

blueone 5

mobilPlan

- **Advanced Screw Design:**
bell shaped construction,
patented self-balancing screws
- **Efficient:**
low operating costs,
energy-efficient, minimal
maintenance, high uptime
- **Reliable:**
operationally reliable
- **Flexible:**
application-oriented
- **Quiet:**
noise level < 58 dB(A)
- **Compact Design**

The blueone 5 vacuum pumps in the proven blueone series. State-of-the-art screw vacuum pump technology featuring a specially developed screw profile sets new standards of efficiency, making these vacuum pumps the ideal solution for tasks in such as metrology, lithography, physical vapour deposition (PVD) and rapid thermal annealing (RTA), as well as in load lock and transfer chambers.

Due to the sophisticated bell shaped cantilever construction, the twin rotor with variable pitch screws is mounted only on the motor side, while the unique “flying bearing” design makes inlet bearings unnecessary. As a result, the pumped medium does not come in contact with the bearings. This ensures clean vacuum generation and allows the full recovery of pumped gases. The direct gas path between inlet and outlet prevents dead spaces and ensures there are no process deposits inside the compression chamber.

The patented self-balancing screw

design and screw rotor mounted precisely at the centre of gravity ensure excellent running qualities and guarantee high uptime. A directly mounted canned motor makes the dimensions of the blueone series very compact.

Equipped with high-efficiency motors and idle mode capabilities, the blueone 5 offer excellent energy efficiency. With low maintenance requirements, low operating costs, a very high uptime and a long life cycle, the total cost of ownership is very low.

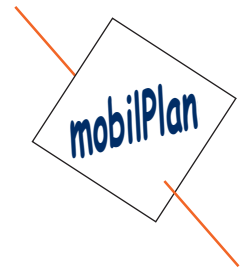
Retrofitting these screw vacuum pumps to existing systems can be performed quickly and easily due to a fit-in-place design.

The fully open communication protocol (Modbus TCP-IP) allows control of all functionalities, including idle modes and variable speed drive. It can easily be adapted to a specific network protocol using standard interface components.

blueone 5
Screw Vacuum Pump

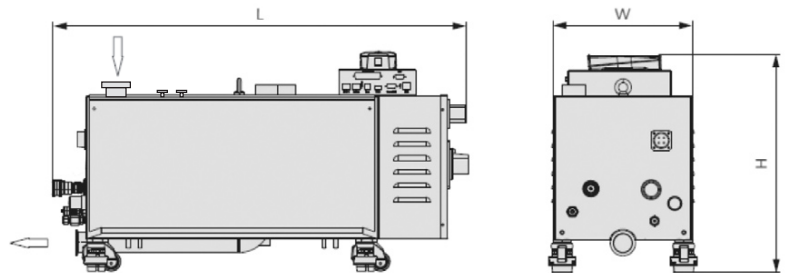


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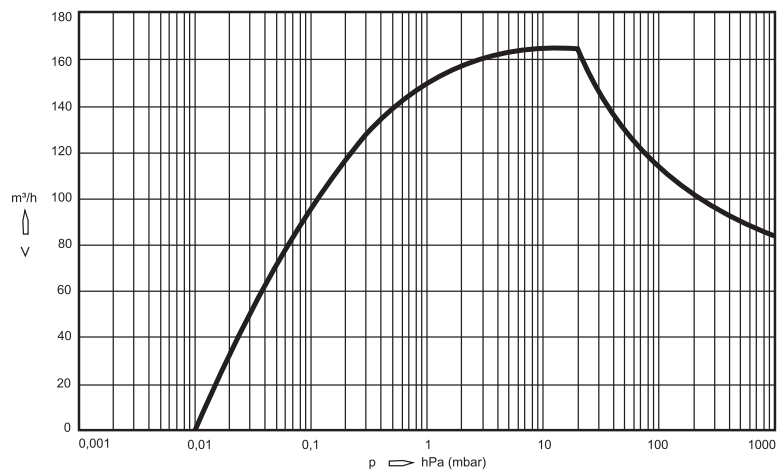


Technical specifications

Two screw rotors inside the cylinder of the blueone 5 rotate in opposite directions. The pumped medium is trapped between the cylinder and screw chambers, compressed, and transported to the gas outlet. During the compression process the screw rotors do not come in contact with each other or the cylinder. Thus, no lubricants or operating fluids are required in the compression chamber. The advanced screw design results in lower electrical energy consumption and a lower compressed gas heat load compared to standard screw designs. blueone series vacuum pumps use efficient direct water cooling resulting in an even temperature distribution throughout the pump body, and guaranteeing thermal stability throughout the process.



Pumping speed Air at 20°C - Tolerance: ± 10%



Technical data		blueone 5
Nominal pumping speed approx.	m³/h	165
Ultimate pressure	hPa (mbar)	0.005
Nominal motor rating	kW	2.9
Power consumption at ultimate pressure	kW	1.6
Nominal motor speed	min ⁻¹	4570
Noise level (ISO 2151)	dB(A)	< 58
Water consumption	l/min	min. 2.0
Nitrogen consumption	l/min	0-50
Weight approx.	kg	130
Dimensions (L x W x H)	mm	806 x 304 x 403
Gas inlet / outlet		DN 63 ISO / DN 40 KF