

°CRYO SCIENCE  
THE SCIENCE OF CRYOGENICS





# °CRYO Science

The world class equipment innovator and solution provider for all cryogenic applications. We have mastered the science of using low temperature gases to deliver healing, preserving, and longevity benefits to the human body. At °CRYO Science we focus on delivering innovative solutions in cryotherapy, molecular gastronomy, and other customized installations with the objective of allowing you to thrive in your industry, be it healthcare, sports, beauty or gastronomy.

Our commitment to innovation and years of industry experience, allows us to give you an offering that is consistently trustworthy. Our returning client base is a testament to our superior technological solutions.

The possibilities with °CRYO Science are endless; our team is our reliable backbone with first class expertise in science, engineering, finance, and production, we ensure a targeted approach to all your cryogenic requirements.

We adapt, execute, and progress. We pride ourselves in being forward thinkers and our state of the art cryogenic equipment is the reason we are the right choice for you.



We handle worldwide enquiries and installations tailored to meet your needs.





## °CRYO ARCTIC WHOLE BODY CHAMBER

When the right cryotherapy equipment is used, the science of subjecting the entire human body to extreme cold temperatures to stimulate the healing of its circulatory, nervous, and energy systems is a powerful remedial technology. According to scientific and medical research, the optimum efficiency of whole body cryotherapy procedures, is achieved once the body is exposed to temperatures up to  $-140^{\circ}\text{C}$ , reducing the skin's surface temperature. These non-invasive, short, and extremely cold bursts of air projected to the human body evoke physiological reactions that prompt healing and recovery in numerous fields, including beautification treatments, sports injuries rehabilitation, and medical functions. Additionally, the controlled cold environment has been proven to trigger an analgesic reaction in the neural mind leading to positive mood states and thus acting as an antidepressant and sleep disorders repairer.

A cryotherapy session takes three minutes and it starts by the patient entering the °CRYO Arctic Chamber where cryogenically cooled air is released. Improvements in the skin's appearance and increased energy are immediately noticeable after the first treatment. For longer lasting results, a minimum of 10 sessions are generally recommended.

Our °CRYO Arctic Whole Body Cryotherapy Chamber uses state of the art technology that makes this complicated multi-lateral process of thermoregulation simple and efficient, while conforming to the highest quality and safety standards.

Our dedicated team is eager to work closely with all your needs to deliver a robust and effective solution that produces excellent results specific to your client base.



## Features:

- Our °CRYO Arctic Whole Body Chamber, in contrast to widely available products, is designed with state of the art technology to be the ideal innovative solution for your patients
- Highest safety standards through the prevention of any patient contact with cryogenic gases; patients only come in contact with cryogenically cooled air
- Well-defined and streamlined user interface that is equipped with a digital touchscreen, and a library of °CRYO protocols to ensure a simplified user journey
- Electrically adjustable window and a temperature control to provide patients with the option to have the treatment with their head safely above the cold temperature environment
- Breathable air technology
- Heart rate sensor monitor
- Comfortable, practical and hygienic interior design
- Power supply for 230 V, 50/60 Hz



### Benefits:



Sports Performance



Anti-Aging and  
skin beautification



Weight-loss



Wellbeing



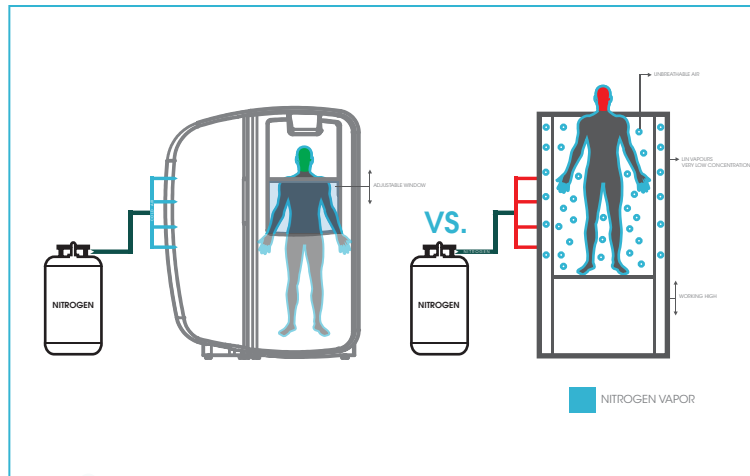
Preventative  
Health



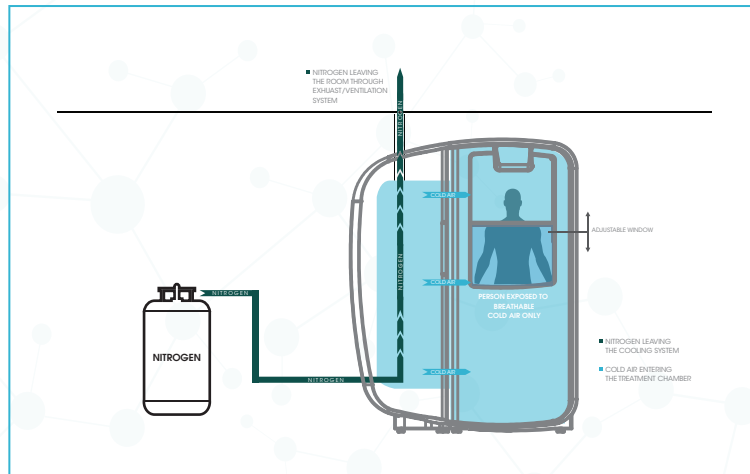
# °CRYO ARCTIC WHOLE BODY CHAMBER COOLING PROCESS

## HIGHEST SAFETY STANDARDS - NO DIRECT CONTACT WITH NITROGEN

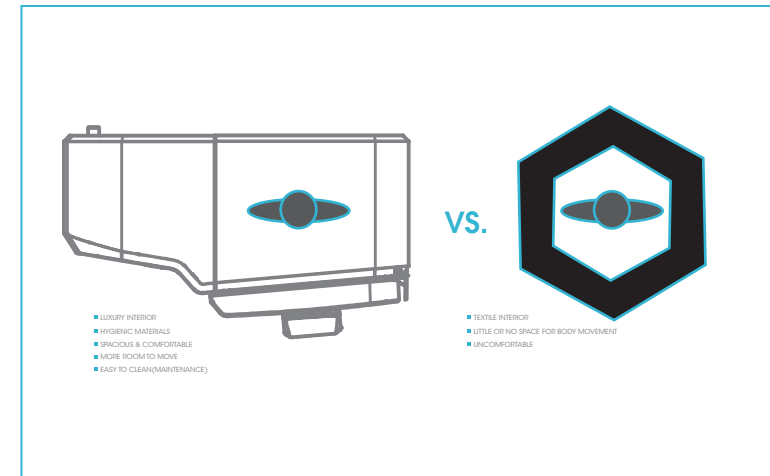
Unlike other cryotherapy chambers, the °CRYO Arctic only exposes the client to breathable air vapor, and not to harmful Nitrogen gas. The Nitrogen is filtered out through the system before coming in contact with the client.



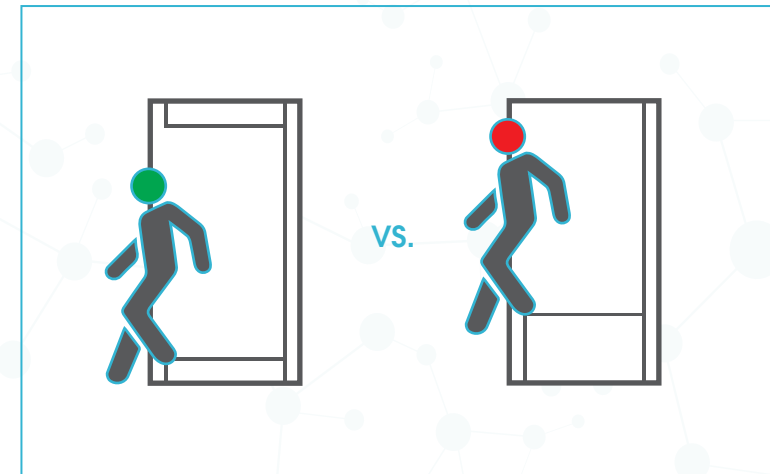
The °CRYO Arctic has an adjustable window in case the client would like to have his head above the air vapor.



The °CRYO Arctic has more space for clients to move around inside the chamber and not feel claustrophobic.



The °CRYO Arctic is equipped with a safe, low doorstep to ensure easy entry and exit.



## TECHNICAL SPECIFICATION OF THE °CRYO ARCTIC WHOLE BODY CHAMBER:



### Room Requirements:

Minimum room size is: 20m<sup>2</sup>.

Regular ventilation required.

Nitrogen tanks need to be handled safely, and connected to equipment via a cryogenic hose.

Nitrogen vapours need to be extracted out of the building via the exhaust/ ventilation system.

Oxygen sensors must be installed.

**°CRYO ARCTIC IS AVAILABLE WORLDWIDE.**

**OUR SERVICE AND INSTALLATION ENGINEERS ARE AT YOUR DISPOSAL FOR TECHNICAL SUPPORT.**

### Dimensions of Appliance:

Height	230cm
Depth with doors - Open / Close	172cm / 100cm
Width doors - Open / Close	200cm / 180cm
<b>The Arctic Chamber is delivered in boxes that fit through 90cm wide doors.</b>	

### Average Liquid Nitrogen consumption:

	<20 Treatments / Day	>20 Treatments / Day
Pre-cooling	10 Liters LN <sub>2</sub>	9 Liters LN <sub>2</sub>
Treatment	5 Liters LN <sub>2</sub>	5 Liters LN <sub>2</sub>

### Recommended Tank Pressure and Piping

Tanks	Pressure at 1.5 BAR
Piping	Min 2m insulated vacuum hose

### Electric parameters:

Maximum power of current needed by equipment	2 kW
Standard power supply	1 phase, 230V, 50Hz

### Time parameters:

Pre - cooling of °CRYO Arctic	3 - 5 min
Time needed to cool °CRYO Arctic down between treatment	1 - 2 min
Ideal treatments are a maximum of 3min. However, can be shortened to suit client's needs.	

### Temperature parameters:

Controllable temperature of treatment	-100 °C to -140 °C
Three pre-defined temperatures levels.	

# °CRYO ARCTIC PLACEMENT GUIDE - GENERAL DIMENSIONS

1. An approximate minimal space required for our chamber is LxWxH: 500 x 400 x 260 cm

2. LIN supply connection and nitrogen exhaust are 90cm and 110cm from the ground level, respectively.

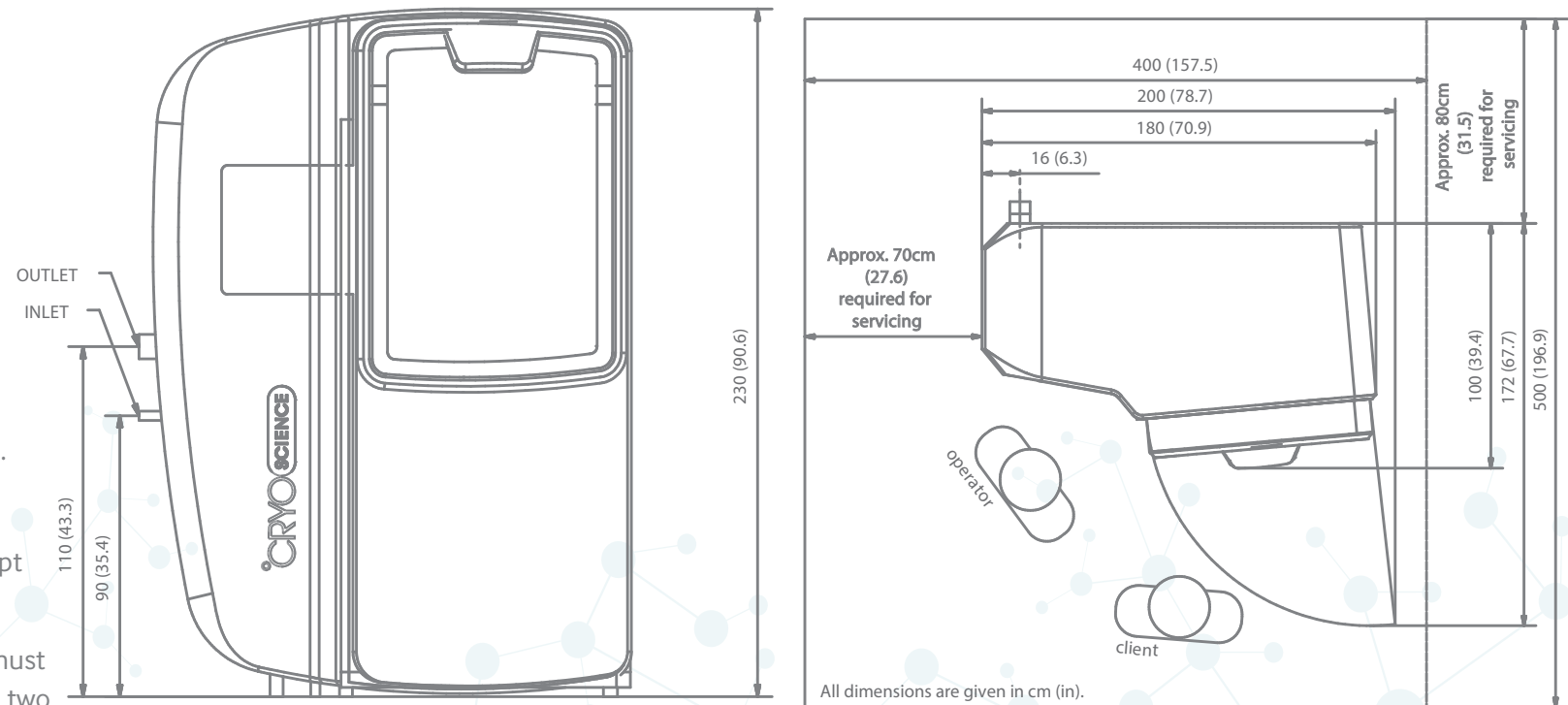
3. Suggested LIN supply pipe/hose diameter 1/2" - stainless steel.

4. Suggested exhaust pipe diameter Ø54mm - copper.

5. Supply from internal microbulk tanks as well as external bulk tanks is supported.

6. For chamber's longevity, it is recommended that room's humidity is kept below 40% level.

7. Additional oxygen monitoring system must be installed in the room. For safety reason two oxygen sensors are recommended.





# MINIMUM SPACE REQUIRED FOR °CRYO ARCTIC AND ONE EXTERNAL 1000 LITERS LIN TANK

## OPERATIONAL REQUIREMENTS:

1. Tanks up to 1000 liters do not require civil permission to be installed. Please verify in accordance to your country civil law.

2. A 1000 liter tank requires reinforced ground, e.g. concrete blocks. Base dimensions are 120x120cm.

3. Additional oxygen monitoring system must be installed in the room. If stationary oxygen monitoring system can not be installed in the room, a personal oxygen meter must be carried by the operator.

4. Supply line is to be connected to the chamber, while exhaust line goes outside the building or into the main ventilation duct.

5. LIN supply connection and nitrogen exhaust are 140cm and 180cm from the ground level, respectively.

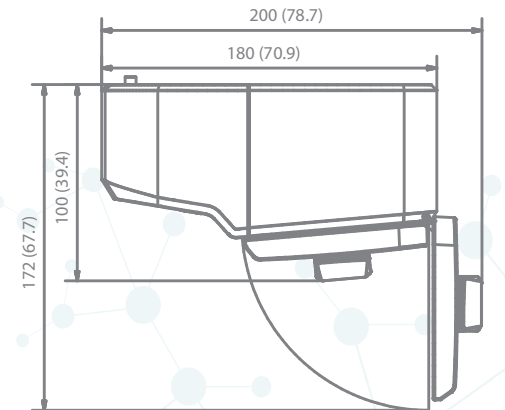
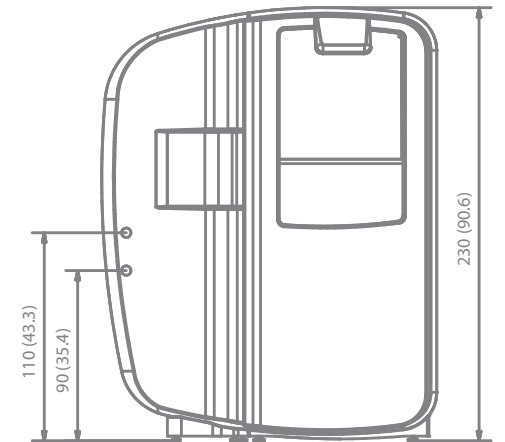
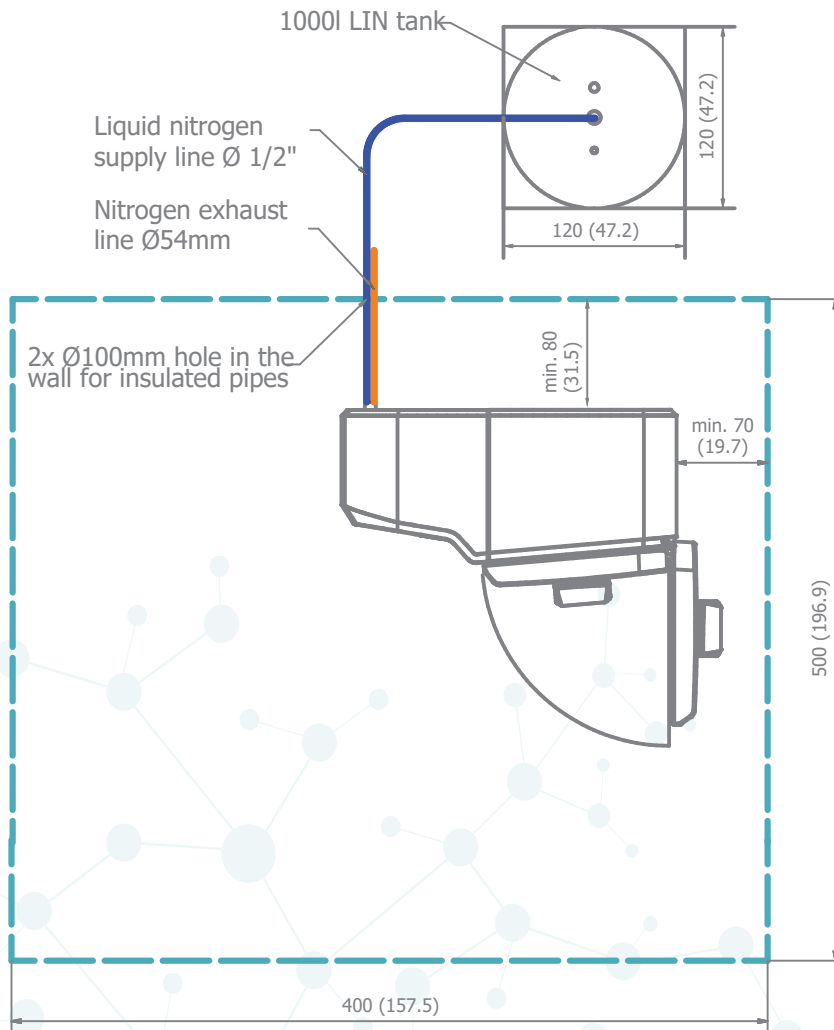
6. Suggested LIN supply pipe/hose diameter 1/2" - stainless steel.

7. Suggested exhaust pipe diameter Ø54mm - copper.

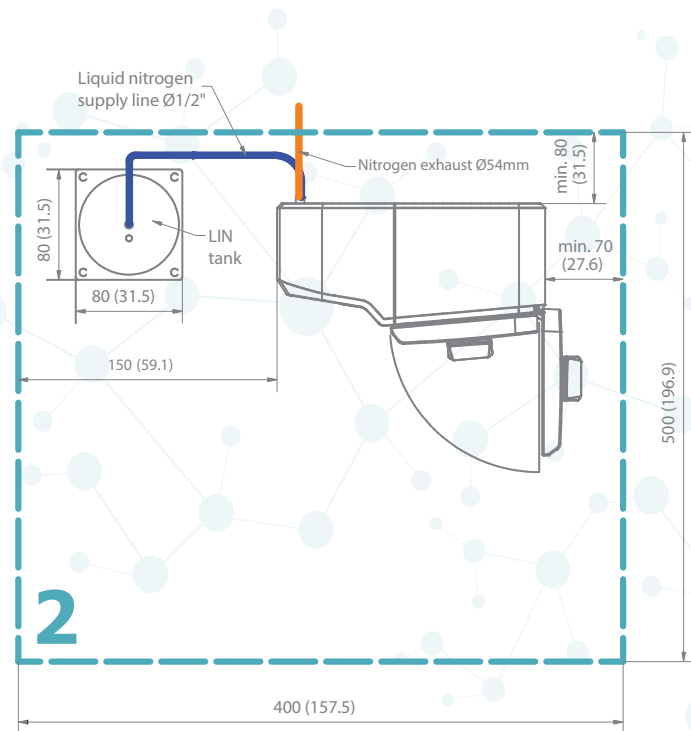
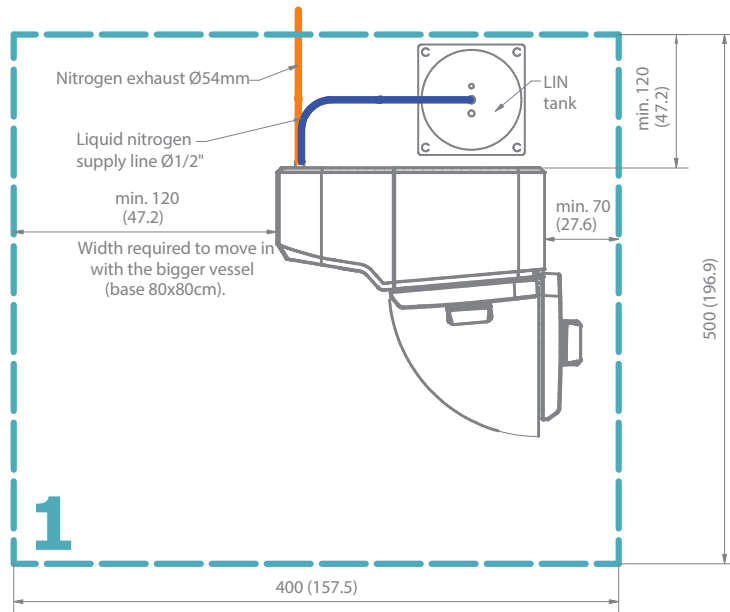
8. Oxygen monitor mounted 30cm above the ground level.

9. Required air change rate - 3 air changes per hour.

10. Additional mechanical ventilation is not required.

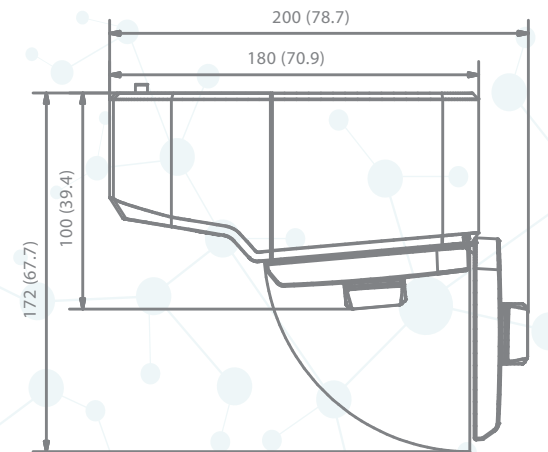
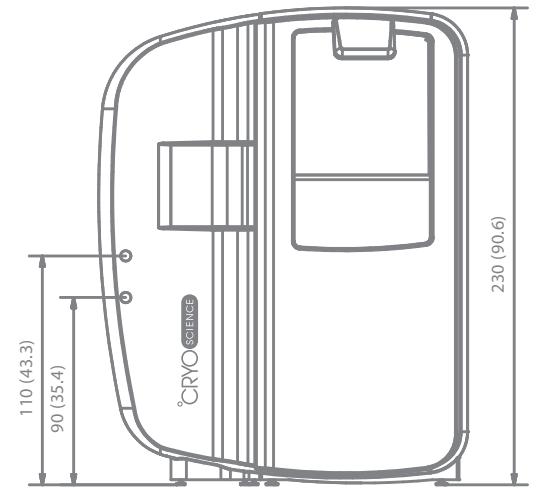


# MINIMUM SPACE REQUIRED FOR °CRYO ARCTIC AND MULTIPLE 230 LITER LIN TANK IN THE SAME ROOM



## OPERATIONAL REQUIREMENTS:

1. An approximate minimal space required for one 230 liter tank is LxWxH: 80 x 80 x 200cm
2. Additional oxygen monitoring system must be installed in the room. If stationary oxygen monitoring system can not be installed in the room, a personal oxygen meter must be carried by the operator.
3. Supply line is to be connected to the chamber, while exhaust line goes outside the building or into the main ventilation duct.
4. LIN supply connection and nitrogen exhaust are 140cm and 180cm from the ground level, respectively.
5. Suggested LIN supply pipe/hose diameter 1/2" - stainless steel.
6. Suggested exhaust pipe diameter Ø54mm - copper.
7. Oxygen monitor mounted 30cm above the ground level.
8. Required air change rate - 6 air changes per hour.
9. Additional dedicated mechanical ventilation is required.
10. Room dimensions have been calculated assuming the presence of only one tank inside the room. It is not recommended to place more than one tank in a room.



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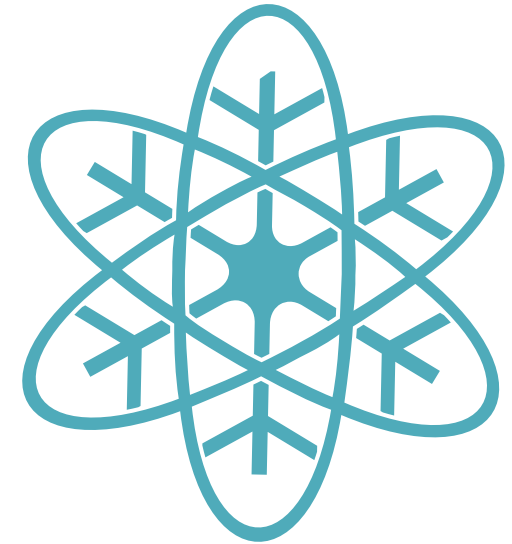
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## °CRYO PENGUIN

Using cold temperatures to treat pain and inflammation dates as far back as 2500 BC. A science that has been tested to deliver results to blood circulation and the central nervous system is now made easily accessible with our °CRYO Penguin; a modern, mobile device that treats localized tissue damage, induces cell rejuvenation, improves skin tone, and reduces the effects of ageing.

The °CRYO Penguin is designed in a way to make life easier for you, from its easy and embedded programming, to its comprehensive and ergonomically friendly design. Our °CRYO Penguin is a world class savvy technology that upgrades your health and wellness packages to offer the most groundbreaking services to your clients. Weight loss, cellulite reduction, and skin collagen boosts are some of the healthcare benefits offered by cryogenically based beauty treatments.



## Features:

- Our °CRYO Penguin, distinguished through its safety controls, low consumption of nitrogen, ease of use, and creative design, is developed to fit all your application needs. The innovative features are designed to optimize your production and output
- Highest safety standards through the implementation of a sensor that automatically measures the skin's temperature and signals operator when temperature is outside optimal parameters
- Precise area of treatment targeting capability through a projected light from the nozzle to the treatment area
- Mobile nitrogen vessel
- Sharp and clear user interface through a digital touchscreen
- Ergonomic handle nozzle equipped with controls that facilitate ease of treatment management
- Auxiliary arm with a hood supporting the cryogenic hose for ease and comfort of use
- Universal power supply for 110 and 230 V, 50/60 Hz



## Benefits:



Sports Performance



Anti-Aging and  
skin beautification



Weight-loss



Wellbeing



Preventative  
Health

# TECHNICAL SPECIFICATION OF THE °CRYO PENGUIN



## Dimensions of Appliance:

Cooling Medium	Liquid Nitrogen (LN <sub>2</sub> )
Vessel Capacity	50 liters
Temperature of vapors of LN2	Approx. -160°C
User Interface	Touch Screen 9.7"
Power	110/230V, 50/60 Hz
Intensity of Nitrogen vapour	Smoothly regulated

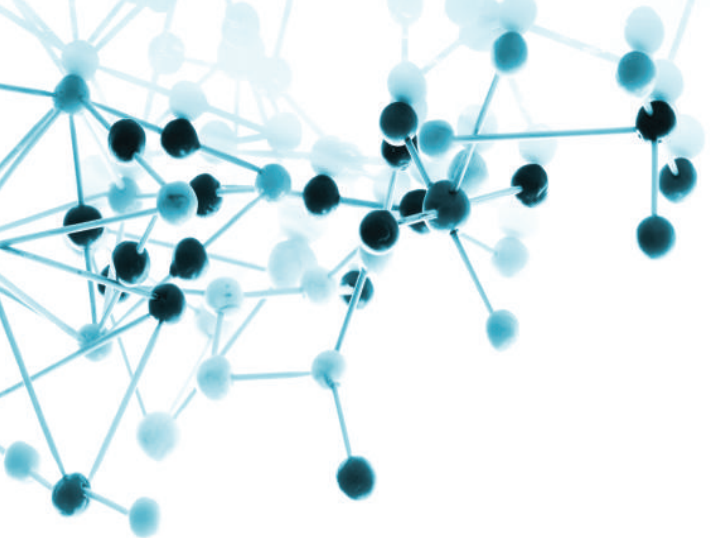






Get in touch with us

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