



INDO GAS SYSTEMS  
We Care Compressed Air

# Medical Oxygen System

0.1 to 200 Nm<sup>3</sup>/hr



Purity 93% & above



High Quality, Cost Efficiently



## How to work

Indo Gas Systems Medical Oxygen Generator system works on the principle of Pressure Swing Adsorption, widely termed as PSA. This conventional gas separation technology is being used to separate Oxygen from Compressed air. The major components are a pair of adsorbent vessels, Surge tank, Switching valves, Intelligent PLC, Oxygen analyzer and instruments. The adsorbent vessels filled with Zeolite preferentially adsorb Nitrogen and CO<sub>2</sub> whereas Oxygen is not adsorbed by Zeolite due to its larger molecular size and passes through the adsorber to the surge tank. Based on the prefixed time interval the online adsorber switches to regeneration mode and Adsorbed gas from Zeolite are purged out to the atmosphere. During this operation Oxygen analyzer monitors the oxygen concentration and allows Oxygen Gas to storage tank. If oxygen concentration is less than the pre-set value PLC switches the vent valve and purging out the gas till it reaches the required purity level.

## Exclusive Features

- ✓ Automatic Oxygen Generation on Demand
- ✓ Highest Purity up to 96%
- ✓ Online Purity indication
- ✓ Audio-visual alarms
- ✓ Analog output for remote monitoring
- ✓ Mimic display for PSA functions
- ✓ Few moving parts
- ✓ Activated carbon tower and coalescing filters removes oil up to 0.003mg/m<sup>3</sup>
- ✓ Automatic off spec vent system
- ✓ Specially Coated Medical Grade Internals

## Advantages

- ✓ Uninterrupted supply of Oxygen
- ✓ Economical to produce
- ✓ Low initial cost
- ✓ Significant saving over liquid or bottled gas purchase
- ✓ Integrated skid mounted with Air treatment package
- ✓ Safe and convenient over high pressure cylinders
- ✓ Eliminates production downtime

Instant Pay back



A Product of Innovation & Quality

## Technical Specification

Oxygen Model	O <sub>2</sub> flow rate Nm <sup>3</sup> /hr	No of beds	Number of ICU & OTS	Equivalent Liquid oxygen liters/Day	Equivalent Cylinders Per Day
OxiLife 2	2	10	2	60	7
OxiLife 5	5	25	5	150	17
OxiLife 8	8.1	30	8	243	28
OxiLife 15	13.2	50	15	396	45
OxiLife 20	16.5	75	20	495	57
OxiLife 25	21	100	25	631	72
OxiLife 30	27	150	30	811	93
OxiLife 40	32	200	40	961	110
OxiLife 45	37	250	45	1021	117
OxiLife 60	53	300	60	1591	182
OxiLife 75	80	500	75	2405	274

Oxygen Purity : 93% ± 3%  
 Oxygen Pressure : 4 bar g ± 0.5 bar g  
 Air Pressure : 7 bar g  
 Air Inlet Temperature : 40 deg C  
 Air Quality : ISO 8573-2010 Class 1-4-1

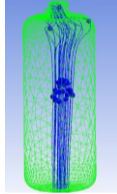
### Adjustable Purity

All standard models have online oxygen analyzer and purity can be adjustable on field when different purities required.

### Alarms and Mimic display

An optional Mimic display panel and audiovisual alarm shall be supplied for better monitoring of the system functions.

## Technology



The Indo Gas engineers have dedicated engineering of the adsorption vessel design, the fluidization of the adsorbent bed is eliminated at any time during a complete PSA cycle of the OXILIFE PSA Generators. Hardcore CFD simulations and prototype trials were performed in order to avoid physical fluidization for each adsorption vessel size and under all process conditions.

Specially Produced sieve adsorbents are crystalline aluminosilicates known as Zeolites.

It is highly resilient towards long term usage in PSA. The excellent auto regeneration properties of the sieve lead to many years of high quality oxygen production. Hence, once sieves charge lasts as long as hardware of the PSA- plant. Summits Zeolite is a safe and long term investment.



All piping of our oxygen generators are made of Selectively chosen materials such as degreased medical grade copper pipes, as per ASTM B819. All components and parts in contact with oxygen are subjected to high degree of cleanliness, in accordance with NFPA99. Authenticates Cupric oxide free brazing with assured CLEANLINESS.

## Regulatory standards and quality compliances

### Standards and Quality Compliances

ISO 9001:2008  
 NFPA 99C(1)  
 ISO 7396-1  
 CE

Parameters	International Standards			
	ISO 7396-1	United States USP XXII Oxygen 93%	European Pharmacopeia Oxygen 93%	Summits
Oxygen	O <sub>2</sub>	>90%	90% -96%	90% -96%
Carbon Monoxide	CO	< 5ppm	< 0.001%	< 5ppm
Carbon Dioxide	CO <sub>2</sub>	<300ppm	<0.03%	<300ppm
Sulfure Dioxide	SO <sub>2</sub>	-	-	<1ppm
Nitrogen Oxides	NO <sub>X</sub>	-	-	<2ppm
Water	H <sub>2</sub> O	<67PPM	-	<67ppm
Oil		<0.1mg/m <sup>3</sup>	<0.1mg/m <sup>3</sup>	<0.003mg/m <sup>3</sup>

Indo Gas Systems Provides Customized Solutions

# Capable of catering Clinics to large hospitals!



## Indo Gas Systems

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