

ZEUGMA

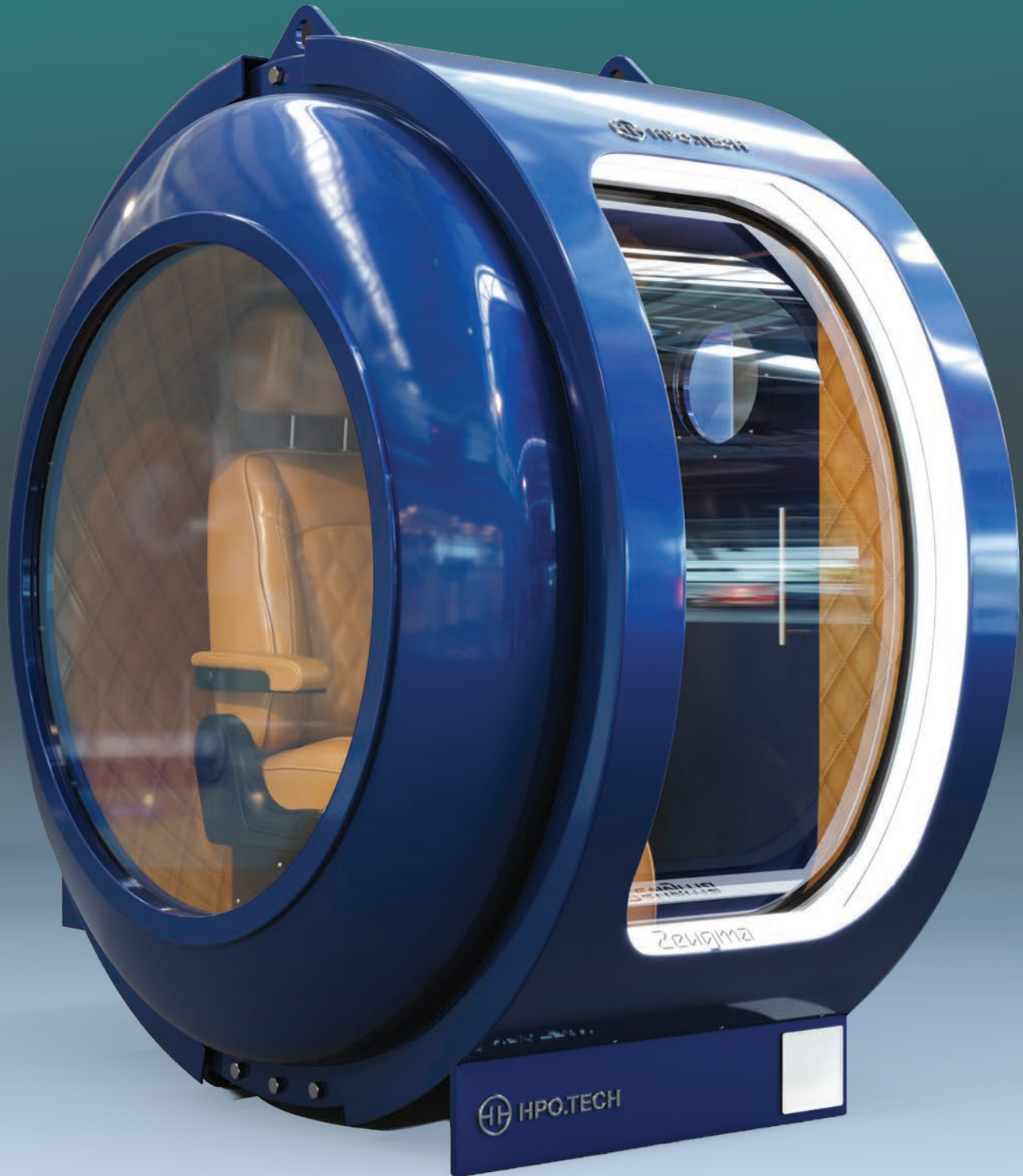
Hyperbaric Chamber

1 SEAT

2.0 ATA

2.4 ATA

PRESSURE LEVEL



Driving progress in hyperbaric technology to deliver the most effective results with hyperbaric oxygen therapy (HBOT)

HPO.TECH, founded in 2019 in Istanbul, Turkey, designs and manufactures advanced hyperbaric oxygen systems for clinical applications with HBOT.

Our technology platforms include hypobaric systems for altitude training, multibaric chambers capable of both hyperbaric and hypobaric operation, and specialized veterinary hyperbaric units. We engineer pressure vessels for every environment — from the depths of the sea to the summit of Everest.

Experience the true power of hyperbaric oxygen therapy



ACCELERATED SPORTS RECOVERY

Recover stronger, perform longer.

HBOT reduces inflammation and soreness, accelerates muscle repair, and supports endurance helping athletes train harder and return to top performance faster.

IMPROVED COGNITIVE FUNCTIONS

Think sharper, feel more balanced.

By increasing oxygen delivery to the brain, HBOT improves focus, memory, and emotional stability, while supporting recovery after stroke, concussions or brain injury.

HEALING AND RESILIENCE

Heal faster, fight harder.

From chronic wounds to post-surgery recovery, HBOT enhances tissue repair, reduces inflammation, improves circulation, aids radiation recovery, and supports infection control.

LONGEVITY AND CELLULAR HEALTH

Age healthier, live stronger.

A celebrated 2020 study in Aging US reported that after 60 HBOT sessions, participants showed up to a 20% increase in telomere length, a biomarker linked to healthier aging.

VITALITY AND WELLNESS

Restore your balance, renew your vitality.

HBOT strengthens immunity, supports skin health, enhances energy metabolism, and helps combat fatigue, ease stress, clear the head, fight jet lag and increase overall vitality.

Certifications



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HPOTECH MEDİKAL
VE TEKNİK ÇÖZÜMLER
SANAY VE TİCARET
ANONİM ŞİRKETİ

Address → Ferhatpaşa
Mahallesi 31, Sokak No: 49,
34888, İstanbul, Türkiye

Scan to join our network





HPO.TECH

Zeugma

Zeugma

HPO.TECH

ZEUGMA is focused on the user experience during hyperbaric oxygen therapy.



**Beyond technology,
we have the human touch.**

ZEUGMA is a single-seat hyperbaric chamber built around one principle: the user experience is just as important as the technology itself. Advanced hyperbaric engineering, combined with a superior experience, deliver the full benefits of hyperbaric oxygen therapy.



Engineered for performance under pressure.

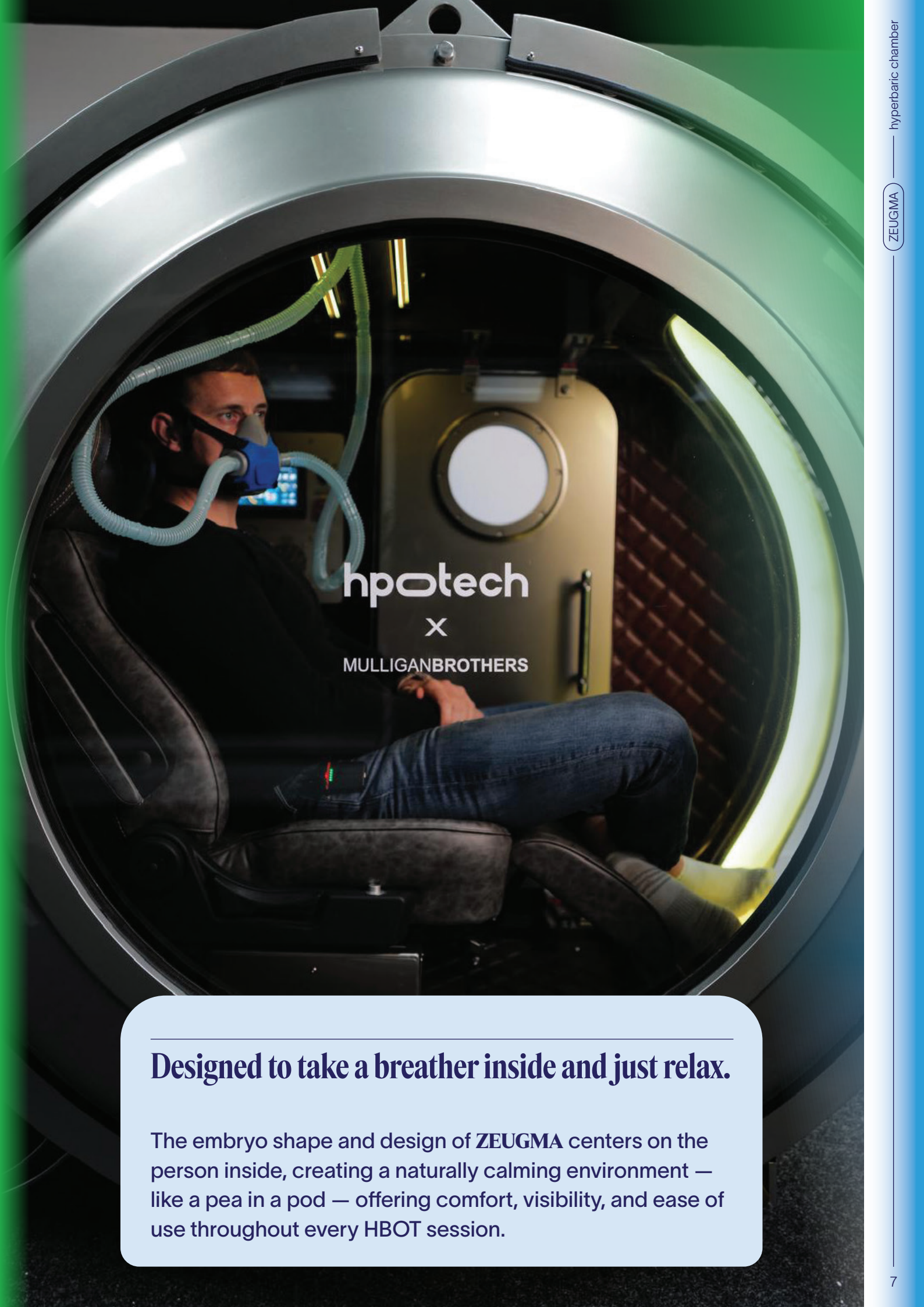
With stable pressure capabilities of 2.0 ATA or 2.4 ATA, **ZEUGMA** delivers effective hyperbaric oxygen therapy through precise, repeatable control of the two variables that matter most: pressure and oxygen.

Pressurization is smooth and stable (slow, medium, or hard), minimizing physiological stress and improving patient tolerance throughout the session.

Each session is digitally managed, using pre-set or fully customizable HBOT protocols to ensure consistency across treatments while allowing clinicians and operators to adapt therapy to individual needs.

The result is a system built to perform reliably under sustained operational pressure, session after session.





hpotech
x
MULLIGANBROTHERS

Designed to take a breather inside and just relax.

The embryo shape and design of ZEUGMA centers on the person inside, creating a naturally calming environment — like a pea in a pod — offering comfort, visibility, and ease of use throughout every HBOT session.

Panoramic visibility.



Total connection with the outside for comfort on the inside.

The chamber's visual connection with the external environment helps alleviate feelings of confinement, allowing users to remain calm, comfortable, and confident throughout each hyperbaric oxygen therapy session. This thoughtful approach transforms the therapy experience, making it as much about emotional well-being as it is about clinical effectiveness.



Total visibility is one of our signature design principles.

The **ZEUGMA** is built on our modular visibility framework. The ability to see everything and maintain a sense of connection with people and surroundings during HBOT is a commitment to user comfort and psychological safety.


This design philosophy addresses the needs of a wide range of users, including those who may be sensitive to enclosed spaces. We bring this concept into every HPO.TECH system.

See everything.

A large side acrylic window, a forward-facing window, and a circular door window work together to create openness rather than confinement, so you can actually enjoy your HBOT session.





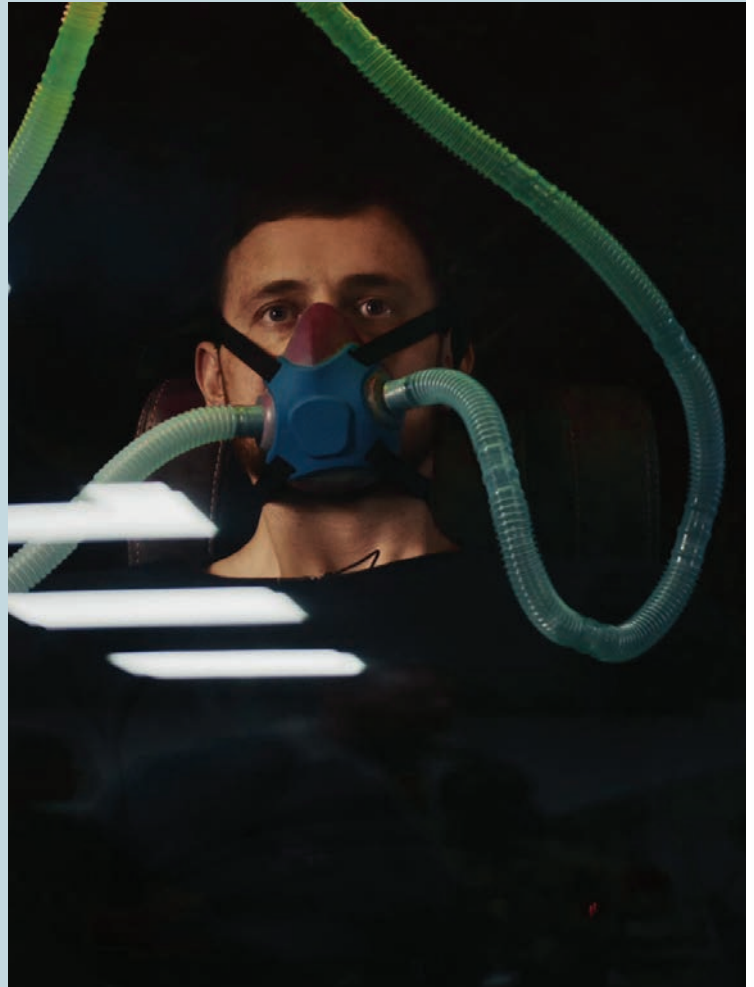
alexandras_land  what a beautiful piece of technology and the incredible benefits I totally loved it

51săpt. 1 apreciere Răspunde

A calm and comfortable space for oxygen therapy.

Inside, ergonomic seating, high-quality ecological leather, customizable lighting, and controlled airflow transform every session into a comfortable, reassuring experience.





ZEUGMA is the new standard in intelligent hyperbaric design.

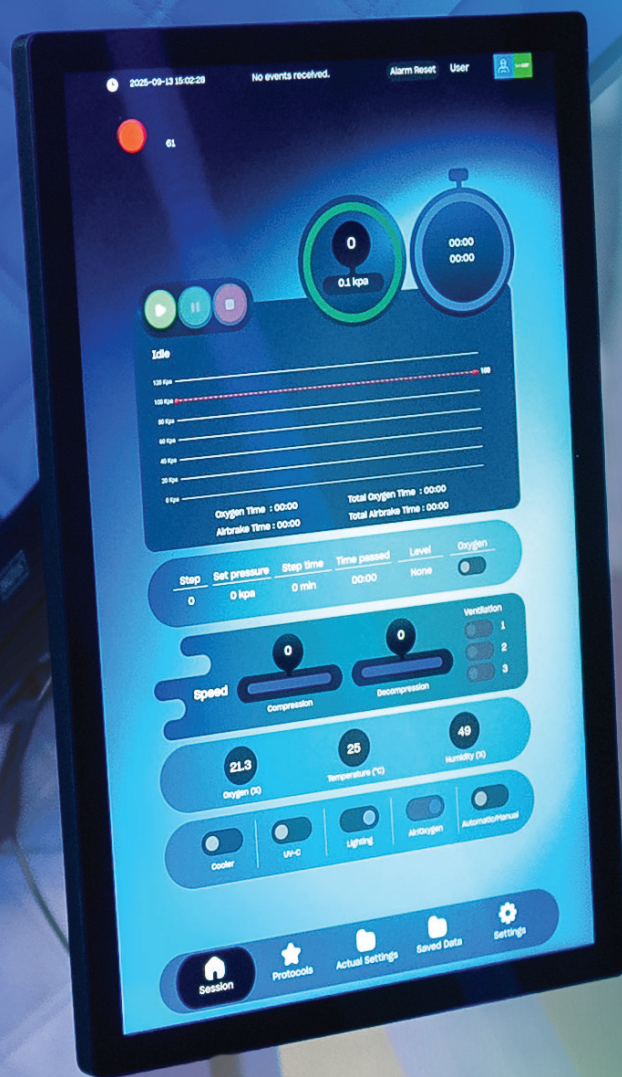


Simple. Powerful. Exceptional.

ZEUGMA is defined by clarity of purpose. Its shape is functional, round and cylindrical, built from ballistic steel and pressure-tested to 3.5 ATA, with a modular three-component construction engineered to pass through standard doorways.

This simplicity allows **ZEUGMA** to blend into clinical and wellness environments, private homes, and unconventional spaces. Its power lies in intelligent automation, precise pressure control, and software-driven reliability, including safety manual controls.

What makes **ZEUGMA** exceptional is how everything comes together into a coherent system.



Smart control, simple operation, easy on the fingers.

Behind its elegant form, **ZEUGMA** is a fully integrated hyperbaric system powered by intelligent software. Real-time monitoring and industrial-grade automation ensure every parameter is precisely managed, making operation effortless and intuitive for both users and operators.

Precision therapy. Consistent results. All the benefits of HBOT.

ZEUGMA is engineered to deliver HBOT with repeatable accuracy. Aerodynamic chamber design supports stable pressurization, while oxygen is delivered on demand via the BIBS mask for precise dosing and effective CO₂ removal.

Controlled pressure profiles and automated session management ensure each treatment is performed within defined parameters, producing consistent therapeutic conditions session after session.

The result is HBOT that is safe, predictable, and clinically reliable, independent of setting or operator variability, and that works like a charm every time.

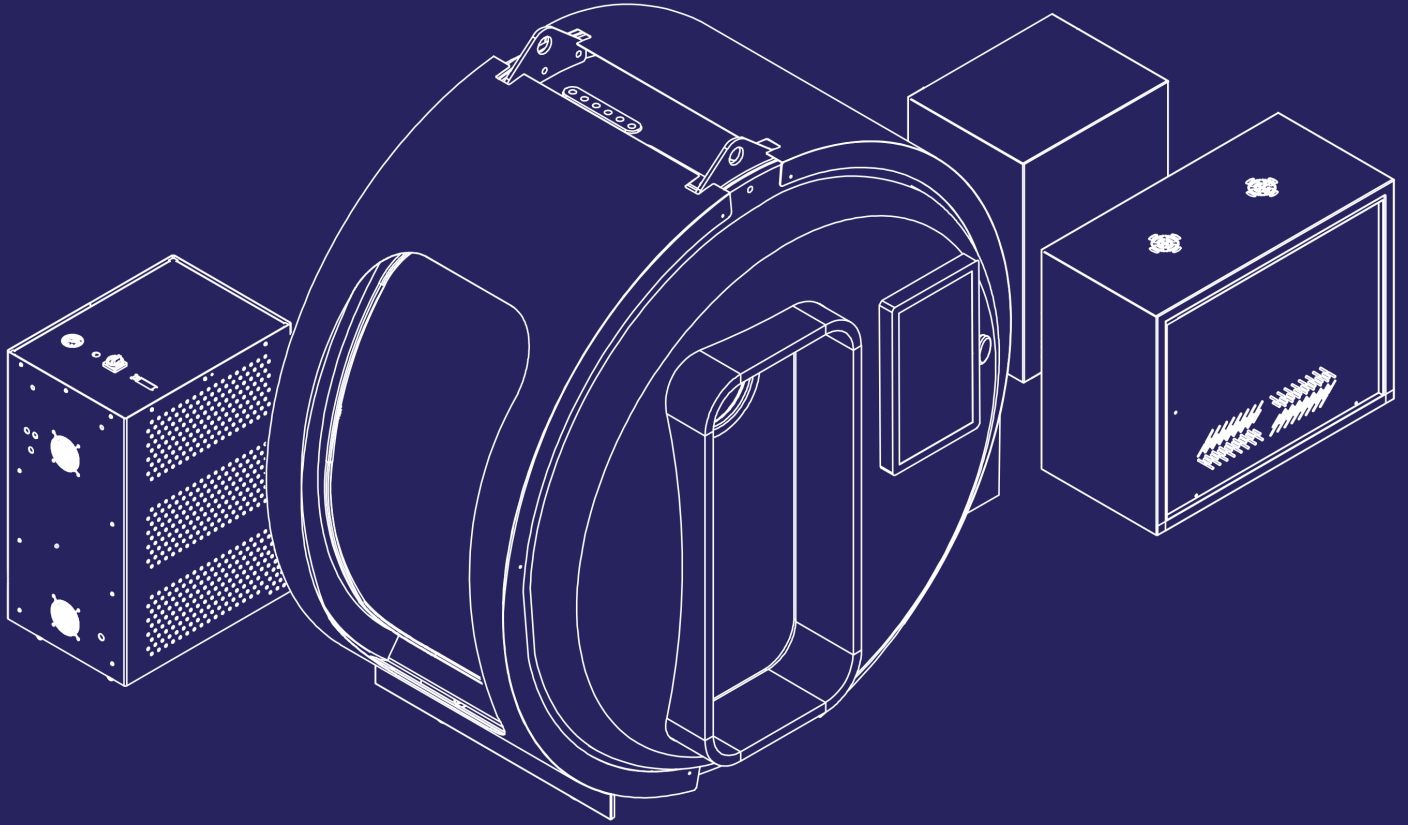




hpo
tech

hpo
tech

Hyperbaric chamber system components

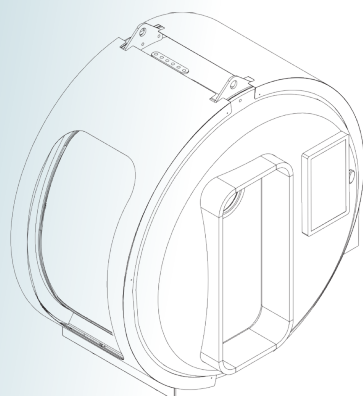


System architecture

Supporting this performance is the external system architecture: the air compressor, oxygen concentrator, and air cooler working together to generate stable pressure, deliver high-purity oxygen, and maintain optimal temperature throughout every treatment.

HYPERBARIC CHAMBER 1 SEAT

The Hyperbaric Chamber is the capsule in which users breathe pure oxygen under controlled pressure levels (2.0 ATA / 2.4 ATA).



CHAMBER SPECIFICATIONS

CAPACITY

1 Person (1 seat)

MATERIAL

2.0 ATA: Aero-space aluminium
2.4 ATA: Steel

SHAPE AND DESIGN

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

DIMENSIONS AND WEIGHT

MODULE LENGTH

770 mm
30.315 in

MINIMUM INSTALLATION FLOOR SIZE

5500 mm × 2800 mm
216.53 in × 110.23 in

OVERALL LENGTH

1988 mm
78.26 in

OVERALL WIDTH

1368 mm
53.85 in

HEIGHT

1858 mm
73.14 in

WEIGHT

750 kg
1654 lbs

INTERNAL LENGTH

1620 mm
63.77 in

INTERNAL VOLUME

1.9 m³

MAXIMUM PATIENT WEIGHT

225 kg
496.04 lbs

PRESSURE PARAMETERS

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 RANGE

3.45 bar to 7.2 bar

EMERGENCY DEPRESSURIZATION RATE

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

AIR AND OXYGEN SYSTEMS

AIR SUPPLY FLOW

250 LPM

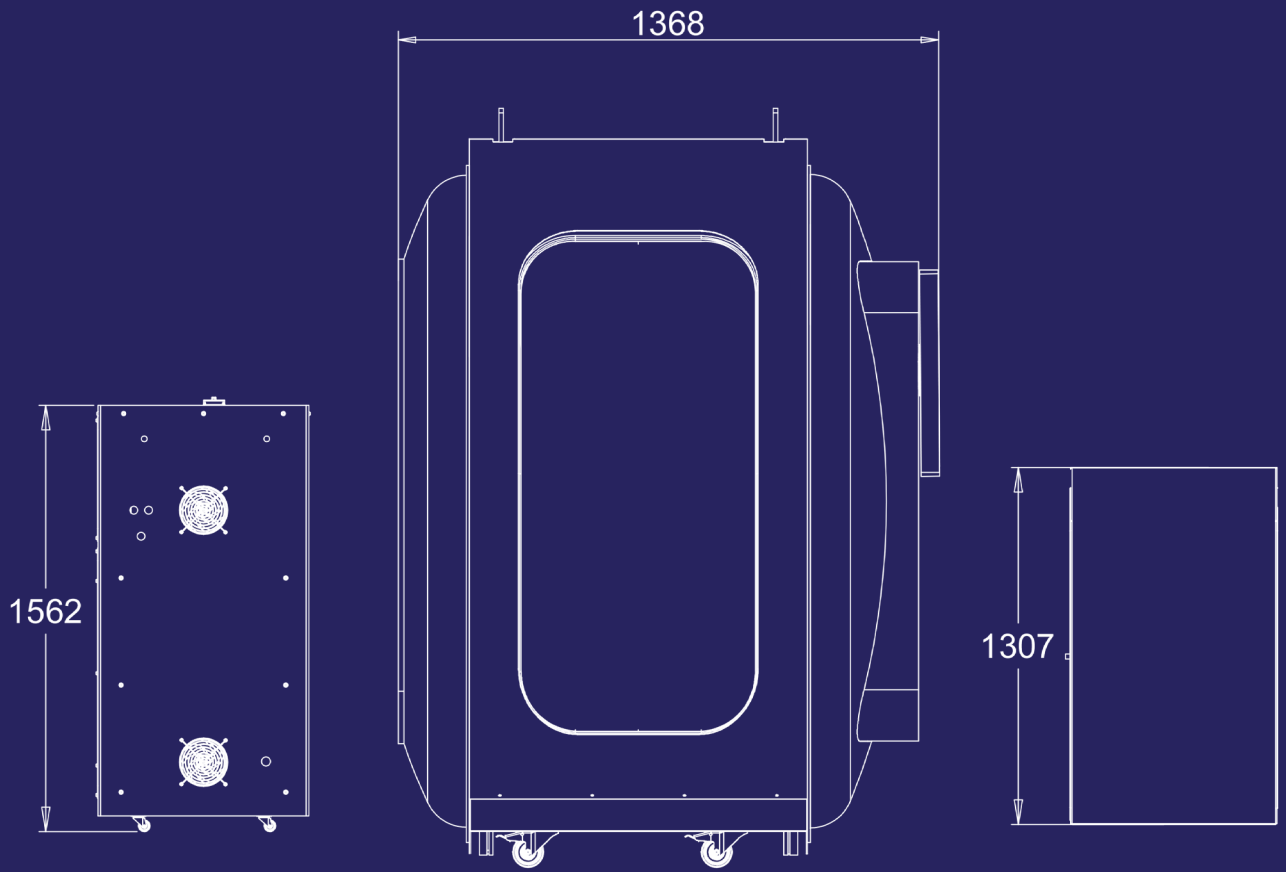
BIBS OXYGEN SUPPLY PRESSURE

3.2 bar to 4.0 bar

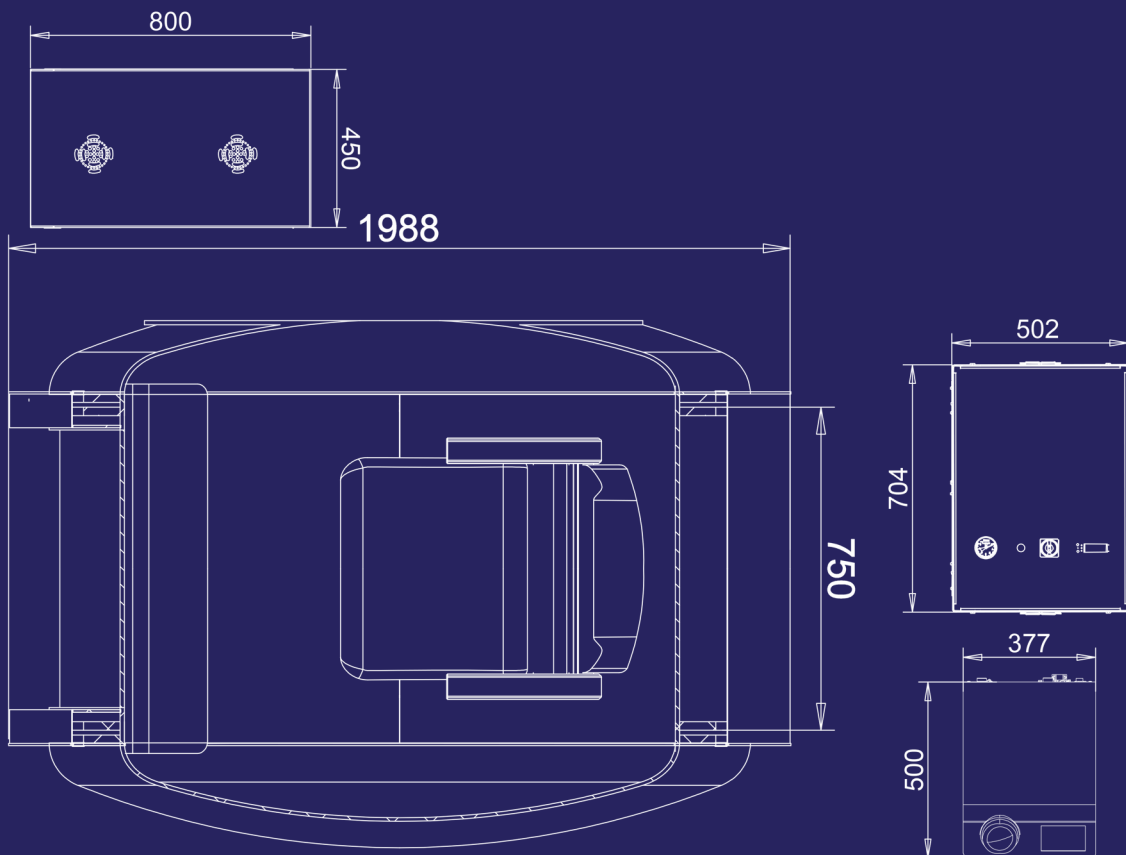
VENTILATION RATE

125 LPM to 400 LPM

FRONT VIEW



INTERIOR VIEW

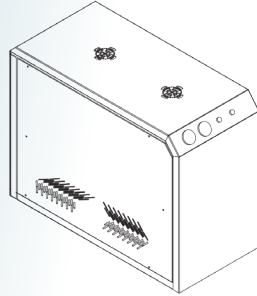




AIR COMPRESSOR

Supplies pressurized air to the chamber, ensuring stable hyperbaric conditions.

Equipped with filtration systems, it provides clean and consistent airflow.



POWER

4 HP

PRESSURE RANGE

1-8 bar/116 PSI

WEIGHT

67 kg
147.71 lbs

FLOW RATE

564 LPM

NOISE LEVEL

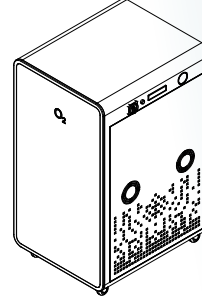
62 dB

DIMENSIONS (W × L × H)

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

OXYGEN CONCENTRATOR

Extracts oxygen from ambient air, purifies it, and delivers it at high concentrations for patient use through the BIBS mask. The number of units depends on the chamber capacity.



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 LEVEL

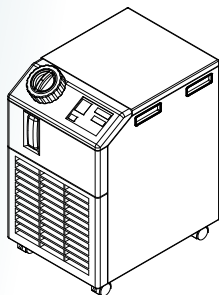
≤ 72 dB(A)

DIMENSIONS (W × L × H)

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

AIR COOLER

Regulates temperature and prevents heat buildup inside the chamber, maintaining fresh airflow for patient comfort during treatment.



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

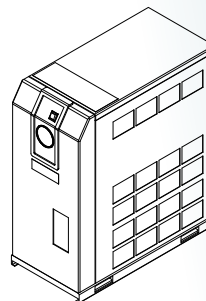
**Air-cooled
refrigeration**

DIMENSIONS (W × L × H)

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

AIR DRYER

Removes excess humidity from the air supply to prevent moisture accumulation inside the chamber, especially in humid climates.



TYPE

**Refrigerated
Air Dryer**

REFRIGERANT

**R134a (HFC)
0.20 kg
0.441 lbs**

POWER

1-Phase 230V / 50Hz

RUNNING CURRENT

1.4 A

POWER CONSUMPTION

208 W

OPERATING RANGE

INLET AIR TEMP

**5–50° C
41–122° F**

AMBIENT TEMP

**2–40° C
35.6–104° F**

INLET PRESSURE

0.15–1.0 MPa

AIR FLOW CAPACITY (ANR)

DEW POINT

3° C → 24 m³/h

DEW POINT

7° C → 31 m³/h

DEW POINT

10° C → 34 m³/h

CONNECTIONS

INLET

Rc 1/2

OUTLET

Rc 1/2

DRAIN

**Auto-drain
(float type)**

OTHER

MAX PRESSURE

1.0 MPa

WEIGHT

**22 kg
48,50 lbs**

COMPLIANCE

CE / UKCA

AUTO DRAIN PART

AD48-A

O-RING

KA00463

BIBS Mask



**Welcome a new age of
controlled oxygen breathing**

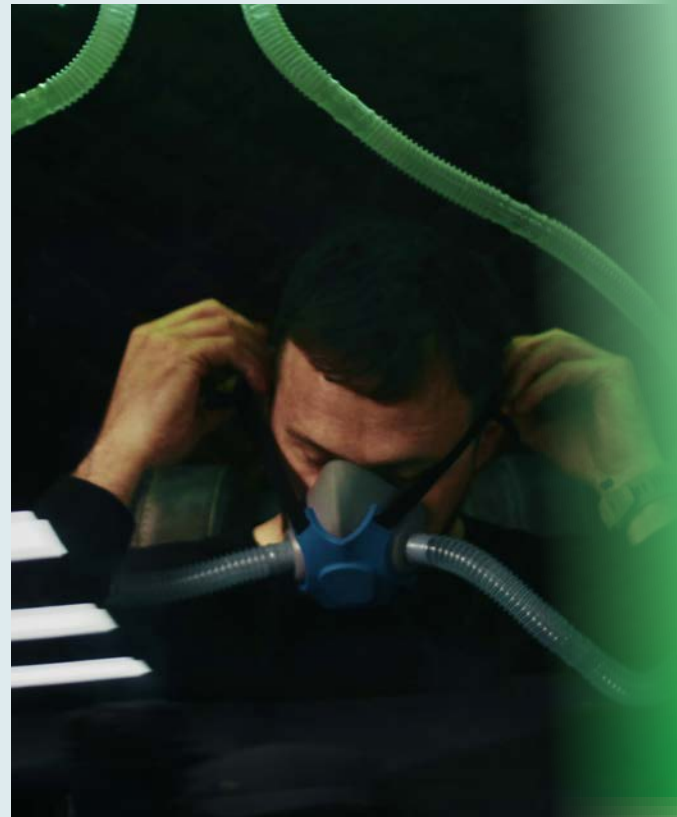


The BIBS Mask delivers pure oxygen regulated by the natural tempo of your breath.

The Built-In Breathing System (BIBS) uses a demand regulator that delivers pure oxygen only when the user inhales, mirroring the principles of professional diving masks. This prevents unnecessary oxygen flow and eliminates oxygen buildup inside the chamber, a significant safety upgrade over traditional free-flow mask systems.

Pure oxygen in. Carbon dioxide out.

The Built-In Breathing System (BIBS) delivers pure oxygen (up to 93%) via a demand regulator. The mask features two dedicated hoses: one for oxygen delivery and one for carbon dioxide exhaust, ensuring clean inhalation and efficient exhaled gas removal.





Closed loop control for safe oxygen concentrations

This closed-loop system maintains precise oxygen levels regardless of chamber pressure and keeps the chamber's ambient oxygen concentration safely below 21-22%, minimizing fire risk while maximizing therapeutic efficiency.

Bryan Johnson's HBOT longevity experiment with the ZEUGMA hyperbaric chamber

Conducted in a hard-shell ZEUGMA hyperbaric chamber, Bryan Johnson completed a 60-session HBOT protocol over 90 days. The experiment serves as a detailed N=1 case study exploring HBOT's potential role in longevity, biological aging, and health optimization.

Bryan's protocol closely mirrors peer-reviewed HBOT longevity studies, which have reported improvements in cognitive performance, telomere dynamics, and markers of biological aging.

Background: biological aging & epigenetic markers

The protocol was designed to assess HBOT's effects across multiple physiological domains, including epigenetic aging, inflammation, cognitive function, physical performance, and gut health, and to build on existing research linking HBOT to telomere and aging biomarkers.

Data collection

Measurements included epigenetic clocks (including DunedinPACE), blood biomarkers, neuroimaging, VO₂ max testing, and gut microbiome analysis. While observational, the study applied structured measurement to evaluate potential shifts in biological aging trajectories, DNA methylation patterns, and organ-specific aging scores.

HBOT protocol overview

Chamber
ZEUGMA by HPO.TECH

Pressure
2.0 ATA

Session duration
90 minutes

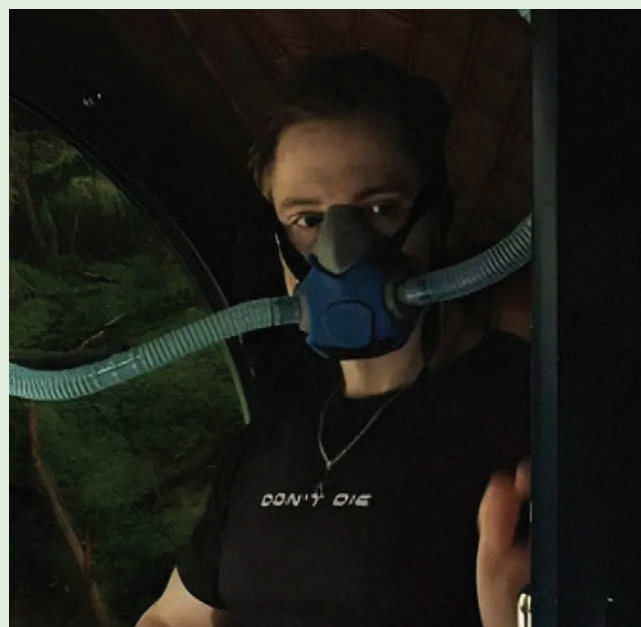
Oxygen cycle
20 min oxygen / 5 min air, repeated

Total exposure
60 sessions over 90 days



Bryan Johnson's results with the ZEUGMA

- **Systemic inflammation**
Reduced to undetectable levels (hsCRP), with inflammation epigenetic markers among the lowest recorded
- **Vascularization & oxygen delivery**
~300% increase in VEGF, with improved muscle oxygenation and exercise efficiency
- **Cellular aging markers**
Telomerase activity measured at 7.7%, comparable to adolescent levels
- **Gut health & metabolism**
Normalization of microbiome balance, with major increases in SCFAs and butyrate, and emergence of *Akkermansia muciniphila*
- **Brain health**
pTAU127 reduced by 28.6%, a marker associated with neuroinflammation and neurodegeneration
- **Skin quality**
Reduction in measured skin age and improved UV damage scores



DON'T DIE: Reflections pondering the breath of life

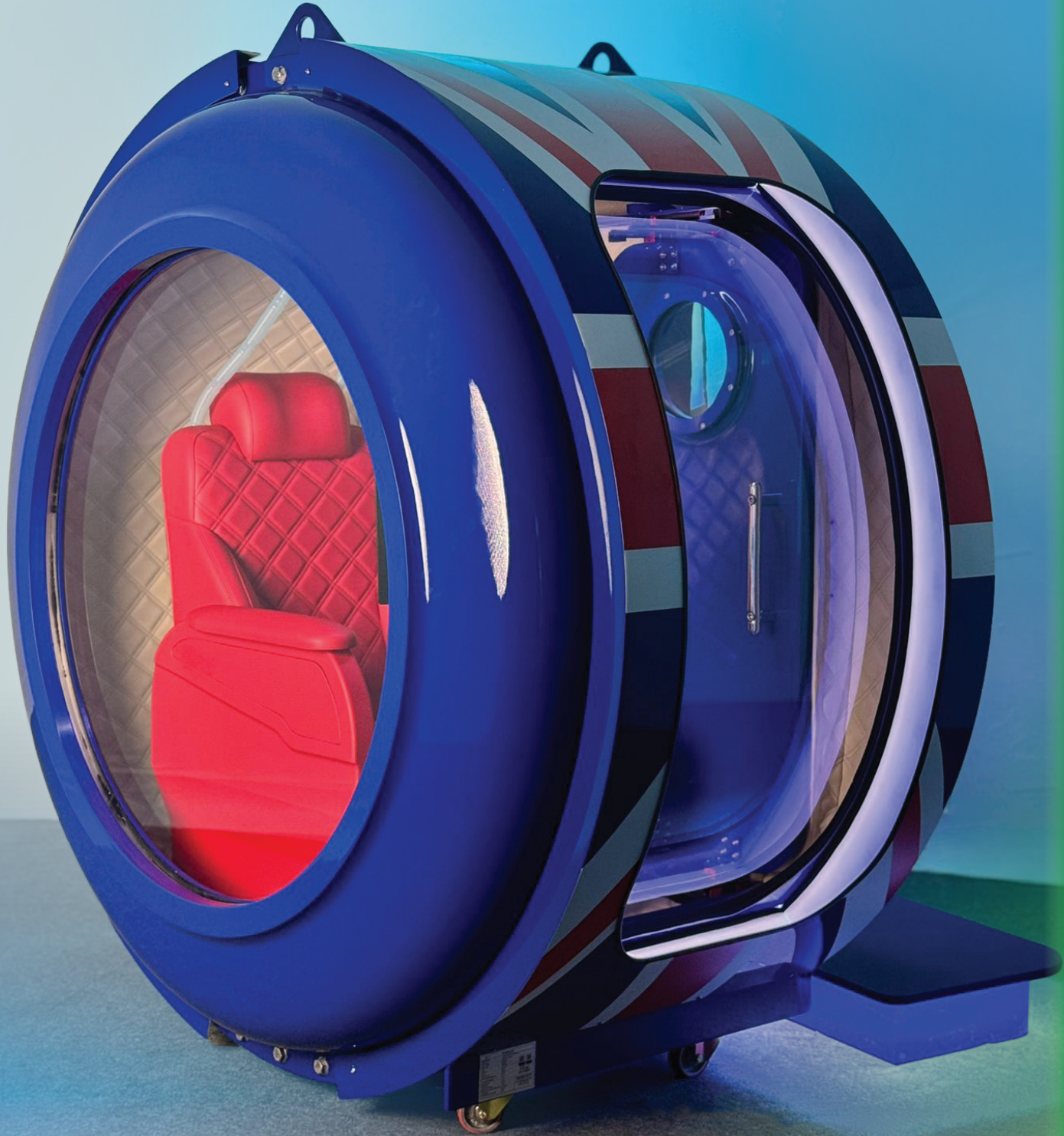
Bryan's HBOT experiment is a glimpse into what's possible when advanced technology meets radical self-discipline. His data suggests that hyperbaric oxygen therapy could influence key biomarkers tied to aging, recovery, and gut health.

At its core, this experiment is about exploring human potential. Bryan's mantra, "Don't Die", may sound extreme, but behind it lies a universal desire: to live better, for longer, and with greater vitality. The journey to longevity optimization continues as we continue to breathe oxygen.

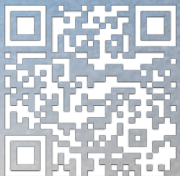


Scan to see Bryan's
HBOT experiment on YouTube

Welcome to the digital age in hyperbaric oxygen therapy.



Scan to see Steve Varsano's project on Instagram



stevevarsano Thank you guys for this great machine! Really feeling the benefits. 🙌

1w 4 likes Reply



Hyperbaric system features

1 Software control



Both the external and internal consoles feature a fully digital interface for managing all aspects of chamber operation, from gas flow to communications. Control is fully automated through the integrated Automation System, eliminating the need for manual inputs and ensuring smooth, consistent performance.



Software control

2 Automated intelligence, real-time monitoring



The Automation System combines industrial-grade PLCs, smart sensors, valves, and automation software to run sessions seamlessly. Real-time data tracking displays key metrics: pressure, oxygen levels, temperature, humidity, and patient vitals, enhancing safety and enabling informed, responsive care throughout the session.

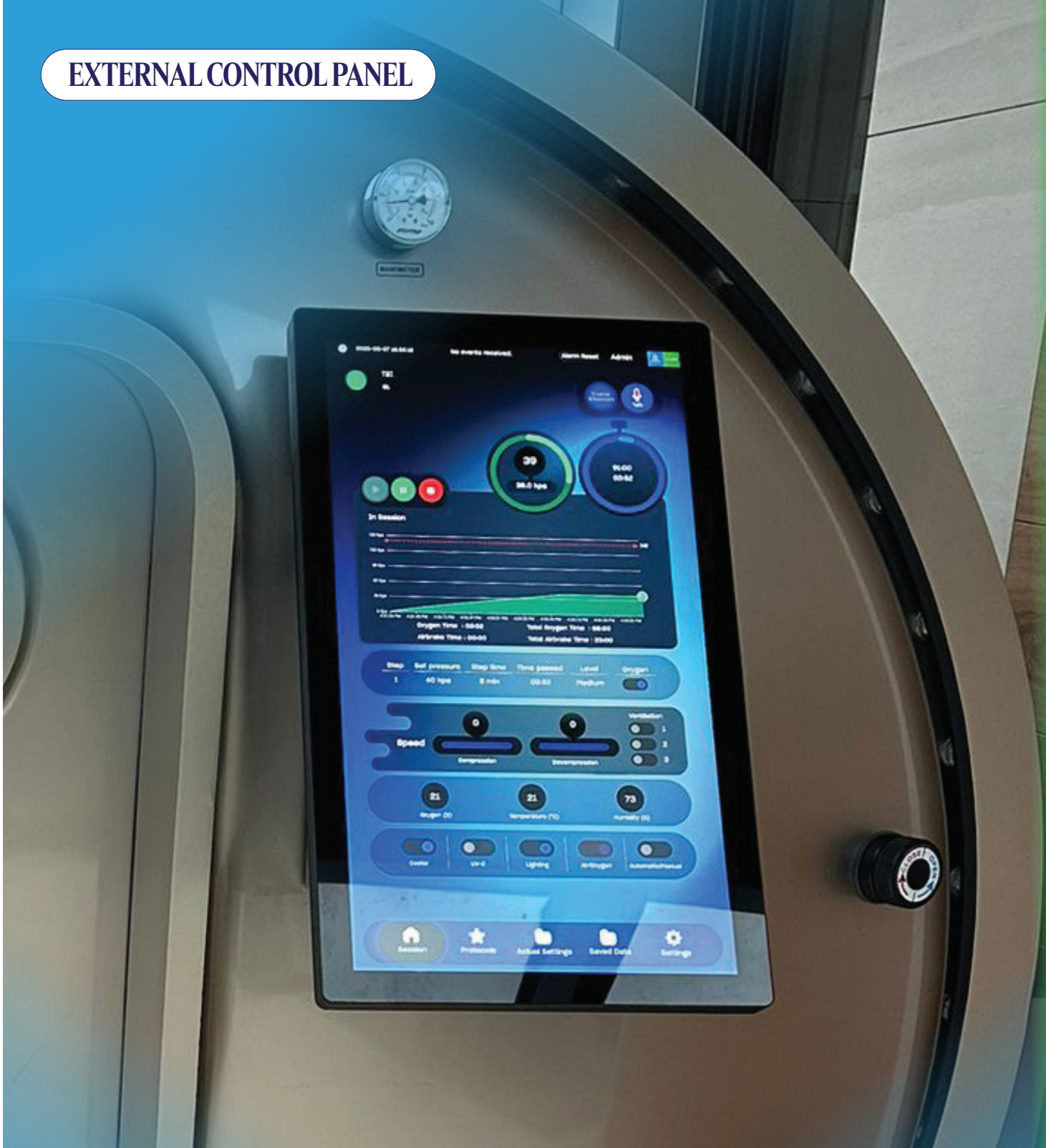


3 Designed for complexity, built for simple



Inspired by modern automotive dashboards, the control system is fast, responsive, and easy to navigate, mirrored on both the internal and external panels for smooth operation from either side. And while it's fully automated, safety is always in focus: built-in emergency functions and controlled depressurization ensure immediate response when it matters most.

EXTERNAL CONTROL PANEL



Your digital command center for hyperbaric oxygen sessions

Take complete control of every HBOT session with our intuitive touchscreen interface. Adjust pressure and oxygen, set session parameters, monitor key data, and communicate with the user, all from a single, streamlined digital platform.

- ✓ Built-in emergency controls ensure safety is always just a tap away.
- ✓ Real-time visuals keep you informed on chamber pressure, time, and other critical metrics throughout the session.
- ✓ Audio communication with the user inside is always connected.



Mirrored commands for the user inside

Master your HBOT session from within. Set pressure levels, define session durations, and lock the chamber door, all through a smart, responsive digital interface. You're always communicating with the outside; all commands are mirrored for outside and inside user control.

- ✓ Monitor the session with clear visuals and data on chamber pressure, oxygen, time, temperature, and other vital information.
- ✓ Be prepared for any situation with manual overrides and an emergency stop button. Audio communication with the user inside is always connected.
- ✓ Audio communication with the user inside is always connected.



Smarter HBOT sessions with complete software control

Our upgraded software features a smart, touchscreen control panel with an intuitive interface, designed to give users and clinicians more flexibility and precision than ever before.

- ✓ 7 pre-set HBOT protocols
- ✓ Custom protocol input
- ✓ Variable pressure levels
- ✓ Oxygen vs. air break timing
- ✓ Session duration
- ✓ Built-in data logging for patient reference
- ✓ Sensor tracking
- ✓ HBOT session data logging

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.

HBOT session data logging

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.



mtmgym We are very excited! Thank for the amazing device and service.

5săpt. 2 de aprecieri Răspunde

ERGONOMIC SEATING



Hyperbaric system features

Experience maximum comfort



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

Hyperbaric system features

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.



Designed for performance and care

Every element of our hyperbaric chamber system is engineered to provide a smooth therapy experience for both the operator and the user.



Patient monitoring

Integrated ports and connectors allow for vital sign monitoring, such as EEG, ECG, TCOM, and blood pressure, throughout the session.



Pneumatic controls

The chamber's control systems are fully pneumatic, powered by a compressed gas source for smooth, reliable operation.



Entertainment system

Optional in-chamber screens or tablets offer entertainment and customization to enhance user comfort.



Power source

A discreet backup power supply ensures uninterrupted communication and safety, even during outages.



Simple operation

All components, both hardware and software, are built for intuitive use and require minimal maintenance.



LED lighting

Adjustable RGB LED lights create a calming, customizable atmosphere inside the chamber.



Always in contact

Advanced communication and observation systems let operators hear, see, and monitor patients at all times.



Ventilation

The automatic ventilation system maintains steady air circulation and a fresh chamber environment.



UV-C disinfection

Integrated UV-C light helps reduce microbial load inside the chamber between sessions, supporting a cleaner, safer treatment environment.

L Lucas J. ★★★★★ 2 years ago
Worth every penny.
 I was hesitant to invest this much, but the results for my patients have been undeniable. Worth every penny.

D Dr. K. ★★★★★ 8 months ago
Best chamber we have used so far.
 We've used a few chambers in our practice over the years, but the Zeugma is on another level. From the moment it arrived, everything was turnkey with delivery, assembly, training. But what impressed me most is the patient response. We've seen quicker recovery times and better comfort overall. If you're serious about results, this is the one.

K Khaldon Saadeh
 7 reviews · 3 photos
 ★★★★★ 4 months ago


I've been doing hyperbaric oxygen therapy (HBOT) since 2021, and after months of research into all the companies on the market, I decided to purchase from HPOTECH. From my very first conversation with Alex, I knew I was in good hands. He didn't just explain the product — he took the time to walk me through the science, the applications, and how it could benefit my unique situation.

I received the earlier version of the ZEUGMA chamber in September 2024 and used it extensively before my brain tumor surgery, and I continue to use it in recovery. My surgical team at Mayo Clinic rated my recovery in the top 1%, and I personally believe the ZEUGMA was a critical part of that accelerated healing.

Like any early model, there were a few minor issues at first — but HPOTECH's support team handled them quickly, thoroughly, and with professionalism. Even when I had an unexpected complication with U.S. Customs due to packaging materials, Alex and the HPOTECH team stood by me, covered the fines and legal fees, and improved their shipping process as a result. That kind of commitment is rare.

In June of this year, I upgraded to the new ZEUGMA, and the improvements in software and technology are truly mind-blowing. The experience has been so positive that I'm also in the process of purchasing the APEX Hypobaric Altitude Chamber.

HPOTECH's products, sales team, management, and support all operate at a level that goes above and beyond. They don't just sell you a chamber — they stand with you in your journey. I couldn't recommend them more highly.



Bryan Johnson /dd @bryan_johnson
 4/ My HBOT Intervention Protocol

I will complete 60 sessions (5 sessions weekly) at 2 atmospheric pressures, in a chamber made by @hpotech_medical, lasting 60-120 minutes each while breathing 100% oxygen for 20 minutes separated by a 5 minute break.

It's worth noting that this protocol requires a hard chamber to achieve such high pressures. Significantly higher than accessible by many soft chambers on the market.

J Julian T. ★★★★★ 1 year ago
Great Experience

When I first looked into hyperbaric chambers, I was overwhelmed by the options and skeptical. But from the first conversation with the team, I felt confident. They answered every question and gave me the space to decide without pressure. The Zeugma chamber is beautifully engineered and feels like something out of a private medical suite. Delivery was white glove, the install team handled everything, and the results have been incredible. This was a great full service experience.

R Richelle Bonacia
 3 reviews
 ★★★★★ 3 months ago

We couldn't be happier with our Zeguma hardshell hyperbaric chamber! From purchase to installation, the customer service was fast, professional, and seamless. The Zeguma team made the entire process effortless and continues to provide excellent support for maintenance and training.

Our clients are loving the chamber and are already seeing real, measurable results in recovery, energy, and overall wellness. As a clinic, we're extremely satisfied with the performance and quality — this has been one of the best additions to our wellness and regenerative medicine offerings. Highly recommend!

— Balanced Aesthetics + Wellness, Atlanta GA

N Noah V. ★★★★★ 11 months ago

The delivery, setup, and training were flawless. We felt taken care of from day one.

Augusta Wellness Technology
 Local Guide · 21 reviews · 18 photos
 ★★★★★ a year ago

Happy to work with this company as a HBOT provider. Very good product and assistance.

J Jérôme E
 6 reviews
 ★★★★★ 3 months ago

I recently acquired the Zeugma 2.4 ATA from Hpotech Hyperbaric Solutions and am extremely satisfied with both the product and the company's service. The unit is of exceptional quality, comfortable and performs reliably. It is very userfriendly too with great pre-programmed protocols. Hpotech's in-servicing and technical support have been exemplary—professional, timely, and attentive. I highly recommend Hpotech Hyperbaric Solutions to anyone seeking high-quality hyperbaric technology and dependable customer support.

Make ZEUGMA yours.



malte.primus Taking it to the next level with you guys!
[@hpotech.hyperbaric](https://www.instagram.com/hpotech.hyperbaric)

5săpt. 1 apreciere Răspunde



Customization options to start getting creative.

We design hyperbaric technology as a platform for your self-expression. Every **ZEUGMA** hyperbaric chamber starts with your vision, and we provide all the choices to bring it to life:

- Exterior finish (glossy or matte, any RAL color)
- Interior leather color, texture, and stitch design
- Chair color and functionality (manual or automatic adjustment)
- Functional tech upgrades like integrated patient monitoring
- Branding applications



HPOTECH MEDİKAL VE TEKNİK ÇÖZÜMLER SANAY VE TİCARET ANONİM ŞİRKETİ

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