



## **SY GREEN ENERGY**

Website: - [www.sygreenenergy.com](http://www.sygreenenergy.com), E-mail: - [info@sygreenenergy.com](mailto:info@sygreenenergy.com),

Contact - +91-9724665591, 7405302078

# **SY GREEN ENERGY**

## **ONSITE PSA MEDICAL OXYGEN GENERATION PLANT**

**&**

## **ONSITE VPSA MEDICAL OXYGEN GENERATION PLANT**

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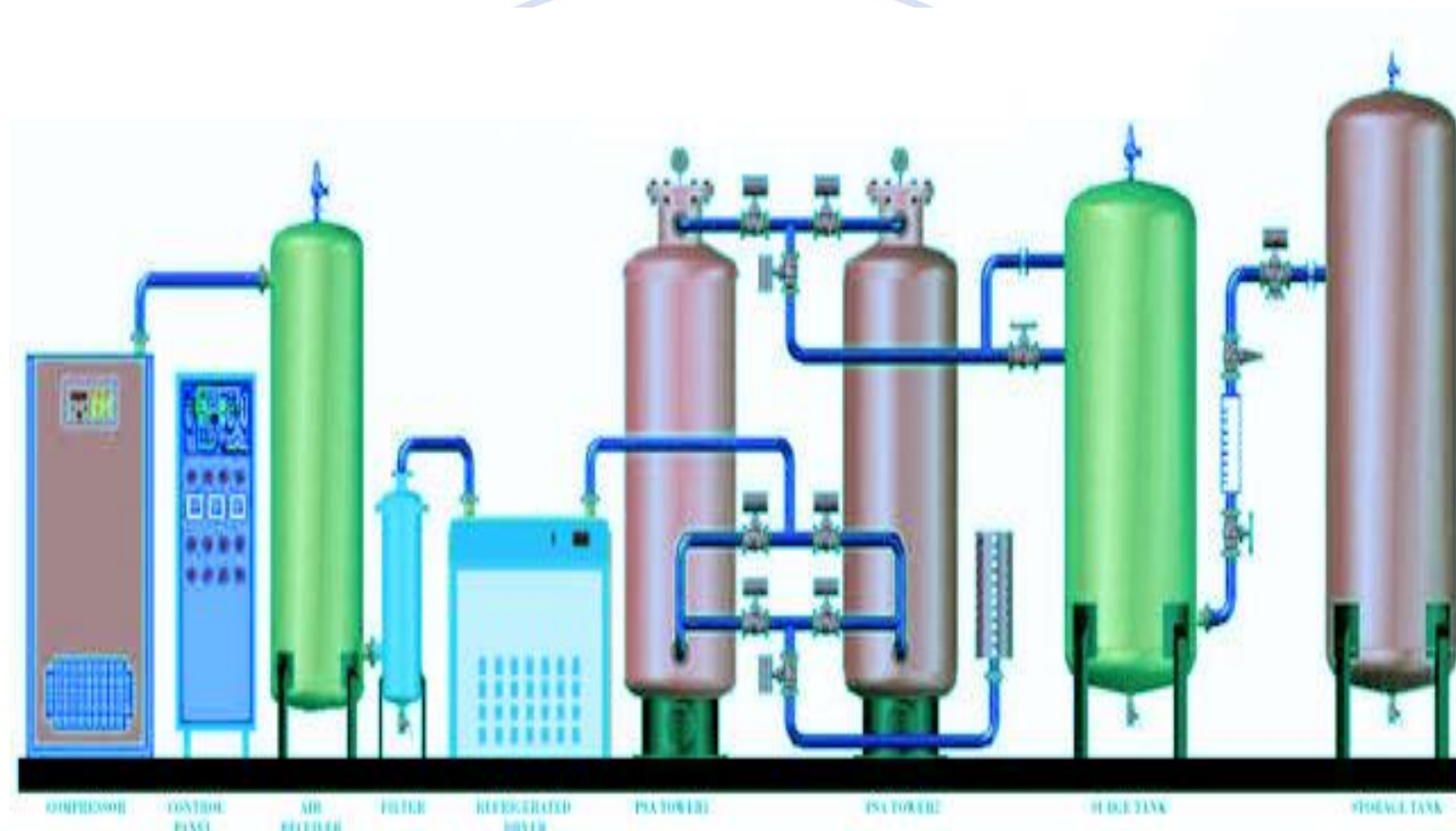


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## **PSA MEDICAL OXYGEN GENERATION PLANT**





## **WHAT IS PSA OXYGEN?**

PSA IS A SHORT FORM OF **PRESSURE SWING ADSORPTION**.

### **▪ PRESSURE**

ELEVATED PRESSURES ARE NEEDED FOR THE PROCESS, USUALLY 4-8 BAR. IN CASE A HIGHER PRESSURE IS REQUIRED FOR YOUR PROCESS, THIS CAN BE APPLIED, TOO.

### **▪ SWING**

WHILE ONE VESSEL IS BEING PRESSURISED, THE OTHER VESSEL IS BEING DEPRESSURISED.

### **▪ ADSORPTION**

THE SEPARATION OF ATMOSPHERIC AIR IS DONE WITH THE PSA PRINCIPLE; OXYGEN IS SEPARATED FROM THE AIR THROUGH THE ADSORPTION PROCESS.

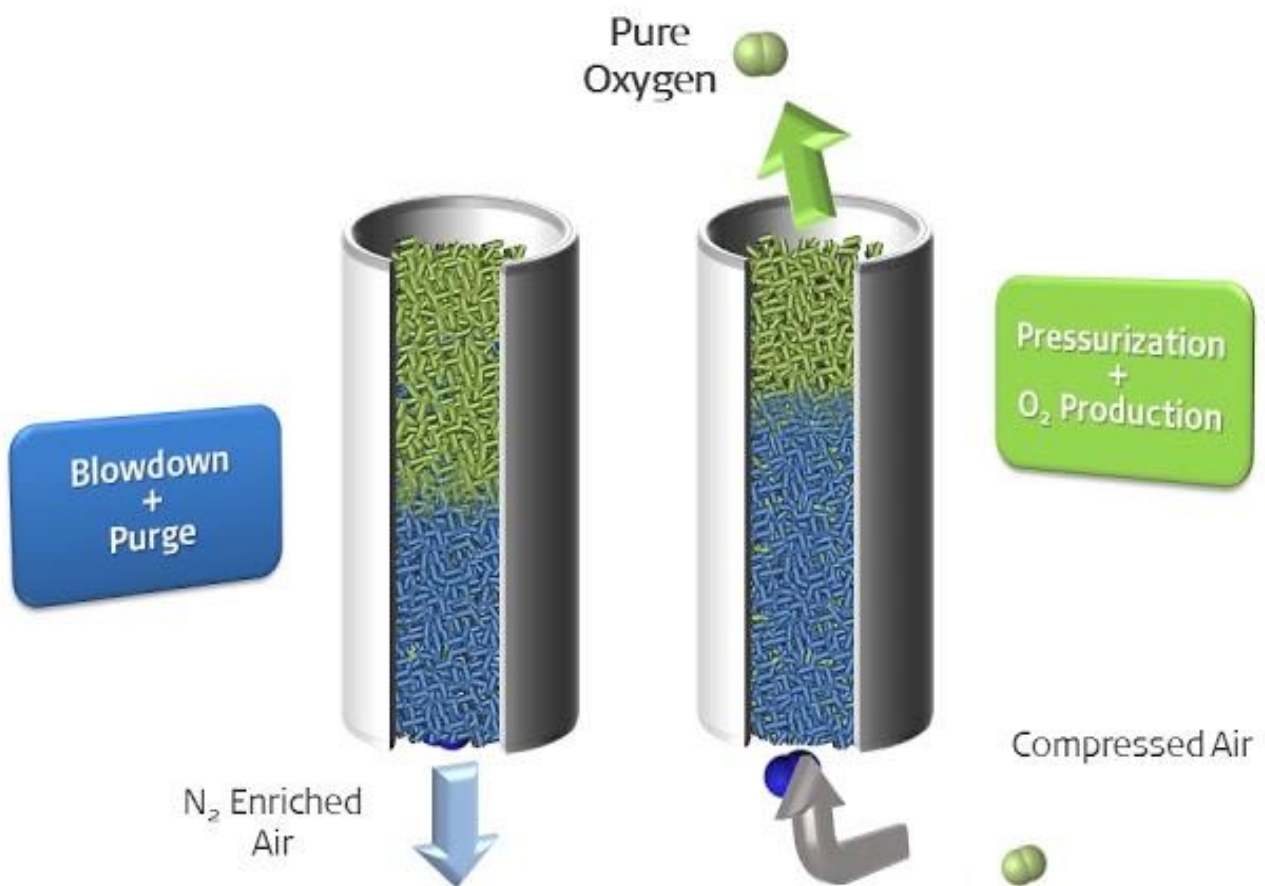


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## **THE PSA PROCESS: A HIGH TECHNOLOGY**



**WE KNOW PERFECTLY**

THE PSA PROCESS IS A STATIC SEPARATION OF AIR GASES VIA SPECIFIC MOLECULAR SIEVES DESIGNED TO ABSORB





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**NITROGEN UNDER PRESSURE, TO PRODUCE OXYGEN-ENRICHED AIR COMPOSED OF 93% OXYGEN AND ABOVE.**

**THE OXYGEN GENERATOR IS BASED ON A PATENTED IMPLEMENTATION OF THE PRESSURE SWING ADSORPTION (PSA) WHICH USES AMBIENT AIR AS RAW MATERIAL.**

**AMBIENT AIR CONTAINS 21% OXYGEN, 78% NITROGEN, 0.9% ARGON AND 0.1% RARE GASES. THE PSA PROCESS IS A STATIC SEPARATION OF AIR GASES VIA SPECIFIC MOLECULAR SIEVES DESIGNED TO ADSORB NITROGEN UNDER PRESSURE, TO PRODUCE OXYGEN-ENRICHED AIR COMPOSED OF 93% OXYGEN AND ABOVE.**

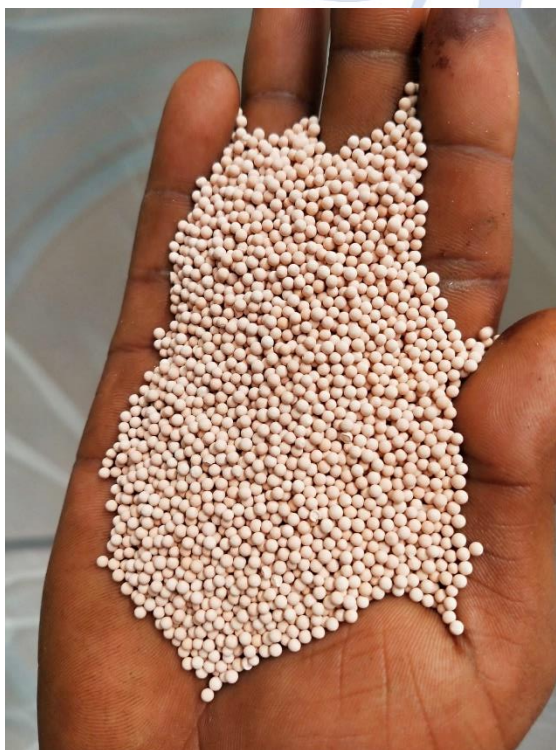
**THE OXYGEN GENERATION IS MAINLY COMPOSED OF TWO SEPARATION VESSELS FILLED WITH MOLECULAR SIEVES ADSORBERS (ZEOLITES), ONE COMPLETE PNEUMATIC SYSTEM (VALVES, FILTERS, PRESSURE REGULATOR)**



MONITORED BY AN AUTOMATIC DEVICE, AND AN OXYGEN TANK.

## **ZEOLITE**

THE ZEOLITE MATERIAL HAS A VERY UNIQUE PROPERTY WHEN THE PRESSURE IS RELEASED BACK TO ATMOSPHERIC PRESSURE DURING THE REGENERATION PROCESS THE ZEOLITE RELEASES THE NITROGEN THAT WAS STORED ON ITS SURFACE. THE OTHER IS USING A SERIES OF VALVES IN A VERY PRECISE SEQUENCE TO TAKE ADVANTAGE OF THIS







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**UNIQUE PROPERTY.**



A SOLID-STATE PROGRAMMABLE CONTROLLER OPERATES THE PROCESS VALVES ON AN ALTERNATING CYCLE, WITH BUILT-IN LOGIC FOR AUTOMATIC STOP/START. OXYGEN FLOW AND PURITY REMAIN CONSTANT REGARDLESS OF THE PEAK USAGE DEMANDS. UNDER NORMAL OPERATING



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CONDITIONS AND WITH CORRECT MAINTENANCE THE ZEOLITE MOLECULAR SIEVES WILL HAVE AN ALMOST INDEFINITE LIFETIME.

### **93% OXYGEN SAFE FOR MEDICAL USE**

USP REQUIREMENTS- “OXYGEN 93 PERCENT” CONTAINS NOT LESS THAN 90% OR NOT MORE THAN 96% BY VOLUME OF OXYGEN, THE REMAINDER CONSISTING MOSTLY OF ARGON AND NITROGEN MEETS THE REQUIREMENT OF IDENTIFICATION, ODOR, CO<sub>2</sub> NOT MORE THAN 0.03%, AND CO NOT MORE THAN 0.001% IN GAS.

HI-TECH'S OXYGEN GENERATOR SYSTEM IS FABRICATED FOLLOWING ALL RELEVANT CODES LIKE ASME, ANSI, NEMA, AND CE STANDARDS. MEDICAL OXYGEN GENERATORS ARE BUILT TO CONFORM TO THE UNITED STATES





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### **PHARMACOPEIA (USP) OXYGEN 93% MONOGRAPH AND ALSO CONFIRM TO ISO-10083.**





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### WHY SY GREEN ENERGY?

- WE WILL PROVIDE VALUE-ADDED SERVICE WITH SATISFACTION.

- WE HAVE GREAT INSTALLATION & COMMISSIONING TEAM.



- THE COMPANY ALREADY SUCCESSFULLY INSTALLED & COMMISSIONED 40-42 PLANTS AND STILL WORKING ON IT.



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- IF YOU WANT SOME QUALITY WORK AND QUICK RESPONSE 24/7 THEN ONLY **SY GREEN ENERGY** IS THERE.







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We are manufacture wild range of Onsite Medical Oxygen Generation Plant in our company. The offers of oxygen plants of various capacities are as follows.

S. No.	Plant Capacity	Cylinder/Day	Price
1	100LPM	20	11,00,000/-
2	250LPM	50	28,00,000/-
3	500LPM	100	50,00,000/-
4	1000LPM	200	72,35,000/-
5	1500LPM	300	92,50,000/-
6	2000LPM	400	1,25,15,000/-



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## ON-SITE WORK: -







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401, 4<sup>th</sup> Floor, Kahan Commercial Complex, Ring Road, Odhav, Ahmedabad-382415





## **Scope of Works: -**

- Cleaning & checking of key elements of Oxygen plant.
- Check the crucial performance parameters of e.g. – Operating Pressure, Valve operation, Cycle time, Leakage, Oxygen purity & flow rate, etc.
- Fill up the AMC checklist & review it with the client representative for further action if spares/consumables are required.
- Change of spares or consumables as necessary with the help of a client maintenance technician/electrician.
- Adjustment of the parameters to achieve improved performance.
- Sensitizing client personnel about the care & maintenance of the equipment if compromises are observed during service.

## **Exclusions:**

- Lifting or handling equipment if required.
- Major maintenance of equipment like compressor, Dryer, PLC & Programs.



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### **AMC PRICING LIST: -**

S. NO.	NON-COMPRESSIVE AMC	PLANT CAPACITY	BOOSTER	PRICE
1.	YES	100 LPM	YES	-
2.	YES	250 LPM	YES	-
3.	YES	500 LPM	YES	-
4.	YES	750 LPM	YES	-
5.	YES	1000 LPM	YES	-
6.	YES	2000 LPM	YES	-

**FOUR QUARTERLY VISITS A YEAR, BREAKDOWN ATTENDED  
IN 24 HOURS. TELEPHONIC SUPPORT 24\*7 FOR MINOR  
MAINTENANCE ISSUES INCLUDED.**