bar) ¹	130 m ³

1 When using a BAUER P21/350 filter cartridge without Hopcalite. When using a cartridge with CO-removal the air purification capacity is reduced by approx. 4 %.

➤ PN200 filling device

Filling device	PN 200
Nominal pressure (PN)	200 bar
Valve design	1 filling valve with integrated ventilation, with German cylinder connector G 5/8" according to DIN EN 144-2 and DIN 477 and manometer, PN200
Filling hose	1 Unimam high pressure filling hose, 1 m length
International cylinder connector	1 international cylinder connector

Or

➤ PN300 filling device

Filling device	PN 300
Nominal pressure (PN)	300 bar
Valve design	1 filling valve with integrated ventilation, with German cylinder connector G 5/8" according to DIN EN 144-2 and DIN 477 and manometer, PN300
Filling hose	1 Unimam high pressure filling hose, 1 m length

High-quality high-pressure filling hoses made from food-safe and long-life hose material make for flexible and safe handling. Swivel hose connections enable the filling valve to be connected to the breathing air cylinder quickly, easily and safely.



International cylinder connection



Filling hose PN200 (black) and PN300 (red)

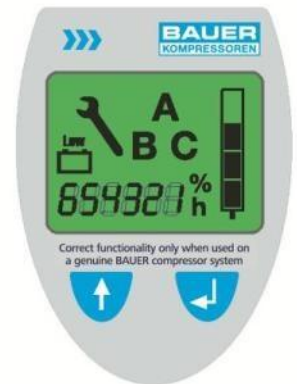
➤ B-TIMER

The mini-computer counts the operating hours and measures accurately the cartridge saturation.

On the four-part segment display, the status of saturation of the cartridge can be followed up. If a cartridge change is required, the B-TIMER is flashing conspicuously and the order number of the cartridge is indicated.

The key symbol indicates that maintenance is due. The letters A to C inform about the necessary maintenance kit.

The robust housing resists sand, salt, seawater, high humidity and strong UV-radiation. Automatic start/stop and power save mode make operation comfortable and save the lithium cell.



B-TIMER Display

OPTIONS

➤ Additional PN200 filling device

Filling Device	PN 200
Nominal pressure (PN)	200 bar
Valve type	1 filling valve with integrated air bleeder, with German cylinder connector G 5/8" according to DIN EN 144-2 and DIN 477 and manometer, PN200
Filling hose	1 Unimam high pressure filling hose, 1 m length
International cylinder connector	1 international cylinder connector

➤ Additional PN300 filling device

Filling Device	PN 300
Nominal pressure (PN)	300 bar
Valve type	1 filling valve with integrated air bleeder, with German cylinder connector G 5/8" according to DIN EN 144-2 and DIN 477 and manometer, PN300
Filling hose	1 Unimam high pressure filling hose, 1 m length

➤ Switch-over device PN 300 / PN 200

The switchover device enables breathing air cylinders to be filled with both 200 bar and 300 bar. For optimum limiting of the maximum operating pressure, each of the two pressure ranges is protected with a type-tested final pressure safety valve.



Switchover device

➤ Automatic condensate drain system and automatic switch off at final pressure for units with petrol engine

The automatic condensate drain removes water from the intermediate separator and the final separator automatically during both operation (every 15 minutes) and shutdown. In addition, the compressor is switched off automatically when the final pressure is reached.



JUNIOR II-E with automatic condensate drain system

Consisting of:

- 1 × pressure switch
(2 × pressure switch when ordering with switchover device)
- 1 × condensate valve
- 1 × solenoid valve

Automatic condensate drain system	JUNIOR II-B
Principle	Cascade
Version	2-fold
Control voltage	24-48 V DC
Interval circuit (close / open)	15 min / 6 sec
Solenoid valve	Normally open (NO)

➤ Automatic condensate drain system and automatic switch off at final pressure for units with electric motor

The automatic condensate drain removes water from the intermediate separator and the final separator automatically during both operation (every 15 minutes) and shutdown. In addition, the compressor is switched off automatically when the final pressure is reached.

Consisting of:

- 1 × control as per DIN EN 60204 (CE conformity is ensured)
- 1 × pressure switch
(2 × pressure switch when ordering with switchover device)
- 1 × condensate valve
- 1 × solenoid valve



JUNIOR II-E with automatic condensate drain system and control box

Automatic condensate drain system	JUNIOR II-E, JUNIOR II-W
Principle	Cascade
Version	2-fold
Control voltage	24 V AC
Interval circuit (close / open)	15 min / 6 s
Solenoid valve	Normally open (NO)

Compressor Control	JUNIOR II-E	JUNIOR II-W
Power	2.2 kW	
Operating voltage	380-440 V	220 / 230 / 240 V
Control voltage	24 V AC	
Frequency	50/60 Hz	
Version	Semi-automatic	
Controls	On/off-switch	
Standard scope of supply	Timer for automatic condensate drain system, rotation monitoring	

➤ **Condensate tank**

When purchasing an automatic condensate drain, an optional condensate tank is available.

➤ **Stainless steel frame**

Primary and supporting frame in stainless steel version are available as an option.

➤ **Trolley**

The trolley for the COMPACT LINE units is designed for the simple and safe transportation of your compressor across any terrain. This is ensured by the large pneumatic tires and the stable manner in which the compressor is secured.

For maximum flexibility, you can either leave the compressor on the trolley or lift it down to operate it. Turning a handle on the trolley allows you to secure your JUNIOR or OCEANUS in place and lift it back down again. The length of the handle can also be adjusted to make handling the trolley particularly easy. The handle can also simply be detached to allow for convenient transportation of the trolley by car.



JUNIOR II-W with stainless steel frame



Trolley

Trolley	
Weight	15.2 kg
Dimensions (L×W×H)	987 × 659 × 555 mm

RULES, STANDARDS AND GENERAL INFORMATION

Relevant EU Directives (where applicable)

- › Machinery Directive 2006/42/EC
- › Pressure Equipment Directive 2014/68/EU
- › Low voltage directive 2014/35/EU
- › Directive on electromagnetic compatibility 2014/30/EU
- › Outdoor directive 2000/14/EC

Documentation: 1 × operating manual and parts list with exploded view drawing on DVD

Design: In line with the state of the art according to DIN, VDE, TÜV and Accident Prevention regulations

Testing: In line with Bauer Standard as per DIN EN 10204 - 3.1

Otherwise, the **General Terms and Conditions of BAUER KOMPRESSOREN (AGB)** in the version valid at the time of contract conclusion apply. These Terms & Conditions can be viewed and downloaded at the website www.bauer-kompressoren.com, or sent by BAUER on request.

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