



On-site Medical Oxygen Generator

**ABSOLUTE  
RELIABILITY FOR LIFE.**

## Take advantage of next-gen PSA technology



**Non-stop availability** for 24 hours a day, 7 days a week



**Easy integration** with existing installations



**Independent supply** of medical oxygen



**Reduced operational cost**, no rental charges, logistical expenses and bulk user evaporation losses



### Oxygen purity chart

Oxygen concentration

93±3%

CO

< 3 PPM

CO<sub>2</sub>

< 168 PPM

SO<sub>2</sub>

0 PPM

NO<sub>x</sub>

0 PPM

Oil

< 0.08mg/m<sup>3</sup>

Dew point

(-) 50° Celsius

**World Health Organization** compliant PSA Oxygen Plants

**ISO 9001:2015** compliant Quality Management Systems (QMS)

**ISO 13485:2016** compliant comprehensive QMS for the design and manufacture of medical devices

**ISO 14001:2015** compliant effective environmental management system (EMS)

**ISO 45001:2018** compliant occupational health and safety management systems

iStock  
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With the **MedO** Pressure Swing Adsorption (PSA) oxygen generator, you ensure that your hospital, facility, or clinic is using the latest clean technology, where the raw material is ambient air. The cost efficiency of a PSA oxygen generator coupled with the clean-tech, easy-to-install-and-implement solution, make it **the preferred choice** over high pressure cylinders and liquid oxygen tanks.

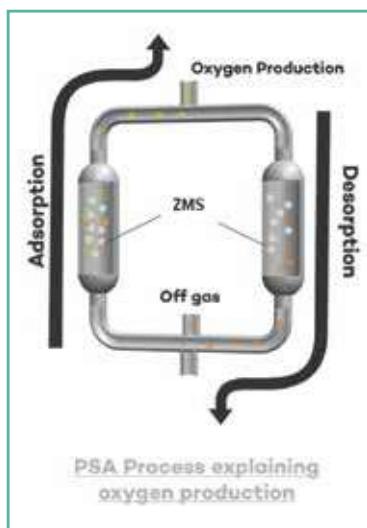
## The only raw material MedO uses is atmospheric air

The medical oxygen generator consists of two adsorbers filled with zeolite molecular sieves.

Pressurized air is passed through one of these adsorbers, zeolite having a structure to attract nitrogen, adsorbs nitrogen from air and oxygen is allowed to pass through to the storage tank and is produced as the final product.

As the adsorber approaches saturation, the air is allowed to pass through the other adsorber while this adsorber is being regenerated to ensure a continuous supply of medical oxygen.

This changeover takes place through a specially designed microcontroller to ensure a hassle-free operation. The quality of oxygen produced is continuously monitored by an oxygen analyzer.



# Avoid the 5 challenges that hospitals face when trying to maintain a consistent supply of Medical Oxygen



## Demand & Supply Gap

The Indian oxygen supply chain is complex and mission-critical. The highly dynamic nature of the market leads to a large gap in supply when demand rises.



## Negligence and no Supply

Running out of oxygen is a catastrophe. The whole supply can hinge on vendor performance, response, and stock. Human negligence can lead to frustrating situations.



## Remote Location Access

The more remote the hospital location, the greater the transportation and logistical costs.



## Unprecedented Price Hikes

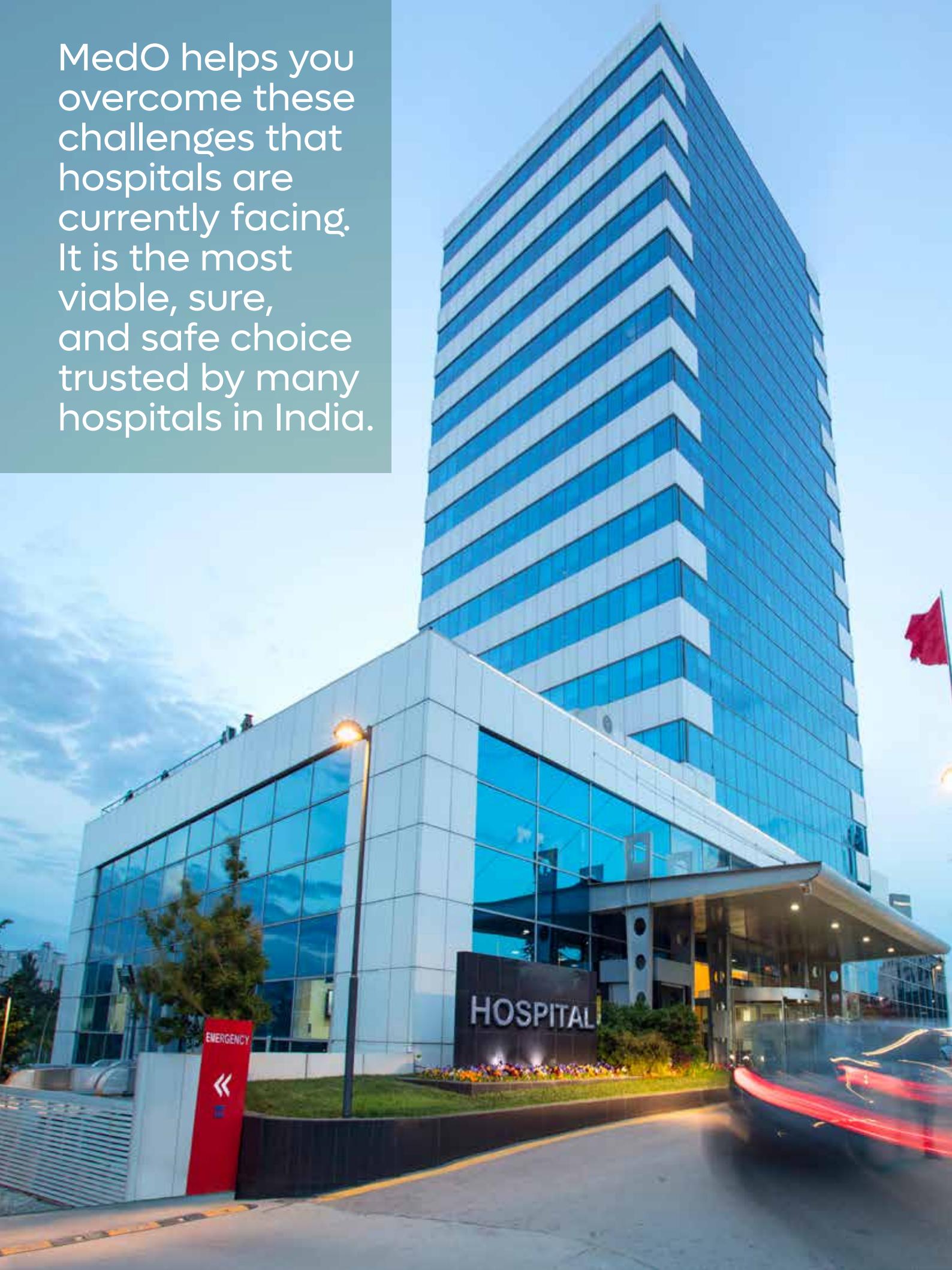
Bottled and liquified gases are subject to fluctuating prices, which impact overall finances and expenses for the hospital.



## Storage & Handling Safety Concerns

Pressurized Oxygen cylinders are delicate and need to be handled by a well-trained team to avoid safety concerns.

MedO helps you overcome these challenges that hospitals are currently facing. It is the most viable, sure, and safe choice trusted by many hospitals in India.



# MedO's advanced features are an absolute advantage.

## Get the desired purity

MedO oxygen concentrations ranging from 90% to 96%

## Reliable high flow capacity

The wide product range and gas flows exceeding 3,000 Nm<sup>3</sup>/h make these generators ideal for a variety of demanding applications.

## Exceptional performance in tough weather conditions

- 24x7 Continuous production
- Show longevity in dusty or humid environments
- Ergonomic design, robust structure and advanced HMI
- Production Breakdown risks and downtimes are nullified

## Proven use-cases, it's always Plug and Play

- Fully automated and monitored including the Oxygen sensor
- The only inputs required are air and electricity

## Achieve best-in-Class ROI

- Very Low operating expenses
- No additional costs such as order processing, refills and delivery charges



## Advanced MedO-Eye with HD Touch Screen Display

- Fully automatic, user-friendly
- Remote monitoring equipped
- Advanced GUI with data monitoring
- Oxygen purity readings in real-time
- Triggered alerts and alarms on any abnormal functionality
- Data storage with external storage capability for audit purposes
  - Can be remotely activated
  - RS232, RS422, USB and Ethernet ports supported



## Industry-leading technical features



### Highest Quality Zeolite Molecular Sieve (ZMS)

- Very High Density due to packed-bed Technology
- Protected by the process interlocks
- 10 years warranty on ZMS\*



### Self-protective Monitoring of the Feed Air Quality Parameters

- Pressure
- Temperature
- Pressure dewpoint
- Automatic feed air blow-off in case of contamination



### Multistage filtration system removes oil and dust particles

- Additional filters drain moisture using an ADV (Automatic Drain Valve)



### Automatic start-up

- Eliminates the risk of overflow and ZMS damage

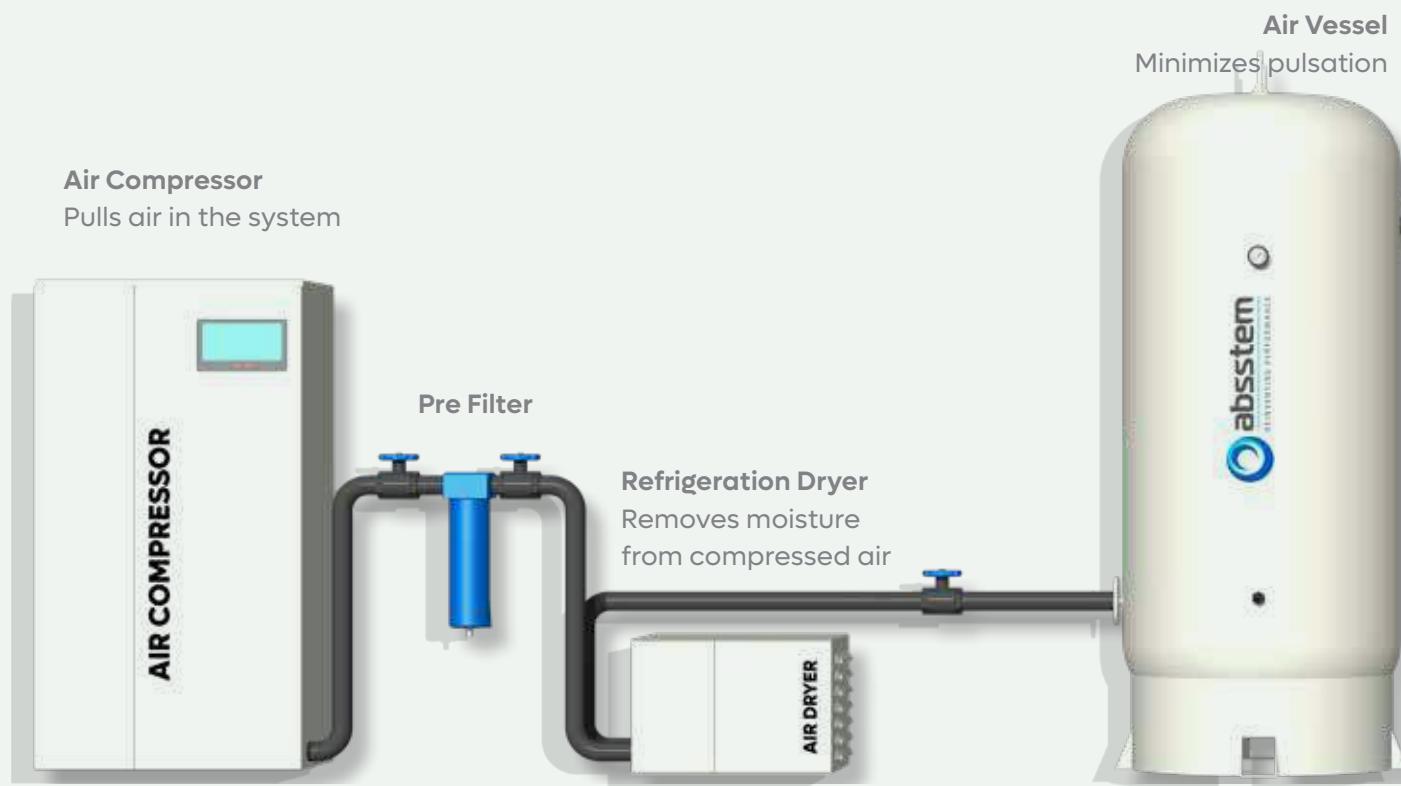


### The ultimate energy saver

- Self-regulation and stable purity
- Stand-by mode in case no Oxygen is consumed
- Automatically regulates the requested oxygen pressure and purity

\* When the plant is under CMC

We ensure efficient, reliable, and consistent medical oxygen generation.



MedO is perfectly suited for:



## MedO features

- Best-in-class ROI
- Lowered Operational Cost
- Quiet and silent operation
- Lowered footprint
- Flexibility to upgrade to high purity onsite

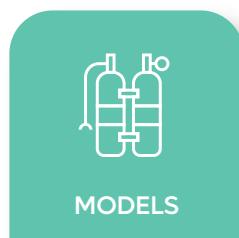


## Technical Specifications

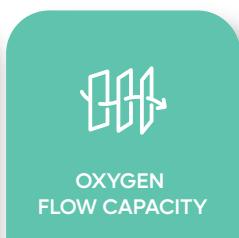
Relative humidity	Max 95%
Oxygen Flow	2.5 to 3000 - NM <sup>3</sup> /hr
Working temperature	- 10°C to 55°C
Power Supply	230 VAC, 50/60 Hz
Inlet air pressure	Min 7.0 barg
O <sub>2</sub> Delivery Pressure	Up to 5.5 barg
Oxygen Dew Point	-50°C (Higher dew point available on demand)
ISO 9001:2015	Certified Quality Management System

- Inlet air as per **ISO 8573.1:2010 - Class 1.4.1**
- **Purity testing done** by NABL APPROVED lab
- Pressure up to **350 kg/cm<sup>2</sup>g** is available on-demand through oxygen compressors
- **Sound Level of 65 dB** from a distance of 1 meter
- **USB Storage** is there to store parameters values
- **CE-certified electronics** with 24 VDC Operating Voltage
- All tanks are fabricated per **ASME standards**
- **Corrosion-resistant** internal environment for all tanks

# Choose the model that best fits your requirements.



MODELS



OXYGEN FLOW CAPACITY



NUMBER OF CYLINDERS / DAY(s)



LIQUID OXYGEN (L) / DAY

LPM

NM<sup>3</sup>/HR

## MedO Prime

MEDO 1	26	1.6	5	44
MEDO 2	33	2	7	56
MEDO 3	50	3	10	84
MEDO 4	67	4	14	112
MEDO 5	92	5.5	20	154
MEDO 6	108	6.5	23	181
MEDO 7	125	7.5	27	209
MEDO 9	150	9	32	251

## MedO Grand

MEDO 12.5	208	12.5	45	349
MEDO 15	250	15	54	418
MEDO 18	300	18	65	502
MEDO 22	367	22	79	613
MEDO 25	417	25	90	697
MEDO 30	500	30	107	836
MEDO 40	667	40	143	1115
MEDO 50	750	50	161	1255

## MedO Plus

MEDO 65	1084	65	233	1812
MEDO 75	1250	75	269	2091
MEDO 90	1500	90	332	2509
MEDO 110	1834	110	394	3067
MEDO 130	2167	130	466	3624
MEDO 150	2501	150	537	4182
MEDO 200	3334	200	716	5576

## MedO Customs

As per requirement	As per requirement	As per requirement	As per requirement
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# MedO offers diverse Packaged Solutions



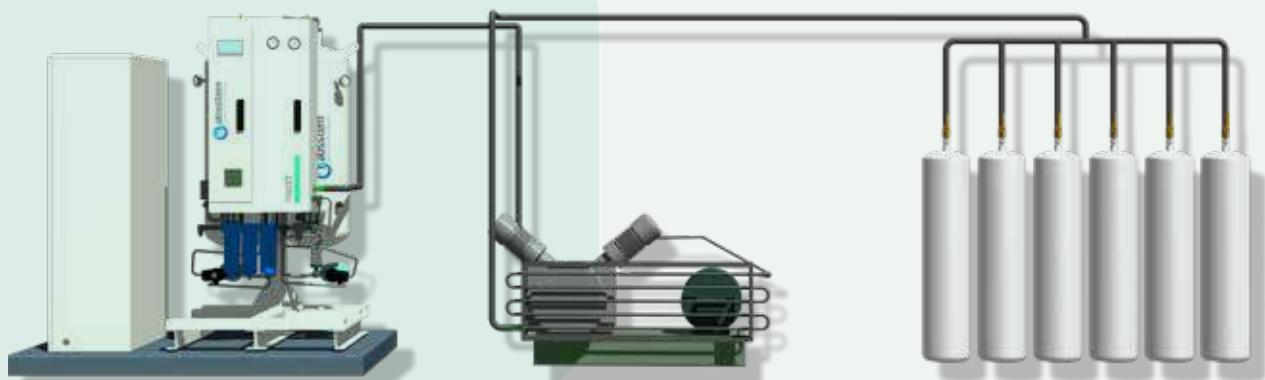
## PSA Oxygen Generator

This is a plug-and-play system that is connected to your air compressor and storage tanks.

## Medo Skid system

This system comes with an air compressor, multistage filtration system and de-greased storage vessel. This is a complete package with all instruments required for oxygen generation.





### High-pressure Oxygen Cylinder Filling System

MedO with an Oxygen Booster Compressor to fill cylinders  
**Pressure - Up to 150 barg**  
**Filling speed - 8-1000/day**

### Containerized Mobile PSA Oxygen Generator

Skid-mounted mobile systems with complete piping and interlocking support. They can be transported to any location and designed according to climate conditions and environmental factors.

*Note:- Cylinder filling options are available with noise control.*





## A world-standard plan, with pan-India service.

ABSSTEM Shield gives you the greatest service support.

For every service requirement, our specialized Shield Service Engineer gets in touch as soon as 10 minutes. Fast Response, Trustworthiness, Professional Support, and World-class service options define the Absstem Shield experience.

For specific upgrades, add-on, and customised requirements, please speak to us.



### Absstem Shield: Premium Service across India

Absstem is a truly national organization with support available in more than 25 states. As a result, our field service engineers are never far away. We pride ourselves on the swift assistance that keeps your MedO oxygen system performing reliably and efficiently.

- We have CMC solutions that look after your machines for as long as 10 years
- Absstem Shield is available 24/7. We keep spare parts in stock so your machine is up and running as quickly as possible
- Quickest TAT (Turn Around Time) in the industry – Our shield engineer is assigned to you within 10 minutes

# What our esteemed customers say...

"This is the very first oxygen generator in Ladakh. We are thoroughly excited and happy to see Indian products like MedO deliver with such perfection."

**Government Hospital, Kargil, Ladakh**

"It has been wonderful working with Absstem Technologies. They've installed a great product which has been consistently providing perfect medical-grade oxygen purity"

**Deen Dayal Upadhyay Zonal Hospital, Shimla, Himachal Pradesh**

"We are very happy with the consistent delivery of pure oxygen and the capacity offered by MedO"

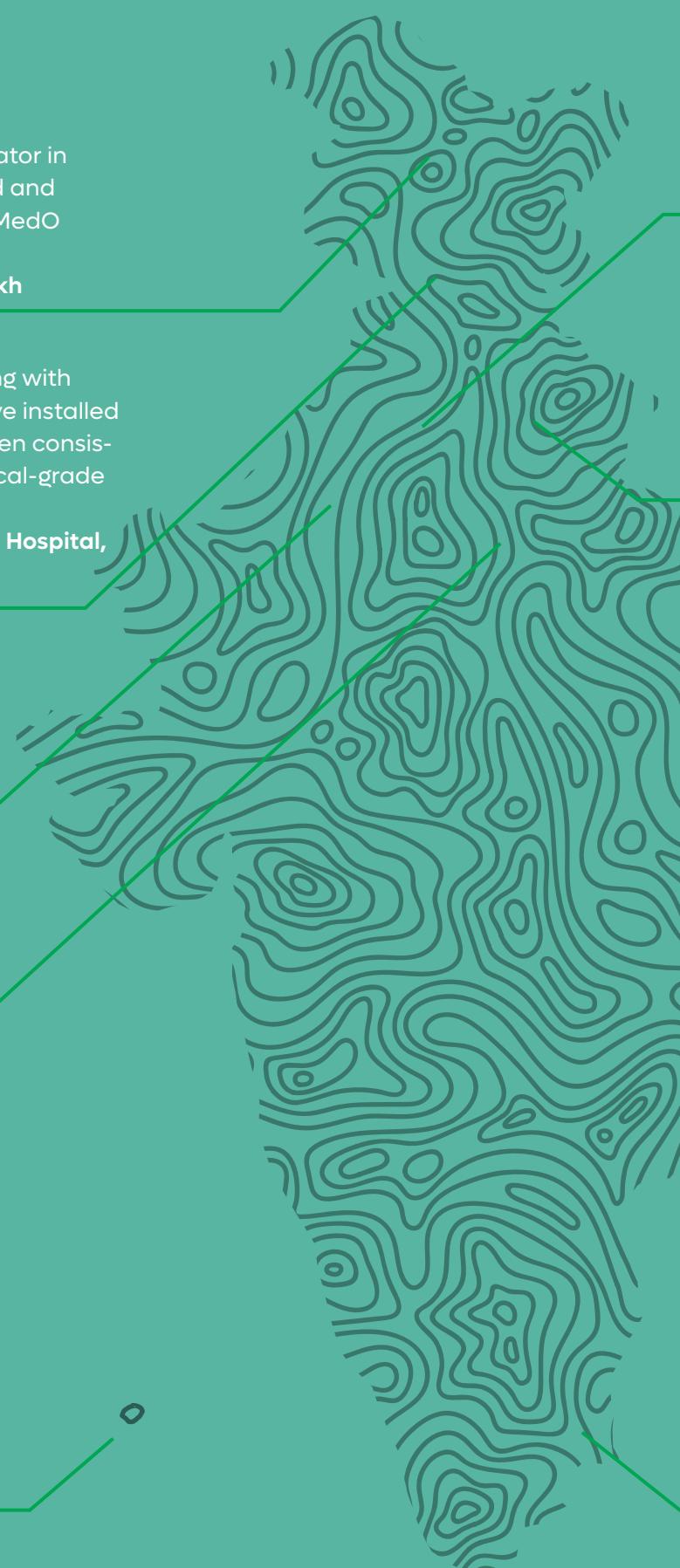
**Government Medical College and Hospital, Chandigarh**

"The device is great and the after-sales service is remarkable."

**Sai Hospital, Haldwani, Uttarakhand**

"The engineering service and support team are very professional and efficient. We highly recommend Absstem as a reliable expert in their field. This is the very first oxygen generator on these islands"

**Indira Gandhi Hospital, Kavaratti, Lakshadweep**



"We are absolutely satisfied with MedO and the team that has been guiding us throughout the process of installation and service"

**Geetanjali Hospital, Hisar, Haryana**

"Absstem has delivered what was offered. We've managed to reduce our operational expenses drastically after the installation of MedO"

**Kainos Super Speciality Hospital, Rohtak, Haryana**

"Our interaction with Absstem technologies has been fantastic. Since the beginning, they have been with us throughout the journey of installation, commissioning and services."

**Vanshika Children Hospital, Varanasi, Uttar Pradesh**

"We had recently installed the MedO device at our hospital for in-house oxygen generation. The device has not failed even once until now and their support team is always in contact with us." **Mahatma Gandhi Post Graduate Institute of Dental Sciences, Indira Nagar, Puducherry**

"MedO has been performing satisfactorily from the date of its commissioning. We confidently recommend Absstem Technologies"

**Mishra Poly Clinic and Research Centre Pvt Ltd., Darbhanga, Bihar**

"We are receiving good engineering services and support in a very professional and efficient manner to our satisfaction"

**Civil Hospital, Shillong, Meghalaya**

"We are very happy with the installation of MedO. The device has met all our expectations in terms of Purity of Oxygen, Cost Saving and the Capacity offered"

**Dr. Imkongliba Memorial District Hospital, Mokokchung, Nagaland**

### Robust countrywide presence

- 200+ robust footprint nationwide.
- Present in over 31 states Union Territories
- Our wide service network covers expand to all states.

Innovation is as essential to our team as oxygen is to life. So how do we constantly innovate? By disrupting the existing category codes. We invest not only in gas separation of the purest grade but also maintain high standards in our after sales service. Pioneering the PSA technology in India, we deal with complete range of gas equipment plants. Keeping the pioneer spirit alive and well, we have become the market leaders in gas separation.

Best known for our presence in the on-site medical oxygen generation in Indian healthcare sector we are also recognised by Dept. of Industrial Policy & Promotion for innovation in the healthcare sector.



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The MedO purity assurance, certified by the best

