

COBRA BOB BC 100/BC 1000



COBRA BC 100/1000

Principle of operation

The COBRA single-stage screw vacuum pump range takes advantage of the dry screw pump technology to maximize product uptime.

The advanced design allows for fewer moving parts, longer up-time between service, and lower nitrogen consumption than conventional multistage compression vacuum pumps.

The screw mechanism minimizes sliding areas inside the pump and thus has optimum restart capabilities. The innovative screw design results in a lower energy consumption as compared to standard screw designs. Using the indirect cooling principle the whole pump body is working at a uniform temperature level. There are no cold spots, and thus condensation is reduced to a minimum.

The COBRA series line is ideally suited for all harsh processes, that are found in the semiconductor industry of today and tomorrow.

High reliability

Due to the well proven twin screw design and the intelligent temperature management COBRA screw pumps are highly reliable even in the harshest applications in semiconductor processes and related applications. This results in a high life expectancy.

Low cost of ownership

Long MTBF (Mean time between failure) and preventive maintenance free operation are the main reasons for a low cost of ownership. Low utility consumption and the high reliability are responsible for lower production cost in the semiconductor industry.

Improved serviceability

A smaller number of parts with rotors made from one piece and the modular design result in lower costs for overhauls.

Tunable pump performance

The tunable pumping speed of the COBRA screw vacuum pumps allows for a flexible adaptation to changing process conditions. COBRA vacuum pumps can be used as pressure control element and will save energy by running always at the optimum pumping speed. The flexible programming of this feature allows for easy tool integration.

Advanced pump monitoring

COBRA vacuum pumps are well prepared for advanced monitoring, either at the pump directly or by the central monitoring system (CMS). With the latest version of the CMS vacuum pumps as well as abatement systems, vacuum valves and pipe heaters can be monitored.

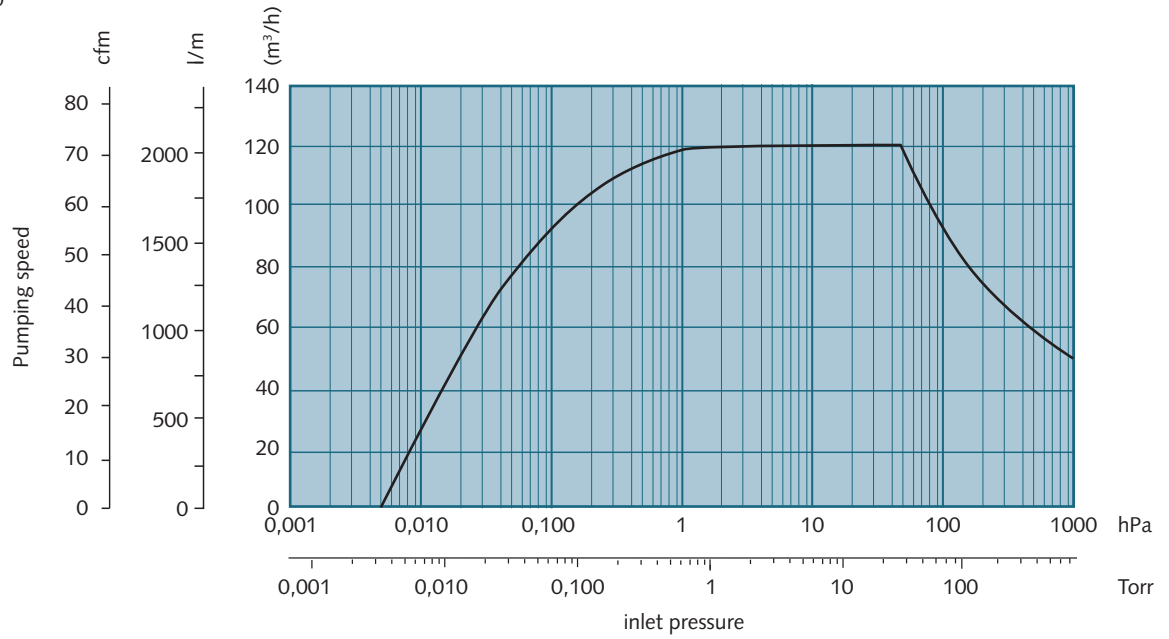
Screw vacuum pumps for the Semiconductor industry

Technical data

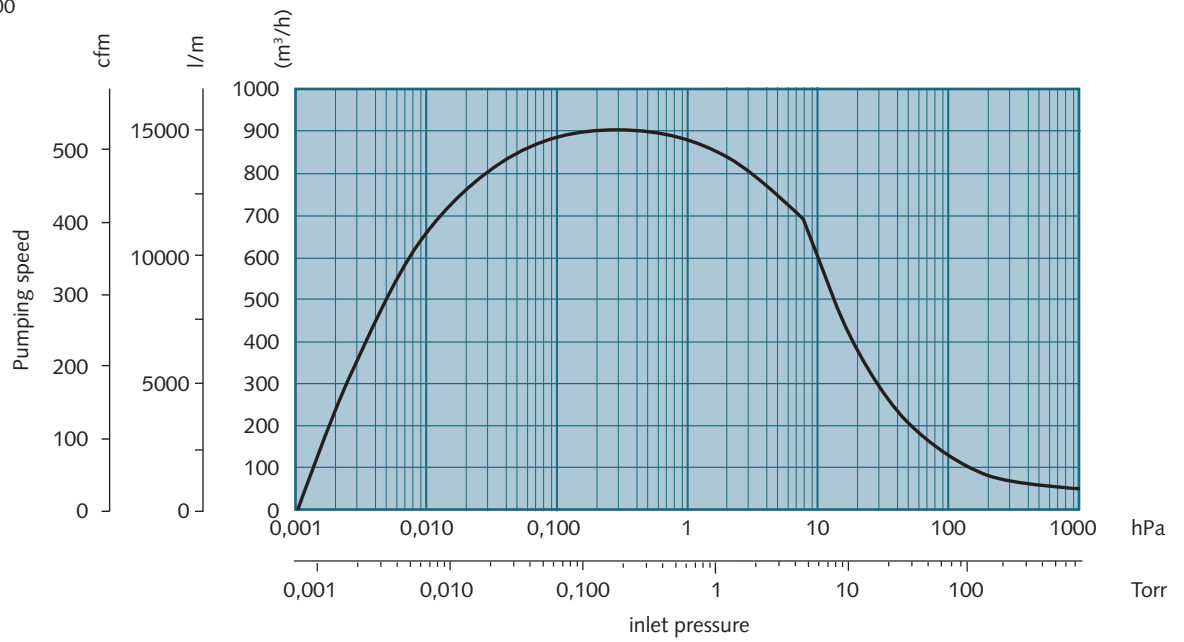
Technical data		COBRA BC 100	COBRA BC 1000
Pumping speed	m ³ /h	120	900
	l/min	2000	15000
	cfm	71	529
Pumping speed range (frequency controlled)	m ³ /h		250 - 900
	l/min		4166 - 15000
	cfm		147 - 529
Ultimate pressure	hPa (mbar)	0,01	0,001
	mTorr	7,5	0,75
Power consumption at ultimate pressure	kW	1,3	2,0
Power consumption at ultimate pressure (idle mode)	kW		1,4
Cooling water consumption	l/min	2 - 8	2 - 8
Cooling water pressure	bar	2 - 5	2 - 5
	psi		
Nitrogen consumption	l/min	0 - 50	0 - 50
Nitrogen pressure	bar	1,5	1,5
	psi		
Noise level	dB (A)	<58	<62
Inlet/outlet size	inlet	DN 50	DN 100
	outlet	DN 40	DN 40
Weight	kg	130	294
Ambient temperature	°C	0 - 40	0 - 40
	°F	32 - 104	32 - 104

Technical data

Suction capacity
COBRA BC 100



Suction capacity
COBRA BC 1000



Screw vacuum pumps for the semiconductor industry



Applications



Applications COBRA BOB

- Load lock
- Transfer
- Buffer
- Metrology
- Lithography
- PVD (Physical-Vapour-Deposition)
- PVD-Preclean
- Implant source
- RTA (Rapid-Thermal-Annealing)
- Strip/Ashing
- Oxide Etch
- Silicon Etch

Advantages COBRA BOB

- Reduced footprint
- Field proven dry screw design
- Reduced facility consumption
- Process tool integration
- Low noise/vibration levels
- Clean room compatible
- High MTBF

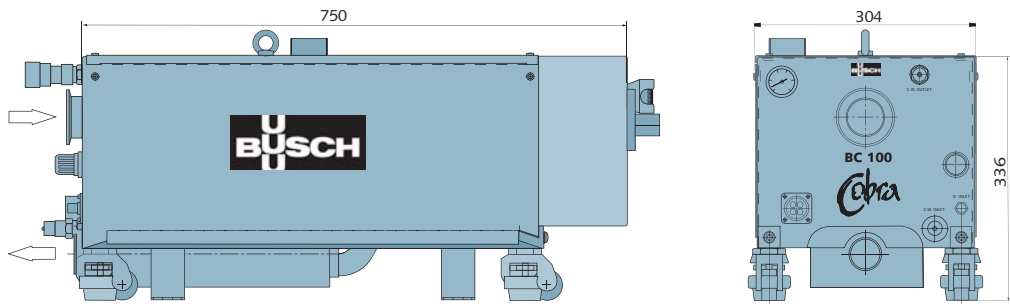
Our vacuum solutions

Our Semiconductor Vacuum Group supplies a full range of vacuum accessories suited to all semiconductor applications. In addition to this we offer a vacuum design facility providing turnkey/ project management to both the end user and equipment manufacturers.

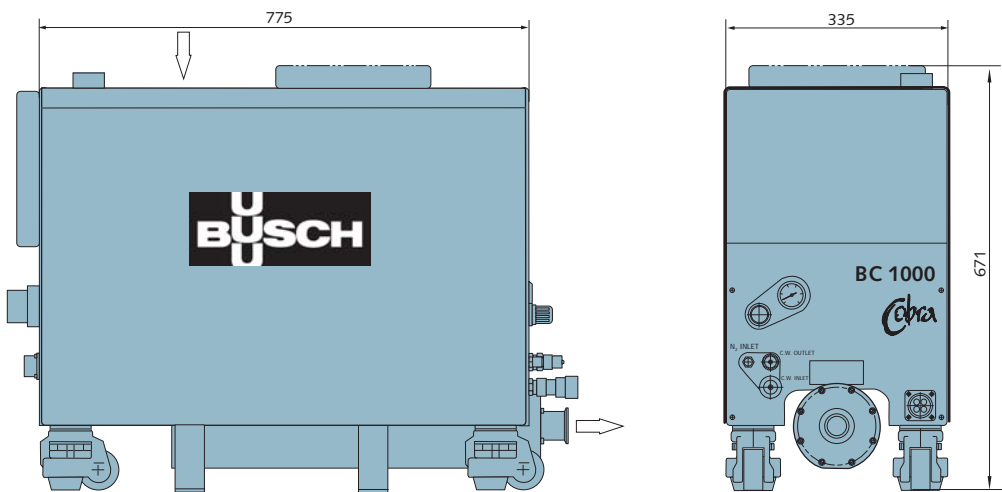
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Dimensions

Dimensions
COBRA BC 100



Dimensions
COBRA BC 1000



Busch Semiconductor Vacuum Group

Europe

Busch Semiconductor
Vacuum Group B.V.
Breudijk 2
NL 3481 LP Harmelen
info@buschsvg.nl
www.buschsvg.nl

USA

Busch Semiconductor
Vacuum Group Inc.
18430 Sutter Blvd.
Morgan Hill, CA 95037
info@buschsvg.com
www.buschsvg.com

Taiwan

Busch Semiconductor
Vacuum Group Corp.
1F, Building D, No. 120
Jhonghua Road
Hsin Chu Industrial Park
Hukou Township,
Hsin Chu County 303
semicon@busch.com.tw
www.buschsvg.com.tw

Korea

Busch Semiconductor
Vacuum Group Korea
392-1 Yangji-Ri, Yangji-Myun,
Yongin-City, Kyungki-Do
449-823 South Korea
busch@buschkorea.co.kr
www.buschsvg.co.kr

Japan

Nippon Busch K.K.
1-23-33, Megumigaoka
Hiratsuka City, Kanagawa
Japan 259-1220
info@busch.co.jp
www.buschsvg.jp

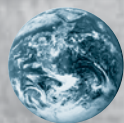
Singapore

Busch Vacuum Singapore Pte. Ltd.
20 Shaw Road, Unit 01-03
Singapore 367956
busch@busch.com.sg
www.busch.com.sg

China

Busch Semiconductor
Vacuum Group
No.5, Lane 195 Xipu Road
Songjiang Industrial Estate
East New Zone
Shanghai 201611 PRC
busch@busch-china.com
www.buschsvg.com.cn

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