

APPLICATION NOTE

up-to 80% reduction in operating cost...

LOWER YOUR HOSPITAL OPERATING COST- take Oxygen directly from air.

Eliminate the Expense of Purchasing, Receiving and monitoring your hospital's / Clinic's Oxygen supply. Hi-Tech Engineered Solutions Designs Manufactures and Commissions Turn-key Based Medical Pressure Swing Absorption (PSA) Oxygen System for Hospital's / Clinic's throughout Globe. Our Generators are Fully Automatic PLC Controlled, Easy to Maintain and produces a continuous flow of medical grade Oxygen. In any case of emergency, PLC Control automatically Activates programmed Backup System for intrupped Oxygen supply 24*7. Join the growing number of Hospitals / Clinics that have ended their Expensive Reliance on delivered Liquid Oxygen and compressed oxygen Supplies.



HALF THE TROUBLE OF LOX TANKS & CYLINDERS SYSTEMS

Eliminate the danger, Experience and Logistical problems of Liquid Oxygen Cryogenic Tanks and Gaseous Oxygen Cylinders deliveries, An Hi-Tech's Oxygen Generator System ensures that you pay role only for the quantity and purity of oxygen that your Hospital or Clinic needs. PSA oxygen contains just argon and nitrogen gases that confirms to all international Medical Standards like United States, Indian and European Pharmacopeia . Oxygen Generator is Equipped with 7" Touchscreen for Control and Monitoring of whole System with data logging capability. Monitoring Values Include- Oxygen Purity, Pressure, Temperature, Carbon Dioxide, Carbon Monoxide. Ethernet Connection with remote control.



ECONOMICAL

Eliminate the unnecessary Cost of Transportation, Storage and heavy Cylinders Rentals with a modest capital Investment in Hi-Tech's Oxygen Generation System can result up-to an 80% Reduction in your Facility's cost of Oxygen, Our System Average only 1.0 KW per Nm3 of Oxygen Produced. The Zeolite Sieve is factory sealed in Solid steel tanks, and rarely needs replacement with a very few moving parts, Our generators are built to provide thousands of hours of continous, reliable operation, All Oxygen Generation Systems Pay for themselves within just months.



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, CO₂ not more than 0.03%, and CO not more than 0.001% in gas.

Hi-Tech's Oxygen Generator System is fabricated in accordance with all relevant codes Like ASME, ANSI, NEMA, CE Standards, Medical Oxygen Generators are built to confirms to the United States Pharmacopeia (USP) Oxygen 93% Monograph and also confirms to ISO-10083.



Hospital System Sizing Estimation

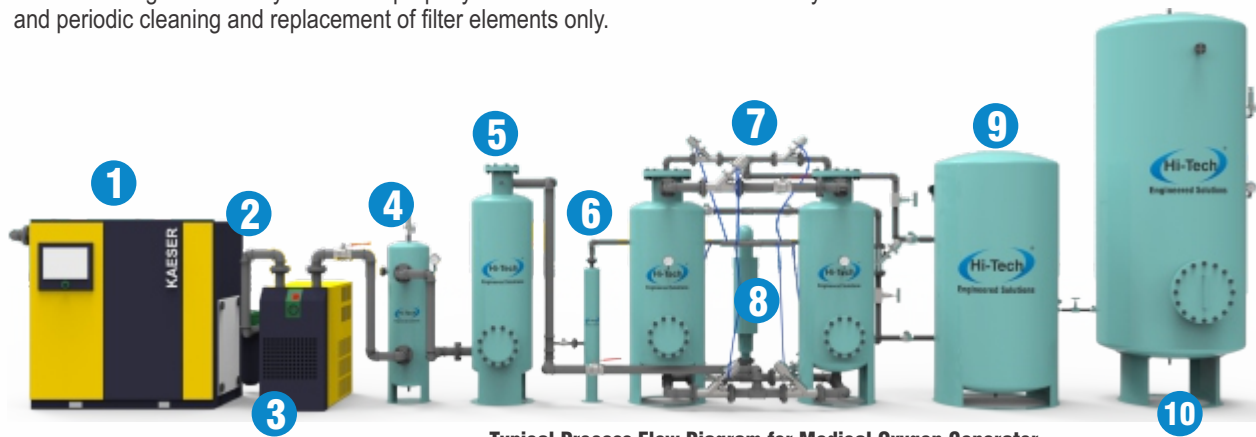
[Number of Beds * 0.75 LPM] + [Number of other Outlets * 10 LPM] = Total Liters per Minutes (LPM)

Other Outlet Means - ICU, Operation Theaters etc

Liters per Minute (LPM) * 2.1= Standard Cubic Feet Per Hour (SCFH)

Easily Operated and Maintained

Hi-Tech's Oxygen Generators Can be operated and maintained without extensive technical knowledge or training. our easy to follow manuals, videos and on-site training will enable your staff to properly calibrate and maintain the whole system. Routine maintenance is limited to normal air compressor upkeep and periodic cleaning and replacement of filter elements only.



Nomenclature

- 1 Air Compressor
- 2 Pre Filter
- 3 Air Drier
- 4 Air Storage
- 5 Oil Absorber
- 6 Pneumatic Air Tank
- 7 Oxygen Generator
- 8 Vent Silencer
- 9 Buffer Tank
- 10 Storage tank

Typical Process Flow Diagram for Medical Oxygen Generator

Hi-Tech Engineered Solutions Equipment Operating in over 50 Countries

With our Worldwide base of installed equipment, Hi-Tech Engineered Solutions has the engineering and manufacturing experience to integrate successfully into Plants for Ozone, Oxygen, Nitrogen, Argon, Acetylene, Nitrous Oxide & Carbon-dioxide. Our sales and service Network is dedicated to keeping your Oxygen Generator in top notch condition throughout year.



General Features of Oxygen Generators Available

- ✓ Meets Worldwide Medical Oxygen Grade Standards
- ✓ Cost Saving of up-to 80% from Liquid/Cylinder supply
- ✓ Dependable Highest Reliability with Energy Efficiency
- ✓ Compact design with Easy and simple controls
- ✓ Pre-piped systems for Easy and simple installation
- ✓ Automatic operation-one touch start up and shut down
- ✓ Easily Partial Load Operation in variable Demand Flows
- ✓ Ready to use upon delivery
- ✓ Optional HMI Touchscreen
- ✓ Optional Remote Control or GSM Interface
- ✓ Easy to maintain with Continuously monitored Purity & Flow
- ✓ Optional Cylinder filling Ramp with Emergency Disaster Recovery



A Full Line of Oxygen Generators Available

Our Generators Provides from 12 to 1,415 LPM of oxygen. Use the following Table to determine which model is most suitable to your application.

MODEL	AIR CFM	93~95% OXYGEN			OUTLET PRESSURE	OUTLET PRESSURE WITH BOOSTER	TANK SIZE (Gallons)	POWER CONSUMED
		SCFH	LPM	Nm3/hr				
MO-25	6	25	12	0.7	50 PSI	3,000 PSI MAX.	60	1.5 KW
MO-50	12	50	24	1	50 PSI	3,000 PSI MAX.	60	2.00 KW
MO-75	17	75	36	1.5	50 PSI	3,000 PSI MAX.	60	2.50 KW
MO-100	22	100	47	3	50 PSI	3,000 PSI MAX.	80	4.00 KW
MO-175	32	175	83	5	50 PSI	3,000 PSI MAX.	120	6.50 KW
MO-250	45	250	118	7	50 PSI	3,000 PSI MAX.	120	9.00 KW
MO-375	68	375	177	10	50 PSI	3,000 PSI MAX.	120	13.00 KW
MO-500	88	500	236	13	50 PSI	3,000 PSI MAX.	200	16.90 KW
MO-650	118	650	307	17	50 PSI	3,000 PSI MAX.	400	22.10 KW
MO-750	133	750	354	20	50 PSI	3,000 PSI MAX.	400	26.00 KW
MO-1000	175	1,000	472	26	50 PSI	3,000 PSI MAX.	400	33.80 KW
MO-1250	225	1,250	590	33	50 PSI	3,000 PSI MAX.	660	42.90 KW
MO-1500	320	1,500	708	39	50 PSI	3,000 PSI MAX.	660	50.70 KW
MO-2000	425	2,000	943	53	50 PSI	3,000 PSI MAX.	660	66.00 KW
MO-3000	625	3,000	1,415	79	50 PSI	3,000 PSI MAX.	1,060	95.00 KW

*Optional- 99% Purity, Custom Built Models also Available

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YOUR LOCAL CONTACT

