



NC-GEN SERIES

COMPACT PSA NITROGEN GENERATORS

6 - 10 bar

operating pressure

5 to 50 °C

operating temperature range

< -45 °C

dew point (at ambient pressure)

0,14 to 14,2 Nm³/h

N₂ capacity

up to 99,999 %

N₂ purity

DESCRIPTION

The NC-GEN compact 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 nitrogen generators use two molecular sieve beds, which alternatively switch between the adsorption and the regeneration phase.

APPLICATIONS

- Blanketing of Chemicals and Pharmaceuticals
- Inerting of Flammable Liquids
- Laser Cutting
- Re-flow and Wave Soldering of PCBs
- UV-Curing of Coatings
- Food processing

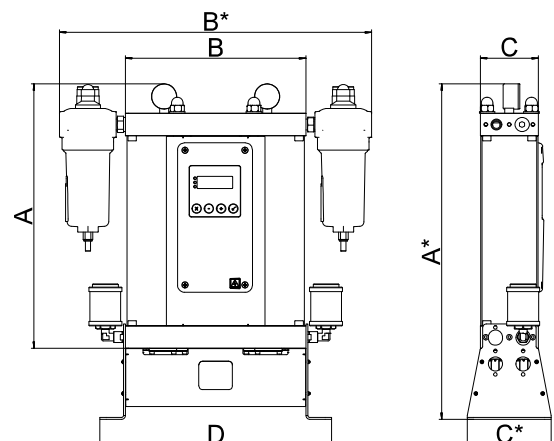


STANDARD EQUIPMENT

- Set of external feed air filters
- Adsorber vessels in carbon steel
- Long life solenoid valves
- Internal piping
- Nitrogen and air flow regulation
- Product pressure transmitters

OPTIONAL EQUIPMENT

- Nitrogen Sterile Filters
- Nitrogen Booster
- Nitrogen Cylinder Filling System




TECHNICAL DATA

Type	Connection		Dimensions [mm]							Mass
	In	Out	A	A*	B	B*	C	C*	D	kg
NC-GEN 0,5	G 3/8"	G 3/8"	573	715	280	480	100	130	354	13,5
NC-GEN 1,0	G 3/8"	G 3/8"	1041	1105	280	480	100	130	354	19,0
NC-GEN 1,5	G 3/8"	G 3/8"	1364	1495	280	480	100	130	354	27,5
NC-GEN 2,5	G 3/8"	G 3/8"	972	1105	370	570	148	170	434	45,0
NC-GEN 3,5	G 3/8"	G 3/8"	1167	1300	370	570	148	170	434	53,0
NC-GEN 4,5	G 3/8"	G 3/8"	1567	1700	370	570	148	170	434	70,0
NC-GEN 7,0	G 3/8"	G 3/8"	1345	1440	440	725	198	240	570	170,5
NC-GEN 9,0	G 3/8"	G 3/8"	1538	1655	440	725	198	240	570	182,2

PERFORMANCE

Type		Inlet pressure barg	Discharge pressure barg	Residual Oxygen [vol. %]						
				3	2	1	0,5	0,1	0,01	0,001
				Total inert gas purity [vol. %]						
				97	98	99	99,5	99,9	99,99	99,999*
NC-GEN 0,5	N ₂ flow [Nm ³ /h]	7,5	6,3	0,96	0,90	0,83	0,59	0,44	0,25	0,14
		Feed air consumption [Nm ³ /h]		2,3	2,2	2,2	2,1	2,1	1,7	1,3
NC-GEN 1,0	N ₂ flow [Nm ³ /h]	7,5	6,3	1,73	1,63	1,51	1,06	0,79	0,45	0,26
		Feed air consumption [Nm ³ /h]		4,1	4,0	3,9	4,0	3,7	3,1	2,3
NC-GEN 1,5	N ₂ flow [Nm ³ /h]	7,5	6,3	2,55	2,4	2,22	1,57	1,16	0,67	0,38
		Feed air consumption [Nm ³ /h]		6,1	6,0	5,8	5,9	5,5	4,6	3,5
NC-GEN 2,5	N ₂ flow [Nm ³ /h]	7,5	6,3	4,50	4,25	3,93	2,77	2,06	1,18	0,67
		Feed air consumption [Nm ³ /h]		10,8	10,6	10,3	10,4	9,8	8,1	6,1
NC-GEN 3,5	N ₂ flow [Nm ³ /h]	7,5	6,3	5,55	5,23	4,84	3,41	2,54	1,46	0,82
		Feed air consumption [Nm ³ /h]		13,3	12,9	12,6	12,8	12,0	9,9	7,5
NC-GEN 4,5	N ₂ flow [Nm ³ /h]	7,5	6,3	7,55	7,12	6,58	4,64	3,45	1,99	1,12
		Feed air consumption [Nm ³ /h]		18,0	17,6	17,1	17,4	16,3	13,4	10,2
NC-GEN 7,0	N ₂ flow [Nm ³ /h]	7,5	6,3	11,9	11,3	10,4	7,3	5,5	3,1	1,8
		Feed air consumption [Nm ³ /h]		28,7	28,0	27,2	27,6	26,0	21,4	16,3
NC-GEN 9,0	N ₂ flow [Nm ³ /h]	7,5	6,3	14,2	13,4	12,4	8,7	6,5	3,7	2,1
		Feed air consumption [Nm ³ /h]		34,0	33,2	32,2	31,9	30,9	25,4	19,3

⁽¹⁾ For concentrations at higher purity please contact manufacturer.
 All flow rates valid for generator operation at compressed air temperature max 35°C.
 Performance ±5 %.