

PSA NITROGEN PLANT



ADON EQUIPMENTS PVT LTD.



PSA Nitrogen Gas Plant is working on Pressure Swing Adsorption (PSA) Technology to produce Nitrogen from compressed air. It is also called as onsite gas generation plant.

SALIENT FEATURES OF NITROGEN PLANT

- **Fully Automatic**
Fully man less work system
- **High Efficiency**
Less energy loss & low cost N2 generation
- **Congenial Purity**
Can generate commercial grade purity to ultra high grade purity
- **Small Footprint**
Compact design, single skid fitted & easy maintenance
- **High Quality Absorption Material**
Using the special make & grade carbon molecular sieves
- **Low Noise Level**
Using screw compressor to reduce the unwanted noise.
- **Factory Tested**
Pre installed & pre commissioned plant

	GAS COMPOSITION	MS
◆	Oxygen	0.01% to 5%
	Hydrogen	NIL
	Nitrogen	99.99 to 95%
◆	Dew Point	(-) 60 C to (-) 40 C



+91 96870 71900 +91 82005 17219

+91 84602 85833

sales@adonequipments.com
project@adonequipments.com
www.adonequipments.com

PSA NITROGEN PLANT



ADON EQUIPMENTS PVT LTD.

CU-DX

Nitrogen Copper DE-OXO unit is used to convert raw nitrogen to ultrapure nitrogen. This unit requires copper catalyst for Ultra Nitrogen Purification. Which removes extra Oxygen along with Moisture and Hydrogen Contents. This ultra-pure Nitrogen mainly used in Pharma Industries, Metallurgical Industry, Synthetic & Fiber Industry, Heat Treatment / Annealing. It can achieve 1 ppm level and also maintain dew point from (-) 60° C to (-) 80° C.



PD-DX



Nitrogen Palladium De-oxo system will be required to remove residual oxygen in raw Nitrogen. This oxygen free nitrogen commonly used in metallurgical industries for heat treatment furnaces. In this system raw nitrogen from PSA Unit will be mixed with Hydrogen and then mixture of Hydrogen and Nitrogen will be passed through Palladium Catalyst. Where Hydrogen reacts with Oxygen and makes water. To decrease the gas temperature & to remove moisture vapour After-cooler with moisture separator can be used.

This nitrogen also contains hydrogen around 0.5 to 1% which is expedient as reducing component in heat treatment applications

GAS COMPOSITION	Oxygen	Hydrogen	Nitrogen	Dew Point
CU-DX	1 ppm	NIL	99.9999%	(-) 40°C to (-) 80°C
PD-DX	1 ppm to 3 ppm	0.5% or more	Balance	(-) 40°C to (-) 80°C

+91 96870 71900 +91 82005 17219

+91 84602 85833

sales@adonequipments.com
 project@adonequipments.com
 www.adonequipments.com

— IH DRYER —

This is an advance version of the heatless dryer where purge air loss is very low due to regeneration is achieved by dry air at low pressure and at high temperature.

- ◆ Dew point up to (-) 60 Deg C (atm) can be achieved.
- ◆ Longer Life of Desiccant
- ◆ Microprocessor based Controller with Display.
- ◆ No need of Cooling Water



REFRIGERATED AIR — DRYER —

The simplest way of removing moisture from compressed air by reducing the temperature.

- ◆ Simple Non Cyclic Operation
- ◆ Low Operating cost
- ◆ Low Noise
- ◆ Zero purge loss
- ◆ PDP 3°C
- ◆ Environment Friendly Refrigerant



ADON EQUIPMENTS PVT LTD.

HEATLESS DESICCANT DRYER



The simplest way of removing moisture from compressed air by Desiccant.

- ◆ Simple Operation
- ◆ Easy to maintain
- ◆ Microprocessor based Controller
- ◆ Purge Saver
- ◆ No need of heater or cooler
- ◆ ADP of (-) 40°C can be easily achieved.

+91 96870 71900 +91 82005 17219

+91 84602 85833

sales@adonequipments.com
project@adonequipments.com
www.adonequipments.com

HEAT OF COMPRESSION AIR DRYER (HOC)

The No Purge Loss Type Air Dryer and easy to get desired dew point by removing moisture from compressed air.

- ◆ Excellent in desiccant drying
- ◆ Minimum Energy Loss
- ◆ Very Economical
- ◆ Zero purge loss
- ◆ ADP (-) 40°C can be easily achieved



SPLIT FLOW NO PURGE LOSS AIR DRYER

The No Purge Loss Type Breakthrough Air Drying technology. Easy to get (-) 40 Deg. C dew point by removing moisture from compressed air.

- ◆ Advance desiccant type air dryer
- ◆ Minimum Energy Loss
- ◆ Used where inlet temperature is not high
- ◆ No Purge Loss
- ◆ ADP (-) 40°C can be easily achieve





ADON EQUIPMENTS PVT LTD.

OUR VALUABLE CLIENTS





ADON EQUIPMENTS PVT LTD.

OUR VALUABLE CLIENTS



MAJDHA INDUSTRIES
PVT.LTD.



PATELS AIRFLOW LIMITED
(TUBE DIVISION)



OUR PRODUCT RANGE

- ◆ PSA NITROGEN PLANT
- ◆ PSA OXYGEN PLANT
- ◆ AIR / GAS DRYERS
- ◆ AFTER COOLERS / CHILLERS
- ◆ RECEIVERS/STORAGE TANK
- ◆ ANALYZERS & SENSORS

+91 96870 71900 +91 82005 17219

+91 84602 85833

sales@adonequipments.com
project@adonequipments.com
www.adonequipments.com