



6-10 bar

operating pressure

5 to 50 °C

operating temp. range (feed air)

< -45 °C

dew points (atmospheric)

0,83 to 766,8 Nm³/h

capacity

up to 99,999 %

N₂ purity

DESCRIPTION

The N-GEN nitrogen generators extract the available nitrogen 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 nitrogen 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 nitrogen before fresh compressed air will enter for a new production cycle.

In order to guarantee a constant product flow N-GEN nitrogen generators use two molecular sieve beds, which alternatively switch between the adsorption and the regeneration phase.

APPLICATIONS

- Blanketing of Chemicals
- Gas Assisted Injection Moulding (GAIM)
- Heat Treatment of Ferrous & Non-Ferrous Metals
- Inerting of Flammable Liquids
- Laser Cutting
- Prevention of Dust Explosions
- Re-flow and Wave Soldering of PCBs
- UV-Curing of Coatings
- Food processing

N-GEN SERIES

PSA NITROGEN GENERATORS

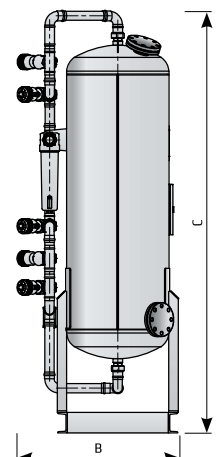
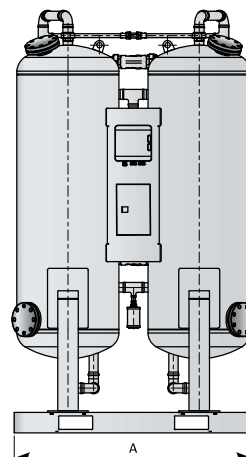


STANDARD EQUIPMENT

- Set of External Feed Air Filters
- Adsorber Vessels in Carbon Steel
- Long life Pneumatic and Solenoid Valves
- Internal Piping & Fittings zinc plated carbon steel
- Product Pressure Transmitters
- Nitrogen and Air flow Regulation
- Pressure Regulator
- Control System with SIEMENS PLC
- WebControl

OPTIONAL EQUIPMENT

- Oxygen Analyser
- Electronic Product Flow Meter
- Feed Air / Product Moisture Analyser
- Feed Air / Product Temperature Transmitters
- Nitrogen Sterile Filters
- Nitrogen Booster
- Nitrogen Cylinder Filling System
- Touch screen Interface
- Serial communications



TECHNICAL DATA						
Type	Connection		Dimensions [mm]			Mass
	In	Out	A	B	C	kg
N-GEN 03	1/2"	1/2"	1085	550	1616	126
N-GEN 05	1/2"	1/2"	1093	550	1734	160
N-GEN 10	1/2"	1/2"	1070	550	1641	205
N-GEN 15	1/2"	1/2"	1079	550	1760	255
N-GEN 20	1"	1/2"	1132	550	1913	335
N-GEN 25	1"	1/2"	1297	760	2048	585
N-GEN 35	1"	1/2"	1453	760	2055	725
N-GEN 50	1"	1/2"	1450	760	2102	845
N-GEN 65	2"	1/2"	1688	860	2184	1170
N-GEN 80	2"	1"	1688	860	2334	1290
N-GEN 100	2"	1"	1848	1010	2267	1675
N-GEN 150	2"	1"	2060	1160	2378	2260
N-GEN 200	2"	1"	2293	1325	2396	2877
N-GEN 250	2"	1"	2605	1425	2500	3950
N-GEN 300	2"	2"	2815	1625	2605	4660
N-GEN 400	3"	2"	3070	1675	2735	6850

PERFORMANCE											
Type		Inlet pressure	Discharge pressure	Residual Oxygen [vol. %]							
				barg	barg	3	2	1	0,5	0,1	0,01
				Total inert gas purity [vol. %]							
				97	98	99	99,5	99,9	99,99	99,999*	
N-GEN 03	N ₂ flow [Nm ³ /h]	7,5	6,3	5,68	5,36	4,88	3,44	2,56	1,47	0,83	
	Feed air consumption [Nm ³ /h]			10,3	10,3	10,2	9,3	9,2	7,2	4,7	
N-GEN 05	N ₂ flow [Nm ³ /h]	7,5	6,3	9,23	8,71	7,93	5,59	4,16	2,39	1,35	
	Feed air consumption [Nm ³ /h]			16,8	16,7	16,7	15,1	15,0	11,7	7,6	
N-GEN 10	N ₂ flow [Nm ³ /h]	7,5	6,3	15,6	14,7	13,4	9,5	7,0	4,0	2,3	
	Feed air consumption [Nm ³ /h]			28,9	28,3	28,4	25,5	25,3	19,8	12,8	
N-GEN 15	N ₂ flow [Nm ³ /h]	7,5	6,3	20,9	19,8	18,0	12,7	9,4	5,4	3,1	
	Feed air consumption [Nm ³ /h]			38,1	37,9	37,8	34,2	34,0	26,6	17,2	
N-GEN 20	N ₂ flow [Nm ³ /h]	7,5	6,3	30,9	29,1	26,5	18,7	13,9	8,0	4,5	
	Feed air consumption [Nm ³ /h]			56,2	56,0	55,7	50,5	50,1	39,2	25,3	
N-GEN 25	N ₂ flow [Nm ³ /h]	7,5	6,3	43,3	40,9	37,2	26,2	19,5	11,2	6,3	
	Feed air consumption [Nm ³ /h]			78,8	78,5	78,1	70,8	70,3	55,0	35,5	
N-GEN 35	N ₂ flow [Nm ³ /h]	7,5	6,3	68,5	64,7	58,9	41,5	30,9	17,8	10,0	
	Feed air consumption [Nm ³ /h]			124,7	124,1	123,6	112,0	111,2	87,0	56,2	
N-GEN 50	N ₂ flow [Nm ³ /h]	7,5	6,3	88,8	83,8	76,3	53,8	40,0	23,0	13,0	
	Feed air consumption [Nm ³ /h]			161,5	160,8	160,1	145,1	144,0	112,7	72,8	
N-GEN 65	N ₂ flow [Nm ³ /h]	7,5	6,3	115,4	108,9	99,1	69,9	52,0	29,9	16,9	
	Feed air consumption [Nm ³ /h]			210,0	209,0	208,2	188,7	187,2	146,5	94,6	
N-GEN 80	N ₂ flow [Nm ³ /h]	7,5	6,3	134,9	127,3	115,9	81,7	60,8	35,0	19,8	
	Feed air consumption [Nm ³ /h]			244,9	243,8	242,7	220,0	218,3	170,9	110,4	
N-GEN 100	N ₂ flow [Nm ³ /h]	7,5	6,3	195,6	184,6	168,1	118,5	88,2	50,7	28,7	
	Feed air consumption [Nm ³ /h]			356,0	354,4	352,9	319,9	317,4	248,4	160,5	
N-GEN 150	N ₂ flow [Nm ³ /h]	7,5	6,3	263,1	248,2	226,0	159,3	118,6	68,2	38,5	
	Feed air consumption [Nm ³ /h]			478,8	476,6	474,6	430,2	426,8	334,0	215,8	
N-GEN 200	N ₂ flow [Nm ³ /h]	7,5	6,3	360,3	340,0	309,6	218,2	162,4	93,4	52,8	
	Feed air consumption [Nm ³ /h]			655,8	652,8	650,1	589,2	584,6	457,6	295,6	
N-GEN 250	N ₂ flow [Nm ³ /h]	7,5	6,3	439,5	414,7	377,6	266,2	198,1	113,9	64,4	
	Feed air consumption [Nm ³ /h]			799,9	796,3	792,9	718,7	713,1	558,1	360,5	
N-GEN 300	N ₂ flow [Nm ³ /h]	7,5	6,3	600,0	566,2	515,5	363,4	270,4	155,5	87,9	
	Feed air consumption [Nm ³ /h]			1.091,9	1.087,0	1.082,4	981,0	973,4	761,9	492,1	
N-GEN 400	N ₂ flow [Nm ³ /h]	7,5	6,3	766,8	723,6	658,8	464,4	345,6	198,7	112,3	
	Feed air consumption [Nm ³ /h]			1.395,6	1.389,3	1.383,5	1.253,9	1.244,2	973,7	629,0	

For nitrogen flow capacity at other conditions please contact manufacturer.
 Performance +/- 5%.
 All flow rates valid for generator operation at compressed air temperature 35 °C.