



High Pressure Breathing Air Compressors

[Full variety for different applications]

MSA offers a comprehensive range of high pressure breathing air compressors for both the firefighting and diving market, as well as other special applications.

A variety of horizontal, vertical, portable and mobile models with a charging capacity from 170 up till 570 litre per minute [larger models on request] are available. They can be supplied with electric, gasoline or Diesel engines.

All compressors together with their air purification system meet the most stringent breathing air standards [EN 12021].

No compromise has been made to ruggedness and durability, making the compressors suitable for the toughest duties. The specially designed low operation speed allows continuous and reliable operation.

The vertical models 280, 450 and 570 have highly efficient noise suppressing cabinets and are among the most silent compressors on the market.

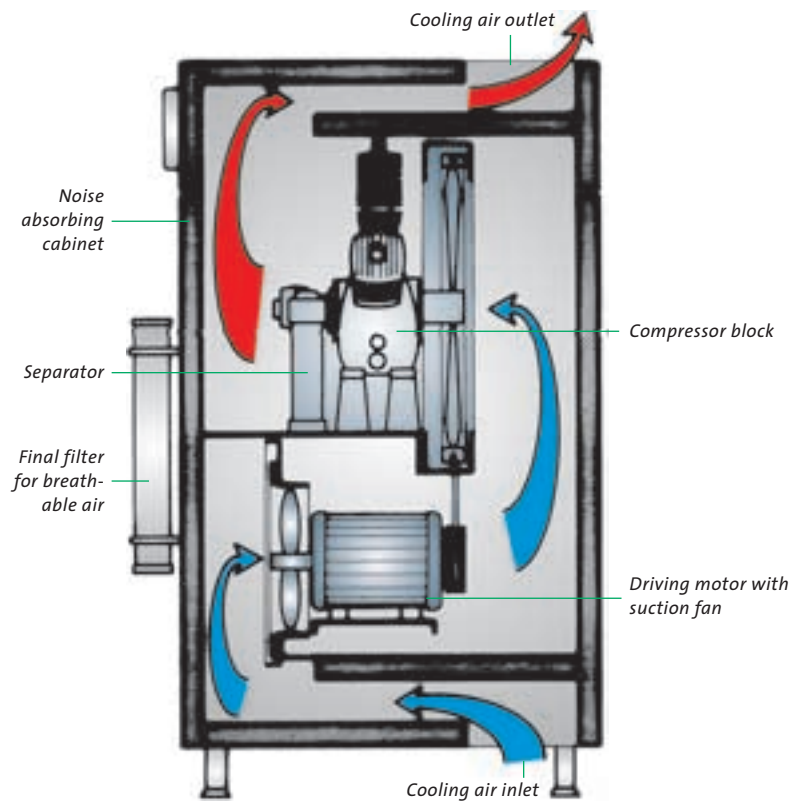
The robust and noise muted compressors require little floor space and are very user friendly; all controls are at the most convenient operating height.

The optional ECC – electronic operating and monitoring system – makes operating even more convenient.

All moving components of the breathing air compressor blocks are electronically balanced to run smoothly.

The last stage has a piston which is lubricated by a low pressure [1.5 bar] oil pump.

Convenient cylinder filling systems are either separately mounted as a wall panel or integrated in the compressor. The filling-panels are equipped with self-bleeding, optimally noise muted filling valves with hoses.



[Characteristics]

- Pure breathable air that meets every standard
- Resistant and reliable
- 3, resp. 4 stage compressor block
- Molecular sieve & activated charcoal filter cartridges with high capacity [900 – 1.200 m³ at 20 °C]
- Low running speed guarantees long and trouble-free operation
- Minimal maintenance with long lifetime cylinder valves
- Low pressure oil pump to lubricate the last high pressure stage
- Electronically balanced V-belt drive disks and crankshafts
- Low vibration running
- Low noise drainage with function control unit
- All stages with pistons and piston rings
- Noise muted compressors: < 61 – 65 dB [A] at 1 metre distance [with extra large fan for efficient cooling]
- 8 x 90° diverted air flow for noise muted compressors
- Air quality monitoring system with permanent sensor [optional]

[Performance Range]

Electrically driven mobile and stationary compressors:

- 170 litres/minute
- 225 litres/minute
- 280 litres/minute
- 450 litres/minute
- 570 litres/minute

Gasoline driven mobile and stationary compressors:

- 190 litres/minute
- 245 litres/minute

Diesel driven mobile and stationary compressors:

- 170 litres/minute
- 450 litres/minute
- 570 litres/minute

[other performances on request]

[Compressor Blocks]

The models 280 and 450 has 3 stage blocks; the model 570 has a 4 stage block

- Safety valve for every stage
- High pressure piston with piston rings
- Large volume micro intake filter
- Oversized axial fan
- Large inter- and after-coolers
- Oil and water separators
- Condensate drainage for each stage
- Final pressure safety valve



[Housing and Mounted Accessories]

The noise muted high pressure compressors have an extra fan on the motor. The cooling air flow is diverted 8 x 90° to cool every part of the compressor and to achieve a highly efficient noise suppression. The filter receptacle is mounted outside on the housing and permits quick filter change.

The housing of all compressor models is of epoxy powder coated steel plate and allows easy and quick access to the compressor block.

The high capacity filter cartridges [activated charcoal combined with a molecular sieve] assure long service life.

All compressors are equipped with an operating hour counter and a liquid filled pressure gauge, as well as a safety valve for each stage.

A great variety of options are available, e.g.:

- Humidity control
- ECC electronic computer control for the compressor
- Oil pressure control
- Temperature control of the final stage
- Extensive program of filling panels and accessories

[Electric Components]

- Electric motor, 3 phases, 400 V, IP55 [other voltages on request]
- Automatic star delta switch and emergency switch off
- Automatic final pressure switch [factory set at 330 bar]

[ECC Control]

Option for all compressor models: the fully electronic ECC control system.

The illuminated LCD display shows all relevant compressor data in 6 different languages: English, German, French, Spanish, Dutch and Swedish. Easy to operate and clearly arranged menu control; data input via keypad. Software can be updated.

Please note: power supply according to IEC 38 should be assured. The standard ECC can be broadened with additional options.

[Features and Benefits]

- LCD display [suitable for graphics] with keypad
- Intuitive program menu
- Automatic and semiautomatic operation possible
- Automatic condensate drainage
- Integrated operating hours counter
- Maintenance intervals are shown by remaining operating times
- Spare part numbers are shown on the display
- Continuous adjustable operating pressure for Start and Stop
- Malfunction indication and automatic switch-off in case of operating malfunction
- Test function for tightness checks, condensate drainage valves and final pressure safety valve
- Simple software update via serial RS-232 interface
- Extension with additional modules possible



[Accessories and Filling Panels]

- Large variety of different filling panels
- Epoxy coated steel plate housing with frame
- Pressure reducer and safety valve for simultaneous filling of 200 bar and 300 bar cylinders
- Compressor remote control unit
- Self-ventilating rocker arm valves [ventilation occurs outside the housing], with optional noise suppressors available
- Pressure gauge for each pressure range
- The EFI models can be equipped with integrated filling panels, as well as with filling hoses
- Quick-clamp filling device
- Manual or automatic storage control

[Air Quality Control System] Optional

The constant, independent electronic air quality control system is equipped with a long-lasting sensor which is mounted separately in the high pressure outlet.

The actual humidity content of the breathable air is continually shown on a display [in mg/m³].

The high pressure outlet is equipped with a one-way valve to prevent moisture reaching the sensor when the compressor is not in operation.

The actual condition of the filter is shown by a 3 colour LED:

Green: The breathable air is according to the quality standard

Yellow: First alarm, it is recommended to replace the filter cartridges

Red: The filter cartridges are saturated; they should be replaced immediately*



The digital indication of the display permanently shows the moisture content of the breathable air.

**Optional with automatic stop*

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