



BOGE PSA oxygen generators **0 3 P** to **0 15 P** 



# **Reliable and independent:**

# Produce oxygen efficiently.

# MODULAR AND EFFICIENT: PRODUCE OXYGEN AS REQUIRED.



# LOW-MAINTENANCE AND ENERGY EFFICIENT: THE PRESSURE SWING ADSORPTION METHOD (PSA).

The combination of cycle periods (one receiver regenerates itself while the adsorption process takes place in the other) and the high-quality properties of the zeolite molecular sieve (ZMS) ensure maximum productivity with the highest level of efficiency.



#### 1 TO 6 MODULES PER BANK:

The oxygen production system can be expanded flexibly at any time, without having to disassemble the bank, since the additional modules are simply screwed on. This modular concept avoids the risk of contamination of the zeolite material within the individual modules.

# MASTER BANK PLUS 1 TO 3 OPTIONAL SLAVE BANKS:

If the master bank is already fitted with six modules, up to three parallel slave banks can be added, again with one to six modules each. This allows you to produce an output of between 2.49 and 62.4 Nm³/h, depending on the required purity level. The output can be further increased, as required, by adding additional complete systems. The overall system can be centrally controlled from the master unit.

#### THE FUNCTIONAL PRINCIPLE:

The Pressure Swing Adsorption process is used to separate oxygen from the other components of the air: purified compressed air is passed through a receiver that contains a zeolite molecular sieve (ZMS) and the nitrogen molecules in the air are adsorbed by the ZMS. As soon as the ZMS is saturated with nitrogen molecules, the system switches over to the second receiver, in which the adsorption process then continues while the saturated receiver is regenerated. This process is repeated in every single module. The result: Oxygen that has a stable purity level of 90 to 95 %, or is just as pure as you actually need it to be.

**Independence pays off:** The BOGE PSA oxygen generator allows you to generate oxygen exactly as you need it, thus freeing yourself from fixed and inflexible supply contracts. Supply problems and the risks involved in handling and storing high-pressure tanks are a thing of the past. Evaporation losses are avoided and no residual quantities of oxygen are returned unused in the bottle. Instead, you generate your oxygen exactly where it is needed, without any storage or rental costs. Thanks to BOGE's highly flexible system, you can generate oxygen at purity levels between 90 and 95% and are no longer tied to purchasing your supplier's high purity class oxygen. A more economical solution for generating constant-purity oxygen than the BOGE system would be hard to find!



All from a single source: As a system provider, BOGE supplies you with an optimally tailored complete system comprising a compressor, filter, refrigerant dryer, activated carbon adsorber, compressed air receiver, oxygen generator and oxygen receiver. The result: Security of supply, independence and economic efficiency.





Easy to maintain

sieve ensure trouble-free operation

and reliable oxygen quality. This

means minimum service costs.

#### **COST-EFFECTIVE MAINTENANCE ALL FROM A SINGLE SOURCE** Thanks to their high-quality compo-BOGE PSA oxygen generators nents, BOGE PSA oxygen generaplace particularly high demands on tors are practically maintenancethe treatment components on the free. The stainless-steel valve housproduct gas side. As a system ing, the wear-free zirconium oxide provider, BOGE offers you a comsensor and the zeolite molecular prehensive range of products,



#### **ULTRAMODERN FEATURES**

BOGE PSA oxygen generators are fitted as standard with a Siemens S7 interactive 7" control unit with user-friendly touchscreen display. All generators also include a pressure sensor at the oxygen outlet. The innovative "cycle time shifting" function, available as an option, enables the container volume to be reduced.

#### **SAFE QUALITY**

With BOGE PSA oxygen generators, you avoid the risks associated with storing high-pressure cylinders and handling oxygen bottles. All of the components used are of the highest quality and the manufacturing process is rigorously monitored. The analysis device and display constantly monitor the purity level and guarantee safe reliability.



whether you need sterile filters for the medical sector, for example, or specially coated oxygen gas receivers.



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## **OVERVIEW OF THE BOGE PSA OXYGEN GENERATORS 0 3 P TO 0 15 P.**

### **MASTER BANK**

BOGE Type	Output	(Nm³/h) at different purity	Dimensions W x D x H	_	
	Purity level 90 % 0 <sub>2</sub>	Purity level 93 % 0 <sub>2</sub>	Purity level 95 % 0 <sub>2</sub>	mm	kg
0 3 P	2.62	2.54	2.49	536 x 892 x 1750	306
0 5 P	5.30	5.20	5.10	536 x 1095 x 1750	458
0 8 P	8.00	7.80	7.60	536 x 1363 x 1750	613
0 10 P	10.60	10.30	10.10	536 x 1631 x 1750	768
0 13 P	13.10	12.80	12.50	536 x 1899 x 1750	923
0 15 P	15.60	15.10	14.90	536 x 2162 x 1750	1078

# **SLAVE BANK**

BOGE Type	Output	(Nm³/h) at different purity	Dimensions W x D x H	Weight	
	Purity level 90 % 0 <sub>2</sub>	Purity level 93 % 0 <sub>2</sub>	Purity level 95% 0 <sub>2</sub>	mm	kg
0 3 PE	2.62	2.54	2.49	536 x 827 x 1527	260
0 5 PE	5.30	5.20	5.10	536 x 1095 x 1527	415
0 8 PE	8.00	7.80	7.60	536 x 1363 x 1527	570
0 10 PE	10.60	10.30	10.10	536 x 1631 x 1527	725
0 13 PE	13.10	12.80	12.50	536 x 1899 x 1527	880
0 15 PE	15.60	15.10	14.90	536 x 2162 x 1527	1035

The data provided is based on standard conditions at an ambient temperature of 20 °C, 60 % air humidity,  $\pm 0$  altitude and 7.5 bar inlet pressure. The oxygen generator requires purified compressed air that complies with class [1.4.1] as defined in ISO 8573-1 (plus activated carbon adsorber).

## **OXYGEN RECEIVER**

Capacity	Measurements in mm				Raising height	Weight	Oxygen inlet	Oxygen outlet	Inspections apertures	
litre	A	ØB	C	F	ØG	mm	kg			
Vertical recievers, painted, 16 bar										
500	2120	600	600	565	13	2320	170	G 2	G 2	1 handhole
1000	2365	790	790	721	13	2615	250	G 2	G 2	1 handhole
2000	2810	1000	1000	960	13	3060	375	G 2	G 2	1 manhole



