



**5 - 24 bar**  
nitrogen pressure

**35 to 55 °C**  
operating temp. range (feed air)

**< -50 °C**  
dew point (at ambient pressure)

**0,8 to 780 Nm<sup>3</sup>/h**  
N<sub>2</sub> capacity

**up to 99,5 %**  
N<sub>2</sub> purity

## DESCRIPTION

The NM-GEN membrane nitrogen generators extract the available nitrogen from the compressed air. Generator use hollow fibre membrane technology to separate nitrogen from other components in compressed air. The membrane uses the principle of selective permeation to produce purity nitrogen. Each gas has a characteristic permeation rate, which is a function of its ability to diffuse through a membrane. Oxygen is a fast gas and is selectively diffused through the membrane wall, while nitrogen is allowed to travel along the inside of the fibre, thus creating a nitrogen-rich product stream. The oxygen-enriched gas, or permeate, is vented from the membrane separator at atmospheric pressure.

Most of the slow gases and a very small amount of the fast gases continue to travel through the fibre until they reach the end of the membrane separator, where the product nitrogen gas is piped to the application.

## 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

# NM-GEN SERIES

## MEMBRANE NITROGEN GENERATORS



NM-GEN 75-500



NM-GEN 2-50

### STANDARD EQUIPMENT

- Set of external feed air filters
- Electric heater
- Supporting frame or cabinet
- Pressure regulator
- Internal piping
- Nitrogen and air flow regulation

### OPTIONAL EQUIPMENT

- Nitrogen sterile filters
- Nitrogen booster
- Nitrogen cylinder filling system

TECHNICAL DATA								
Type	Connection			Dimensions [mm]			Mass	No. of membranes
	In	Out	Purge	Height	Width	Depth	kg	kg
NM-GEN 2	1/2"	1/2"	1/2"	1,325	428	530	51	1
NM-GEN 4	1/2"	1/2"	1/2"	1,325	428	530	52	1
NM-GEN 6	1/2"	1/2"	1/2"	1,325	428	530	55	1
NM-GEN 10	3/4"	3/4"	3/4"	1,925	558	630	103	1
NM-GEN 25	3/4"	3/4"	3/4"	1,925	558	630	112	1
NM-GEN 50	3/4"	3/4"	3/4"	1,925	558	630	130	2
NM-GEN 75	2"	2"	2"	2,253	960	1,000	291	3
NM-GEN 100	2"	2"	2"	2,253	960	1,000	310	4
NM-GEN 125	2"	2"	2"	2,253	960	1,000	520	5
NM-GEN 150	2"	2"	2"	2,253	960	1,000	539	6
NM-GEN 175	2"	2"	2"	2,253	960	1,000	557	7
NM-GEN 200	2"	2"	2"	2,253	960	1,000	576	8
NM-GEN 225	2"	2"	2"	2,253	960	1,000	594	9
NM-GEN 250	2"	2"	2"	2,253	960	1,000	613	10
NM-GEN 275	2"	2"	2"	2,253	960	1,000	631	11
NM-GEN 300	2"	2"	2"	2,253	960	1,000	650	12
NM-GEN 325	2"	2"	2"	2,253	960	1,000	860	13
NM-GEN 350	2"	2"	2"	2,253	960	1,000	879	14
NM-GEN 375	2"	2"	2"	2,253	960	1,000	897	15
NM-GEN 400	2"	2"	2"	2,253	960	1,000	916	16
NM-GEN 425	2"	2"	2"	2,253	960	1,000	934	17
NM-GEN 450	2"	2"	2"	2,253	960	1,000	953	18
NM-GEN 475	2"	2"	2"	2,253	960	1,000	971	19
NM-GEN 500	2"	2"	2"	2,253	960	1,000	990	20

PERFORMANCE													
Type	99,5 % purity		99 % purity		98 % purity		97 % purity		96 % purity		95 % purity		Heater power (kW)
	Inlet	Outlet	Inlet	Outlet	Inlet	Outlet	Inlet	Outlet	Inlet	Outlet	Inlet	Outlet	
NM-GEN 2	4,7	0,8	5,1	1,1	5,7	1,7	6,2	2,2	6,8	2,7	7,4	3,2	0,25
NM-GEN 4	8,0	1,4	8,6	1,9	9,6	2,8	10,6	3,6	11,5	4,5	12,4	5,4	0,25
NM-GEN 6	14,2	2,4	15,3	3,4	17,1	5,0	18,7	6,4	20,3	7,9	22,0	9,5	0,25
NM-GEN 10	23,3	4,0	25,1	5,5	28,0	8,1	30,7	10,5	33,4	12,9	36,2	15,5	0,25
NM-GEN 25	58,8	9,9	63,6	13,9	70,6	20,3	77,4	26,3	84,1	32,4	91,2	39,0	2,4
NM-GEN 50	117,6	19,8	127,2	27,8	141,2	40,6	154,8	52,6	168,2	64,8	182,4	78,0	2,4
NM-GEN 75	176,4	29,7	190,8	41,7	211,8	60,9	232,2	78,9	252,3	97,2	273,6	117,0	2,4
NM-GEN 100	235,2	39,6	254,4	55,6	282,4	81,2	309,6	105,2	336,4	129,6	364,8	156,0	2,4
NM-GEN 125	294,0	49,5	318,0	69,5	353,0	101,5	387,0	131,5	420,5	162,0	456,0	195,0	4,8
NM-GEN 150	352,8	59,4	381,6	83,4	423,6	121,8	464,4	157,8	504,6	194,4	547,2	234,0	4,8
NM-GEN 175	411,6	69,3	445,2	97,3	494,2	142,1	541,8	184,1	588,7	226,8	638,4	273,0	4,8
NM-GEN 200	470,4	79,2	508,8	111,2	564,8	162,4	619,2	210,4	672,8	259,2	729,6	312,0	4,8
NM-GEN 225	529,2	89,1	572,4	125,1	635,4	182,7	696,6	236,7	756,9	291,6	820,8	351,0	7,2
NM-GEN 250	588,0	99,0	636,0	139,0	706,0	203,0	774,0	263,0	841,0	324,0	912,0	390,0	7,2
NM-GEN 275	646,8	108,9	699,6	152,9	776,6	223,3	851,4	289,3	925,1	356,4	1.003	429,0	7,2
NM-GEN 300	705,6	118,8	763,2	166,8	847,2	243,6	928,8	315,6	1.009	388,8	1.094	468,0	7,2
NM-GEN 325	764,4	128,7	826,8	180,7	917,8	263,9	1.006	341,9	1.093	421,2	1.185	507,0	9,6
NM-GEN 350	823,2	138,6	890,4	194,6	988,4	284,2	1.083	368,2	1.177	453,6	1.277	546,0	9,6
NM-GEN 375	882,0	148,5	954,0	208,5	1.059	304,5	1.161	394,5	1.261	486,0	1.368	585,0	9,6
NM-GEN 400	940,8	158,4	1.017	222,4	1.129	324,8	1.238	420,8	1.345	518,4	1.459	624,0	9,6
NM-GEN 425	999,6	168,3	1.081	236,3	1.200	345,1	1.315	447,1	1.429	550,8	1.550	663,0	12,0
NM-GEN 450	1.058	178,2	1.144	250,2	1.270	365,4	1.393	473,4	1.513	583,2	1.641	702,0	12,0
NM-GEN 475	1.117	188,1	1.208	264,1	1.341	385,7	1.470	499,7	1.598	615,6	1.732	741,0	12,0
NM-GEN 500	1.176	198,0	1.272	278,0	1.412	406,0	1.548	526,0	1.682	648,0	1.824	780,0	12,0

For nitrogen flow capacity at other conditions please contact manufacturer.

Performance +/- 3%.

All flow rates valid for generator operation at compressed air temperature 55 °C and compressed air pressure 9 barg