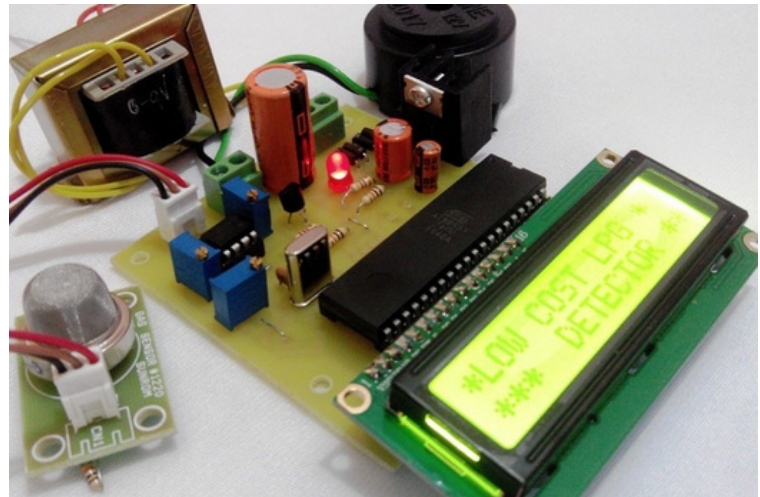


NITROGEN GAS GENERATORS

BASED ON PSA TECHNOLOGY



sai | **SHREE
ATHARVA
INDUSTRIES**

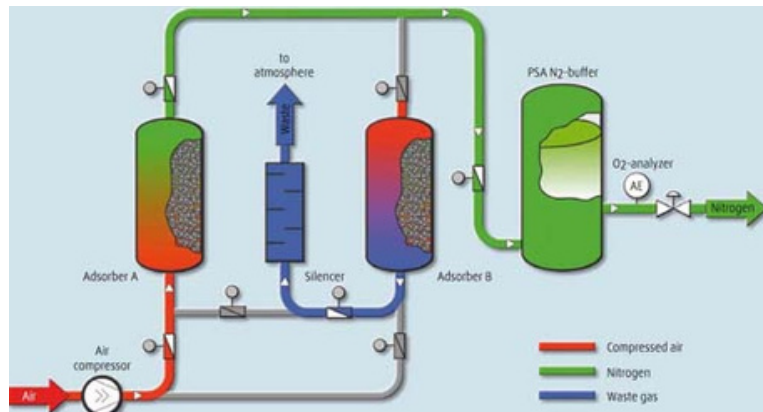
(ISO 9001 : 2015 CERTIFIED COMPANY)



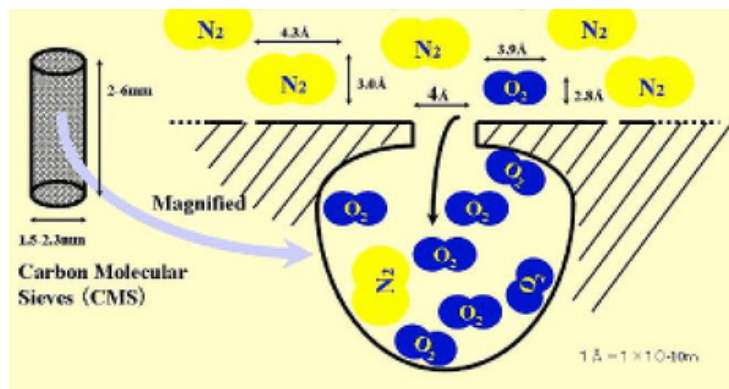
We are pleased to introduce ourselves as Shree Atharva Industries. A leading manufacturer and suppliers of PSA based Gas Generation Systems, Air Receiver Tanks. We preserve the best quality and technique advancement policy with the name of Shree Atharva Industries. Our perfect technique begins from the spirit of endless challenge for the future and limitless endeavor for good quality.

Shree Atharva Industries is ISO 9001:2015 certified, Professionally Managed Engineering Organization, Specialized in Design , Manufacture , Supply & Commissioning of Nitrogen & Oxygen Gas Plants.

Shree Atharva Industry products feature “ state of the art" technology to meet international accurate quality standards and ensure high performance with lowest level of pollution and energy consumption.



Carbon molecular Sieves (CMS) (MAGNIFIED VIEW) Pressure



NITROGEN PRODUCTION PROCESS:

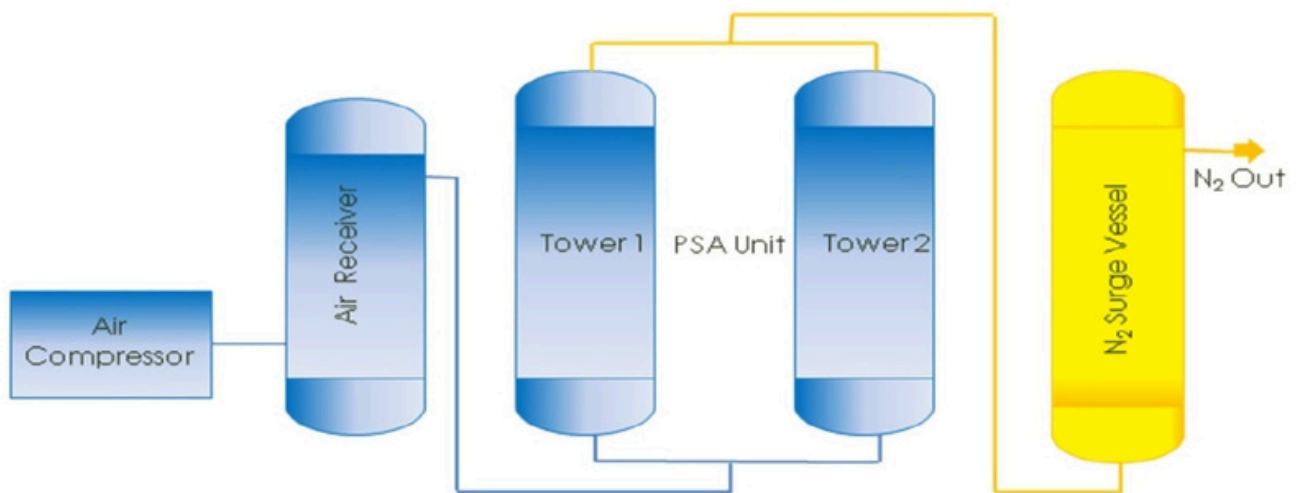
PSA Nitrogen Generators are based on well proven technology using Carbon Molecular Sieves (CMS). CMS is an adsorbent having infinite number of small pores. When CMS is used in the PSA process, an oxygen Molecules, having a smaller diameter than a Nitrogen Molecule, passes through the pores and is finally adsorbed. Therefore, the Nitrogen is recovered to a high degree while almost all the Oxygen is adsorbed. Adsorption of Oxygen Molecules happens at particular pressure. In case of higher or lower pressure performance of carbon molecular sieve varies. During regeneration process , as soon as PSA tower pressure brought down to atmospheric conditions , oxygen molecules comes out of pores of carbon molecular sieve. It is important to note that CMS performance varies with temperature. While design of PSA based Nitrogen Plants based on Indian operating conditions i.e. operating temperature as 40°C & for this necessary correction factors are being applied while designing the Nitrogen gas plant. In PSA based nitrogen gas plants separation of Nitrogen is being done by physical means.



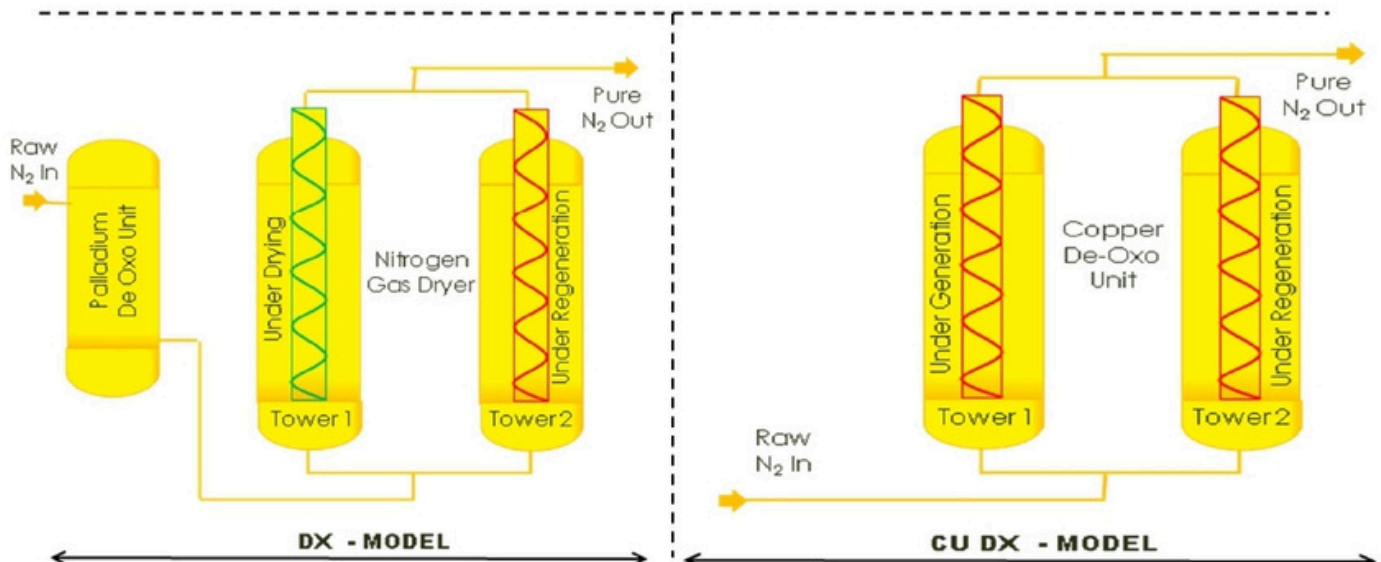
NITROGEN GAS PLANT - MODELS :

	MS MODEL	DX MODEL	CU-DX MODEL	LAB SACLE
Capacity	1 to 2000 NM ³ /Hr.	1 to 2000 NM ³ /Hr.	1 to 2000 NM ³ /Hr.	5 to 100 LPM
Composition :				
Oxygen	0.01% to 5.0%	1.0 to 3.0 PPM	1.0 PPM	5.0% to 10 PPM
Hydrogen	Nil	0.5% or Higher	Nil	Nil
Nitrogen + Others	95% to 99.99%	Balance	99.9999%	95% to 99.999%
Dew Point	(-) 40°C or better	(-) 60°C or better	(-) 60°C or better	(-) 40°C or better
Pressure	5.0 Barg or Higher	5.0 Barg or Higher	5.0 Barg or Higher	5.0 Barg or Higher

FLOW DIAGRAM FOR NITROGEN GAS PLANT



MS - MODEL



DX - MODEL

CU DX - MODEL

APPLICATIONS :

- Metallurgical Industry (CRCA / Galvanizing)
- Chemical Industry
- Electronics Industry
- Fertilizer Units
- Laser Cutting Applications
- Petrochemical
- Food & beverage
- Edible oil
- Glass Manufacturing
- Pharmaceuticals Industry
- Pesticide Industry
- Tyre manufacturing
- Textile / fiber / POY / PFY Units
- Cable Industry
- Biodiesel Plants
- Lamp manufacturing
- T.V. Picture tubes Manufacturing
- Cold Storage

ADVANTAGES OF NITROGEN GAS PLANTS :

- On Site Nitrogen Generation.
- High Reliability
- Automatic operation , no manual intervention.
- Payback Period less than a year .
- Easy to Operate & Maintain
- On line Control on Nitrogen quality
- Low generation cost.
- No dependency on external agencies .