



OXYGEN GENERATION PLANT - PSA TECHNOLOGY



MAKE IN INDIA

Oxygen Plant - PSA Technology

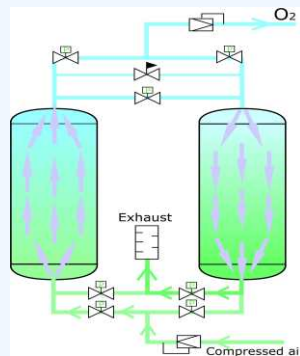
OxyNxtGen™ ONG Series Oxygen generators are on-site Oxygen generating plants. In the model the plant contains the oxygen generator with the air compressor, air dryer and air receiver tank with filter accessories as a inbuilt single unit, PSA module and oxygen Receiver tank as separately floor mount.

Our oxygen generators working on the **Pressure Swing Adsorption** Technique.

Ozone Engineers OxyNxtGen™ oxygen generators uses imported zeolite based molecular sieves. The delivery pressure can be set maximum 3 to 4 bar(g).

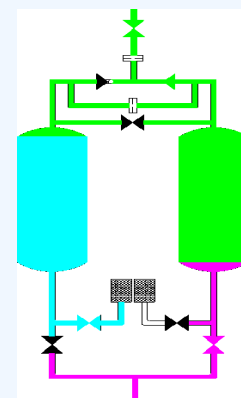
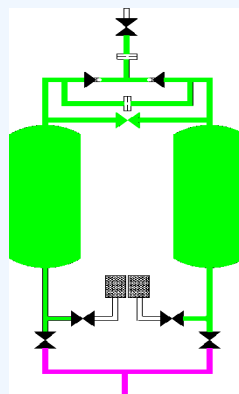
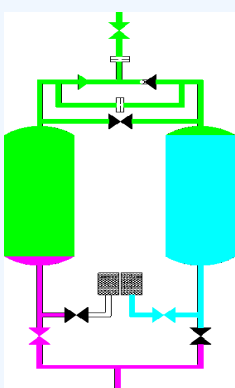
Basic Process Flow Description Of Oxygen Generator System

The normal flow of air through the PSA generator is shown in below picture. After exiting the filter, the compressed feed air is regulated down to 4.0 – 6.0 bar(g) and then directed by pneumatic activated valves into one of two absorber columns containing molecular sieve. Molecular sieve has the unique property that it physically attracts or adsorbs nitrogen from the air, leaving the oxygen to pass through to the product tank, and can when saturated with nitrogen be regained to clean sieve again by purging with oxygen under lower pressure conditions

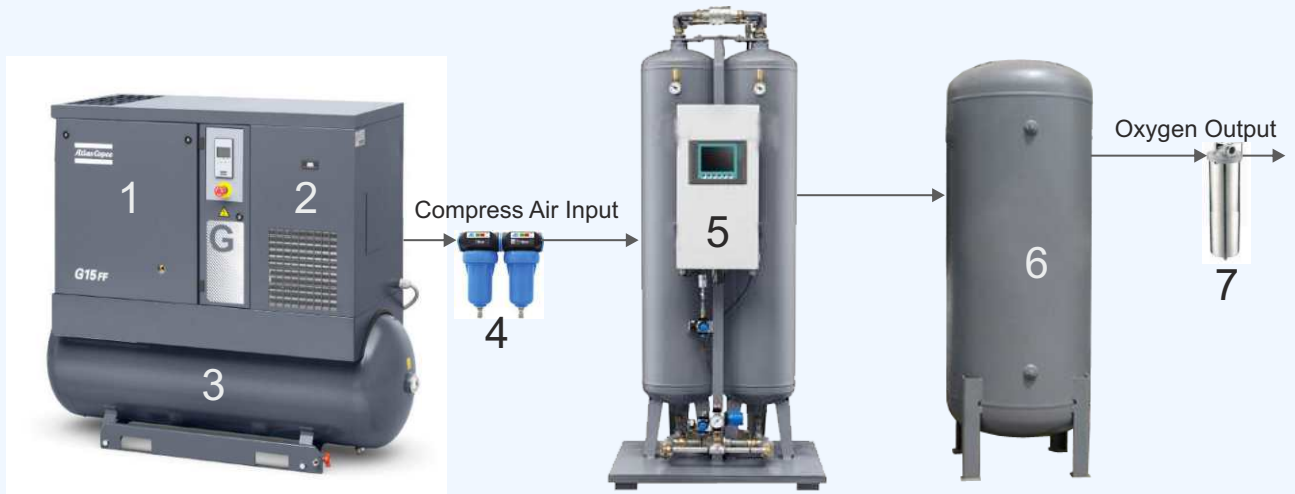


The PSA generator consist of two absorber columns working in alternate operation, e.g. the processes always run in antiphase to one another in such way, that one absorber column with cleaned sieve delivers oxygen while the other absorber column regenerates saturated sieve.

After a certain pre-set period, the processes shifts, so that the first absorber column now regenerates saturated sieve, while the second is delivering oxygen through a cleaned sieve. The oxygen from the absorber column is stored in the product tank. From the product tank the oxygen is regulated to 3-4 bar(g), depending upon model and the consumer's specific working pressure. See below picture for more detailed information on the working process.



Oxygen Plant Flow Diagram



1. Air Compressor
2. Air Dryer
3. Air Receiver Tank
4. Fine & Carbon Filter

5. PSA Module with Control Panel
6. Oxygen Receiver Tank
7. Bacterial / Sterile Filter

Features

- ✓ PLC Based Operation
- ✓ Automatic Switch Over to the Secondary Oxygen Supply
- ✓ Digital Display Oxygen Purity & Delivery Pressure
- ✓ Emergency Stopper



Technical Specification

SPECIFICATION / MODEL	ONG-100M	ONG-100	ONG-150	ONG-250	ONG-500
Oxygen Flow / Delivery Rate in LPM	100	100	150	250	500
Cubic Meter / Hour	6	6	9	15	30
Oxygen Storage Tank Capacity in Ltrs	300	300	500	750	1500
Equivalent to Liquid Oxygen Per Day	180	180	270	450	900
Equivalent to No. of Cylinders Per Day	18-20	18-20	27-30	50-55	100-110
Air Requirement in CFM / Pressure in Kg/Cm ₂	60 / 7	78 / 7	100 / 7	144 / 7	310 / 7
Air Compressor Power in kW	11	11	15	22	45
Oxygen Purity	93% +/- 3%				
Oxygen Delivery Pressure	3-4 bar (g)				
PSA Module Working Pressure	5 bar (g)				
Air Drying & Air Receiver Tank	Yes				
Air Inlet Temperature & Air Quality	45°C / As per ISO Standard				

ONG-100M - Modular Type System

Our Other Oxygen Products



**Our Global Present
in 20+ Countries**



Manufactured by

ozone
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we unite to make the world better

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