



Purity- 95% to 99.5 %



Purity- 99.9% to 99.999 %



Purity- 97% to 99.9 %



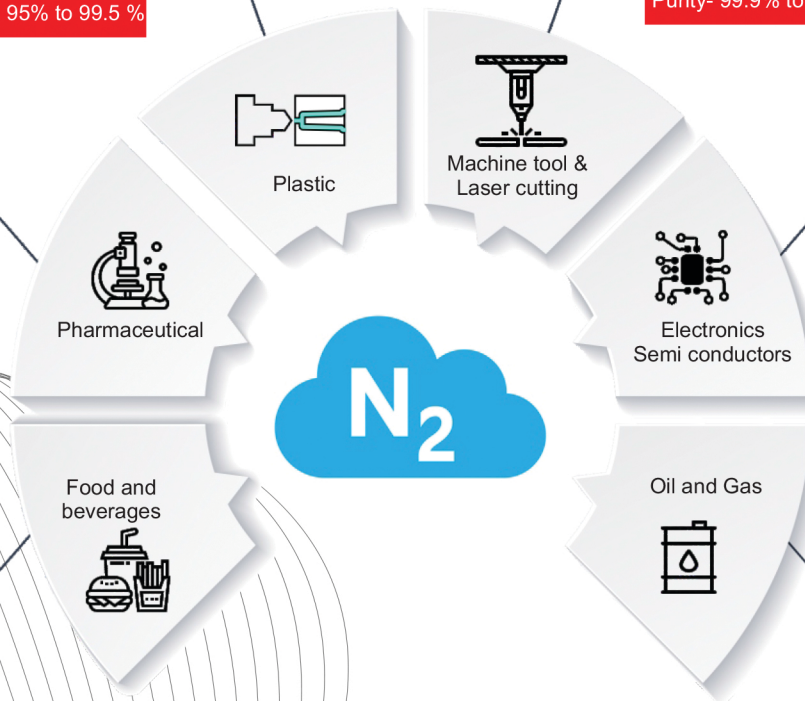
Purity- 99.9% to 99.99 %



Purity- 95% to 99.9 %



Purity- 95% to 99.9 %



**NITROGEN  
GENERATOR**

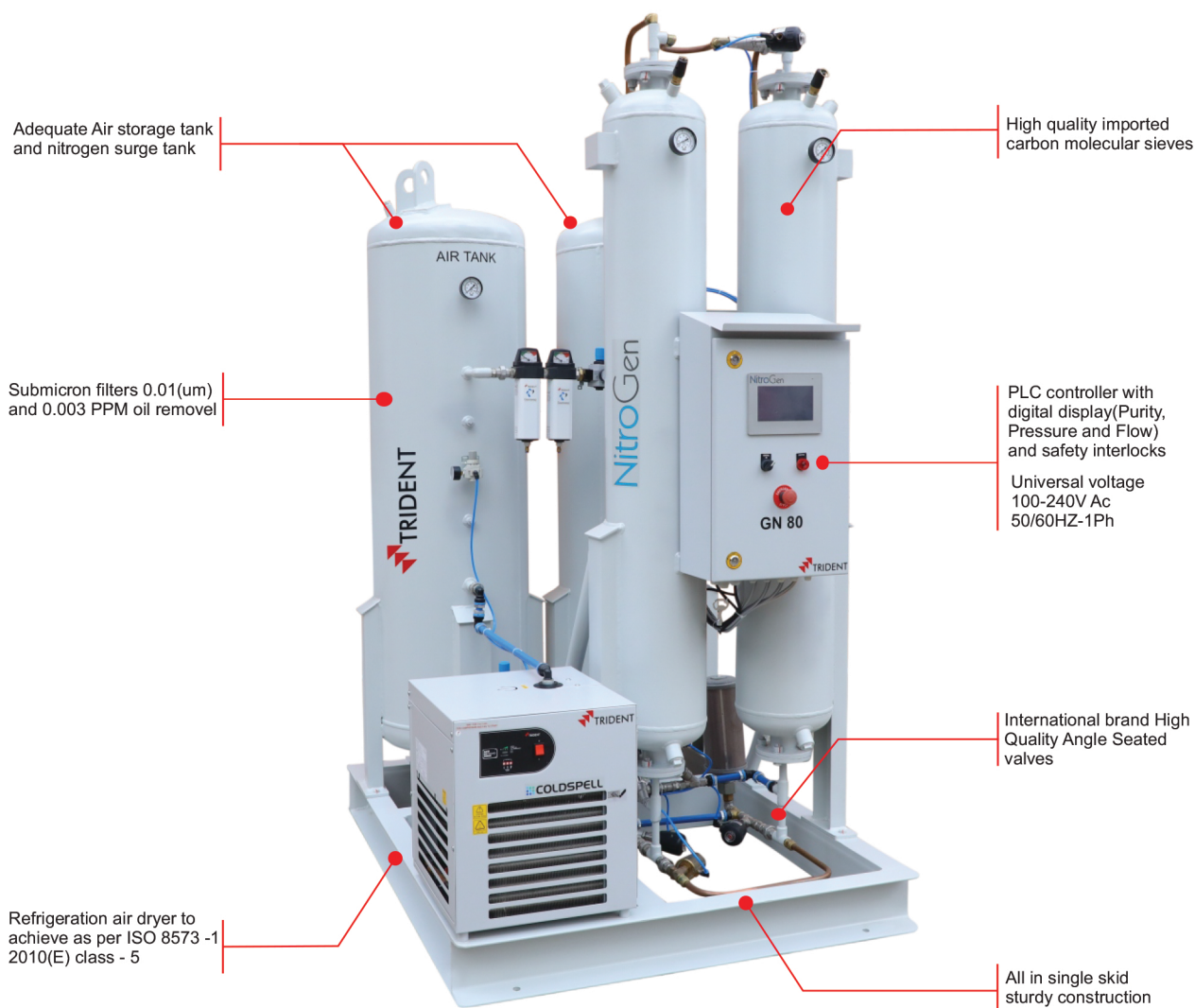


## MODULAR NITROGEN GENERATOR

● Capacity ranges from :  $0.56 \text{ Nm}^3 / \text{hr}$  to  $20.80 \text{ Nm}^3 / \text{hr}$

● Purity ranges from : 45% to 99.99%





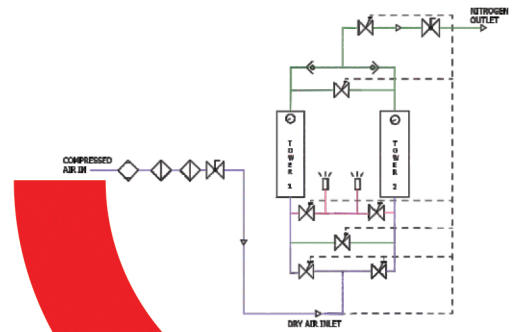
## NITROGEN PLANT

● Capacity ranges from : 4.84 Nm<sup>3</sup> / hr to 328 Nm<sup>3</sup> / hr

● Purity ranges from : 95% to 99.99%

## Benefits:

- Produce as per demand
- Avoid Cylinder Availability Issues
- Avoid Logistics and Management Problem
- Faster payback period within 1 year and lesser
- Eliminate safety risk associated with handling high pressure cylinders
- Can be used as mobile application also
- Avoid unused gas in the cylinder



## Principle of Operation

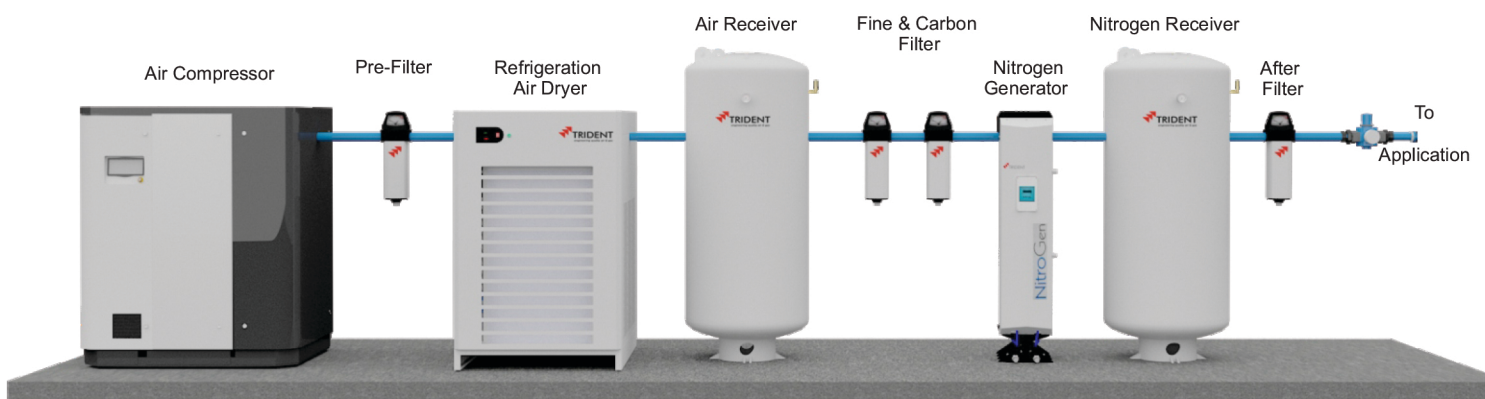
**Drying Cycle:** Purified (Moisture and oil free) air from the compressed air system, Passing through one of the tower filled with Carbon Molecular Sieves. The CMS selectively adsorbs oxygen, allowing nitrogen to through at the desired purity level.

**Regeneration Cycle:** During regeneration cycle, the sudden depressurisation brings out oxygen molecules strapped in the CMS pores to the surfaces of the beads. Small portion of Nitrogen from the drying tower is passes over the CMS through the regeneration office. The results in complete regeneration of Carbon Molecular sieves.

The automatic cycling of the adsorption and desorption between the tow beds enables the continuous of Nitrogen.

Detailed design of process parameters followed by extensive validation has resulted in consistant performance in Nitrogen Series.

## Recommended installation for on -site Gas Generation







**Rated Capacity at various Purity Level**

Nitrogen Purity%		99.99		99.9		99.5		99		98		97		95		Inlet air requirement
Oxygen Level%		0.01		0.1		0.5		1.0		2.0		3.0		5.0		
Air Factor		4.9		3.5		2.7		2.5		2.2		2.0		1.8		
Model	Item Code	Nm3/ Hr	LPM	Nm3/ Hr	LPM	Nm3/ Hr	LPM	Nm3/ Hr	LPM	Nm3/ Hr	LPM	Nm3/ Hr	LPM	Nm3/ Hr	LPM	Nm3/ Hr
NitroGen 10	PG001	0.56	9.36	1.22	20.40	1.80	30.00	2.16	36.00	2.52	42.00	2.88	48.00	3.60	60.00	5.76
NitroGen 20	PG002	0.81	13.52	1.77	29.47	2.60	43.33	3.12	52.00	3.64	60.67	4.16	69.33	5.20	86.67	8.32
NitroGen 30	PG003	1.62	27.04	3.54	58.93	5.20	86.67	6.24	104.00	7.28	121.33	8.32	138.67	10.40	173.33	16.64
NitroGen 40	PG004	2.43	40.56	5.30	88.40	7.80	130.00	9.36	156.00	10.92	182.00	12.48	208.00	15.60	260.00	24.96
NitroGen 50	PG005	3.24	54.08	7.07	117.87	10.40	173.33	12.48	208.00	14.56	242.67	16.64	277.33	20.80	346.67	33.28



**Rated Capacity at various Purity Level**

Nitrogen Purity%		99.99		99.9		99.5		99		98		97		95	
Oxygen Level%		0.01		0.1		0.5		1.0		2.0		3.0		5.0	
Air Factor		4.9		3.5		2.7		2.5		2.2		2.0		1.8	
Model	Item Code	Nm3/ Hr	LPM	Nm3/ Hr	LPM	Nm3/ Hr	LPM	Nm3/ Hr	LPM	Nm3/ Hr	LPM	Nm3/ Hr	LPM	Nm3/ Hr	LPM
NitroGen 80	PG036	4.84	80.60	10.54	175.67	15.50	258.33	18.60	310.00	21.70	361.67	24.80	413.33	31.00	516.67
NitroGen 150	PG037	9.36	156.00	20.40	340.00	30.00	500.00	36.00	600.00	42.00	700.00	48.00	800.00	60.00	1000.00
NitroGen 200	PG038	12.79	213.20	27.88	464.67	41.00	683.33	49.20	820.00	57.40	956.67	65.60	1093.33	82.00	1366.67
NitroGen 300	PG039	19.03	317.20	41.48	691.33	61.00	1016.67	73.20	1220.00	85.40	1423.33	97.60	1626.67	122.00	2033.33
NitroGen 450	PG040	28.08	468.00	61.20	1020.00	90.00	1500.00	108.00	1800.00	126.00	2100.00	144.00	2400.00	180.00	3000.00
NitroGen 850	PG041	51.17	852.80	111.52	1858.67	164.00	2733.33	196.80	3280.00	229.60	3826.67	262.40	4373.33	328.00	5466.67

For higher capacity please contact factory. Specifications are subjected to change based on continuous improvement

### Specification

Design operation Pressure range	7- bar (g) to 9- bar (g)
Nitrogen Pressure	5.5 - bar (g) to 7.5 - bar (g)
Inlet temperature	+5 Deg C to +40 deg C
Air quality requirement	as per ISO 8573.1-1.5.1
Eletrical requirement for nitrogen generator	100 to 230 V,50/60 hz, single phase

**Ordering Procedure :** Eg: If you required flow rate of 2.43 Nm3/ Hr at 99.99% Purity.

Your ordering code would be : Nitrogen 40.

## Other Products :



### Timer Operated and Level sensing drain valves

- LDV Series
- CTD Series
- EDV Series

### Heatless Desiccant Air Dryers

- Modular Dry Spell Plus Series
- Fabricated DP Series
- Medical Breathing Air Dryer TBAS Series



### Refrigeration Air Dryer

- CS Series



### Submicron Filters

- Cleansweep Filter Series
- Medical Vacuum Filter Series
- Bacteria Filter Series



### Medical Oxygen Plant

- PSA GO Series
- Vacuum - DMOG Series



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