

0,3-200,3  
Nm<sup>3</sup>/h



JOURNEY  
OF  
AIR

## MODULAR NITROGEN GENERATORS

Nitrogen is separated from oxygen and enriched with the Carbon Molecular Sieve (CMS) adsorbent used in Dalgakiran Pressure Swing Adsorption (PSA) type Nitrogen generators. Carbon Molecular Sieve (CMS) allows nitrogen to pass through the line by adsorbing oxygen and water vapor molecules under a certain pressure. Dalgakiran Nitrogen Generator has a compact structure through multiple modules filled with Carbon Molecular Sieve.

Clean and dry air is directed to the modules in a sequential manner for the adsorption process. The Carbon Molecular Sieve (CMS) in the modules adsorbs oxygen and water vapor molecules and keeps them in its pores, allowing nitrogen molecules to pass through. Thus, nitrogen gas is produced (Purity levels can be between 95-99.999% depending on the areas of use and customer expectations).

### Advantages

- Compact design, full automated operation
- Replaces manifold usage
- Touch Screen PLC for controlling the complete system
- New design silencer that operates at lower noise levels during pressurization and purge
- High performance
- The purity and capacity of nitrogen gas is designed to meet customer requirements (Nitrogen Purity 95%~99.999% is available)
- Durable piston valves for long-life operation
- Minimum maintenance cost
- Lower air-to-nitrogen (A/N) ratios and energy consumption
- High-sensitive sensor technologies
- Effective integrated filtration



**Standard**

- Nitrogen Modules
- Silencer
- Mini PLC
- Manometers
- Pressure Transmitter
- ECO Mod
- T Filter
- Piston Valves
- Valve Control Regulator



**Optional**

- Dew Point Sensor Kit
- Flowmeter Kit
- Oxygen Analyzer Kit
- 3-Way By-Pass Valve Kit
- HMI Color Touch Screen PLC
- Buffer Tank
- Oil Indicator

Model	Free Nitrogen Delivery @ following purity level (Nm <sup>3</sup> /h)									
	95%	97%	98%	99%	99,5%	99,90%	99,95%	99,99%	99,995%	99,999%
DNG MOD 20	3	2,7	2,3	2	1,4	1,2	1,1	0,5	0,4	0,3
DNG MOD 40	4,9	4,4	3,8	3,2	2,9	1,9	1,8	0,8	0,8	0,5
DNG MOD 70	9	8,1	6,9	5,9	5	3,6	3,3	1,5	1,4	0,9
DNG MOD 123	15	13,4	11,6	9,8	8,6	5,9	5,5	2,6	2,4	1,5
DNG MOD 210	25,9	23,1	19,9	16,9	14,9	10,2	9,4	4,4	4,2	2,6
DNG MOD 285	34,5	30,9	26,6	22,6	19,9	13,6	12,6	5,9	5,6	3,5
DNG MOD 340	42,3	37,8	32,6	27,6	24,4	16,7	15,4	7,2	6,8	4,3
DNG MOD 555	67,3	60,2	51,8	44	38,8	26,5	24,5	11,5	10,8	6,8
DNG MOD 735	89	79,6	68,5	58,2	51,4	35,1	32,4	15,2	14,4	9
DNG MOD 990	120,3	107,6	92,6	78,6	69,5	47,4	43,8	20,6	19,4	12,2
DNG MOD 1130	137,8	123,3	106,1	90,1	79,6	54,3	50,2	23,6	22,2	14
DNG MOD 1260	153	136,9	117,8	100	88,4	60,3	55,7	26,2	24,7	15,5
DNG MOD 1650	200,3	179,2	154,2	130,9	115,7	78,9	72,9	34,3	32,3	20,3

Ambient Temperature (°C)	Correction Factor (Kt)
5	0,85
10	1
15	1
20	1
25	1
30	0,91
35	0,82
40	0,74
45	0,60

Inlet Pressure (Barg)	Correction Factor (Kp)
5	0,68
5,5	0,73
6	0,79
6,5	0,88
7	0,90
7,5	1
8	1,04
8,5	1,08
9	1,15
9,5	1,18
10	1,2

Purity (%)	Air / Nitrogen Ratio
95	1,6
97	1,6
98	1,7
99	2,1
99,5	2,4
99,9	2,8
99,95	2,9
99,99	4,8
99,995	5,8
99,999	7,4

Correction Formula: Nitrogen Delivery = Air Delivery Capacity of the Compressors / Air-Nitrogen Ratio / Kt / Kp

