OMEGA AIR

5-6 barg
operating pressure

5 to 50 °C
operating temperature range

<-60 °C
dew points (atmospheric)

1,02 to 94,9 Nm³/h
capacity

up to 95 %
O_2 purity

DESCRIPTION

The O-GEN series oxygen generators extract the available oxygen in the ambient air from the other gases by applying the Pressure Swing Adsorption (PSA) technology. During the PSA process compressed, cleaned ambient air is led to a molecular sieve bed, which allows the oxygen to pass through as a product gas, but adsorbs other gases. The sieve releases the adsorbed gases to the atmosphere, when the outlet valve is closed and the bed pressure returns to ambient pressure. Subsequently the bed will be purged with oxygen before fresh compressed air will enter for a new production cycle. In order to guarantee a constant product flow, O-GEN oxygen generators use modules of two molecular sieve beds, which alternatively switch between the adsorption and the regeneration phase. Under normal operating conditions and with correct maintenance the molecular sieve beds will have an almost indefinite lifetime.

APPLICATIONS

• Aquaculture
• Feed Gas for Ozone
  Generators
• Glass blowing
• Leaching
• NOx Reduction for Fuel
  Burners
• Oxygen Lancing
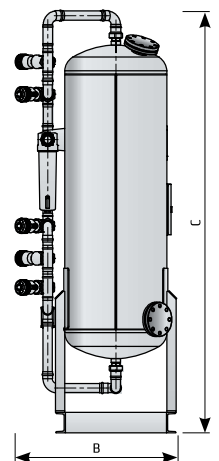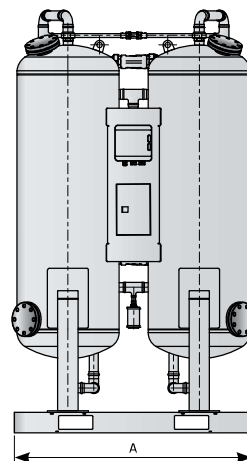• Welding, Brazing
• Wellness

O-GEN SERIES
PSA OXYGEN GENERATORS

STANDARD EQUIPMENT

• Set of External Feed Air Filters
• Adsorber Vessels in Carbon Steel
• Long life Pneumatic Valves
• Internal Piping & Fittings in SS316
• Exhaust Mufflers
• Air and Oxygen flow Regulation
• Control System with SIEMENS PLC
• WebControl
• Pressure Transmitter for Automated Idle-Mode

OPTIONAL EQUIPMENT

• Oxygen Analyzer with Zirconium-Oxide Sensor
• Electronic Product Flow Meter
• Feed Air / Product Moisture Analyser
• Oxygen Booster with Cylinder Filling System
• Feed Air / Product Temperature Transmitters
• Touch screen or Semi-Graphical Operator Interface
• Sterile Filters

TECHNICAL DATA						
Type	**Connection**		**Dimensions [mm]**			**Mass**
	In	**Out**	**A**	**B**	**C**	**kg**
O-GEN 01	1/2"	1/2"	635	530	1650	130
O-GEN 02	1/2"	1/2"	685	530	1650	190
O-GEN 03	1/2"	1/2"	795	545	1655	230
O-GEN 04	1/2"	1/2"	795	585	1920	295
O-GEN 05	1/2"	1/2"	845	660	1975	410
O-GEN 06	1/2"	1/2"	950	720	2005	500
O-GEN 08	1/2"	1/2"	1040	780	2005	585
O-GEN 10	1"	1/2"	1100	780	2150	730
O-GEN 13	1"	1/2"	1150	795	2335	835
O-GEN 16	1"	1/2"	1250	850	2380	980
O-GEN 20	1"	1/2"	1330	890	2420	1120
O-GEN 23	1 1/4"	1/2"	1425	945	2480	1260
O-GEN 29	1 1/4"	1/2"	1550	1030	2520	1350
O-GEN 35	1 1/2"	1/2"	1680	1090	2580	1395
O-GEN 44	1 1/2"	1/2"	1805	1160	2615	1459
O-GEN 50	2"	1/2"	1900	1180	2680	1553
O-GEN 57	2"	1/2"	2070	1210	2720	1685
O-GEN 64	2"	1/2"	2180	1250	2750	1810
O-GEN 75	2"	1/2"	2255	1280	2780	1937
O-GEN 84	2 1/2"	1"	2480	1370	2850	2560
O-GEN 100	2 1/2"	1"	2720	1470	2880	3640

PERFORMANCE						
Type		**Inlet press. [barg]**	**Dischar. p. [barg]**	**Oxygen purity [%]**		
				90	**93[1]**	**95**
O-GEN 01	O_2 flow [Nm³/h]	6	4,5	1,07	1,02	0,97
			Feed air consumption [Nm³/h]	11,6	11,4	11,3
O-GEN 02	O_2 flow [Nm³/h]	6	4,5	1,80	1,71	1,63
			Feed air consumption [Nm³/h]	19,6	19,3	19,0
O-GEN 03	O_2 flow [Nm³/h]	6	4,5	2,88	2,75	2,62
			Feed air consumption [Nm³/h]	31,4	30,9	30,4
O-GEN 04	O_2 flow [Nm³/h]	6	4,5	3,56	3,40	3,24
			Feed air consumption [Nm³/h]	38,8	38,2	37,6
O-GEN 05	O_2 flow [Nm³/h]	6	4,5	5,07	4,84	4,61
			Feed air consumption [Nm³/h]	55,2	54,4	53,6
O-GEN 06	O_2 flow [Nm³/h]	6	4,5	6,50	6,21	5,92
			Feed air consumption [Nm³/h]	70,9	69,8	68,7
O-GEN 08	O_2 flow [Nm³/h]	6	4,5	8,11	7,74	7,38
			Feed air consumption [Nm³/h]	88,4	87,1	85,7
O-GEN 10	O_2 flow [Nm³/h]	6	4,5	10,00	9,55	9,10
			Feed air consumption [Nm³/h]	109,0	107,4	105,7
O-GEN 13	O_2 flow [Nm³/h]	6	4,5	13,29	12,69	12,09
			Feed air consumption [Nm³/h]	144,8	142,7	140,5
O-GEN 16	O_2 flow [Nm³/h]	6	4,5	16,00	15,28	14,56
			Feed air consumption [Nm³/h]	174,4	171,8	169,2
O-GEN 20	O_2 flow [Nm³/h]	6	4,5	19,50	18,62	17,75
			Feed air consumption [Nm³/h]	212,6	209,4	206,2
O-GEN 23	O_2 flow [Nm³/h]	6	4,5	23,28	22,23	21,19
			Feed air consumption [Nm³/h]	253,8	250,0	246,1
O-GEN 29	O_2 flow [Nm³/h]	6	4,5	29,0	27,7	26,39
			Feed air consumption [Nm³/h]	316,1	311,4	306,6
O-GEN 35	O_2 flow [Nm³/h]	6	4,5	35,0	33,43	31,85
			Feed air consumption [Nm³/h]	381,5	375,8	370,1
O-GEN 44	O_2 flow [Nm³/h]	6	4,5	43,77	41,8	39,83
			Feed air consumption [Nm³/h]	477,0	469,9	462,7
O-GEN 50	O_2 flow [Nm³/h]	6	4,5	50,0	47,75	45,5
			Feed air consumption [Nm³/h]	545,0	536,8	528,7
O-GEN 57	O_2 flow [Nm³/h]	6	4,5	57,0	54,44	51,87
			Feed air consumption [Nm³/h]	621,3	612,0	602,7
O-GEN 64	O_2 flow [Nm³/h]	6	4,5	64,0	61,12	58,24
			Feed air consumption [Nm³/h]	697,6	687,1	676,7
O-GEN 75	O_2 flow [Nm³/h]	6	4,5	74,92	71,54	68,17
			Feed air consumption [Nm³/h]	816,6	804,3	792,1
O-GEN 84	O_2 flow [Nm³/h]	6	4,5	84,0	80,22	76,44
			Feed air consumption [Nm³/h]	915,6	901,9	888,1
O-GEN 100	O_2 flow [Nm³/h]	6	4,5	99,4	94,93	90,46
			Feed air consumption [Nm³/h]	1083,5	1067,3	1051,0