



# Economic, ecologic, oil-free: The BC Converter

Flow rate: 1.08 – 54 m<sup>3</sup>/min; 38 – 1907 cfm



# Entirely oil-free compressed air, absolutely clean condensate: Converter BC 1 through BC 12 HP

The BC converter opens up completely new possibilities for providing oil-free compressed air. And it does so without using oil-free compressors or installing expensive downstream treatments. And one thing is for sure: If users want more dependability and reliability they will have to dig deeper in their pockets – and more frequently.

When it comes to holding down up-front operational costs, a converter is ideally suited for the provision of entirely oil-free compressed air because it costs less than an oil-free compressor or conventional air treatment systems. And it is dependable too: Penetration of oil into the compressed air network is absolutely impossible!

No matter if you're using a cartridge or container system – the converter excels by its high economical efficiency and maintenance friendly design. Handling expenses are extremely low because no costly checkups are required. Commonly occurring risks – such as oil penetration – have been discarded, and frequent replacement of component elements – as with filters – has been completely eliminated.

Proper disposal is no problem either – as a matter of fact, in terms of oil content the condensate is of drinking water quality! In the BOGE converter the long hydrocarbon chains of the oil contained in the compressed air are broken up into harmless carbon dioxide and water, i.e. substances occurring naturally in the air.

The catalytic converter incorporates a container with compact granulated pellets through which the compressed air circulates. This process breaks down and converts both oil droplets and oil vapours. The condensate that forms afterwards is therefore completely oil-free and can be disposed of much less expensively and without the need for additional treatment.

All in all the BOGE converter offers operational reliability of a level that cannot be attained using conventional treatment stages. Its expected useful life of 15.000 operating hours is unparalleled. At the end of this time the container with the catalytic converter granulate is simply replaced.



### Ecological in principle:

One catalyst for clean = oil-free compressed air. The oil is broken down into the natural components of the air.

### For you to work out:

- no filter pressure loss, no filter replacement
- negligibly low energy consumption (approx. 5 watts/m<sup>3</sup>)
- no costs for disposal (oil-water separator, etc.)
- direct discharge of oil-free condensate ("drinking water quality!")
- absolutely safe to operate (oil penetration impossible!)
- 15.000 maintenance free operating hours

### Applications

- breathing air
- blow air (PET)
- food industry
- pharmaceutical industry
- chemical industry
- electrical industry
- and many more

The 3<sup>rd</sup> way aside from oil-free compression and sophisticated air treatment:  
Oil-free compressed air according to quality class 1 (ISO 8573-1) thanks to the BOGE converter.



Compressor



Converter



Receiver



Dryer



BC 4



BC 50

Type	Flow rate at		max. over-pressure bar	Con-nection	Installed power kW	Fuse protection A	Supply voltage V	Specific power input kWh/m <sup>3</sup>	Pressure loss bar	Dimensions L x W x H mm	Weight kg
	7 bar m <sup>3</sup> /min	45 bar m <sup>3</sup> /min									
BC 1	1.08	–	15	3/4"	1.2	10	230	0.003	0.2	650x462x1138	100
BC 2	2.16	–	15	1"	5	16	400	0.003	0.3	965x467x1518	150
BC 4	4.32	–	15	1 1/4"	5	16	400	0.003	0.4	965x467x1518	230
BC 7	7.56	–	15	1 1/2"	5	16	400	0.003	0.4	1075x622x1718	250
BC 10	10.80	–	15	1 1/2"	7	20	400	0.004	0.4	1075x622x1718	400
BC 15	16.20	–	15	DN 50	10	20	400	0.004	0.4	1460x732x1950	500
BC 20	21.60	–	15	DN 65	14	32	400	0.005	0.4	1460x731x1950	600
BC 25	27.00	–	15	DN 65	18	32	400	0.005	0.5	1460x731x1950	770
BC 40	43.20	–	15	DN 80	28	64	400	0.005	0.5	2220x900x2240	1590
BC 50	54.00	–	15	DN 100	28	64	400	0.005	0.5	2244x900x2240	1850
BC 6 HP	–	6.48	45	3/4"	1.2	10	230	0.003	ca. 1.4	650x462x1138	100
BC 12 HP	–	12.96	45	1"	5	16	400	0.003	ca. 2.1	965x467x1518	150

**For different operating pressures the following conversion factors have to be applied:**

**Factors for 7-bar versions (BC-series)**

Working pressure bar	4	5	6	7	8	9	10	11	12	13	14	15
Factor f <sub>1</sub>	0.63	0.75	0.88	1.00	1.13	1.25	1.38	1.50	1.63	1.75	1.88	2.00

**Factors for 45-bar versions (BC-HP-series)**

Working pressure bar	5	10	20	30	40	45
Factor f <sub>1</sub>	0.13	0.24	0.46	0.67	0.89	1.00

**Example:**

**Compressor:** S 40-2, pressure: 10 bar, free air delivery: 4.63 m<sup>3</sup>/min

**Conversion factor:** 1.38

**Selected converter:** BC 4, nominal capacity at 7 bar: 4.32 m<sup>3</sup>/min

**Conversion of converter flow rate:** 4.32 m<sup>3</sup>/min x 1.38 = 5.96 m<sup>3</sup>/min

(= maximum, admissible f.a.d. of connected compressor)

**Calculation of minimum flow rate (70%) of BC 4:** 0.7 x 5.96 m<sup>3</sup>/min = 4.17 m<sup>3</sup>/min

(= necessary minimum f.a.d. of connected compressor)



Certification for quality assurance management and processes. ISO 9001:2000 is accepted worldwide as the standard for development, design, production, distribution and service of our compressors and compressed air treatment products.

## We at BOGE

We at BOGE plan, develop, manufacture, distribute and service compressed air supply systems for customers in the field of plant construction, industry and workshops.

Our ranges of services include the following:

- Planning and engineering of compressed air systems
- Oil-free piston, screw and turbo compressors
- Oil-lubricated piston and screw compressors
- Compressed air purification
- Compressed air distribution and storage
- Compressed air accessories
- Compressed air service
- System control and display.

In Germany we are one of the market leaders in our sector. Worldwide we are represented by our own branch offices, subsidiaries and distribution and service partners.



P.O. Box 100713 · 33507 Bielefeld  
 Otto-Boge-Straße 1-7 · 33739 Bielefeld  
 Fon (+49) (52 06) 601-0  
 Fax (+49) (52 06) 601-200  
 info@boge.com · www.boge.com