

A large, stylized 'N2' logo is centered within a square frame. The frame has a dark, metallic-looking border with rounded corners. The background of the frame is a light blue sky with soft, white clouds. The 'N2' text is rendered in a bold, sans-serif font, with the 'N' being significantly larger than the '2'. The entire graphic is set against a background of a blue sky with clouds, framed by a dark, metallic-looking border with rounded corners.

N₂

MNG SERIES PSA NITROGEN GENERATORS

Manufacturing Forward





Mikropor began its journey in 1987 with a passion to create “Tomorrow’s Technology” and has become one of the leading manufacturers of atmospheric air filtration solutions and compressed air treatment systems for a variety of industries.

By closely following the latest developments in technology, Mikropor’s “Best in Class” products and solutions are appreciated by customers in more than 140 countries.

The company’s sustainable growth has been provided by its passion for innovation and commitment to quality, as well as its dedication to technology. Mikropor is an environmentally conscious company that values people, while developing products that extend the needs and expectations of customers.

With this mission, Mikropor continues to become one of the most recognized brands in the world by expanding its global penetration in the field of technological filtration and contributes to a healthier planet.

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Pressure Swing Adsorption (PSA) type Nitrogen Generation system that is used to separate and enrich Nitrogen from Oxygen employs CMS (Carbon Molecular Sieve) for adsorbent. Carbon Molecular Sieve (CMS) adsorbs Oxygen and Water Vapor molecules under certain pressure while allowing Nitrogen to pass through.

The Nitrogen Generator is a Two-Bed Adsorber System

The Nitrogen Generator consists of two adsorber vessels filled with CMS, a valve assembly, air filters, main pressure regulator, and a product receiver tank. Clean and dry air is directed to one of the adsorber beds where oxygen and water vapor is adsorbed faster than nitrogen in the pore structure of the CMS, thus increasing the nitrogen purity of the product gas stream to the desired level (95-99.999% as required by customer). This product flows out from the top of the adsorber bed, through the valve and into the product receiver at a pressure slightly below the feed air pressure.

Applications

- Metal industry
- Chemical industry
- Purge
- Plastic industry
- Charge nitrogen gas in tires
- Production process and storage of food



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Standard

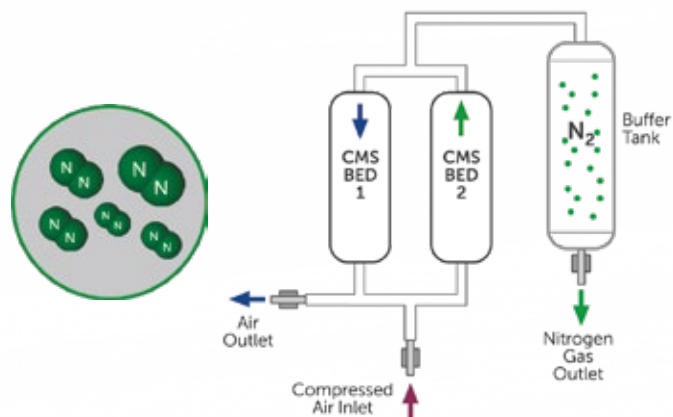
- Oxygen Analyzer / Nitrogen Purity Sensor
- Flow Meter
- Carbolescer with oil indicator
- Nitrogen Generator / Silencer
- Basic Logo or Crouzet mini plc for modular type
- Siemens HMI color touch screen PLC for twin towers
- Buffer Tank (Standard for MNG-10 to MNG-2050)
- T Filters are standard in all models

Optional

- Dew Point Sensor

Features

- Simple structure, compact design, full automated operation
- Replaces manifold usage (see pic .1)
- Touch Screen PLC for controlling the complete system (see pic. 2)
- PLC Screen for monitoring and visualizing the progress
- Rapid start-up and safety system
- Superior silencer design gives low noise levels during depressurization and purge
- Durable piston valves for long-life operation (see pic. 5)
- On demand production, low cost
- High performance
 - *The purity and capacity of nitrogen gas is designed to meet customer requirements (Nitrogen Purity 95%~99.999% is available)
- Minimum maintenance cost.
 - *Replace filter element periodically only and service your compressor as normal



Replaces Manifold Usage - Pic. 1



Touch Screen PLC - Pic. 2



Dew Point Sensor - Pic. 3



Air Filter - Pic. 4



Long Life Piston Valve - Pic. 5

MNG SERIES PSA NITROGEN GENERATORS

Technical Specifications

Model	Air Demand @ Following Purity Level (m³/h)									
	95%	97%	98%	99%	99.50%	99.90%	99.95%	99.99%	99.999%	
MNG-10	5,6	5,0	4,5	4,0	3,6	3,1	2,8	2,5	2,0	Modular
MNG-20	9,0	8,0	7,3	6,4	6,2	5,0	4,5	4,0	3,3	
MNG-35	16,6	14,8	13,4	11,8	10,8	9,1	8,3	7,4	6,0	
MNG-60	27,6	24,6	22,4	19,6	17,9	15,2	13,8	12,3	10,0	
MNG-95	47,5	42,4	38,5	33,7	30,9	26,2	23,7	21,1	17,2	Twin Tower
MNG-120	63,4	56,6	51,4	45,1	41,3	35,0	31,7	28,2	23,0	
MNG-150	77,6	69,2	62,9	55,1	50,5	42,9	38,8	34,5	28,1	
MNG-250	123,5	110,2	100,1	87,7	80,4	68,3	61,7	55,0	44,8	
MNG-330	163,5	145,8	132,5	116,1	106,4	90,3	81,7	72,7	59,3	
MNG-450	220,9	197,0	179,1	156,9	143,8	122,1	110,4	98,3	80,1	
MNG-510	253,0	225,7	205,1	179,8	164,7	139,8	126,5	112,6	91,7	
MNG-570	281,0	250,6	227,8	199,6	182,9	155,3	140,5	125,1	101,9	
MNG-730	367,8	328,1	298,2	261,3	239,3	203,3	183,9	163,7	133,3	
MNG-910	450,0	401,3	364,8	319,6	292,8	248,7	224,9	200,2	163,1	
MNG-1110	547,0	487,9	443,5	388,6	355,9	302,3	273,4	243,4	198,3	
MNG-1230	603,4	538,2	489,2	428,7	392,7	333,5	301,6	268,5	218,8	
MNG-1370	668,6	596,4	542,1	475,0	435,1	369,5	334,2	297,6	242,4	
MNG-1820	904,1	806,3	732,9	642,2	588,3	499,6	451,9	402,3	327,7	
MNG-2050	1054,7	940,3	854,7	748,9	686,0	582,6	527,0	469,2	382,2	
MNG-2550	1263,9	1127,2	1024,6	897,8	822,4	698,4	631,8	562,5	458,2	
MNG-2950	1558,9	1390,4	1263,8	1107,4	1014,4	861,5	779,2	693,8	565,1	
MNG-3540	1827,0	1629,5	1481,1	1297,8	1188,8	1009,6	913,2	813,1	662,3	
MNG-4160	2106,8	1879,0	1708,0	1496,6	1370,9	1164,2	1053,1	937,6	763,7	
MNG-5560	2536,2	2261,9	2056,0	1801,7	1650,1	1432,9	1267,6	1128,5	920,0	
MNG-6050	3218,5	2816,3	2558,4	2239,8	2058,9	1745,0	1581,7	1400,0	1129,5	
MNG-7500	3829,0	3350,4	3043,6	2664,6	2449,3	2075,9	1881,7	1665,5	1343,7	
MNG-9170	4183,1	3730,6	3390,9	2971,3	2720,7	2363,4	2091,0	1861,3	1516,7	
MNG-11200	5108,8	4556,4	4142,5	3629,1	3323,3	2886,8	2553,8	2273,7	1851,7	

	95%	97%	98%	99%	99.50%	99.90%	99.95%	99.99%	99.999%
A/N Ratios	2	2,3	2,4	2,7	3	4	4,1	5,2	8,4

Given flows are at 7 barg pressure with reference to 20°C and 1 bar atmospheric air suction as per ISO7183.



MNG SERIES PSA NITROGEN GENERATORS

Technical Specifications

Model	Free Nitrogen Delivery @ Following Purity Level (m ³ /h)									
	95%	97%	98%	99%	99.50%	99.90%	99.95%	99.99%	99.999%	
MNG-10	2,7	2,2	1,9	1,5	1	0,8	0,7	0,5	0,2	Modular
MNG-20	4,4	3,5	3,1	2,4	2	1,3	1,1	0,8	0,4	
MNG-35	8,1	6,5	5,6	4,4	3,5	2,3	2,0	1,4	0,7	
MNG-60	13,5	10,8	9,4	7,3	6	3,8	3,4	2,4	1,2	
MNG-95	23,3	18,6	16,2	12,6	10,4	6,6	5,9	4,1	2,0	
MNG-120	31,0	24,8	21,6	16,8	13,9	8,8	7,8	5,5	2,7	Twin Tower
MNG-150	38,0	30,4	26,4	20,6	17,0	10,8	9,6	6,7	3,3	
MNG-250	60,5	48,3	42,1	32,7	27,1	17,2	15,2	10,6	5,3	
MNG-330	80,0	63,9	55,7	43,3	35,8	22,8	20,1	14,1	7,0	
MNG-450	108,2	86,4	75,2	58,5	48,4	30,8	27,2	19,0	9,5	
MNG-510	123,9	99,0	86,2	67,1	55,5	35,3	31,2	21,8	10,9	
MNG-570	137,6	109,9	95,7	74,5	61,6	39,2	34,6	24,2	12,1	
MNG-730	180,1	143,9	125,3	97,5	80,6	51,3	45,3	31,6	15,8	
MNG-910	220,3	176,0	153,2	119,2	98,6	62,7	55,5	38,7	19,3	
MNG-1110	267,8	214,0	186,3	145,0	119,9	76,2	67,4	47,0	23,5	
MNG-1230	295,4	236,0	205,5	159,9	132,3	84,1	74,4	51,9	25,9	
MNG-1370	327,4	261,5	227,7	177,2	146,6	93,2	82,4	57,5	28,7	
MNG-1820	442,6	353,6	307,9	239,6	198,2	126,0	111,4	77,8	38,8	
MNG-2050	516,2	412,4	359,0	279,4	231,1	146,9	130,0	90,7	45,3	
MNG-2550	618,8	494,4	430,4	334,9	277,1	176,1	155,8	108,7	54,3	
MNG-2950	763,2	609,8	530,9	413,1	341,8	217,2	192,1	134,1	67,0	
MNG-3540	894,5	714,6	622,1	484,1	400,5	254,6	225,1	157,1	78,5	
MNG-4160	1031,4	824,1	717,4	558,3	461,9	293,6	259,6	181,2	90,5	
MNG-5560	1241,7	992,0	863,6	672,1	556,0	353,4	312,5	218,1	109,0	
MNG-6050	1532,6	1224,5	1066,0	829,6	686,3	436,2	385,8	269,2	134,5	
MNG-7500	1823,3	1456,7	1268,2	986,9	816,4	519,0	458,9	320,3	160,0	
MNG-9170	2048,0	1636,1	1424,3	1108,4	917,0	582,9	515,5	359,7	179,7	
MNG-11200	2501,2	1998,3	1740,0	1353,8	1120,0	712,0	629,6	439,4	219,4	

Reference Conditions

Inlet Compressed Air Pressure	Outlet Nitrogen Pressure	Ambient Temperature	Inlet Air Dew Point	Purity
7.5 bar	6 bar	25°C	≤ 3°C	99.5%

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N2 NITROGEN

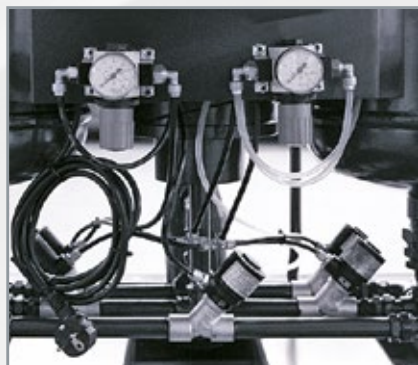
Model	Buffer Tank Volume	Buffer Tank	Connections		Dimensions (mm)		
			Air Inlet	Nitrogen Outlet	Width	Length	Height
MNG-10	26 L	GELM-100	1/2"	1/4"	610	1500	1090
MNG-20	35 L	GELM-100	1/2"	1/4"	675	1150	1308
MNG-35	52 L	GELM-100	1/2"	1/4"	736	1179	1787
MNG-60	70 L	GELM-100	1/2"	1/4"	932,5	1115,5	1485
MNG-95	97 L	GELM-250	1"	1/4"	920	1090	1485
MNG-120	126 L	GELM-300	1"	1/4"	1260	955	1450
MNG-150	151 L	GELM-500	1"	1/4"	1230	954	1650
MNG-250	280 L	ELM 150	1"	1/4"	1298	1256	1971
MNG-330	408 L	ELM 150	1"	1/4"	1520	1477	2023
MNG-450	464 L	ELM 150	1"	1/4"	1555	1423	2155
MNG-510	515 L	ELM 300	1 1/2"	1/4"	1560	1582	2022
MNG-570	573 L	ELM 300	1 1/2"	1/4"	1582	2208	2225
MNG-730	712 L	ELM 300	1 1/2"	3/4"	1945	1812	2082
MNG-910	1,042 m ³	ELM 300	1 1/2"	1"	1945	1812	2477
MNG-1110	1,290 m ³	ELM 600	1 1/2"	1"	2010	1872	2525
MNG-1230	1,402m ³	ELM 600	2"	1"	2052	1909	2735
MNG-1370	1,498 m ³	ELM 600	2"	1 1/4"	2052	1903	2945
MNG-1820	2,019 m ³	ELM 600	2"	1 1/2"	1668	3599	2634
MNG-2050	2,336 m ³	ELM 800	DN80	1 1/2"	1841	3490	3120
MNG-2550	-	ELM 1200	DN80	2"	1920	2430	3185
MNG-2950	-	ELM 1200	DN80	2"	2070	2580	2630
MNG-3540	-	ELM 1600	DN80	2"	2120	2492	3055
MNG-4160	-	ELM 1600	DN80	2"	2176	2484	3375
MNG-5560	-	ELM 2100	DN 100	2 1/2"	2860	3490	3942
MNG-6050	-	ELM 2100	DN100	DN80	3260	3554	4145
MNG-7500	-	ELM-2750	DN100	DN80	3260	4164	4255
MNG-9170	-	ELM 4200	DN 100	DN80	3371	4746	4420
MNG-11200	-	ELM 4200	DN 150	DN100	3130	5091	4772

Note: Mikropor supplies buffer tank volumes for 99,0% and higher Nitrogen purities. For purities lower than 99,0%, it may be necessary to use an additional tank. (Buffer Tanks are standard for MNG 10 to MNG 2550)

Correction Factor for MNG Series

Inlet Pressure (bar)	F1	Ambient Temp. (°C)	F2
6	0,82	5	0,85
6,5	0,88	10	1
7	0,94	15	1
7,5	1	20	1
8	1,05	25	1
8,5	1,1	30	0,91
9	1,14	35	0,82
9,5	1,2	40	0,74
10	1,21	45	0,6

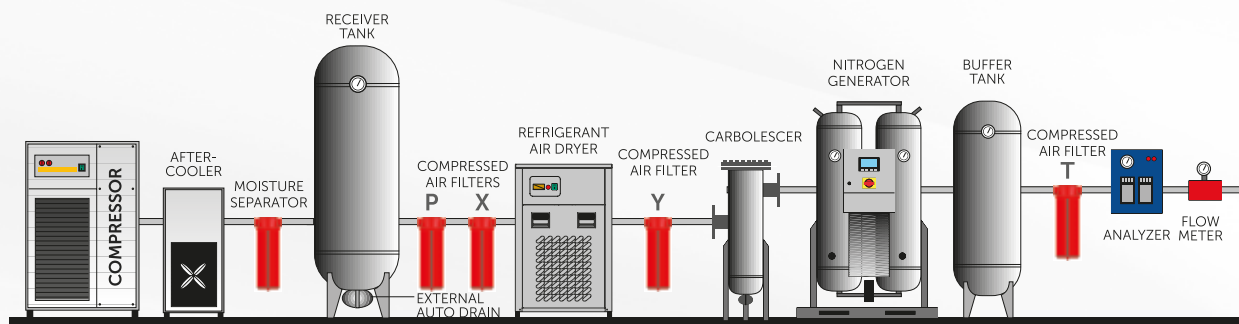
To determine the nitrogen generator model in the reference conditions divide the nitrogen flow rate to the factors mentioned above.



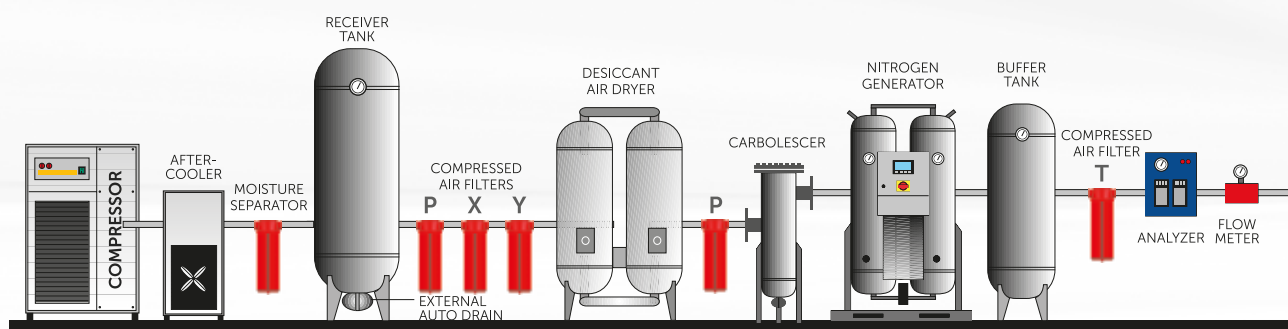
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"Mikropor reserves the right to change the design and/or dimensions and/or weight of his products at any time without any notice or liability."

AIR LINE DESIGN



AIR LINE DESIGN





MNG SERIES PSA NITROGEN GENERATORS



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