

hpotech



MONOPLACE

2.0 ATA → 2.4 ATA PRESSURE LEVEL

ZEUGMA Hyperbaric Chamber



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ZEUGMA is focused on the user experience during hyperbaric oxygen therapy

Beyond technology, we have the human touch. The futuristic design of ZEUGMA centers on the person inside, balancing ergonomics and aesthetics. This means simple software operation, personal space, visibility, and interior comfort. ZEUGMA uses medical-grade hyperbaric technology for safe and effective hyperbaric oxygen therapy sessions.

Enjoy the panoramic windows for total visibility

The most visible features of the hyperbaric chamber are the windows. A large side window and a front-facing window create an open and calming environment. Together with a small round door window, they encourage a connection with the outside and promote a sense of openness rather than confinement, which is essential during hyperbaric oxygen therapy.

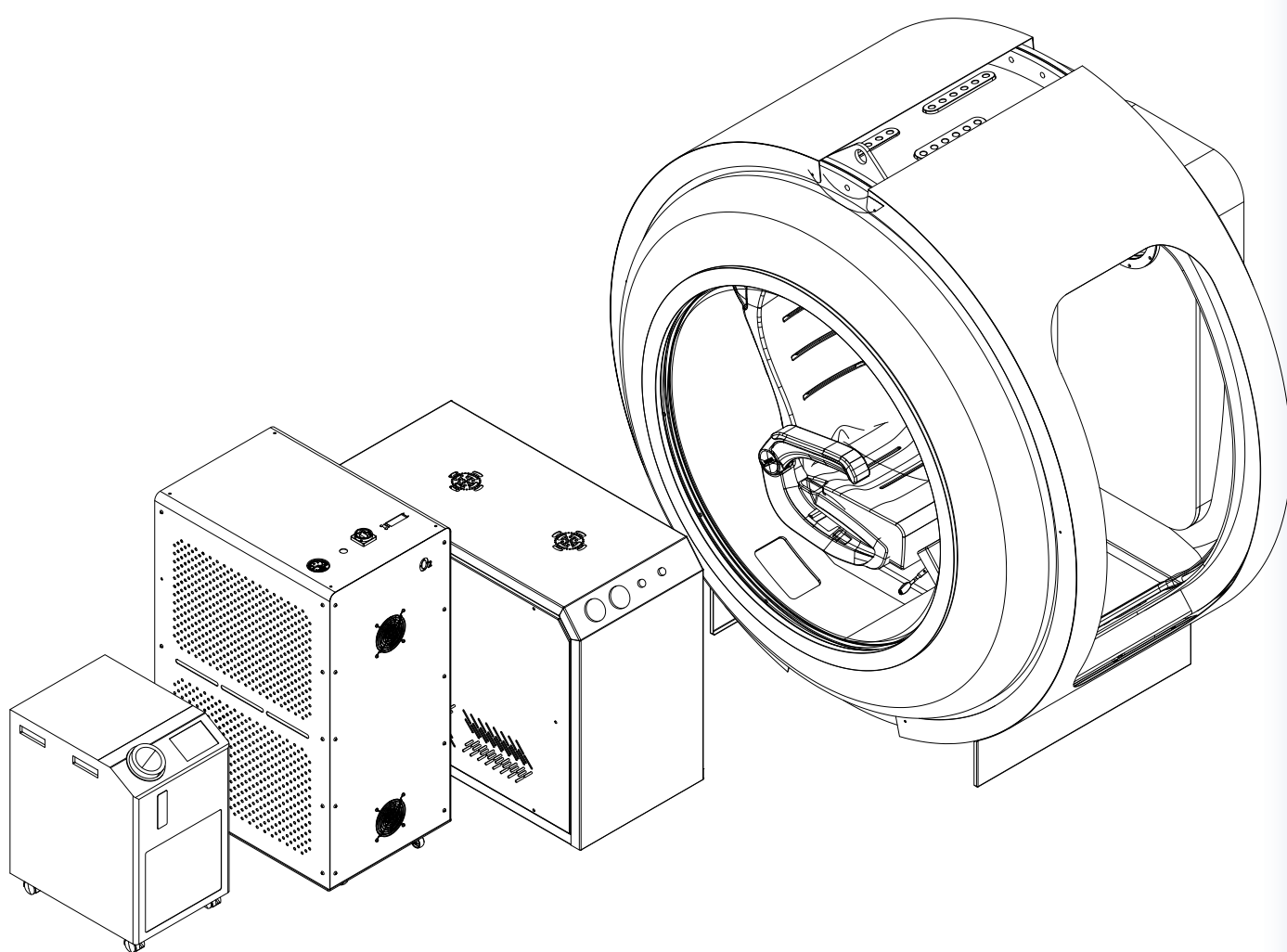


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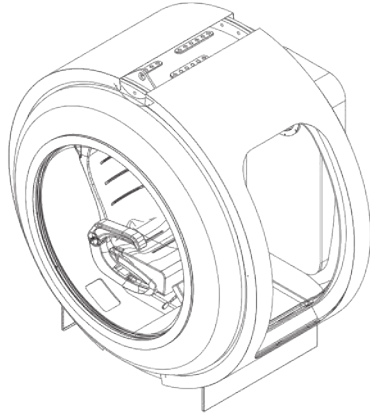




→ THE HYPERBARIC CHAMBER SYSTEM



→ SYSTEM COMPONENTS

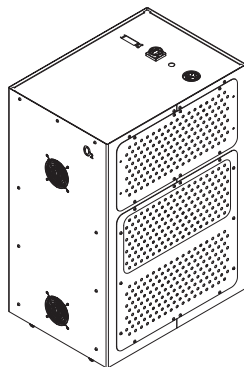
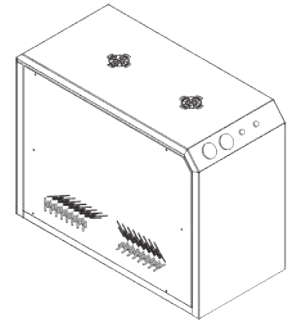


→ HYPERBARIC CHAMBER 1 SEAT

The Hyperbaric Chamber is a capsule in which users breathe pure oxygen under controlled pressure levels more up to more than double the atmospheric pressure (2.0 ATA → 2.4 ATA).

→ AIR COMPRESSOR 1 UNIT

The Hyperbaric chamber is pressurized with breathable air from the Air Compressor. Pressure + Oxygen are the two most important factors in HBOT.

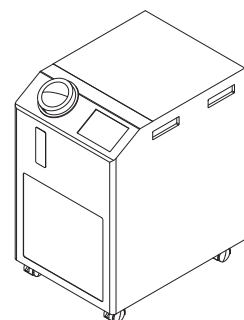


→ OXYGEN CONCENTRATOR 1 UNIT

During treatment, the user breathes high-purity oxygen supplied using the Oxygen Concentrators (6.0 ATA working pressure), directly into the BIBS (Built-In Breathing system). The number of Oxygen Concentrators is equal to the number of patients inside.

→ AIR COOLER 1 UNIT

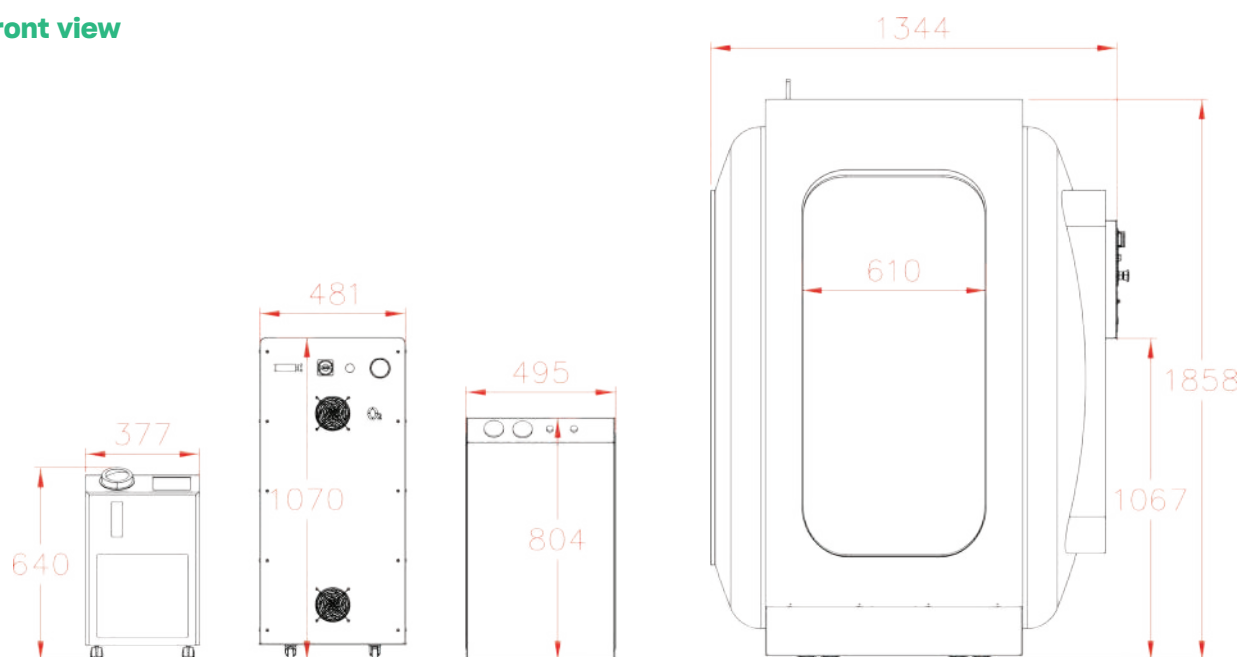
The system is also connected to an Air Cooler to keep the air fresh inside the chamber and the temperature under control.



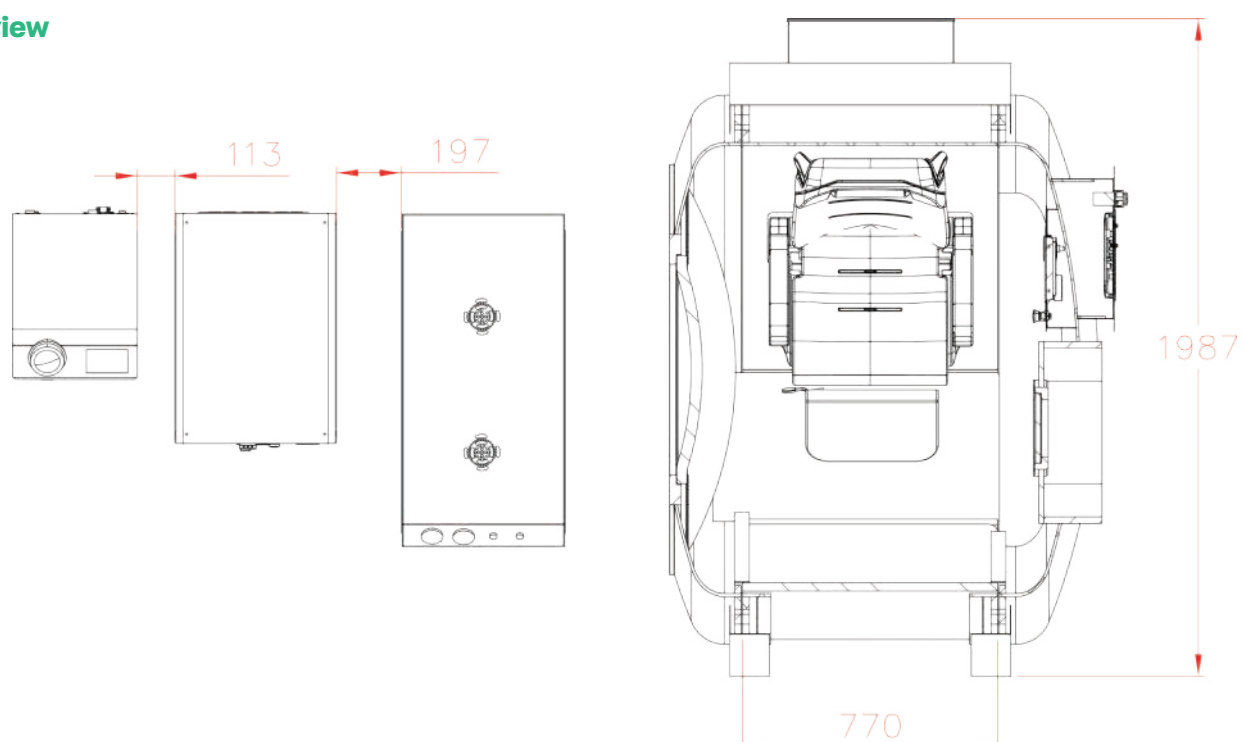
→ SYSTEM COMPONENTS

HYPERBARIC CHAMBER

front view



top view



CAPACITY

1 Person (1 seat)

MATERIAL

Aero-space aluminium

SHAPE AND DESIGN

**One unit, cylindrical shape,
3 modules, designed to
fit any standard doorway
and space**

MODULE LENGTH

**770 mm
30.315 in**

MINIMUM INSTALLATION FLOOR SIZE

**5500 mm × 2800 mm
216.53 in × 100.23 in**

OVERALL LENGTH

**1344 mm
52.91 in**

OVERALL WIDTH

**1987 mm
78.22 in**

HEIGHT

**1858 mm
73.14 in**

WEIGHT

**750 kg
1654 lbs**

INTERNAL LENGTH

**1620 mm
63.77 in**

INTERNAL VOLUME

1.9 m³

MAX. OPERATING PRESSURE

**2.4 ATA (1.4 BAR)
34.80 PSI**

DESIGN TEMPERATURE

**0° C to 38° C
32° F to 100.4° F**

AIR PRESSURIZATION

3.45 bar to 7.2 bar

AIR SUPPLY FLOW

250 LPM

BIBS OXYGEN SUPPLY

3.2 bar to 4.0 bar

VENTILATION RATE

125 LPM to 400 LPM

EMERGENCY DEPRESSURIZATION RATE

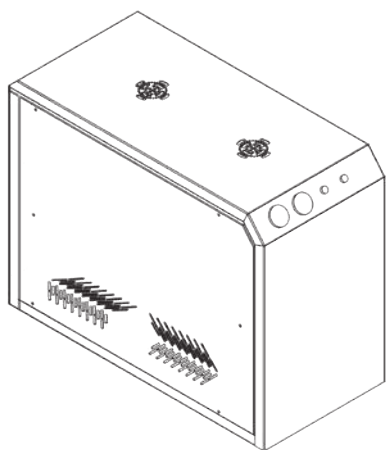
**2.0 ATA to 1.0 ATA in 90 sec
29.39 PSI to 14.69 PSI**

MAXIMUM PATIENT WEIGHT

**225 kg
496.04 lbs**

→ SYSTEM COMPONENTS

AIR COMPRESSOR



POWER

4 HP

PRESSURE RANGE

1-8 bar/116 PSI

WEIGHT

67 kg
147.71 lbs

FLOW

564 LPM

NOISE LEVEL

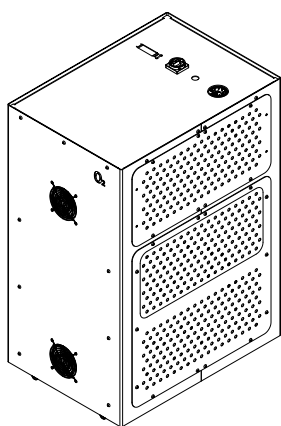
62 decibel

SIZE

(W) 495 mm
(L) 1004 mm
(H) 804 mm
(W) 19.48 in
(L) 39.52 in
(W) 31.65 in

→ SYSTEM COMPONENTS

OXYGEN CONCENTRATOR



POWER

2500 W / 3,3 HP

OXYGEN FLOW RANGE

1~20 LPM

OXYGEN OUTPUT PRESSURE

5 BAR / 72 PSI

OXYGEN PURITY

90%—93%

NET WEIGHT

155 KG
341.717 lbs

NOISE DB(A)

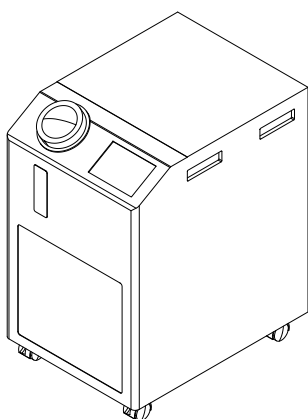
≤ 72 DB

DIMENSION

(L) 695 mm
(W) 481 mm
(H) 1070 mm
(W) 27.36 in
(L) 18.93 in
(W) 42.12 in

→ SYSTEM COMPONENTS

AIR COOLER



COOLING CAPACITY

1500 W (at 5° C 66° F)

TEMPERATURE STABILITY

±0.1° C
32.18° F

SET TEMPERATURE RANGE

5°C to 40°C
66° F to 104° F

COOLING METHOD

Air-cooled refrigeration

SIZE

(W) 377 mm
(L) 500 mm
(H) 640 mm
(W) 14.84 in
(L) 19.68 in
(W) 25.19 in



→ BIBS MASK

The Built-In Breathing System (BIBS) is regulated by the tempo of your breath.



The BIBS system provides a comfortable and efficient way to inhale pure oxygen during hyperbaric therapy sessions. The BIBS mask and regulator work together to deliver oxygen to the user while removing carbon dioxide, ensuring a safe and controlled environment.

This system is particularly beneficial for regulating oxygen intake compared to free-flow methods, maximizing the therapeutic benefits of hyperbaric oxygen therapy.

Welcome a new age of controlled oxygen breathing

→ CONTINUOUS FLOW OF OXYGEN

The BIBS system offers a continuous flow of oxygen, unlike traditional demand regulators. This ensures a consistent oxygen supply, even for patients with breathing difficulties.

→ REDUCED RISK OF CO₂ BUILDUP

The system helps prevent carbon dioxide buildup, minimizing potential risks associated with high-pressure environments.

→ CONTROLLED OXYGEN CONCENTRATION

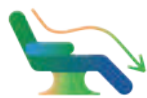
BIBS also provides precise control over oxygen concentration, regardless of chamber pressure fluctuations.







→ CUSTOM FEATURES



Ergonomic seating

Experience maximum comfort

Tailored to your body's physiology, the ergonomic seats reduce pressure point stress and boost circulation, ensuring a relaxed oxygen treatment session. You can choose one of three available seat models.



Interior leather

A touch of class

The interior is wrapped in high-quality ecologic leather upholstery for the most comfortable and inviting feeling and a classy look.



Custom design

Make your ZEUGMA personal

Choose the exterior paint color combination (RAL), the interior leather color, and the application of branding elements like logos (seat head rests) or additional entertainment options.



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→ SYSTEM FEATURES

External Control Panel

Your command center for hyperbaric oxygen sessions



Navigate pressure adjustments, monitor vital information, maintain clear communication with your patient, and confidently control every aspect of the chamber. Be prepared for any situation with manual overrides and an emergency stop button. Take control of the user's well-being and elevate your hyperbaric therapy experience.



→ External control tablet

Manage everything with the intuitive touchscreen control, from setting the pressure and session parameters to locking the chamber door. Monitor the session with clear visuals and data on chamber pressure, time, and other vital information.



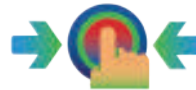
→ Power On switch

Start your session: The switch turns on the electrical equipment, activating the control panels for manual and/or automatic HBOT sessions.



→ Manual compression / decompression knobs

Take command with the manual pressure knobs, adjusting compression and decompression independently of the automatic system for greater control.



→ Emergency Stop button

Peace of mind control: Terminates session in the pressure room if needed, and quickly drops chamber pressure to a safe level.



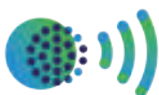
→ Emergency decompression valve

In an emergency, the pressure chamber is relieved by rotating the manual spherical valve from inside or outside the chamber.



→ USB port

Peace of mind control: Terminates session in the pressure room if needed, and quickly drops chamber pressure to a safe level.



→ External Intercom

Provides voice connection with the user inside. It's always open for crystal clear communication with volume control.





→ SYSTEM FEATURES

Internal Control Panel

Master your HBOT session from within.



Take charge of your hyperbaric experience with the intuitive internal control panel. Adjust pressure, time, and settings while monitoring key information on the built-in displays. You're always in communication with the outside; all commands are mirrored for outside and inside user control.



→ Internal control tablet

Manage everything with the intuitive touchscreen control, from setting the pressure and session parameters to locking the chamber door. Monitor the session with clear visuals and data on chamber pressure, time, and other vital information.



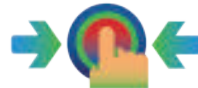
→ Power on switch

Start your session: The switch turns on the electrical equipment, activating the control panels for manual and/or automatic HBOT sessions.



→ Chamber pressure indicator

Mechanical dial indicator for quick analog reading of pressure variations inside the chamber.



→ Emergency stop button

Peace of mind control: The button terminates session in the pressure room if needed, and quickly drops chamber pressure to a safe level.



→ Internal cooler

Operated using the control tablet, it adjusts chamber temperature when pressurized for a comfortable HBOT session experience.



→ USB port

The handy USB 3.0 port helps update the software, upload custom settings, or download your session archive.



→ Internal intercom

Provides voice connection with the user inside. It's always open for crystal clear communication with volume control.

→ CENTRALIZED SOFTWARE CONTROL

The control consoles, located on the outside and inside the chamber, provide the controls and instrumentation for chamber operation. This includes the gas control systems for HBOT sessions and the communications system. The user-friendly interface allows for customization of specific HBOT protocols with accurate metrics and simple controls.

Tracking session progress and user data in real-time

Sensors track essential parameters during HBOT sessions, enabling real-time monitoring and adjustments. The system gathers and displays real-time session information, including pressure, oxygen, temperature, humidity, patient vitals, and treatment duration.

Session status management

The protocols of each HBOT session are recorded in the data logger for future reference. This enables healthcare providers to observe treatment response, adjust protocols if necessary, and assess the overall progress of the therapy.

Advanced automation system

The chamber is fully automated via an advanced Automation System. Automation streamlines chamber operations and reduces manual intervention. The system consists of automation software, industrial PLC, sensors, valves, and a PC. The PLC is the central control unit, monitoring and controlling the connected devices.

→ SMART TECHNOLOGY, USER-FRIENDLY OPERATION.



Simple operation

All chamber components (hardware and software) are designed for ease of operation and require minimum maintenance.



Always in contact

Advanced monitoring and communication systems ensure continuous patient care. You can hear, see, and always monitor the patient during treatment.



Patient monitoring

Chamber penetrations and electrical connectors provide the capability to connect vital monitoring (such as EEG, ECG, TCOM and blood pressure).



Entertainment system

The chamber is equipped with large-screen TV, or tablets for the users, including other customizable additions.



LED Lights

You can create a serene atmosphere inside with adjustable LED RGB lights.



Ventilation

The automatic ventilation system ensures the air inside is always fresh.



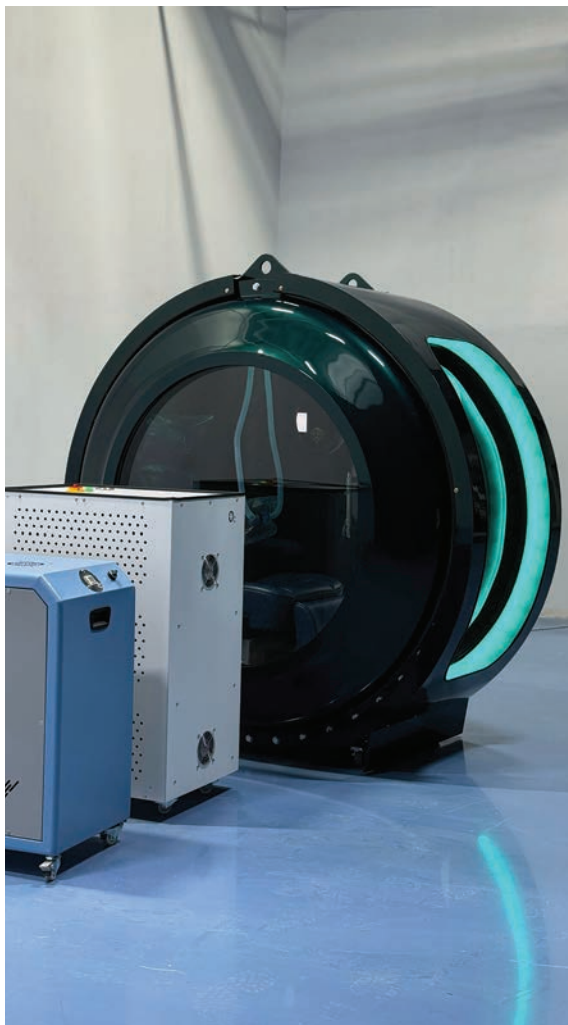
Pneumatic controls

Chamber controls are completely pneumatic and require only a compressed gas source.



Power source

A discrete power source allows the continued operation of chamber communications during a power outage.







Certifications and Total Quality Management for hyperbaric chamber manufacturing

Our Total Quality Management system includes all aspects across design, manufacturing, testing, functionality, and customer service to ensure our hyperbaric oxygen systems are effective in therapy, but also safe, reliable, and accessible for patients.

Certifications

Holding all the important ASME-PVHO, PED, CE, ISO, NFPA, etc certifications, our products are manufactured, tested, and certified to the highest quality and safety standards. We comply with all international safety and quality regulations.

Safety and compliance

Safety standards and certifications play a vital role in guaranteeing the quality and reliability of hyperbaric chambers used for hyperbaric oxygen therapy (HBOT).

Quality testing

Our quality control team coordinates the manufacturing and third-party testing process according to international regulations, procedures, and criteria for the certification of medical devices for medical HBOT & wellness applications.





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