## COBRA Screw Vacuum Pump

### Screw Vacuum Pump BA 0100 C



- Advanced Screw Design: bell shaped construction, patented self-balancing screws
- > Efficient: air cooled, low cost of ownership, minimal maintenance, high uptime
- > Reliable: operationally reliable
- > Flexible: application-oriented
- Quiet: low sound and vibration level
- > Compact Design

The COBRA BA 0100 C is the proven dry screw vacuum pump for the evacuation of load-lock chambers and other demanding processes involved in the production of photovoltaic cells, flat panels and semiconductors. With its efficient air cooling and the highest pumping speed in its performance class, this vacuum pump is ideal for all applications requiring effective, fast and reliable vacuum generation. COBRA vacuum pumps are oil- and contact-free, allowing particle-laden media to be evacuated.

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 center of gravity ensure excellent running qualities and guarantee high uptime. A directly mounted canned motor makes the dimensions of the COBRA BA series very compact and eliminates dynamic seals.

#### **Applications**

- Load-lock for semiconductor applications
- Analytical instruments
- Thin film coating
- R&D applications
- Sterilization
- Furnaces
- Freeze-drying
- Gas recovery

COBRA – the next level of high capacity harsh duty vacuum pumps.



# COBRA Screw Vacuum Pump

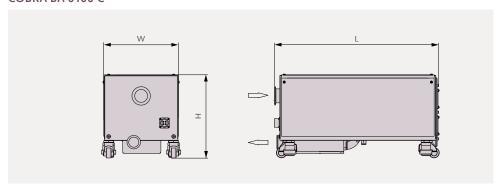


### **Technical specifications**

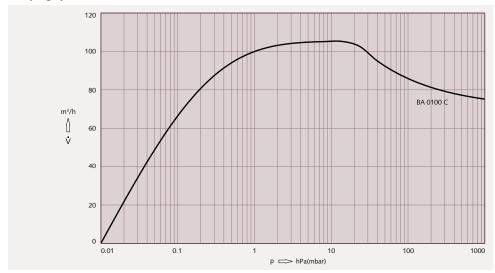
**BA 0100 C** 

Two screw rotors inside the cylinder of the COBRA BA 0100 C 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 into 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. The COBRA BA 0100 C uses efficient air cooling. A seal and dilution gas system (option) is available for pumping vapors and condensable gases.

### COBRA BA 0100 C



Pumping speed Air at 70 °F. Tolerance: ± 10%



Technical data		BA 0100 C
Nominal pumping speed	m³/h	105 (105*)
Ultimate pressure	hPa (mbar)	0.01
Nominal motor rating (Nominal system rating*)	kW	1.8 (2.2*)
Power consumption at ultimate pressure	kW	1.25 (1.3*)
Nominal motor speed	RPM	3600 (3600*)
Sound level (ISO 2151)	dB(A)	58
Nitrogen consumption	l/min	0-50
Approximate weight	kg	120
Dimensions (L x W x H)	mm	634 x 304 x 338
Gas inlet / outlet		DN 50 KF / DN 40 KF

**Busch LLC** 

All performance data is based on ambient conditions of 14.7 PSIA and 70 °F, and has a tolerance of  $\pm$  10%. \*COBRA BA 0100 C with variable frequency drive at 60 Hz operation

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