

PSA & VPSA TECHNOLOGY BASED OXYGEN GAS GENERATORS



ISO 9001 : 2015 CERTIFIED COMPANY



SAM GAS PROJECTS is **ISO 9001:2015** certified, Professionally Managed Engineering Organization, Specialized in Design , Manufacture , Supply & commissioning of **'State of the Art'** Gas Plants and Compressed Air Systems.

SAM GAS PROJECTS has supplied more than **1500** Systems, which are working satisfactorily all over India & across the Globe in more than **50 countries**.

OXYGEN GAS PLANT

- PSA Technology
- VPSA Technology
- Medical Grade

NITROGEN GAS PLANT

- PSA Technology
- Membrane

HYDROGEN GAS PLANT

- Ammonia Cracking Units
- Water Electrolysis Based

COMPRESSED AIR DRYERS

GAS PURIFICATION SYSTEMS

HYPOXIC CHAMBERS / SYSTEMS

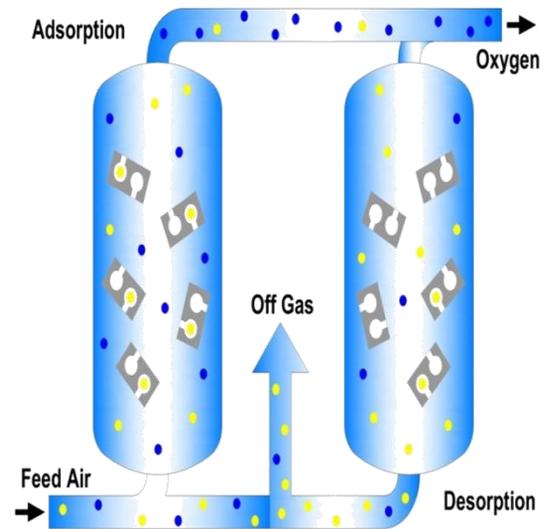


Precisely Right.

ISO 9001 : 2015 CERTIFIED CO.

PSA OXYGEN GAS PLANT

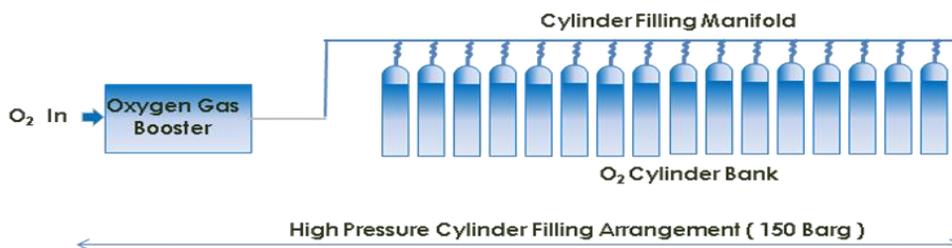
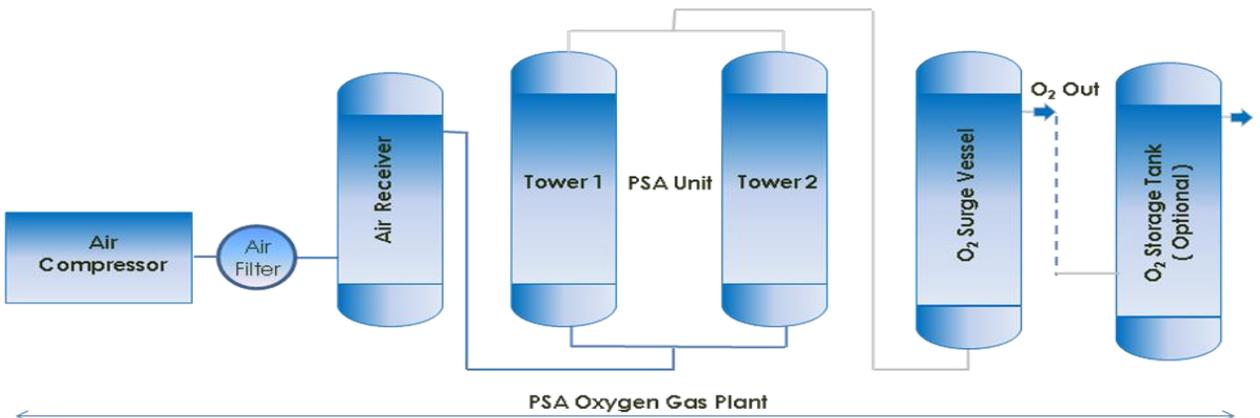
PSA (Pressure Swing Adsorption) Oxygen gas Generators are based on well proven technology using, Zeolite Molecular Sieves (ZMS). ZMS is an adsorbent having infinite number of small pores. When ZMS is used in the PSA process, nitrogen Molecules, having a higher diameter than a oxygen Molecule, passes through the pores and are adsorbed. Therefore, the Oxygen is recovered, while Nitrogen is adsorbed. Adsorption of Nitrogen Molecules happens at moderate pressure. During regeneration process PSA tower pressure brought down to atmospheric, Nitrogen molecules comes out of pores of Zeolite molecular sieve.



- Capacity : 1 to 200 NM³/Hr.
- Purity : 93 ± 2%
- Dew Point : (-) 40°C or better
- Pressure : 2.5 Kg/cm²g or higher
- Nitrogen + Others : Balance



PSA OXYGEN GAS PLANT AND CYLINDER FILLING

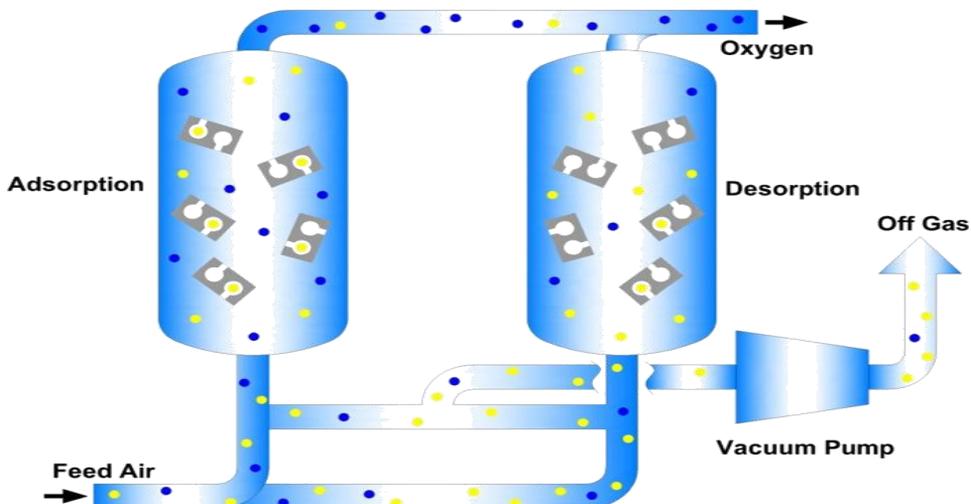


VPSA OXYGEN GAS PLANT

VPSA (Vacuum pressure Swing Adsorption) Oxygen gas Generators are based on well proven technology using Zeolite Molecular Sieves (ZMS) & Vacuum system for regeneration . When ZMS is used in the VPSA process, nitrogen Molecules, having a higher diameter than a oxygen Molecule, passes through the pores and are adsorbed. Therefore, the Oxygen is recovered, while Nitrogen is adsorbed. Adsorption of Nitrogen Molecules happens at Low pressure, which make it efficient & suitable for higher flow rates. In VPSA based Oxygen gas plants Regeneration process is done with vacuum pumps, which ensures complete regeneration of ZMS



- Capacity : 200 to 5000 NM³/Hr.
- Purity : 90 - 95%
- Dew Point : (-) 40°C or better
- Pressure : 0.2 Kg/cm²g or higher
- Nitrogen + Others : Balance



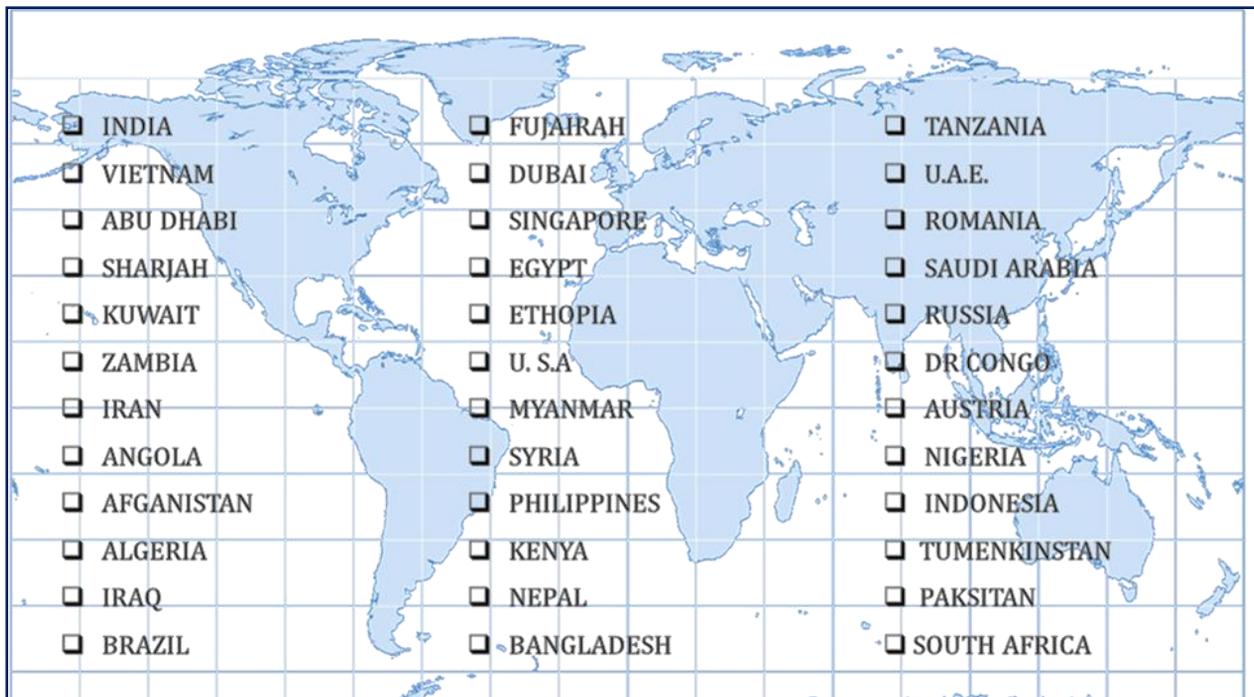
APPLICATIONS

- Paper & Pulp Industry
- Glass Industry
- Metallurgical Industries
- Chemical Industry
- Water treatment Plants
- Fish farming
- Gas Cylinder filling
- Lamp Industry
- Hospitals
- Ozone Gas Generators
- TV Picture tubes
- Tea Gardens
- Brazing Applications
- Ampoule manufacturing



SALIENT FEATURES OF OXYGEN GAS PLANTS

- On Site Oxygen Gas Generation and full control on quality of oxygen.
- Easy to Operate & Maintain .and almost unattended operation.
- Quick to start , Low Space requirements and highly reliable.
- No hassles of handling high pressure cylinders .
- No logistical overheads and administrative cost involved.
- No special conditions / requirements for installation.
- Savings upto 70% in comparison to cost of oxygen gas from Cylinders.
- No dependency on external agencies for supply of gas / cylinders.
- Generation of Oxygen as per requirements, which make it further cost effective.



MORE THAN 1500 INSTALLATIONS



PRESENCE IN 50 COUNTERIES



TEAM OF QUALIFIED & EXPERIENCED ENGINEERS



ROUND THE CLOCK AFTER SALE SERVICE SUPPORT



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