

Keep Breathing...

# CONTAINER OXYGEN GENERATOR



A turn-key project for the critical oxygen demand across Indian hospitals. The complete container oxygen generator system is tested, installed at factory and delivered to the hospitals across India.

Containers consist of Air Compressor, Air Dryer, Filters, Buffer Tank, Oxygen Generator, Electricity Control System and Optional Cylinder filling Machine.



### **ADVANTAGES**

- Easy to Install & Ready to Use
- Fully Automatic
- Minimal Operator's Attention
- Negligible Maintenance
- No changing of Cylinders
- Continuous Purity Check
- Compact Design, Lowest Footprint
- Removable & Relocatable
- Low Generation Cost

- Skid-Mounted Pre-Commissioned
- Larger Oxygen Vessel
- Purity up to 95% Achievable
- Proven PSA Technology
- Heat and Sound Insulation
- Smart Monitor & Control System
- Transportable on all kinds of roads
- Customized Sizes
- Serves as Technical Room

### **SALIENT FEATURES**

- Waterproof and Dust-proof
- Fire Safety Fire Resistant Class Mo- Incombustible
- Isolation double wall type with isolating material
- All pipes are Medical Degreased Copper
- Compressed air pipes before treatment is made of galvanized steel
- Access Door 1 double door, 1 Lateral door

- All components in contact with medical oxygen are degreased
- Switch cabinet comes with all electrical & Monitoring Devices
- Ventilation canned hot air extraction for internal ventilation
- Regulated fan, ventilating grates with anti-insects grate Access
- Size: 20 X 40 Ft.

### **TECHNICAL SPECIFICATIONS**

Oxygen Flow	24 m³/hr
Oxygen Pressure (Cylinder)	150 Bar
Oxygen Pressure (O2 Tank)	6 Bar
Oxygen Concentration (Nominal)	95%
Oxygen Dew Point	Minus 50 Deg
Cylinder Filling Capacity	18 m³/hr

#### Each Airox MED-OX PSA System comes with

- 4 stage Air Pretreatment and filtration for particulate/bacterial Elimination
- 2 Stage Bacteria Filter for Oxygen at Final Outlet.
- Activated Carbon Adsorber Bed to remove trace oil from the downstream of air.
- Life of Activated Carbon bed 4 Years

TECHNICAL DATA	AIROX MED-OX 5	AIROX MED-OX 10	AIROX MED-OX 200P	AIROX MED-OX 500P
FLOW RATE ( LPM )	50	100	200	500
FLOW RATE (Nm3/hr)	3	6	12	30
OXYGEN PURITY	93%+/-3% (AT GENERATOR OTLET)			
OUTLET PRESSURE	OPTIONS OF 0.2 Bar G , 1.8 Bar G , 5 Bar G & 7 Bar G AVAILABLE			
BOOSTER OPTIONAL	FOR CYLINDER FILLING 200 & 350 Bar G WITH BOOSTERS AVAILABLE			
OPERATING TEMPERATURE	-18°C to 49°C	-18°C to 49°C	-18°C to 49°C	-18°C to 49°C
POWER SUPPLY	380/460/575 VAC +/- 10%, 50/60/60 Hz +/- 3% , 3-Phase			3-Phase
POWER REQUIRED	15 KVA	20 KVA	30 KVA	60 KVA
POWER CONSUMPTION	4.6 KW @ 4-5 barG	8.5 KW @ 4-5 barG	16 KW @ 4-5 barG	38 KW @ 4-5 barG
OUTLET CONNECTION	15 NB	15 NB	25 NB	40 NB
SKID SIZE L x W X H ( Mtrs)	2.5 x 4 x 3	2.5 x 4 x 3	2.5 x 4 x 3	3.5 x 4 x 3

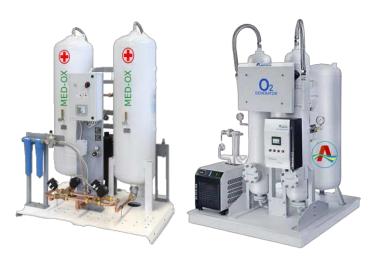
TECHNICAL DATA	AIROX MED-OX 1KP	AIROX MED-OX 1.5KP	AIROX MED-OX 2KP	AIROX MED-OX 3KP	
FLOW RATE ( LPM )	1000	1500	2000	3000	
FLOW RATE (Nm3/hr)	60	90	120	180	
OXYGEN PURITY	93%+/-3% (AT GENERATOR OTLET)				
OUTLET PRESSURE	OPTIONS OF 0.2 Bar G , 1.8 Bar G , 5 Bar G & 7 Bar G AVAILABLE				
BOOSTER OPTIONAL	FOR CYLINDER FILLING 200 & 350 Bar G WITH BOOSTERS AVAILABLE				
OPERATING TEMPERATURE	-18°C to 49°C	-18°C to 49°C	-18°C to 49°C	-18°C to 49°C	
POWER SUPPLY	380/460/575 VAC +/- 10%, 50/60/60 Hz +/- 3% , 3-Phase				
POWER REQUIRED	90 KVA	130 KVA	200 KVA	450 KVA	
POWER CONSUMPTION	70 KW @ 4-5 barG	105 KW @ 4-5 barG	132 KW @ 4-5 barG	205 KW @ 4-5 barG	
OUTLET CONNECTION	40 NB	50 NB	80 NB	100 NB	
SKID SIZE L x W X H (Mtrs)	4.5 x 4 x 3	5.5 x 4 x 3	6.5 x 4 x 3	6.5 x 4 x 3	

### **PRESSURE SWING ADSORPTION TECHNOLOGY**

Our Oxygen Generators operates on Pressure Swing Adsorption, commonly known as P S A Technology.

PSA Technology is based on the selective adsorption phenomena of gas molecules under pressure on the surface of highly porous and efficient adsorbent, in this case of Medical Oxygen Generation the Adsorbent is Zeolite based Molecular Sieve (Z.M.S.)

In PSA System when compressed air is passed through a adsorption tower field with Z.M.S. the molecules of Nitrogen



Carbon Di Oxide , moisture & other unwanted gases are adsorbed on surface of Z.M.S. and Oxygen which is not adsorbed by Z.M.S. comes out of adsorption tower and is collected in a surge vessel. For continuous generation of Oxygen two Adsorption towers are provided which are interconnected with Auto-change over valves controlled by PLC in the control panel. After saturation of one tower with oxygen the process automatically changes over to another tower and thus the Oxygen production is continuous.



Our systems are the best ones in industry to ensure the highest efficiency, user friendly design, Reliable Economical and Durable. Our onsite Medical Oxygen Generators are custom made and can be adjusted to give the desired nitrogen quality for your process and application.

# Safety Features and Audio-Visual Alarms

The Oxygen Gas Generator are Skid Mounted and Pre- commissioned at our works and are fully Automatic and requires virtually no attention of the Operator. Once started it can be leftunattended. All operations take place automatically and oxygen Purity remains

very consistent. In case of any abnormality the gas Generator would trip automatically with Audio Visual Alarms for Necessary action.

### SAFETY FEATURES AND AUDIO-VISUAL ALARMS



Airox MED-OX PSA or **VSA** Oxygen Gas Generator are Skid Mounted and Precommissioned at our works and are fully Automatic and requires virtually no attention of the Operator.

All System comes with 7 or 10 inch HMI Once started it can be left-unattended. All operations take place automatically and oxygen Purity remains very consistent. In case of any abnormality the gas Generator would trip automatically with Audio Visual Alarms for Necessary action.

In case of Storage Tank Getting Filled the Gas

Generator Goes to Sleep and restarts Once the pressure in storage Tank is Reduces to set Limit.

### AIROX MED-OX OXYGEN GAS BOOSTER

Airox offers Oxygen Gas Boosters along with gas filling manifolds and pigtails. Oxygen Boosters offered by us are state of art and backed by after sales services. Booster offered are from 3 m3/hr. to 100 m3/hr., Higher Capacities can also be offered



## AIROX NIGEN CREDENTIALS & APPROVALS





## **INSTALLATIONS**



Government Hospital, Yadagiri



With NDRF Team, Yadagiri



Government Hospital, Channagiri





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