

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

Solutions for Generating Gaseous  
Oxygen from Compressed Air



Rev 01\_0121

החברה לטכנולוגיות אוויר דחוס בע"מ  
מערכות ייבוש וסינון  
מחוללי חמצן וחנקן  
תכנון והקמה  
**PAT**  
שירות מדחסים  
לאוויר רפואי Medical  
לאוויר למזון Food ותעשייה  
טלפון: 09-7409913 פקס: 09-7469848  
finish@pat-tech.co.il www.pat-tech.co.il



## Individual and high-tech

KSI oxygen generators of the **ECOTROC® GEO<sub>2</sub>** series use the adsorption process to separate oxygen molecules from the nitrogen molecules in the compressed air supplied. The resulting high quality oxygen is now ready to be used in a wide variety of systems. With the GEO<sub>2</sub> series, KSI Filtertechnik offers the right unit for every requirement. Oxygen purities from 90.0% up to 95% and volume flows (depending on the design) from 0.5 Nm<sup>3</sup>/h to 387 Nm<sup>3</sup>/h are possible.

KSI oxygen generators are capable of producing high-quality oxygen in an energy-efficient and thus cost-effective manner.

## Options

- ambient temperature from 5°C to +40°C
- flow measurement, pressure dew point measurement, input pressure measurement, temperature measurement, CO and CO<sub>2</sub> measurement
- Touch Premium Device (9" control)
- load alternation control

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

- + oxygen purity from 90% to 95% (high purity)
- + clear touch control panel incl. remote control as standard
- + 2-stage inlet filtration with pressure regulator included in delivery
- + easy installation, plug&play
- + low maintenance due to high quality components
- + continuous measurement of oxygen purity for safe operation
- + savings in compressed air supply due to PAN process
- + optimal use of adsorbent material
- + customisable design (redundant components, modular extensions, certifications, etc.)
- + automatic restart for medical applications

- modular extension
- Interfaces: CO<sub>2</sub> Analyser Profinet/Modbus, Remote Control Analogue Outputs, Alarm via e-mail, Autopure, sterile filter with needle valve in output
- Ex-protection, Atex, IP 65, ASME

# ECOTROC® GEO<sub>2</sub>

## Oxygen Generators



### ECOTROC® GEO<sub>2</sub>

KSI oxygen generators of the **ECOTROC® GEO<sub>2</sub>** 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 GEO<sub>2</sub> series is capable of producing oxygen with a purity of 90% to 95% in an energy-efficient and thus cost-effective manner.

### Purity from 90% up to 95%

In the KSI oxygen generators of the **ECOTROC® GEO<sub>2</sub>** series, the standard pre-filtration first removes impurities such as moisture (only by drying), particles and hydrocarbons from the compressed air. Then the zeolites in the two molecular sieve beds adsorb the nitrogen molecules from the now purified compressed air.

The oxygen molecules that now remain flow into the product container. To ensure the flow of oxygen, the two screens switch alternately from adsorption mode to regeneration mode (PSA).

With this process, a purity of 90% up to 95% can be achieved. The available volume flow is 0.5 Nm<sup>3</sup>/h up to 387 Nm<sup>3</sup>/h, depending on the design of the unit.

Special features of the **Touch Premium Device control (TPD)** include the fact that it is Ethernet-capable and that all available measured values are not only clearly displayed but also stored for 30 days.

A special feature of this control unit is the optional remote control function, with which all information can be called up from any PC or iPad via the Internet. Control from any device with an Internet connection is thus also possible. Alternatively, the control unit has Modbus TCP, Modbus RTU and Profinet.

Thus, the **Touch Premium Device control (TPD)** is equipped with the most control technology and allows safe and convenient operation.

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

Depending on the design of the unit, an **ECOTROC® GEO<sub>2</sub>** delivery rate of 0.5 Nm<sup>3</sup>/h up to 387 Nm<sup>3</sup>/h is achievable.

The features of this KSI product include the simple design, which allows plug & play installation. Continuous measurement of oxygen purity ensures quality throughout. Low-maintenance operation is ensured by design measures and the use of quality components.



# ECOTROC® GEO2

## Oxygen Generators



### GEO2 1150 – 8600

Type	Purity	90%	93%	95%
<b>GEO2 1150</b>	Capacity Nm <sup>3</sup> /h	0,70	0,60	0,50
	Comp. air factor	14	14	16,8
	Comp. air Nm <sup>3</sup> /h	9,8	8,4	8,4
	Comp. air m <sup>3</sup> /h	10,68	9,15	9,15
	Product vessel (l)	150	150	150
	Comp. air vessel (l)	150	150	150
<b>GEO2 1250</b>	Capacity Nm <sup>3</sup> /h	1,20	1,10	1,00
	Comp. air factor	14	15,27	16,8
	Comp. air Nm <sup>3</sup> /h	16,8	16,8	16,8
	Comp. air m <sup>3</sup> /h	18,3	18,3	18,3
	Product vessel (l)	150	150	150
	Comp. air vessel (l)	150	150	150
<b>GEO2 1350</b>	Capacity Nm <sup>3</sup> /h	2,5	2,3	2
	Comp. air factor	12,25	12,78	14,7
	Comp. air Nm <sup>3</sup> /h	30,63	29,4	29,4
	Comp. air m <sup>3</sup> /h	33,37	32,03	32,03
	Product vessel (l)	150	150	150
	Comp. air vessel (l)	150	150	150
<b>GEO2 1450</b>	Capacity Nm <sup>3</sup> /h	3,6	3,3	3
	Comp. air factor	10,5	11,45	12,6
	Comp. air Nm <sup>3</sup> /h	37,8	37,8	37,8
	Comp. air m <sup>3</sup> /h	41,18	41,18	41,18
	Product vessel (l)	270	270	270
	Comp. air vessel (l)	270	270	270
<b>GEO2 2150</b>	Capacity Nm <sup>3</sup> /h	5,4	5	4,3
	Comp. air factor	10,11	10,92	12,7
	Comp. air Nm <sup>3</sup> /h	54,6	54,6	54,6
	Comp. air m <sup>3</sup> /h	59,49	59,49	59,49
	Product vessel (l)	270	270	270
	Comp. air vessel (l)	270	270	270
<b>GEO2 2350</b>	Capacity Nm <sup>3</sup> /h	8,8	7,8	6,8
	Comp. air factor	11,8	12,96	14,79
	Comp. air Nm <sup>3</sup> /h	103,82	101,11	100,56
	Comp. air m <sup>3</sup> /h	113,11	110,16	109,56
	Product vessel (l)	270	270	270
	Comp. air vessel (l)	500	500	500

Type	Purity	90%	93%	95%
<b>GEO2 8000</b>	Capacity Nm <sup>3</sup> /h	9,4	8,4	7,5
	Comp. air factor	10	11	11,5
	Comp. air Nm <sup>3</sup> /h	94	92,4	86,25
	Comp. air m <sup>3</sup> /h	102,41	100,67	93,97
	Product vessel (l)	500	500	500
	Comp. air vessel (l)	750	750	750
<b>GEO2 8100</b>	Capacity Nm <sup>3</sup> /h	12	11	10
	Comp. air factor	10	11	11,5
	Comp. air Nm <sup>3</sup> /h	120	121	115
	Comp. air m <sup>3</sup> /h	130,74	131,83	125,29
	Product vessel (l)	500	500	500
	Comp. air vessel (l)	750	750	750
<b>GEO2 8200</b>	Capacity Nm <sup>3</sup> /h	14,50	13,20	12,00
	Comp. air factor	10	11	11,5
	Comp. air Nm <sup>3</sup> /h	145	145,2	138
	Comp. air m <sup>3</sup> /h	157,98	158,2	150,35
	Product vessel (l)	750	750	750
	Comp. air vessel (l)	1.000	1.000	1.000
<b>GEO2 8300</b>	Capacity Nm <sup>3</sup> /h	18,5	16,8	15,5
	Comp. air factor	10	11	11,5
	Comp. air Nm <sup>3</sup> /h	185	184,8	178,25
	Comp. air m <sup>3</sup> /h	201,56	201,34	194,2
	Product vessel (l)	1.000	1.000	1.000
	Comp. air vessel (l)	1.500	1.500	1.500
<b>GEO2 8400</b>	Capacity Nm <sup>3</sup> /h	29,3	26,6	24,2
	Comp. air factor	10	11	11,5
	Comp. air Nm <sup>3</sup> /h	293	292,6	278,3
	Comp. air m <sup>3</sup> /h	319,22	318,79	303,21
	Product vessel (l)	1.500	1.500	1.500
	Comp. air vessel (l)	2.000	2.000	2.000
<b>GEO2 8500</b>	Capacity Nm <sup>3</sup> /h	41	37,3	33,9
	Comp. air factor	10	11	11,5
	Comp. air Nm <sup>3</sup> /h	410	410,3	389,85
	Comp. air m <sup>3</sup> /h	446,69	447,02	424,74
	Product vessel (l)	2.000	2.000	2.000
	Comp. air vessel (l)	3.000	3.000	3.000
<b>GEO2 8600</b>	Capacity Nm <sup>3</sup> /h	59,9	54,5	49,5
	Comp. air factor	10	11	11,5
	Comp. air Nm <sup>3</sup> /h	599	599,5	569,25
	Comp. air m <sup>3</sup> /h	652,61	653,15	620,2
	Product vessel (l)	2.500	2.500	2.500
	Comp. air vessel (l)	4.000	4.000	4.000

# ECOTROC® GEO2

## Oxygen Generators



### GEO2 8700 – 8950

Type	Purity	90%	93%	95%
<b>GEO2 8700</b>	<b>Capacity Nm<sup>3</sup>/h</b>	79,2	72	65,5
	Comp. air factor	10	11	11,5
	Comp. air Nm <sup>3</sup> /h	792	792	753,25
	Comp. air m <sup>3</sup> /h	862,88	862,88	820,66
	Product vessel (l)	3.500	3.500	3.500
	Comp. air vessel (l)	5.500	5.500	5.500
<b>GEO2 8800</b>	<b>Capacity Nm<sup>3</sup>/h</b>	104,5	95	87
	Comp. air factor	10	11	11,5
	Comp. air Nm <sup>3</sup> /h	1.045,00	1.045,00	1.000,50
	Comp. air m <sup>3</sup> /h	1.138,53	1.138,53	1.090,04
	Product vessel (l)	4.500	4.500	4.500
	Comp. air vessel (l)	7.000	7.000	7.000
<b>GEO2 8900</b>	<b>Capacity Nm<sup>3</sup>/h</b>	137,5	125	107
	Comp. air factor	10	11	11,5
	Comp. air Nm <sup>3</sup> /h	1.375,00	1.375,00	1.230,50
	Comp. air m <sup>3</sup> /h	1.498,06	1.498,06	1.340,63
	Product vessel (l)	5.500	5.500	5.500
	Comp. air vessel (l)	8.000	8.000	8.000
<b>GEO2 8910</b>	<b>Capacity Nm<sup>3</sup>/h</b>	153,82	139,83	127,12
	Comp. air factor	10	11	11,5
	Comp. air Nm <sup>3</sup> /h	1.538,20	1.538,13	1.461,88
	Comp. air m <sup>3</sup> /h	1.675,87	1.675,79	1.592,72
	Product vessel (l)	6.500	6.500	6.500
	Comp. air vessel (l)	10.000	10.000	10.000

Type	Purity	90%	93%	95%
<b>GEO2 8920</b>	<b>Capacity Nm<sup>3</sup>/h</b>	192,5	175	160
	Comp. air factor	10	11	11,5
	Comp. air Nm <sup>3</sup> /h	1.925,00	1.925,00	1.840,00
	Comp. air m <sup>3</sup> /h	2.097,28	2.097,28	2.004,68
	Product vessel (l)	7.500	7.500	7.500
	Comp. air vessel (l)	11.000	11.000	11.000
<b>GEO2 8930</b>	<b>Capacity Nm<sup>3</sup>/h</b>	242	220	200
	Comp. air factor	10	11	11,5
	Comp. air Nm <sup>3</sup> /h	2.420,00	2.420,00	2.300,00
	Comp. air m <sup>3</sup> /h	2.636,59	2.636,59	2.505,85
	Product vessel (l)	9.000	9.000	9.000
	Comp. air vessel (l)	13.500	13.500	13.500
<b>GEO2 8940</b>	<b>Capacity Nm<sup>3</sup>/h</b>	290	264	240
	Comp. air factor	10	11	11,5
	Comp. air Nm <sup>3</sup> /h	2.900,00	2.904,00	2.760,00
	Comp. air m <sup>3</sup> /h	3.159,55	3.163,90	3.007,02
	Product vessel (l)	11.000	11.000	11.000
	Comp. air vessel (l)	16.000	16.000	16.000
<b>GEO2 8950</b>	<b>Capacity Nm<sup>3</sup>/h</b>	387	352	320
	Comp. air factor	10	11	11,5
	Comp. air Nm <sup>3</sup> /h	3.870,00	3.872,00	3.680,00
	Comp. air m <sup>3</sup> /h	4.216,36	4.218,54	4.009,35
	Product vessel (l)	15.000	15.000	15.000
	Comp. air vessel (l)	22.000	22.000	22.000