

# MÁY TẠO KHÍ NITƠ (N<sub>2</sub>), OXYMAT - ĐẠN MẠCH

Our Nitrogen Product range covers 18 standard models with capacity in the range from 0,27 to 5.400 m<sup>3</sup>/hour. Flow measured in Sm<sup>3</sup>/h. Purity up to 99,9999% ..

X-versions 3 to 6 are supplied as framebuilt solutions, buffer vessels, filters, Advanced control, dewpoint, pressure, temperature, flow, purity and remote monitoring included.

NITROGEN OXYMAT STANDARD MODEL		ĐỘ THUẦN NITƠ/ PURITY											
		5 % 95	3 % 97	2 % 98	1 % 99	0.5 % 99.5	0.1 % 99.9	500 ppm 99.95	100 ppm 99.99	50 ppm 99.995	10 ppm 99.999	5 ppm 99.9995	1 ppm 99.9999
<a href="#">N040 ECO</a>	N <sub>2</sub> Sm <sup>3</sup> /Hour	5.00	4.00	3.50	3.00	2.49	1.67	1.38	0.78	0.62	0.44	0.39	0.27
<b>N075 ECO</b>	N <sub>2</sub> Sm <sup>3</sup> /Hour	14.00	11.00	9.00	7.00	6.40	4.30	3.54	2.00	1.61	1.12	1.00	0.70
<b>N150 ECO</b>	N <sub>2</sub> Sm <sup>3</sup> /Hour	27.00	24.00	20.00	16.00	13.51	9.08	7.47	4.22	3.39	2.36	2.11	1.49
<b>N225 ECO</b>	N <sub>2</sub> Sm <sup>3</sup> /Hour	40.00	35.00	30.00	25.00	20.62	13.86	11.41	6.44	5.17	3.61	3.22	2.27
<b>N350 ECO</b>	N <sub>2</sub> Sm <sup>3</sup> /Hour	60.00	50.00	45.00	35.00	32.00	21.50	17.70	10.00	8.03	5.60	5.00	3.52
<b>N600 ECO</b>	N <sub>2</sub> Sm <sup>3</sup> /Hour	90.00	80.00	70.00	55.00	45.51	30.58	25.17	14.22	11.42	7.96	7.11	5.01
<b>N800 ECO</b>	N <sub>2</sub> Sm <sup>3</sup> /Hour	135.00	120.00	100.00	75.00	63.00	45.00	39.00	19.80	17.70	13.00	10.80	7.86
<b>N1000 ECO</b>	N <sub>2</sub> Sm <sup>3</sup> /Hour	225.00	200.00	160.00	130.00	101.24	72.31	62.67	31.82	28.44	20.89	17.36	12.63
<b>N1850 ECO</b>	N <sub>2</sub> Sm <sup>3</sup> /Hour	315.00	270.00	230.00	180.00	121.96	90.96	77.49	43.79	39.07	31.96	30.19	21.31
<b>N2650 ECO</b>	N <sub>2</sub> Sm <sup>3</sup> /Hour	450.00	400.00	330.00	280.00	197.15	147.03	125.27	70.79	63.15	51.67	48.80	34.45
<b>N3150 ECO</b>	N <sub>2</sub> Sm <sup>3</sup> /Hour	675.00	575.00	450.00	400.00	267.43	199.45	169.93	96.02	85.67	70.09	66.20	46.73
<b>N4500 ECO</b>	N <sub>2</sub> Sm <sup>3</sup> /Hour	900.00	770.00	650.00	500.00	343.40	256.10	218.20	123.30	110.00	90.00	85.00	60.00
<b>N3150 ECOx2</b>	N <sub>2</sub> Sm <sup>3</sup> /Hour	1350.00	1150.00	900.00	800.00	534.87	398.89	339.86	192.05	171.33	140.18	132.39	93.45
<b>N4500 ECOx2</b>	N <sub>2</sub> Sm <sup>3</sup> /Hour	1800.00	1540.00	1300.00	1000.00	686.80	512.20	436.40	246.60	220.00	180.00	170.00	120.00
<b>N4500 ECOx3</b>	N <sub>2</sub> Sm <sup>3</sup> /Hour	2700.00	2310.00	1950.00	1500.00	1030.20	768.30	654.60	369.90	330.00	270.00	255.00	180.00
<b>N4500 ECOx4</b>	N <sub>2</sub> Sm <sup>3</sup> /Hour	3600.00	3080.00	2600.00	2000.00	1373.60	1024.40	872.80	493.20	440.00	360.00	340.00	240.00
<b>N4500 ECOx5</b>	N <sub>2</sub> Sm <sup>3</sup> /Hour	4500.00	3850.00	3250.00	2500.00	1717.00	1280.50	1091.00	616.50	550.00	450.00	425.00	300.00

Conversion rates for nitrogen: Sm<sup>3</sup> = 1.15 kg, 1 Nm<sup>3</sup> = 1.25 kg; 1 kg = 0.87 Sm<sup>3</sup> & 0.80 Nm<sup>3</sup>

1 Sm<sup>3</sup> = 0.92 Nm<sup>2</sup>

1 Nm<sup>3</sup> = 1.09 Sm<sup>3</sup>

Notes:

\*1 – Stated flow in Sm<sup>3</sup>/hour are for operation with reference to 15°C, 981 mbar. Inlet pressure 7 barG. Flow variance ±5%

\*2 – Stated air consumptions in FAD m<sup>3</sup>/min are for operation with reference to 20°C, 1 barA, -acc. to ISO1217c

\*3 – Capacity of the plant is stated at 30°C ambient air temperature. Variance±5%

# 3D Scheme

The PSA process is an extremely clean operation and the only 'raw material' is 'air'. On-site generators allow for an uninterrupted supply of gas with a high purity output. This means that you can produce gas where and when you need it, and in the exact quantity and quality you need.



## 1. Compressor

increases air to required level of pressure

## 2. Dryer

removes moisture from air (air humidity) by cooling

## 3. Coal tower

adsorbs harmful organic impurities such as oil vapours and hydrocarbon compounds

## 4. Air tank

accumulates necessary volume of air for PSA generator

## 5. CMS

filling with its ion- exchange bed traps oxygen molecules and allows nitrogen molecules to stream through

## 6. High Purity Oxygen

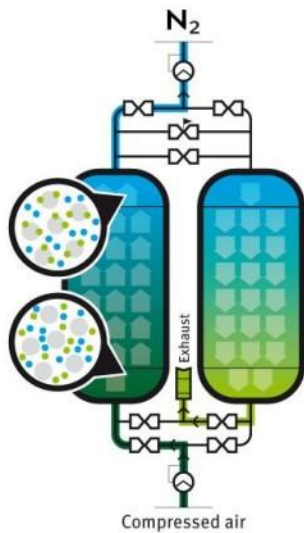
flows from PSA generator to product tank and is ready for use

Nitrogen Generator System

## How it works

- At OxyMAT, we use two columns with molecular sieves to ensure continuous production.
- Dry compressed air is blown through a valve to the vessel where the pressure is built to reach 5 to 7 bar(g). Nitrogen is tied to a molecular sieve during the building of pressure, and the oxygen is allowed to pass through to the accumulation tank.
- While pressure is build in one vessel, the second remains without pressure.
- A part of the produced gas is used for regeneration of the molecular sieve.

- For Nitrogen a Carbon Molecular Sieve (CMS) is used. The molecular sieve is fully regenerative and has a life span on to 40.000 operation hours.



**The entire PSA system can be subdivided into:**

- Compressed air system (Air compressor, Refrigeration dryer, Air receiver & Filters)
- PSA skid
- Nitrogen receiver
- Nitrogen boosting & Filling Station (optional)

**Optional supplies:**

- Panel Display with electro galvanized sensor
- Touch Screen with zirconium sensor
- GSM modem for touch Screen
- Medical upgrade kit (Coalescing tower and bacterial filtration)

**Vui lòng liên hệ:**

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