

# ECOTROC® GEO<sub>2</sub> Oxygen Generators

Solutions for Generating Gaseous  
Oxygen from Compressed Air



## Individuell und hochtechnologisch

KSI oxygen generators of the **ECOTROC®** GEO<sub>2</sub> series use the adsorption process to separate oxygen molecules from the nitrogen molecules from the compressed air supplied. The resulting high quality oxygen is ready for use in a wide variety of systems. With the COMFORT and PREMIUM series, KSI Filter-technik offers the right device for every requirement. Oxygen purities from 90.0% up to 99.5% and volume flows (depending on design) from 0.5 m<sup>3</sup>/h up to 335.0 m<sup>3</sup>/h are possible.

KSI oxygen generators are able to produce high-quality oxygen in an energy-efficient and thus cost-effective manner.

## Options

- ambient temperature from -50°C to +60°C
- flow measurement, pressure dew point measurement, input pressure measurement, temperature measurement, CO and CO<sub>2</sub> measurement
- interfaces: Modbus, Profibus, GSM, VMC
- load alternation control

## The ECOTROC® GEO<sub>2</sub> PLUS Plus-Effects +++

- + oxygen purity from 90% to 99.5% (high purity)
- + volume flow oxygen: from 0.5 m<sup>3</sup>/h to 335.0 m<sup>3</sup>/h
- + standard touch-control-canel incl. remote control
- + continuous measurement of oxygen purity for safe operation
- + inlet and outlet filtration included in scope of delivery
- + customizable construction (redundant components, modular extensions, certifications etc.)
- + automatic restart in case of medical applications

- modular extension
- high pressure version up to 300 bar available
- stainless steel version
- Ex-protection, Atex, IP 65, ASME

# ECOTROC® GEO<sub>2</sub>

## Oxygen Generators

### ECOTROC® GEO<sub>2</sub> COMFORT

KSI oxygen generators of the **ECOTROC® GEO<sub>2</sub> COMFORT** series use the adsorption process to separate the nitrogen molecules from the oxygen molecules in the supplied compressed air. The resulting high quality oxygen is now ready to be used in a wide variety of systems.

The **COMFORT** series is able to produce oxygen with a purity of 90% to 93% in an energy-efficient and thus cost-effective way. Depending on the design of the device, a delivery quantity of 0.6 m<sup>3</sup>/h up to 12.9 m<sup>3</sup>/h can be achieved.

### ECOTROC® GEO<sub>2</sub> PREMIUM

In the KSI oxygen generators of the **ECOTROC® GEO<sub>2</sub> PREMIUM** series, the compressed air is first cleaned of impurities such as moisture, oil vapours, particles and hydrocarbons by means of the standard protective filtration. The zeolites, a synthetic crystalline aluminium silicate, then adsorb the nitrogen and carbon dioxide molecules in the two molecular sieve beds from the now purified compressed air.

The remaining oxygen molecules flow into the product container. In order to ensure the oxygen flow, the two sieves switch alternately from adsorption mode to regeneration mode.

With this process, a purity of 90% to 99.5% (high purity) can be achieved. High-purity systems only on request. The volume flow available is between 0.5 m<sup>3</sup>/h and 335 m<sup>3</sup>/h, depending on the design of the unit.

The features of this KSI product include the clever design, which allows plug&play installation. The continuous measurement of oxygen purity ensures consistent quality. Design measures and the use of quality components ensure low-maintenance operation.

Special features of the **PREMIUM** series include the standard touch control panel, which clearly presents all available measured values. A special feature of this control is the remote control function: all information can be displayed on any PC or iPad or internet-ready device. Alternatively, the control unit has Modbus, Profibus, GSM and VMC interfaces.

Thus the **PREMIUM** series is equipped with the most modern control technology and allows a safe and comfortable operation.

In order to tailor the system to your individual requirements, we offer the possibility of integrating redundant systems, modular extensions and high-pressure variants.

# ECOTROC® GEO<sub>2</sub> COMFORT

## Oxygen Generators

### Compressed air demand

We will be pleased to inform you of the required compressed air volume flow rate for your individual requirements during the joint project agreement.

### Performance data

Type	Capacity m <sup>3</sup> /h*		
	90,0%	92,0%	93,0%
GEO2-1150 C	0,6	0,6	0,6
GEO2-1250 C	1,2	1,1	1,1
GEO2-1350 C	2,4	2,3	2,3
GEO2-1450 C	3,6	3,5	3,3
GEO2-2150 C	5,4	5,2	5,0
GEO2-2350 C	8,9	8,5	8,1
GEO2-3000 C	12,9	12,3	11,6

\*based on 7 bar inlet pressure and 20°C ambient temperature.

### Dimensions

Type	Height x Width x Depth (mm)
GEO2-1150 C to GEO2-1350 C	1645 x 810 x 680
GEO2-1450 C	1765 x 810 x 680
From GEO2-2150 C	on request

# ECOTROC® GEO<sub>2</sub> COMFORT

## Oxygen Generators

### Compressed air supply

<b>Temperature range</b>	+5 °C up to +50°C
<b>Quality</b>	ISO 8573.1, class 1: particles and oil, class 4: water
<b>Pressure dew point</b>	+3°C
<b>Operating pressure max</b>	11 bar

If you have any questions about the compressed air supply or how to provide it, please do not hesitate to contact us.

<b>Further data</b>	
Ambient temperature	+5°C to +40°C
Noise level	55 to max. 78 dB
Electrical connection	110/230 V / 60/50 Hz
Pressure device directive	2014/68/EU
Oxygen purity	95,00% to 99,00%

### Options

- inlet and outlet filtration
- compressed air processing

### The ECOTROC® GEO<sub>2</sub> COMFORT Plus-Effects +++

- + easy installation, plug&play
- + continuous measurement of oxygen purity for safe operation
- + low-maintenance, high-quality components



# ECOTROC® GEO2 PREMIUM

## Oxygen Generators

### Compressed air demand

We will be pleased to inform you of the required compressed air volume flow rate for your individual requirements during the joint project agreement.

### Performance data

Type	Capacity m <sup>3</sup> /h*				
	90,0%	92,0%	93,0%	94,0%	95,0%
GEO2-1150 P	0,6	0,6	0,6	0,5	0,5
GEO2-1250 P	1,2	1,1	1,1	1,0	1,0
GEO2-1350 P	2,4	2,3	2,3	2,1	2,0
GEO2-1450 P	3,6	3,5	3,3	3,1	3,0
GEO2-2150 P	5,4	5,2	5,0	4,5	4,3
GEO2-2350 P	8,9	8,5	8,1	7,4	7,1
GEO2-3000 P	12,9	12,3	11,6	10,5	9,8
GEO2-3150 P	15,0	14,3	14,0	13,6	12,9
GEO2-3250 P	18,0	17,2	16,8	16,3	15,4
GEO2-3350 P	21,0	20,0	19,4	19,0	18,0
GEO2-3380 P	30,0	29,0	28,0	27,0	26,0
GEO2-3450 P	38,0	36,0	35,0	34,0	33,0
GEO2-3650 P	53,0	50,0	49,0	48,0	45,0
GEO2-3850 P	84,0	80,0	77,4	76,0	72,0
GEO2-4150 P	108,0	103,0	99,5	97,3	92,0
GEO2-4250 P	132,0	125,4	121,5	119,0	112,3
GEO2-4350 P	156,0	148,3	144,0	140,5	133,0
GEO2-4450 P	198,0	188,2	182,3	172,0	168,4
GEO2-4550 P	240,0	228,0	221,0	216,0	204,0
GEO2-4650 P	335,0	330,0	320,0	305,0	288,0
<b>High purity</b>	<b>99,5%</b>				
GEO2-5000 P	2,0				
GEO2-5150 P	5,0				
GEO2-5250 P	10,0				
GEO2-5350 P	15,0				
GEO2-5450 P	20,0				

\*based on 7 bar inlet pressure and 20°C ambient temperature.

### Dimensions

Type	Height x Width x Depth (mm)
GEO2-1150 P and GEO2-1250 P	925 x 560 x 1285
GEO2-1350 P and GEO2-1450 P	1000 x 1000 x 1710
From GEO2-2150 P	on request

# ECOTROC® GEO<sub>2</sub> PREMIUM

## Oxygen Generators

### Compressed air supply

<b>Temperature range</b>	+5 °C up to +50°C
<b>Quality</b>	ISO 8573.1, class 1: particles and oil, class 4: water
<b>Pressure dew point</b>	+3°C
<b>Operating pressure max</b>	11 bar

If you have any questions about the compressed air supply or how to provide it, please do not hesitate to contact us.

<b>Further data</b>	
Ambient temperature	+5°C to +40°C
Noise level	55 to max. 85 dB
Electrical connection	110/230 V / 60/50 Hz
Pressure device directive	2014/68/EU
Oxygen purity	90,00% to 99,5%

### Options

- ambient temperature from -50°C to +60°C
- flow measurement, pressure dew point measurement, inlet pressure measurement, temperature measurement, CO and CO<sub>2</sub> measurement
- interfaces: Modbus, Profibus, GSM, VMC
- redundant components
- load alternation control
- modular extension
- high pressure version up to 300 bar available
- stainless steel version
- Ex-protection, Atex, IP 65, ASME

### The ECOTROC® GEN<sub>2</sub> PREMIUM Plus Effects +++

- + inlet and outlet filtration included in scope of delivery
- + continuous measurement of nitrogen purity
- + clear and advanced control panel
- + efficient procedure
- + redundancy, modular extensions and various possible versions (Atex, ASME etc.)
  - ▶ a generator perfectly tailored to your needs
- + automatic restart for medical applications



## Oxygen Generators

### Vessel sizes

The vessel sizes are identical for the COMFORT and PREMIUM series.

The buffer vessel (BV) is used in the system before the generator, the product vessel (PV) in the system after the generator.

Type		Vessel volume in l				
		90,0%	92,0%	93,0%	94,0%	95,0%
GEO2-1150	BV	150	150	150	150	150
	PV	150	150	150	150	150
GEO2-1250	BV	150	150	150	150	150
	PV	150	150	150	150	150
GEO2-1350	BV	150	150	150	150	150
	PV	150	150	150	150	150
GEO2-1450	BV	270	270	270	270	270
	PV	270	270	270	270	270
GEO2-2150	BV	270	270	270	270	270
	PV	270	270	270	270	270
GEO2-2350	BV	270	270	270	270	270
	PV	270	270	270	270	270
GEO2-3000	BV	500	500	500	500	500
	PV	500	500	500	500	500
GEO2-3150	BV	500	500	500	500	500
	PV	500	500	500	500	500
GEO2-3250	BV	1.000	1.000	1.000	1.000	1.000
	PV	1.000	1.000	1.000	1.000	1.000
GEO2-3350	BV	1.000	1.000	1.000	1.000	1.000
	PV	1.000	1.000	1.000	1.000	1.000
GEO2-3380	BV	2.000	2.000	2.000	2.000	2.000
	PV	1.500	1.500	1.500	1.500	1.500
GEO2-3450	BV	3.000	3.000	3.000	3.000	3.000
	PV	1.500	1.500	1.500	1.500	1.500
GEO2-3650	BV	4.000	4.000	4.000	4.000	4.000
	PV	2.000	2.000	2.000	2.000	2.000
GEO2-3850	BV	6.000	6.000	6.000	6.000	6.000
	PV	4.000	4.000	4.000	4.000	4.000
GEO2-4150	BV	8.000	8.000	8.000	8.000	8.000
	PV	7.000	7.000	7.000	7.000	7.000
GEO2-4250	BV	10.000	10.000	10.000	10.000	10.000
	PV	10.000	10.000	10.000	10.000	10.000
GEO2-4350	BV	12.000	12.000	12.000	12.000	12.000
	PV	10.000	10.000	10.000	10.000	10.000
GEO2-4450	BV	16.000	16.000	16.000	16.000	16.000
	PV	15.000	15.000	15.000	15.000	15.000
GEO2-4550	BV	20.000	20.000	20.000	20.000	20.000
	PV	20.000	20.000	20.000	20.000	20.000
GEO2-4650	BV	24.000	24.000	24.000	24.000	24.000
	PV	20.000	20.000	20.000	20.000	20.000