Appel à manifestation d'intérêt

Demande d'occupation temporaire du domaine public dans le cadre de la gestion, animation et exploitation d'un espace dédié à la cryothérapie au sein de la structure Athletica – propriété du département du Val d'Oise

Le département du Val d'Oise, via sa structure Athletica, sollicite, en application de l'article L. 2122-1-1 du Code général de la propriété des personnes publiques, les opérateurs économiques à manifester leur intérêt pour la gestion, l'animation et l'exploitation de l'espace cryothérapie à Athletica, 64 rue des Bouquinvilles, 95600 Eaubonne.

1. Présentation d'Athletica

Ouvert depuis 1993, Athletica est aujourd'hui reconnu comme un véritable centre d'excellence sportive. Athletica accueille environ 300 000 usagers annuels issus des fédérations nationales et internationales, mais aussi un très grand nombre de stages et d'événements sportifs élites.
À seulement 20 minutes de Paris, Athletica est idéalement positionné et concentre sur un site de 7 hectares des infrastructures sportives de haut-niveau, au cœur d'un environnement dédié à la performance.

Sélectionné parmi des dizaines d'autres complexes sportifs autour de Paris et plus largement en France, Athletica a été labellisé « Centre de préparation des Jeux de 2024 » répondant ainsi aux principaux critères de haute qualité définis par le cahier des charges de Paris 2024 : accueil, hébergement, transport, restauration, équipements sportifs et médicaux.

Les installations :

- Un stade couvert avec piste d'athlétisme homologuée, une salle d'échauffement, de musculation et 6 vestiaires.
- Un complexe sportif couvert avec une salle omnisport, une salle d'entraînement et une salle de musculation.
- Un terrain gazon synthétique de football, football américain, rugby, homologué FIFA.
- Une aire de lancer (poids, disque, marteau).
- Deux sautoirs de perche extérieurs.

Ces installations s'articulent au sein d'un écosystème pensé pour la performance sportive :

- Un centre d'hébergement adapté à tous : un établissement de 100 chambres (toutes adaptables en simple et double)
- Une terrasse de 1200 m² avec une capacité d'accueil de 600 personnes pour les évènements
- Un restaurant de 210 places assises
- Des salles pédagogiques modulables : salles de formations équipées d'écrans connectés
- Un pôle médical et un pôle paramédical avec un cabinet de kinésithérapie
- Un pôle dédié à la régénération sportive incluant cryothérapie, balnéothérapie et tables hydromassantes.

L'équipement dédié à la cryothérapie à Athletica se compose de 2 caissons de cryothérapie à corps entier (C.C.E) de la société Cryojet. La manipulation de cet outil nécessite au préalable l'obtention d'une formation auprès de la société distributrice de ces machines.

2. Description du projet

Dans le cadre de la valorisation de ses équipements et de l'élargissement de son offre de services à destination du public, la structure met à disposition un espace dédié à la pratique de la cryothérapie.

Cet espace est entièrement équipé de dispositifs techniques spécifiques permettant la réalisation de séances de cryothérapie dans des conditions optimales de sécurité et de performance. Toutefois, en raison de la technicité de cette activité et des exigences professionnelles associées à sa mise en œuvre, la structure ne dispose pas en interne des compétences nécessaires pour assurer directement l'exploitation de cet espace.

Le présent Appel à Manifestation d'Intérêt (AMI) a donc pour objet d'identifier un ou plusieurs opérateurs économiques qualifiés, disposant de l'expertise requise, afin d'assurer la gestion et l'animation de cet espace, ainsi que la réalisation des prestations de cryothérapie auprès des usagers.

Le modèle envisagé repose sur la mise à disposition des installations et équipements par la structure, les prestataires retenus intervenant de manière autonome pour proposer et réaliser des séances auprès de leur clientèle.

3. Objectifs de l'AMI

Le présent AMI poursuit les objectifs suivants :

- Assurer une exploitation qualitative, sécurisée et conforme aux normes en vigueur de l'espace de cryothérapie ;
- Garantir l'intervention de professionnels qualifiés, disposant des compétences techniques et des certifications nécessaires à la pratique de la cryothérapie ;
- Diversifier l'offre de services proposée au sein de la structure, en permettant l'intervention de plusieurs prestataires, afin de favoriser une dynamique d'attractivité et une meilleure accessibilité pour les usagers ;
- Optimiser l'utilisation des équipements existants, dans une logique de valorisation du domaine public ou des installations de la structure.

Dans ce cadre, les candidats pourront proposer des modalités d'organisation permettant la coexistence de plusieurs intervenants, notamment via une répartition des créneaux d'utilisation.

4. Périmètre des prestations et options

La mission principale confiée aux prestataires retenus porte sur la gestion et l'exploitation de l'espace de cryothérapie, incluant notamment :

- l'accueil et l'accompagnement des clients ;
- la réalisation des séances de cryothérapie ;
- le respect des protocoles de sécurité, d'hygiène et de maintenance courante liés à l'utilisation des équipements ;
- la gestion de leur propre clientèle (prise de rendez-vous, facturation, etc.) ;
- de maintenir les équipements en bon état d'usage courant (hors maintenance lourde).

À titre optionnel, les candidats pourront également proposer une offre élargie intégrant, dans une logique de parcours ou de "package" bien-être, l'utilisation d'autres espaces mis à disposition par la structure, à savoir :

- un espace de balnéothérapie ;
- un espace équipé de tables hydromassantes.

Cette possibilité vise à permettre le développement d'offres combinées, susceptibles d'améliorer l'expérience des usagers et de renforcer l'attractivité globale de l'équipement. Les modalités d'utilisation de ces espaces complémentaires devront être précisées dans la proposition du candidat.

5. Cadre de sélection

Dans le cadre du présent appel à manifestation d'intérêt, le nombre maximal de praticiens susceptibles d'être retenus pour l'activité de cryothérapie est fixé à trois (3).

Toutefois, dans le cadre du conventionnement, le Département se réserve la possibilité de ne pas retenir le nombre maximal de praticiens prévu, en fonction de l'analyse des candidatures, de leur qualité et de leur adéquation avec les objectifs du dispositif.

6. Modalités d'organisation et de réservation des créneaux

L'accès à l'espace de cryothérapie est organisé via un agenda partagé, administré et piloté par Athletica.

6.1 Plages d'ouverture

L'espace de cryothérapie est accessible aux prestataires selon les horaires suivants :

- **du lundi au samedi : de 8h00 à 20h00**

À titre exceptionnel :

- une ouverture le **dimanche** pourra être autorisée, uniquement **sur demande préalable auprès de la structure** et sous réserve de validation.

La structure se réserve le droit d'adapter ces horaires pour des raisons d'exploitation, d'organisation ou de contraintes techniques.

6.2 Gestion des créneaux – espace cryothérapie

- Les prestataires retenus disposent d'un accès à un agenda partagé leur permettant de réserver des créneaux d'intervention, dans la limite des disponibilités affichées.
- Les créneaux sont attribués selon un principe de premier arrivé / premier servi, sous réserve des priorités définies ci-après.
- Chaque prestataire est responsable de la bonne utilisation des créneaux qu'il réserve (présence effective, respect des horaires, gestion de sa clientèle).

6.3 Priorité d'utilisation de la structure

Athletica se réserve un droit de priorité sur l'utilisation de l'espace, notamment pour :

- ses besoins propres (activités internes, événements, partenariats, maintenance, etc.) ;
- des actions ponctuelles ou programmées.

À ce titre :

- certains créneaux pourront être réservés en amont par la structure et apparaîtront comme indisponibles dans l'agenda ;
- en cas de nécessité exceptionnelle, la structure pourra modifier ou annuler des créneaux, sous réserve d'un délai de prévenance raisonnable.

6.4 Organisation des prestations optionnelles

S'agissant de l'accès aux espaces complémentaires (balnéothérapie et tables hydromassantes) :

- ces prestations ne sont pas accessibles en réservation directe via l'agenda partagé ;
- toute utilisation devra faire l'objet d'une demande préalable auprès de la structure ;
- les créneaux correspondants seront bloqués par la structure, sous réserve de disponibilité et de compatibilité avec ses propres usages prioritaires.

Les candidats devront préciser dans leur proposition :

- les modalités d'intégration de ces prestations dans leur offre ;
- leurs besoins estimés en termes de créneaux.

6.5 Règles de bonne utilisation

Les prestataires s'engagent à :

- respecter les créneaux réservés ;
- libérer sans délai tout créneau non utilisé ;
- ne pas sous-réserver ou sur-réserver de manière abusive ;
- respecter les règles de fonctionnement définies par la structure.

6.6 Tarification

Le candidat pourra fixer librement ses tarifs.

La mise en place d'un terminal de paiement électronique s'effectuera à ses frais exclusifs.

7. Conditions financières et redevance

En contrepartie de la mise à disposition des espaces, équipements et services associés, les prestataires retenus seront redevables d'une participation financière.

7.1 Principe général

Le modèle économique retenu repose sur :

- une redevance proportionnelle au chiffre d'affaires généré par le prestataire dans le cadre de son activité au sein de la structure ;
- assortie d'une redevance minimale garantie, destinée à couvrir notamment les coûts fixes supportés par la structure (consommables, entretien, maintenance des équipements, charges d'exploitation).

7.2 Proposition des candidats

Les candidats devront proposer dans leur offre :

- un taux de redevance (%) appliqué au chiffre d'affaires, compris entre 5 % et 8 % ;
- les modalités de calcul du chiffre d'affaires retenu (HT ou TTC, périmètre des prestations, gestion des offres packagées, etc.) ;
- toute proposition complémentaire permettant d'assurer l'équilibre économique du dispositif.

Toute proposition en dehors de cette fourchette devra être dûment justifiée et pourra être écartée si elle est jugée incohérente avec les objectifs de la structure.

7.3 Redevance minimale

Indépendamment du chiffre d'affaires réalisé, une redevance minimale sera due par le prestataire.

Cette redevance a pour objet de garantir :

- la couverture des coûts liés aux consommables ;
- la participation aux frais de maintenance des équipements ;
- la contribution aux charges générales d'exploitation.

Le montant de cette redevance minimale :

- est proposé par le candidat dans son offre ;
- sera apprécié au regard de la viabilité économique globale du projet ;
- pourra être ajusté lors de la phase de contractualisation.

7.4 Modalités de paiement

Les modalités de facturation et de paiement seront précisées dans la convention conclue avec les prestataires retenus, notamment :

- périodicité (mensuelle ou trimestrielle) ;
- transmission des éléments de chiffre d'affaires ;
- modalités de contrôle et de vérification.

7.5 Transparence et contrôle

Les prestataires s'engagent à :

- fournir des éléments sincères, complets et vérifiables relatifs à leur chiffre d'affaires ;
- permettre, le cas échéant, tout contrôle raisonnable par la structure.

8. Conditions de participation

Les candidats devront justifier :

- de compétences et qualifications dans le domaine de la cryothérapie ;
- de références ou expériences similaires ;
- de la détention des certifications nécessaires (formation à la charge exclusive du candidat);
- d'une assurance responsabilité civile professionnelle adaptée ;
- de leur capacité à exploiter l'activité de manière autonome.

9. Durée

La convention conclue avec le ou les prestataires retenus sera établie pour une durée de 1 an.
Elle est renouvelable tacitement, dans la limite de deux reconductions d'un an chacune (soit une durée maximale totale de trois (3) ans), sous réserve :

- Du respect des obligations contractuelles du Praticien,

- D'une activité effectivement exercée au sein de l'espace cryothérapie jugée suffisante par le Département au regard des objectifs de valorisation et de bonne utilisation des équipements.

Conditions de reconduction

La reconduction tacite interviendra sauf :

- décision contraire de l'une des parties ;
- non-respect des obligations contractuelles ;
- ou motif d'intérêt général lié à l'exploitation de la structure.

Chaque partie pourra s'opposer à la reconduction, sous réserve du respect d'un **préavis**, dont la durée sera précisée dans la convention (à titre indicatif : 1 à 3 mois).

Possibilité de résiliation anticipée

La convention pourra être résiliée de manière anticipée :

- en cas de manquement grave du prestataire ;
- en cas de non-respect des règles de sécurité ou d'exploitation ;
- pour motif d'intérêt général, dûment justifié par la structure.

Les modalités précises de résiliation seront définies dans la convention.

10. Contenu des candidatures

Les dossiers de candidature devront comporter :

- Présentation du candidat (structure, statut, équipe, expérience)
- Description de l'offre proposée (organisation des séances, types de prestations, modalités d'accueil des clients, amplitude horaire)
- Proposition économique (cf article 6.2)
- Projet de développement (stratégie commerciale, attractivité, partenariats)
- Proposition optionnelle (intégration de la balnéothérapie et de l'hydromassage)
- Pièces administratives (attestations, assurances, certifications)

11. Critères de sélection

- Qualité et pertinence du projet proposé, capacité à développer l'activité (40 pts);
- Compétences et expérience du candidat (15 pts);
- Garanties apportées en matière de sécurité (10 pts);
- Cohérence de la proposition économique (30 pts);
- Qualité de l'offre complémentaire éventuelle (5 pts)

12. Calendrier prévisionnel

- Publication de l'AMI : 18/05/2026

- Date limite de réception des candidatures : 8/06/2026 à 12h
- Analyse des candidatures : 10/06/2026 au 30/06/2026
- Auditions éventuelles : semaine du 15 juin 2026
- Notification des candidats retenus : 10/07/2026

13. Modalités de remise des candidatures

Chaque candidat est invité à adresser son dossier candidature (comprenant les documents demandés à l'article 3) **avant le 8 juin 2026 à 12h.**

L'ensemble des candidatures devront être adressées à l'adresse mail suivante : **cyrielle.favre@valdoise.fr**

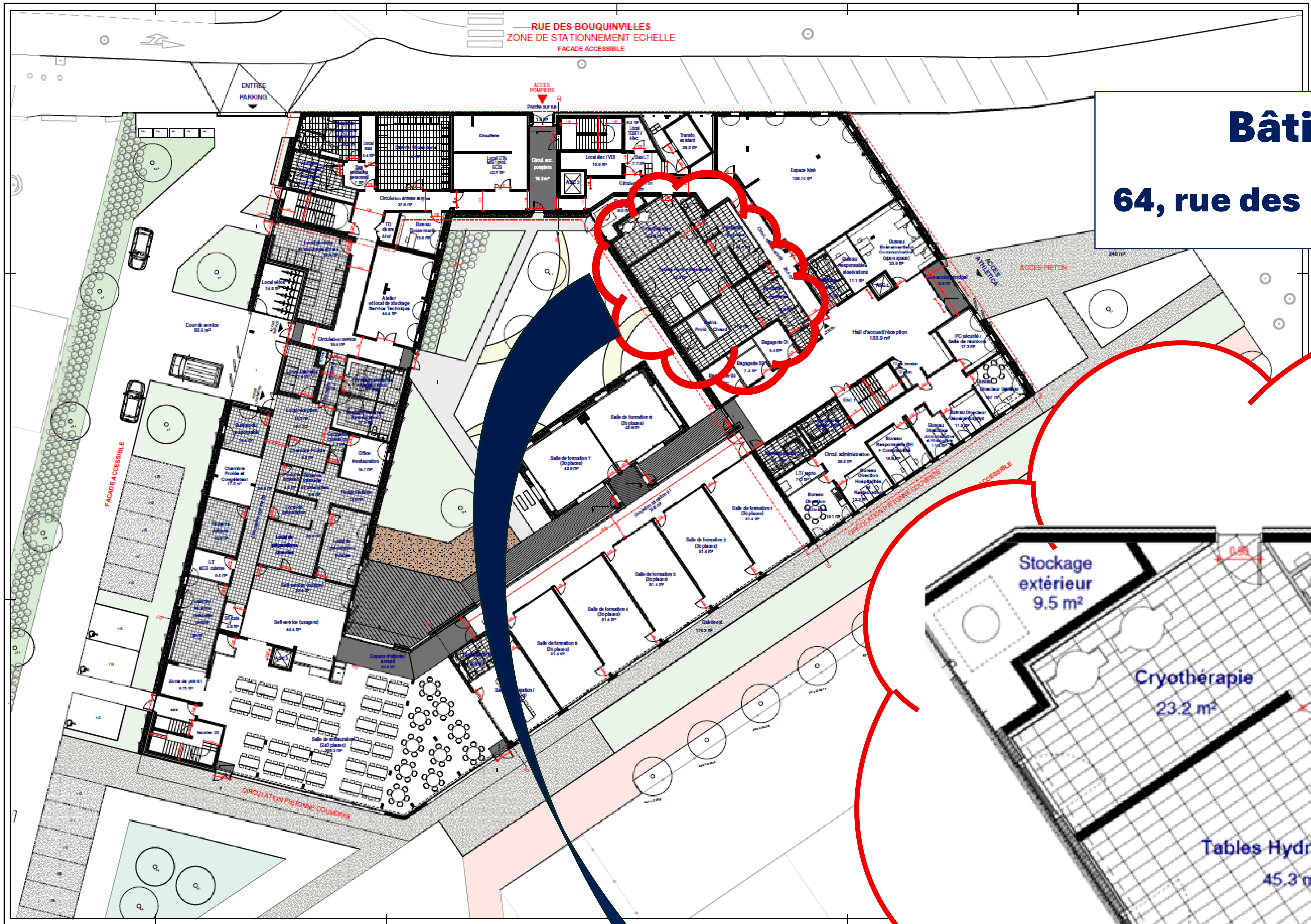
L'ensemble des offres reçues par mail feront l'objet d'une confirmation de réception.
Renseignements techniques et administratifs : **01 34 27 28 55/ adrien.desbois@valdoise.fr**

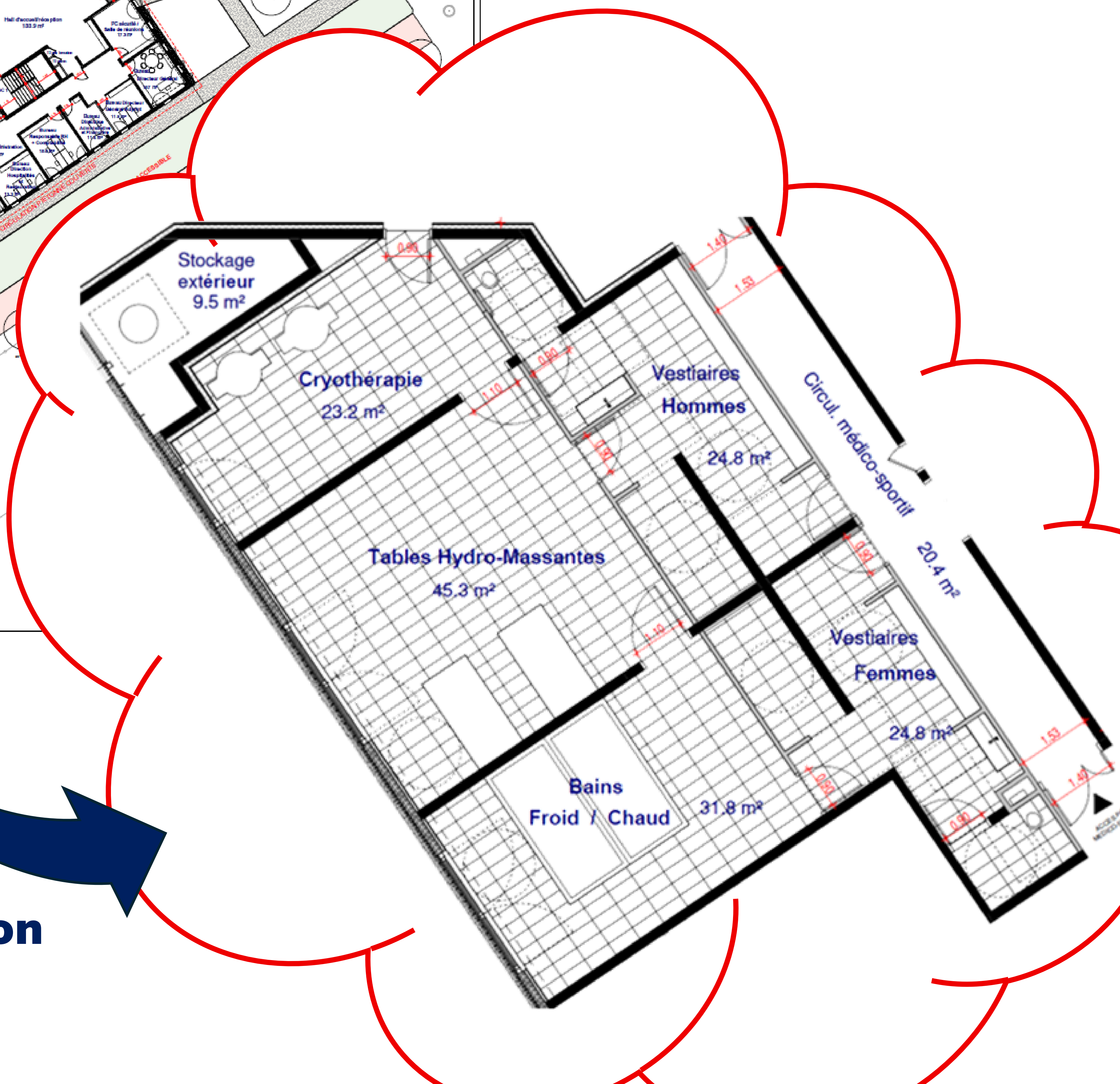
14. Dispositions finales

La collectivité se réserve le droit de ne pas donner suite à tout ou partie de la procédure ; de négocier avec les candidats.
L'autorisation donnera lieu à la signature d'une convention d'occupation du domaine public.

Bâtiment HEBERGEMENT

64, rue des Bouquinvilles – 95600 EAUBONNE





Zone Régénération

OPERATOR MANUAL

CRYONIQ | CRYO XC

CRYOTHERAPY CHAMBER

Before operating device, read these instructions carefully. This will simplify and ensure that the product is used in the way it is intended. Leave these instructions near the product for future reference.

EN ENGLISH

www.cryoniq.com

Table of Contents

1. Introductions

This User Manual explains the operation principles and technical specification of the “CRYO XC™” and “CRYO XC™ Plus” cryotherapy chamber (referred to as the "Unit").

During the operation of the unit, general rules for work with electrical devices and safety guidelines for the handling and use of gases must be followed.

Warranties

If the unit is resold/transferred to another owner, or transported to another location, this manual must be attached. In such case, it is advised to inform the manufacturer or an authorized representative and request disassembly/assembly.

Warranties are not transferable. The new owner of a used device may request to purchase a parts or service warranty for the product from Cryoniq s.r.o. or authorized distributors. However, obtaining the parts or service warranty is not guaranteed and acceptance of such device and service terms are decided on a case by case basis.

Each unit comes with a Warranty Sheet that defines the date the warranty comes into effect and when it expires.

When a decision is made to completely abandon the use of the unit, parts that may pose a safety risk such as electronic components may be potential sources of pollution and they must be processed in accordance with the local environmental regulations.

Certification

Reach out to support@cryoniq.com for the most accurate information about Certification of the CRYO XC™ & CRYO XC™ Plus.

2. Whole-Body Cryotherapy & the CRYO XC™ - Cryotherapy Chamber

2.1. What is Whole Body Cryotherapy?

2.1.1. Whole Body Cryotherapy (WBC) is a wellness regimen that exposes the human body to extremely cold temperatures for a short period of time inside a specially designed device. WBC has been developed to evolve the diverse applications of cold such as the age-old ice bath and ice packs into a much quicker, more accessible and invigorating form of recovery. Much like the ice bath, ice packs and other applications of cold, whole-body cryotherapy can positively affect the user's well-being.

2.2. What is the CRYO XC™ - Cryotherapy Chamber and what does it do?

2.2.1. The CRYO XC™ is a non-medical device specially designed for the rapid exposure of the user's body to extremely cold temperatures ranging from -110°C to -140°C | -170°F to -220°F.

2.2.2. The CRYO XC™ creates a vortex of cold air around the user inside the cryo cabin with the goal of conditioning their body for two to three minutes leading to a rejuvenated feeling throughout the whole body.

2.3. Who uses the CRYO XC™?

2.3.1. The CRYO XC™ is used by people with both an active and sedentary lifestyle, in amateur & pro sports, by people that enjoy exposure to extremely cold temperatures, ice baths users, those looking to build up their resistance and improve their overall well-being.

2.3.2. The CRYO XC™ is used in fitness centers & gyms, sports facilities, medical facilities, wellness, spa, recovery businesses, and for private home use.

2.4. How should the CRYO XC™ be operated?

2.4.1. The use of the CRYO XC™ requires an operator present at all times to watch over the User's well-being.

2.4.2. The Operator always stands on the side where the operator touchscreen is installed.

2.4.3. The User stands on the platform with their neck positioned at rim height at the top of the User cabin.

2.4.4. The User cabin is enclosed from the top using a safety collar which intensifies the session and improves circulation of air inside the User cabin.

2.5. **Who shouldn't use the CRYO XC™ and What are the contraindications?**

2.5.1. People with heart and blood-pressure related medical conditions – hypertension, past history of heart attacks, stroke, heart disease.

2.5.2. Pregnant women

2.5.3. Cancer sufferers, people with tumors.

2.5.4. Diabetes sufferers

2.5.5. People with deep vein thrombosis (DVT) and pulmonary embolism (PE).

2.5.6. Raynaud's syndrome, intolerance, or allergy to cold/hypersensitivity to cold

2.5.7. Children under age 15

2.5.8. For the extended list of Contraindications please go to www.cryoniq.com

2.6. **What are the risks associated with the use of liquid nitrogen/nitrogen gas and exposure to extremely cold air in a cryotherapy chamber?**

2.6.1. Frostbite/ice burn - is damage to the skin caused by extreme cold. It can occur when the skin, nerves, and blood vessels below the top layer of the skin freeze. Frostbite can affect not only deeper layers of skin, but also muscles, bones, and blood vessels. The extremities, such as the hands and feet, are at greater risk because they are more susceptible to heat loss.

2.6.2. Cold urticaria (hives) - is an allergic condition that causes red, itchy rashes on the skin after exposure to the cold.

2.6.3. Redness/Reddened skin – Mild irritation from cold exposure.

2.6.4. Frozen limb – Freezing a limb with nitrogen gas/liquid nitrogen can cause significant damage to the blood vessels and nerves in the affected area. The extent of the damage will depend on how long the limb was frozen and how cold it got.

2.6.5. Cold panniculitis - is the crystallization of subcutaneous fat with subsequent inflammation in response to cold injury.

2.6.6. Asphyxia/Asphyxiation - is a condition of deficient supply of oxygen to the body which arises from abnormal breathing or deprivation of oxygen. This can lead to loss of consciousness, brain injury, and death.

2.7. **How to minimize User's exposure to mentioned risks?**

2.7.1. The Operator and User must follow the CRYO XC™ Session Protocol at all times or refrain from operating or using the CRYO XC™ Cryotherapy Chamber.

2.8. **What to do in case a User/Operator experiences an injury?**

2.8.1. Quickly wash the affected area with tap water for a few minutes.

2.8.2. Seek medical assistance immediately.

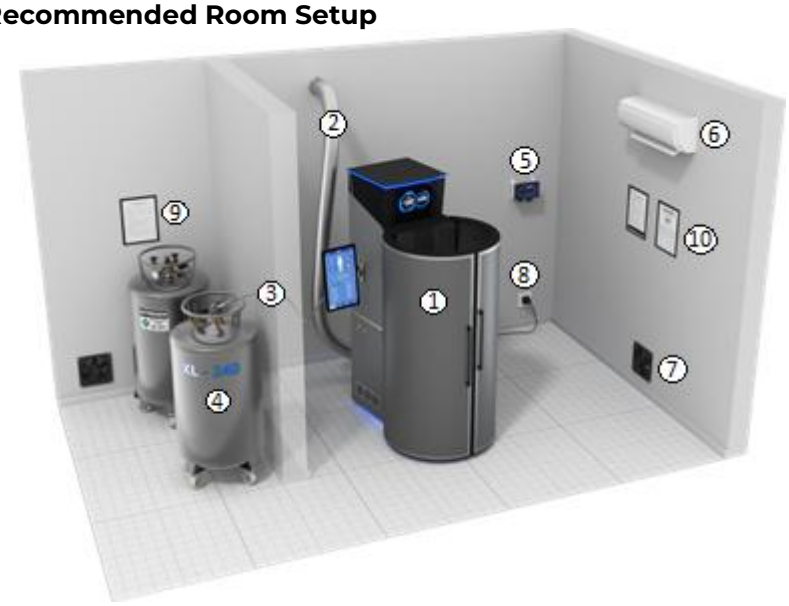
2.8.3. The person responsible for operating the equipment must file an accident report where they will provide details of the accident and send a copy to support@cryoniq.com

3. Technical Requirements for the installation of a Cryotherapy Chamber

The following section discusses the requirements of the CRYO XC™ and provides recommendations for how to set up the cryotherapy room and facilities.

3.1. CRYO XC™ Pressurized System Recommended Room Setup

1) CRYO XC™ | Plus CRYO XC™
2) Ventilation Pipe
3) Cryogenic Transfer Hose
4) Storage Tank
5) Oxygen Monitor
6) Fresh Air Flow – AC unit
7) Exhaust Vent
8) Electrical Outlet
9) Safety Guidelines
10) Operation Guidelines



3.2. CRYO XC™ Non-Pressurized System Recommended Room Setup

1) CRYO XC™ | Plus CRYO XC™
2) Ventilation Pipe
3) Oxygen Monitor
4) Fresh Air Flow
5) Exhaust Vent
6) Electrical Outlet
7) Safety Guidelines
8) Operation Guidelines

*The Recommended Room setup varies for all locations as all facilities and installations have different requirements. These include:

1) Where the liquid nitrogen tanks are refilled.
2) Where the liquid nitrogen tanks are being stored.
3) Position of the room where the CRYO XC™ Cryotherapy Chamber is installed within a building and within the facilities such as basements, upper floors of a building.
4) Available options for installing the ventilation pipe or exhaust vents.

3.3. **Physical Specification and Requirements**

3.3.1. Physical Requirements of the CRYO XC™ Plus and CRYO XC™

3.3.1.1. The CRYO XC™ requires a room with an area of at least 10 m2 / 110 sq ft and the room must be at least 226 cm / 7ft 5 inches tall.

3.3.1.2. The physical dimensions of the CRYO XC™ Plus and the CRYO XC™ are the same at 222 cm x 90 cm x 150 cm / 7ft 3 in x 3ft x 5ft.

3.4. **Electrical Requirements**

The unit must be connected to a dedicated electrical circuit with no other appliances.
In case of electrical issues, the unit has an emergency switch.

Voltage:	230V
Electrical Frequency:	50/60 Hz
Amperes (Amps):	20A
Circuit Breaker:	Requires a 20A circuit breaker
Power Plug:	Comes standard with a type E plug - European type (must have a 20A fuse in the plug)
Max Power Usage:	4000W
Power On but Idle:	140W
In Session:	1000W
During Drying:	3400W
Risks & Hazards:	Electric shock; damaged components, damaged electrical circuit
Other Requirements	The electrical power outlet of the unit must be grounded.

3.5. **Safety requirements for the storage and use of Liquid Nitrogen**

3.4.1. The CRYO XC™ requires liquid nitrogen (LN2) to operate – In its natural state, nitrogen is a non-toxic, non-combustible inert gas that makes up 80% of the Earth's atmosphere.

3.4.2. In its liquid form Liquid Nitrogen has properties that allow us to easily store and use it whenever required. Liquid nitrogen has a boiling temperature of -196°C / -320°F. The ability to quickly regulate the temperature of air and the speed of heat exchange between solid materials offer the ideal combination for use in nitrogen-cooled cryotherapy systems.

3.4.3. All facilities where tanks holding liquid nitrogen are being stored and used for the purposes of whole-body cryotherapy in the CRYO XC™ Unit must make certain adjustments to comply with safety regulations and follow a set of rules.

3.4.3.1. Exhaust Pipe

3.4.3.1.1. An exhaust pipe must be installed from the exhaust vent on the CRYO XC™ to a vent leading outside.

3.4.3.1.2. The exhaust vent flushes out air from inside the User cabin after sessions and during drying.

3.4.3.1.3. The exhaust on the unit is 5" in diameter. We recommend installing a 5" vent on the wall and connecting it to the unit with a 5" flexible aluminum duct pipe.

3.4.3.1.4. The blower fan installed inside the CRYO XC™ unit actively pushes air out and no modifications are required on the piping once the piping is connected.

3.4.3.2. Ventilation Requirements/AC

3.4.3.2.1. As the use of nitrogen can negatively affect oxygen saturation within the cryo room, ventilation is recommended to ensure safe conditions.

3.4.3.2.2. The cryo room must not be a confined space without any windows or ventilation.

3.4.3.2.3. Forced Ventilation and air conditioning are strongly recommended to avoid oxygen depletion in the room.

3.4.3.2.4. Forced ventilation should ensure at least 6 exchanges of the entire volume of air within the room in one hour.

3.4.3.2.5. Installing the unit in a basement or other confined space

3.4.3.2.5.1. Rooms in basements are not recommended for the installation of the CRYO XC™ Cryotherapy Chamber. In case the unit is installed in a basement or a low-lying room, the installation of a ventilation

system with the required air exchange rates is a critical requirement.

3.4.3.2.5.2. If the room does not comply with these requirements, then a cryotherapy Unit should not be used in the room.

3.4.3.2.6. The room may be sufficient in size to not necessitate forced ventilation, that can only be determined during a risk assessment performed either by CRYONiQ or a liquid nitrogen supplier. The risk assessment is only advisory and does not provide any legal guarantees and liability shall not carry over to either supplier under any circumstances.

3.4.3.3. Other Requirements

3.4.3.3.1. Installation of an oxygen monitor is highly advised. Safe operation requires oxygen levels to be maintained at a level between 19% - 20,5% O2 at all times.

3.4.3.3.2. The relative air humidity inside the room should be no more than 40%. Higher levels of humidity.

3.4.3.3.2.1. can affect the moisture level of the User's skin surface creating the risk of reddening or frostbite.

3.4.3.3.2.2. can cause the buildup of condensation inside the vapor mechanism.

3.4.3.3.3. The room temperature during operation should remain between 15°C to 25°C / 60°F to 75°F.

3.4.3.3.4. The equipment must be installed on a flat surface. Installing the unit on an uneven surface may negatively affect performance.

3.4.3.3.5. The distance between the unit and surrounding walls should be no less than 50 cm / 20 inches.

4. Operating the CRYO XC™ Plus and CRYO XC™

The following section discusses how Operator Training takes place and what duties the Operator has during operation.

4.1. **Operator Training**

4.1.1. All future Operators are required to pass a training session performed by a CRYONiQ technician/authorized representative or otherwise assigned representative.

4.1.2. The Operator can only become certified for the use of cryotherapy equipment manufactured and distributed by CRYONiQ or its affiliates through a training session with an authorized technician.

4.1.3. Operator Training takes the trainees through the following topics:

a. Introduction
b. About Whole-Body Cryotherapy & the CRYO XC™
c. Contraindications to Cryotherapy
d. Safety Requirements for the CRYO XC™
e. Technical Requirements for the CRYO XC™
f. Operator Requirements
g. CRYO XC™ Plus / CRYO XC™ unit work principles
h. Liquid Nitrogen Supply – Pressurized System or Non-Pressurized System (Depending on the installed system)
i. Powering Up the CRYO XC™ Cryotherapy Chamber
j. CRYO XC™ Operator Interface
k. CRYO XC™ Session Protocol
l. CRYO XC™ Session Settings - Temperature, Duration and FILL TIME
m. Drying Mode
n. CRYO XC™ Thermal Contrast Cryotherapy Mode
o. Understanding Fill Time in the CRYO XC™ Non-Pressurized System
p. Understanding Fill Time in the CRYO XC™ Pressurized System
q. Limitation of Liability & Unit Performance
r. Users experience in the CRYO XC™
s. Risk Factors
t. Consumption of the unit / Efficiency in Operation
u. Maintenance Protocol
v. Consumables on the CRYO XC™
w. CRYO XC™ Action Log
x. Medical Disclaimer
y. Troubleshooting
z. Marketing Advice
aa. Questions
bb. Final Words

4.2. **Operators' Responsibilities**

4.2.1. The Operator has the responsibility to inform the user of the contraindications for the use of whole-body cryotherapy and entry into the unit. If the User has a medical condition listed in the WBC contraindications, then the User should refrain from using cryotherapy.

4.2.2. The use of the Unit requires an Operator present at all times throughout a session.

4.2.3. Safety features are built-in to assist the Operator, but the Operator must never rely solely on the cryotherapy Unit to watch over the User's well-being whether there are safety features built-in to the Unit or not. In addition, all actions taken on the Unit are recorded by the system Log which ensures that CRYONiQ technicians can trace all actions performed on the Unit.

4.2.4. Operators are required to report any anomalies or defects noticed during operation of the equipment. Any technical questions must be addressed to support@cryoniq.com

4.4. **Who is allowed to Operate the Unit?**

4.4.1. The Unit must never be both operated and used by the User. An Operator, whether in public or private settings, must oversee the session and wellbeing of the User.

4.4.2. The Unit can only be used by trained staff. The unit must not be used by people with limited physical, sensory and/or mental abilities, as well as persons with lack of experience and knowledge about safety requirements during operation

4.5. **Operator Certification**

4.5.1. Operator Certificates are issued only to those that satisfy the primary prerequisites and those who have demonstrated a deep understanding of the safety and operation.

4.5.2. Operators can begin to operate the Unit under the condition that they follow all the Rules and Guidelines provided by the manufacturer.


CRYONiQ

CRYO XC™ Certified Operator

John Smith

CRYONiQ declares that the aforementioned operator has obtained training required to handle and operate the CRYO XC™ whole-body cryotherapy equipment and is authorized to conduct sessions for the general public.

Granted by CRYONiQ this 1st day of March, 2022

5. Operating the CRYO XC™ Plus & CRYO XC™

5.1. Unit Work Principles

5.1.1. The Vapor Mechanism inside the Unit continuously processes liquid nitrogen together with ambient air to obtain a very cold air mixture, that is subsequently circulated through a heat-insulated cabin.

5.1.2. The cooled air mixture which enters the Unit cabin through the outlet on the right-hand side of the frame. The cool air is subsequently recirculated inside the Unit cabin by drawing it back into the vapor mechanism through the inlet on the left-hand side of the frame of the cryo cabin.

5.2. Parts that form the CRYO XC™

5.2.1. The CRYO XC™ Plus / CRYO XC™ consists of 3 main parts and several accessories that differ for each of the two systems. In addition, other parts may be required to be able to run the machine.

1) The Top Block (Tower) consists of the:
   a) vapor mechanism where liquid nitrogen is processed into a gas. the machines main electrical box
   b) the impeller motor that processes liquid nitrogen.
   c) the multimedia screen which displays the temperature and time to the User.
   d) operator touchscreen which is attached to the tower using an adjustable mount bracket. The Operator Touchscreen controls the operation of the machine.
   e) top LED strip for illumination
   f) solenoid valve connecting the tank to the vapor mechanism in the CRYO XC™ Pressurized system.
   g) safety relief vent on the piping that releases excess pressure in the CRYO XC™ Pressurized system.
   h) Inlet pipe for LN2 connecting the nitrogen tank to the CRYO XC™ Pressurized system.
   i) piping where the transfer hose connects to the vapor mechanism in the CRYO XC™ Non-Pressurized system.

2) The Bottom Block (Tower) consists of:
    a) the technical shelf with two heaters and blower fan
    b) the blower fan/exhaust fan
    c) two heaters used for drying and thermal contrast sessions.
    d) the dewar transfer motor in the Non-Pressurized system
    e) the Power Button (ON/OFF button)
    f) the emergency button that cuts power to the machine in case of an emergency.
    g) the Unit's main circuit breaker in case there is any work being done on the Unit.
    h) the bottom LED strip for illumination.
    i) the oxygen sensor that tracks the oxygen level in the room in case its part of the configuration of the machine

3) The Unit Cabin consists of the:
    a) door frame that is attached to the tower. The doors are hinged onto the door frame.
    b) space where the cryo session is administered.
    c) cabin rims which guide the flow of the cooled air mixture
    d) User lift.
    e) thermal sensor.
    f) the tap-to-stop in case its part of the configuration of the Unit.
    g) the door-sensor in case its part of the configuration of the Unit.
    h) The cabin doors are designed to create a vortex for better circulation around the User.

4) Accessories included with the CRYO XC™ Non-Pressurized System:
    a) Two 50-liter Non-Pressurized Dewar tank(s)
    b) Dewar Transfer Mechanism
    c) Safe footwear, safety glasses, safety gloves, safety collar
    d) 10 cm/4" Booster pads/Cushions
    e) User Manual, Quick-guides

5) Accessories included with the CRYO XC™ Pressurized System:
    a) Safe footwear, safety glasses, safety gloves, safety collar
    b) 10 cm/4" Booster pads/Cushions
    c) User Manual, Quick-guides
6) Other - Useful Accessories generally not included that are often required.
    a) Pressurized tank(s) with various capacities depending on the equipment owner's needs.

b) Additional 50-liter Non-Pressurized Dewar tanks
c) Regular and Vacuum Jacketed LN2 Transfer hoses
d) Additional safe footwear, safety glasses, safety gloves, safety collar

5.3. CRYO XC™ - Liquid Nitrogen Supply and Handling LN2 Tanks

5.3.1. Whether handling a pressurized or non-pressurized tank the nitrogen handlers must wear PPE while handling a liquid nitrogen (LN2) tank. PPE includes protective glasses, protective gloves, and safe footwear with a full upper (top of the shoe).

5.3.2. The CRYO XC™ offers two different systems for liquid nitrogen storage and supply –

A) CRYO XC™ Non-Pressurized System CRYO XC™ Non-Pressurized System
B) CRYO XC™ Pressurized System

5.3.3. A) Non-Pressurized System – Nitrogen tank specification, Refilling and Consumption

5.3.3.1. Non-pressurized tanks (also called dewar vessels) used with the Unit hold 50 liters of liquid nitrogen.

5.3.3.2. Non-pressurized tanks used with the CRYO XC™ Non-Pressurized system weigh about 55 Kg/120lbs when full and 14 Kg/30lbs when empty.

5.3.3.3. Non-pressurized tanks can be carried by two people over a step or over a set of stairs if necessary.

5.3.3.4. LN2 tanks must be filled outside in an open area and can be rolled indoors on the roller platform.

5.3.3.5. Operators/Nitrogen handlers shall regularly use the measuring stick to determine the amount of liquid nitrogen inside the nitrogen tanks. The measuring stick has 5 marks which determine the remaining amount of LN2 in the tank. From top to bottom, the marks signal 100%, 80%, 60%, 40%, 20% of LN2 remaining.

5.3.3.6. It is the operators and selected nitrogen handlers' duty to ensure there is always sufficient LN2 on-site.

5.3.3.7. The goal is to provide the best quality session for the user, therefore the LN2 handlers and operators must ensure that there is at least an estimated minimum of 15% of LN2 inside the non-pressurized tank before conducting a session for the user. If the nitrogen level falls below 15%, it is recommended that the nitrogen tank is switched for another full tank.

5.3.3.8. One non-pressurized nitrogen tank can handle from 6 to 10 sessions depending on the:

a. Duration of the performed sessions (e.g. Operating for 2 minutes vs 3 minutes will result in lower volume of LN2 consumed)
b. Intensity of the performed sessions (e.g. temperature setting at -120°C vs -150°C will result in lower amount of LN2 consumed)
c. Efficiency in operation (whether the sessions are consecutive or if there are longer gaps of time between sessions).
d. Please see Limitations of Liability & Performance

5.3.4. Non-Pressurized System – Preparing to work with the unit and attaching the Transfer Mechanism

5.3.4.1. Before using the machine for the day, the operator must check the LN2 level inside the nitrogen tank using the measuring stick.

5.3.4.2. The goal is to provide the best quality session for the user, the LN2 handlers and operator will therefore ensure that there is at least an estimated minimum of 15% of LN2 inside the tank before conducting a session for the user.

5.3.4.3. It is the operators and selected nitrogen handlers' duty to ensure there is always sufficient LN2 on-site.

5.3.4.4. When attaching the transfer mechanism onto the nitrogen tank – the operator must wear PPE – protective gloves, protective glasses and safe footwear.

5.3.4.5. The operator shall take the cap off the nitrogen tank and slowly insert the transfer mechanism pipe into the nitrogen tank until the clicking mechanism sits on top of the nitrogen tank. – This procedure must be performed slowly as liquid nitrogen may be pushed up by the mass of the inserted pipe combined with the difference in temperature between the pipe and the liquid – this is especially so when the tank is full.

5.3.4.6. Once the pipe on the transfer mechanism is fully inserted into the nitrogen tank and the black locking mechanism is sitting on the neck, push the outer ring of the locking mechanism down to lock the mechanism onto the nitrogen tank.

5.3.4.7. Once the locking mechanism has clicked, try to pull the non-moving black silon section (where the nitrogen transfer pipe enters from the top) upwards to test if the transfer mechanism is locked in correctly. If it's sitting tight, the mechanism is ready.

5.3.5. B) Pressurized System - Nitrogen tank specification, Refilling and Consumption

5.3.5.1. The pressurized tanks/cylinders used with the CRYO XC™ Pressurized system vary in size and capacity due to various availability from local suppliers.

5.3.5.2. The capacities most frequently available are 120 L (liters), 160 L, 200 L, 240 L, 320 L or bulk capacities starting from 500 L.

5.3.5.3. The nitrogen tanks most frequently used with the CRYO XC™ are 230 Liters in capacity.

5.3.5.4. The standard 230 L nitrogen tank weighs approximately 140 kg/310 lbs when empty and about 320 Kg/700 lbs when full.

5.3.5.5. A flat surface leading into the nitrogen storage room/cryo room is ideal and setup. Ramps are used occasionally to move tanks over stairs. Elevators/lifts can be used to transport nitrogen tanks but must have the required load capacity.

5.3.5.6. LN2 tanks must be filled outside in an open area.

5.3.5.7. The Operator/Nitrogen handler must regularly check the LN2 gauge (physical gauge or digital gauge displayed in %) on the pressurized nitrogen tank to determine if they have sufficient LN2 to proceed with a session. The minimum amount in a nitrogen tank to perform a session should be 5%. However, this will depend on several factors such as the capacity of the nitrogen tank and the condition the tank is in. CRYONiQ provides no guarantees on equipment not supplied by CRYONiQ.

5.3.5.8. The goal is to provide the best quality session for the user, therefore the LN2 handlers and operators must ensure that there is at least an estimated minimum of 5% of LN2 inside the tank before conducting a session for the user. If the nitrogen level falls below 5%, it is recommended that the nitrogen tank is switched for another full tank.

5.3.5.9. It is the operators and selected nitrogen handlers' duty to ensure there is always sufficient LN2 on-site.

5.3.5.10. Refilling the pressurized nitrogen tank will require disconnecting the nitrogen transfer hose from the nitrogen tank.

5.3.5.11. The nitrogen transfer hose is never disconnected from the CRYO XC™ inlet pipe to refill the nitrogen tank.

5.3.5.12. A 230 L pressurized nitrogen tank can generally carry out between 15 to 30 sessions depending on the following:

a. Duration of the performed sessions (e.g. Operating for 2 minutes vs 3 minutes will result in lower volume of LN2 consumed)

b. Intensity of the performed sessions (e.g. temperature setting at -120°C vs -150°C will result in lower amount of LN2 consumed)
c. Efficiency in operation (whether the sessions are consecutive or if there are longer gaps of time between sessions).
d. Please see Limitations of Liability & Performance

5.3.5.13. The fitting on the inlet pipe on the CRYO XC™ Pressurized System is a CGA 295 fitting / 3/4"-16 JIC. While connecting the transfer hose to the inlet pipe, both fittings must be aligned at a straight angle without creating any stress on the threads while tightening the union. Misalignment of the transfer hose and the pipe could lead to damage on the threads, potentially leading to leaks.

5.3.5.14. On CRYO XC™ units pre-2021 that don't include the safety relief vent on the inlet pipe a safety relief vent must be installed on the transfer hose. The vent must be set to release excess pressure at 6 BAR / 87 psi in order to protect the solenoid valve. Failure to comply with this requirement can cause pressure buildup inside the transfer hose which can lead to damage on the solenoid valve.

5.3.6. Pressurized System – Preparing to work with the unit and attaching the Transfer Hose

5.3.6.1. Before using the machine for the day, the operator must check the LN2 level inside the nitrogen tank by checking the capacity gauge. The tank should have at least 5% capacity remaining to run a session, preferably the tank should be changed once it falls to 5% capacity remaining as it will be increasingly difficult to draw out liquid nitrogen from the tank.

5.3.6.2. The goal is to provide the best quality session for the user, the LN2 handlers and operator will therefore ensure that there is at least an estimated minimum of 5% of LN2 inside the tank before conducting a session for the user.

5.3.6.3. It is the operators and selected nitrogen handlers' duty to ensure there is always sufficient LN2 on-site.

5.3.6.4. Before using the machine for the day, the operator must check the pressure level in the nitrogen tank by checking the pressure gauge. Before proceeding with startup, the Operator must ensure the pressure level shown on the gauge is 1,5 BAR / 22 psi.

5.3.6.5. Once the Operator has confirmed that there is enough LN2 in the tank and the pressure in the tank is 1,5 BAR / 22 psi the Operator can open the main valve on the nitrogen tank.

5.4. Powering Up the CRYO XC™ Cryotherapy Chamber

5.4.1. The operator will check if the Power Button also called the ON/OFF button under the operator touchscreen is in the ON or OFF position –

a. ON - this means that the button will be lit up in blue and pushed in.

b. OFF - this means that the button will be dark.

5.4.2. In case the LED light around the Power button is lit up (therefore it is in the ON position when the operator comes to start the machine up) but both screens on the machine are black and not responding to touch, this means the unit was likely left to dry and subsequently automatically shut down at the end of the last operation cycle.

5.4.3. The operator will need to push the Power button to put the unit into OFF mode, then wait 15 seconds and then finally push the Power button to start the machine.

5.4.4. If the main computer signals a tone in the first two seconds after starting up, and within 10 seconds the operator sees the screen loading with the words American Megatrends, the machine is correctly starting up. The loading process can take up to 90 seconds.

5.4.5. If the unit doesn't signal a tone and doesn't show any screens coming on, the operator may have previously turned off the system abruptly, this will require pushing the Power button on the rear side of the touchscreen (this button is usually green while the PC is running).

5.4.6. If the unit doesn't come on, the operator is advised to hard-reset the machine, first by shutting the unit down by pushing the blue lit-up Power Button which will then leave the Power button dark (not lit up). Then proceed to push the Power Button to turn the unit on.

5.4.7. If this doesn't result with the screens displaying the interface - the operator can once again hard-reset the unit by pushing the emergency button which cuts the electricity entirely. The operator will then need to turn the emergency button to return it to operation mode. Push the Power Button to power up the unit.

5.4.8. If the machine turns on correctly proceed to the next step.

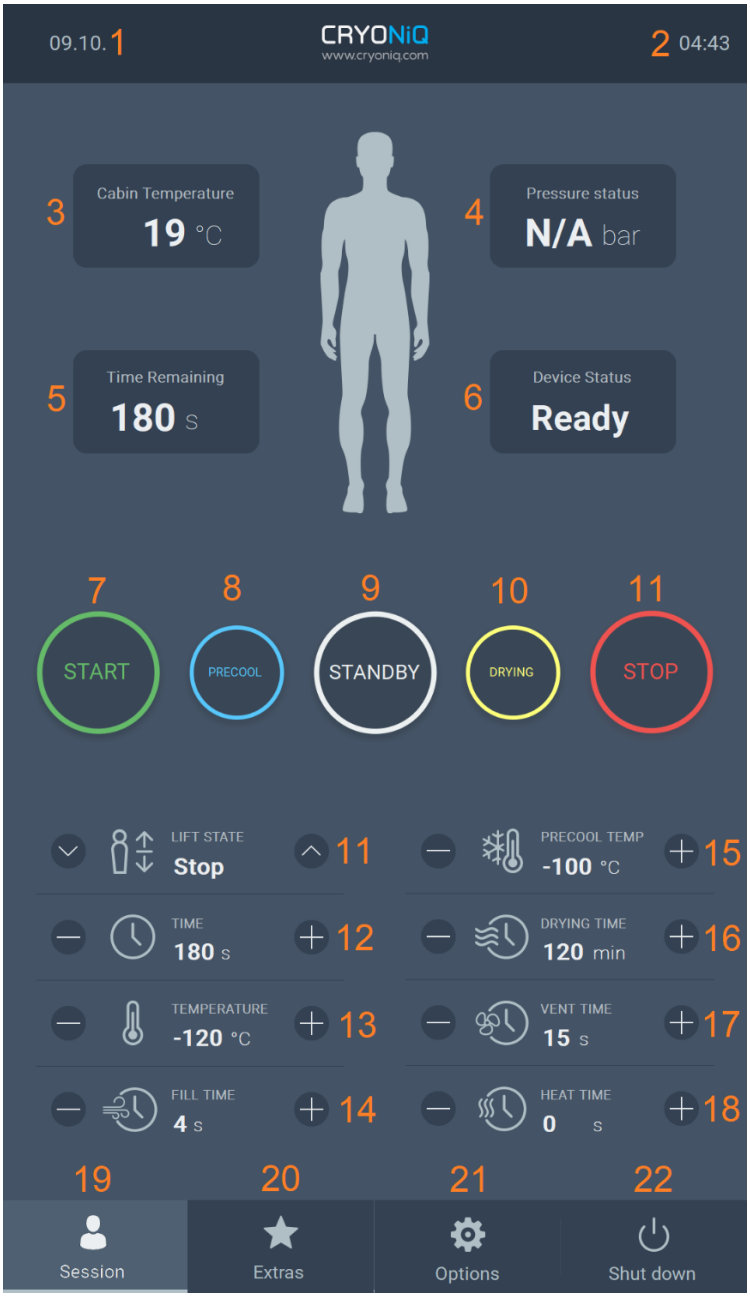
5.4.9. If these instructions don't result in the machine functioning correctly, please proceed to contact CRYONiQ support at support@cryoniq.com

5.4.10. In CRYO XC™ units manufactured before October 2019, the Circuit Breaker on the rear side of the unit acts as the ON/OFF button.

5.5. CRYO XC™ Operator Interface

5.5.1. Session Menu

Once we've turned on the unit we are directed into the Session Screen which is the primary screen for the operation of the unit.



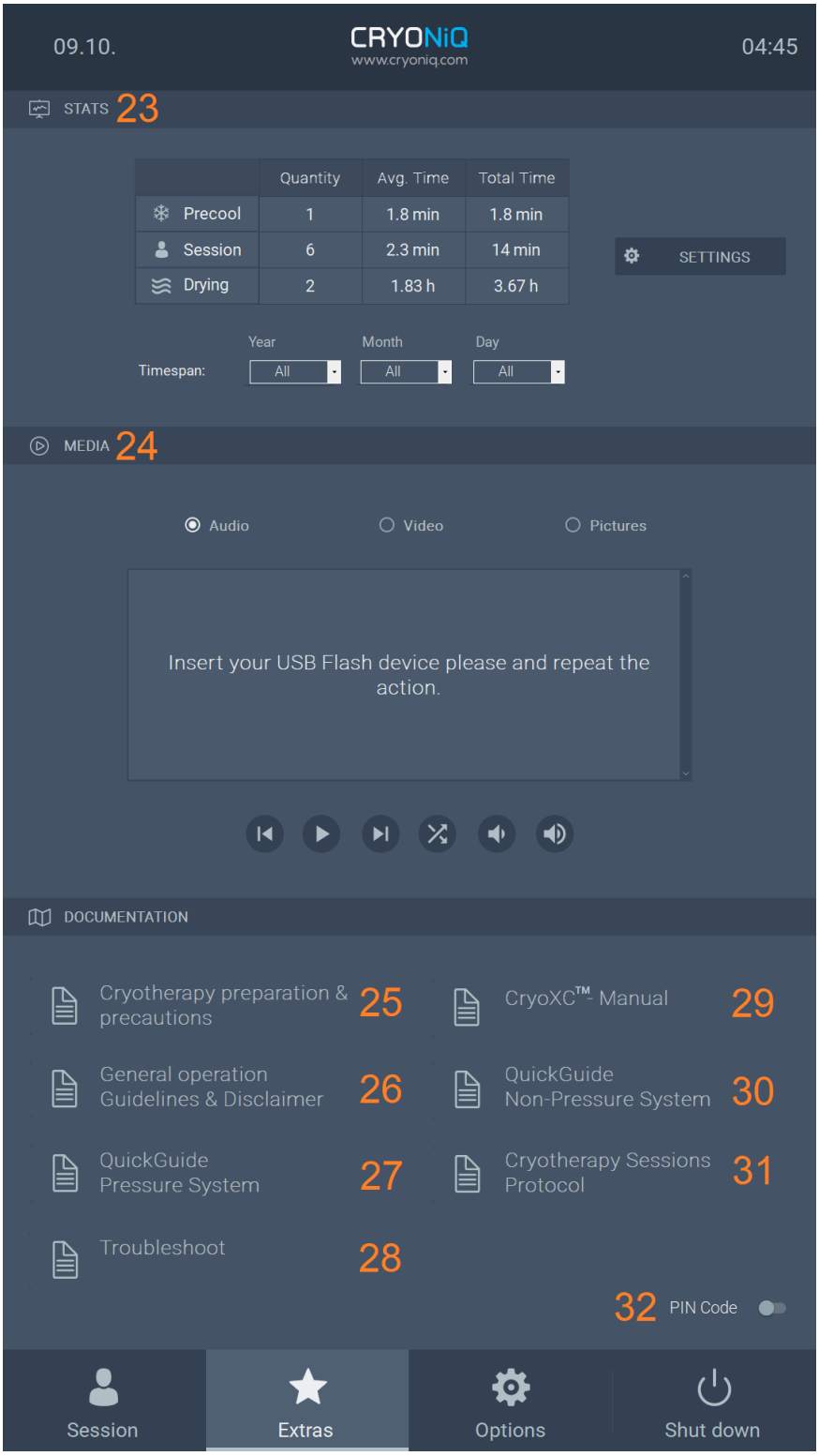
GENERAL UNIT STATUS
1 Date
2 Current Time
3 Current Cabin Temperature
4 Pressure Status in Pipe (Optimal Pressure 1,5 BAR/22 psi)
(N/A for Non-Pressurized System)
5 Session Time Remaining
(from 60 to a maximum of 180 seconds)

ACTION
7 Start Session (Begins session)
8 Start PRECOOL (Prepares the unit by precooling it down to the set temperature and stops once it has achieved the set temperature); (Duration of PRECOOL is 0 - 5 minutes)
9 Start Standby Mode (Keeps the Vapor Mechanism in freezing temperatures by periodically bursting LN2 into the System)
10 Start Drying (Maintenance Mode)
11 STOP (any ongoing activity)

SESSION SETTINGS
11 Lift UP/DOWN (Operates the safety lift 30 cm up/down) Press once to move automatically to Top/Bottom respectively); Press again to stop at current point; Press & hold to adjust height manually,
12 Session Time Settings (Duration 0 - 180s)
13 Session Goal TEMPERATURE Settings
(-90°C to -160°C / -120°F to -260°F)
14 Session FILL TIME – 0 to 9 seconds (Pressurized System - Sets how long the solenoid valve is open to transfer LN2 into the system | Non-Pressurized System – Sets how long the transfer mechanism pushes LN2 into the system)
15 PRECOOL TEMP Settings – Adjusts the PRECOOL temperature setting. Optimal is -100°C / -150°F.
16 DRYING TIME Settings (Unit Maintenance; Duration from 15 mins to 180 mins)
17 Exhaust VENT Settings (Nitrogen Vapor Extraction cabin after PRECOOL and Regular Session; Duration settings 0 - 20 seconds)
18 Session HEAT Settings (Heat - Cold contrast therapy; Duration 0 - 3 mins)

MENU SELECTION
19 SESSION BAR (Unit Status, session settings and maintenance settings,)
20 EXTRAS BAR (Session Stats, media settings, Unit documentation)
21 OPTIONS BAR (temperature display settings, Standby Mode settings, LED lights settings, Multimedia Display settings, Language settings, Wi-Fi settings
22 SHUT DOWN Unit

5.5.2. Extras Menu



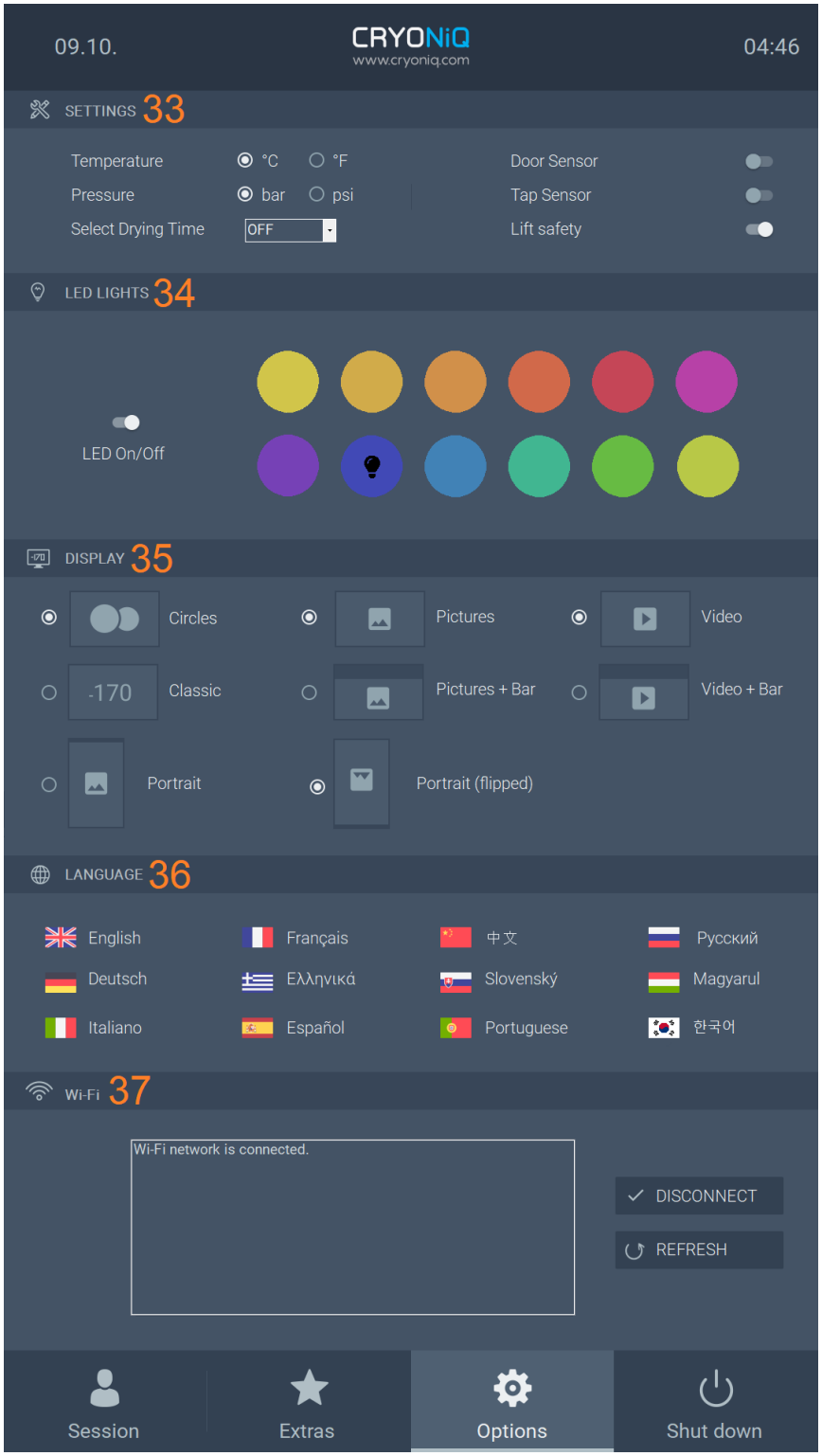
23 **STATS**
The Stats screen allows the user to track previous usage of the unit based on a set timeframe.
The Stats screen includes the counter for Precool, Session, and Drying. The stats can be used for tracking liquid nitrogen consumption in the unit and for a better picture of the efficiency of operation on the unit.

SETTINGS SCREEN
RESET - Resets the session counter
EXPORT - Exports data to an external drive

24 **MEDIA**
Offers the option to play Audio and display Video & Images on the Multimedia Screen

DOCUMENTATION MENU
Documentation gives the Operator quick access to learn about operation and the unit
25 Cryotherapy Preparation & Precautions (Graphic)
26 General Operation Guidelines & Disclaimer
27 QuickGuide – CRYO XC™ Pressurized System (Short guide on how to Use the Unit)
28 Troubleshooting & Service Manual
29 CRYO XC™ User Manual (Operation Manual)
30 QuickGuide – CRYO XC™ Non-Pressurized System (Short guide on how to Use the Unit)
31 Cryotherapy Sessions Protocol

5.5.3. Options Menu



OTHER SETTINGS
33 SETTINGS - Switch temperature display between Celsius & Fahrenheit;

34 **LED LIGHTS**
ON/OFF - Switch the LED lighting ON or OFF

COLOR SWATCH - The color swatch allows changing the LED lights on the Unit, the selected color contains a lighbulb icon.

35 **Multimedia Display Options include:**
Circles - Default Temperature & Time Displayed

Classic - Temperature & Time Displayed
Portrait – Displays the screen in Portrait Mode
Pictures - Only displays pictures on the multimedia screen
Pictures + Bar - Displays pictures and the status bar on the multimedia screen
Portrait (flipped) - Displays the screen in Portrait (flipped) Mode
Video – Only displays Video on the multimedia screen
Video + Bar – Displays Video and the status bar on the multimedia screen

36 **LANGUAGE**
Options include:
English; French; Chinese; Russian; Deutsch; Greek; Slovak; Hungarian; Italian; Spanish, Portuguese

37 **Wi-Fi connection**
In order to connect to a Wi-Fi connection, the Operator needs to select an available Wi-Fi connection on the screen.

Once prompted, the Operator must enter the password.

Wi-Fi is built-in to connect the unit to the internet for service updates & Unit diagnostics.

5.6. **CRYO XC™ Session Settings and Session Protocol**

After learning about the basics of liquid nitrogen, the CRYO XC™ Cryotherapy Chamber, the various systems, risks and risk factors, we are ready to dive into Operation of the CRYO XC™.

5.6.1. Precool

5.6.1.1. Once we know we have enough liquid nitrogen in the tank and the machine has started up and the Operator Touchscreen is showing the program interface we can proceed to prepare the Unit for operation by performing a PRECOOL session.

5.6.1.2. If not placed on the User cabin already, place the safety collar over the top of the User cabin to get a better Precool session.

5.6.1.3. Now begin the Precool process. The Precool setting is always left unchanged at -100°C. It should take approximately 40 seconds to one minute to achieve -100°C. The cooling phase can be sped up with higher Fill Time (5 to 6 seconds), generally the less liquid nitrogen we have in the nitrogen tank, the higher the Fill time will be required. Precool prepares the vapor mechanism inside the machine for operation.

5.6.1.4. After Precooling the machine, we have about 5 minutes for the User to enter for it to be a good quality session.

5.6.1.5. If the User doesn't enter within 5 minutes of Precooling, we will need to repeat Precool if only for a short session/couple bursts.

5.6.2. User's Conduct in Session

5.6.2.1. The User must always wear protective gloves, protective footwear and socks inside the User Cabin.

5.6.2.2. The User must not wear jewelry or piercings inside the User cabin.

5.6.2.3. The User must not bend down inside the User cabin.

5.6.2.4. The User must keep their nose at a 15° angle in relation to the top rim while inside the User cabin. The User must always keep their chin above the cabin rim.

5.6.2.5. The User must not breathe inside the nitrogen saturated environment that is created in the User cabin.

5.6.2.6. The User must be positioned in the center of the lift platform.

5.6.2.7. The User must not block air pathways at the outlet on the right or the inlet on the left side inside the User cabin.

5.6.2.8. Whatever the Users size, the User must actively participate in ensuring that air circulation inside the unit is not blocked by the Users arm, shoulder, back or other part of the body. If the User blocks the air inside the User Cabin

from circulating, they are exposing themselves to an increased chance of redness and frostbite.

5.6.2.9. The User must ensure they never have water on their skin in any form. That includes moisture on their skin, damp skin, lotions. Water on skin is strictly forbidden. If the User discovers that they have water on their skin before the session, they must dry it before they can enter the User cabin. If the User discovers that they have water on their skin in any form, they must exit immediately.

5.6.2.10. The User must not touch or lean against the walls/doors of the User cabin at any time other than to exit. The walls may be icy or damp from the freezing conditions. The user may generate water as a result of touching the wall and defrosting the ice.

5.6.2.11. The User must rotate every 30 to 40 seconds. This is required because the main outlet of cold air inside the User Cabin is located on the right side which makes the air current in this area 10% more intense compared to the air current on the inlet on the left side of the User Cabin.

5.6.2.12. When starting a session, the client must always be facing the Operator.

5.6.2.13. All users must wait at least 4 hours between cryotherapy sessions. Double dipping or extending the session to longer than 3 minutes and 30 seconds is strictly disallowed.

5.6.2.14. The User must never self-operate the unit.

5.6.2.15. The User can open the Door at any point, only a magnet holds the doors together. If the User wishes to open the door, the User will need to push on one door only, never both doors as it is more difficult to open them both at the same time.

5.6.3. The Operator's Duty to the User

5.6.3.1. The Operator's primary duty is to ensure the safety of the User at all times and to avoid injury.

5.6.3.2. To do that, the Operator must ensure that they do not allow the User to have water on their skin in any form while they enter or throughout the session. That includes moisture on their skin, damp skin, or lotions. Water on skin during cryotherapy is strictly forbidden. If the User discovers that they have water on their skin prior to entering, they must dry their skin prior to entering. If the User discovers that they have water on their skin during the session, they must exit immediately. The Operator must investigate how the User got water on their skin.

5.6.3.3. Additionally, the Operator must ensure that the User does not block the circulation of air inside the User cabin under any circumstances. That

includes blocking the outlet, but also within the User cabin. That is why we ask the User to rotate throughout the session, at least every 30 to 40 seconds, cross their arms in front of their chest and keep them up.

5.6.3. Entering the User Cabin

5.6.4.1. A session for a User should only be performed after a fresh PRECOOL session or a recent User session (up to 10 minutes) had taken place prior to ensure quality of the session.

5.6.4.2. Once the User is ready to enter the cabin, the User will put on a robe and then ask the Operator to position themselves next to the Operator Touchscreen.

5.6.4.3. Using the Lift settings, the Operator will ensure that the lift has been lowered all the way down before they open the doors on the machine for the User. Depending on the height of the User entering the User cabin, the 10 cm booster pad can be used. Booster pads are usually used by people with a height of 165 cm / 5 ft 5 in and less.

5.6.4.4. The doors are opened by pulling on the handle of one door. Never on both doors as it is more difficult to open both doors together.

5.6.4.5. The User enters the User cabin.

5.6.4.6. The Operator brings up the lift so that the Users shoulders are at rim height. The Operator may use a stool to have better visibility of the position of the Users head, but only their head.

5.6.4.7. The User can now take off their robe and pass it to the Operator.

5.6.4.8. The User generally (97%) only wears underwear inside the User cabin. However, if the User does not feel comfortable undressing, there is a small minority of Users that do wear some form of clothing inside – especially for their first session.

5.6.4.9. If the User wishes to use the safety collar (about 90% of cryotherapy Users use the safety collar – it makes the session more intense, safer and it can save nitrogen), the Operator may now pass the safety collar to the User to place it over their head and around their neck. The Operator must ensure that the neck collar is tightened using the fastener on the neck collar and that the vapors from inside the User cabin will not be getting into the Users face.

5.6.4.10. Once the User is ready, the session can begin.

5.6.5. Session Settings - Temperature, Duration and FILL TIME

5.6.5.1. Before the session can begin, the Operator must set the Session Temperature, Time – or Duration of Session and LN2 FILL TIME.

5.6.5.2. For Users that have never tried the treatment before, Users that have never been in a CRYO XC™ Cryotherapy Chamber, User's that don't feel very comfortable doing the session or User's that are generally not very resistant to cold, the temperature setting must be set to between -110°C and -115°C | -165° and -175°F for the first three to four sessions. The session TIME setting must be set to between 120 to 140 seconds with great focus on the speed of FILL TIME. These settings should be used for at least the first 3 User's sessions to get the User familiarized to the experience.

5.6.5.3. With less extreme settings, we help keep the user safe and more comfortable. It's important to determine how the user responds to the treatment especially within the first few sessions and starting at temperatures around -115°C / -175°F is the best way to achieve that. Doing so, we avoid exposing any Users with hypersensitivity to cold, cold allergy or other conditions to needless risk. We also want the User to do more than one session and that is why we need to ensure that the User is comfortable each time they expose their body to the cold environment.

5.6.5.4. Session Settings

a. New User settings:
   - 1st session settings: -110°C / -165°C and 120 s
   - 2nd session settings: -115°C / -175°F and 140 s
   - 3rd session settings: -115°C / -175°F and 160s
   - 4th session settings: -120°C / -185°F and 160 s

b. After the 4th session the User and Operator can discuss whether the User feels comfortable remaining on mild settings of -125°C / -195°F for all future sessions:
   - 5th session settings: -125°C / -193°F and 180 s
   - 6th session settings: -125°C / -193°F and 180 s
   - 7th session settings: -125°C / -193°F and 180 s

c. Or if the User feels comfortable the Operator can continue gradually adjusting the temperature for subsequent sessions by 5°C/10°F down to -135°C / -210°F
   - 5th session settings: -125°C / -193°F and 180 s
   - 6th session settings: -130°C / -200°F and 180 s
   - 7th session settings: -135°C / -210°F and 180 s

d. The Operator must ensure that the Temperature inside the User Cabin never exceeds the set goal TEMPERATURE by more than 20°C / 35°F. This can achieved by adjusting the FILL Time setting according to the:

A) Current conditions in the Vapor mechanism.

B) The amount of liquid nitrogen remaining in the nitrogen tanks.

This differs in the case of both types of systems but fluctuates and requires more adjusting with the Non-Pressurized system.

C) The pressure in the pressurized nitrogen tank in the case of the Pressurized system.

D) The current temperature inside the User Cabin.

1) **Example 1**: CRYO XC™ Pressurized System

- 100% full pressurized nitrogen tank at 1,5 BAR / 22 psi
- TEMPERATURE setting on User Interface = -130°C / -202°F
- Current Temperature in User Cabin = -129°C / -200°C (As the Cabin Temperature has reached a temperature of one degree warmer than the goal Temperature, this is the moment when the system recognizes the need to transfer liquid nitrogen into the system)
    - If the Operator has FILL TIME set to 4 seconds that means the solenoid valve will be open for 4 seconds and the pressure in the nitrogen tank will transfer liquid nitrogen into the Vapor Mechanism for 4 seconds. With the given conditions, the likely maximum achieved temperature will be approximately in the range of -140°C to -150°C / -220°F to -240°F
    - If the Operator has FILL TIME set to 9 seconds that means the solenoid valve will be open for 9 seconds and the pressure in the nitrogen tank will transfer liquid nitrogen into the Vapor Mechanism for 9 seconds. With the given conditions, the maximum achieved temperature will likely surpass -160°C / -256°F

2) **Example 2**: CRYO XC™ Pressurized System
    1. 50% remaining in pressurized nitrogen tank at 1,5 BAR / 22 psi
    2. TEMPERATURE setting on User Interface = -120°C / -185°F
    3. Current Temperature in User Cabin = -119°C / -183°C (As the Cabin Temperature has reached a temperature of one degree warmer than the goal Temperature, this is the moment when the system recognizes the need to transfer liquid nitrogen into the system)
        a. If the Operator has FILL TIME set to 4 seconds that means the solenoid valve will be open for 4 seconds and the pressure in the nitrogen tank will be transferring liquid nitrogen into the Vapor Mechanism for 4 seconds. With the given conditions, the likely maximum achieved temperature will be approximately in the range of -130°C to -140°C / -200°F to -220°F
        b. If the Operator has FILL TIME set to 9 seconds then the solenoid valve will be open for 9 seconds and the pressure in the nitrogen tank will be transferring liquid nitrogen into the Vapor Mechanism for 9 seconds. With the given conditions, the likely maximum achieved temperature will surpass -150°C / -240°F

3) **Example 3**: CRYO XC™ Pressurized System
    1. 10% remaining in pressurized nitrogen tank at 1,5 BAR / 22 psi
    2. TEMPERATURE setting on User Interface = -120°C / -185°F
    3. Current Temperature in User Cabin = -119°C / -183°C (As the Cabin Temperature has reached a temperature of one degree warmer than the goal Temperature, this is the moment when the system recognizes the need to transfer liquid nitrogen into the system)
        a. If the Operator has FILL TIME set to 4 seconds that means the solenoid valve will be open for 4 seconds and the pressure in the nitrogen tank will be transferring liquid nitrogen into the Vapor Mechanism for 4 seconds. With the given conditions, the likely maximum achieved temperature will be approximately in the range of -125°C to -135°C / -193°F to -210°F

b. If the Operator has FILL TIME set to 9 seconds that means the solenoid valve will be open for 9 seconds and the pressure in the nitrogen tank will push liquid nitrogen into the Vapor Mechanism for 9 seconds. With the given conditions, the likely maximum achieved temperature will surpass -150°C / -240°F

4) **Example 4**: CRYO XC™ Non-Pressurized System
   1. 100% remaining in non-pressurized nitrogen tank
   2. TEMPERATURE setting on User Interface = -120°C / -185°F
   3. Current Temperature in User Cabin = -119°C / -183°C (As the Cabin Temperature has reached a temperature of one degree warmer than the goal Temperature, this is the moment when the system recognizes the need to transfer liquid nitrogen into the system)
      a. If the Operator has FILL TIME set to 5 seconds the transfer mechanism will run for 5 seconds and the likely maximum achieved temperature will be approximately in the range of -120°C to -125°C / -180°F to -193°F
      b. If the Operator has FILL TIME set to 9 seconds the maximum achieved temperature will surpass -160°C / -256°F

5) **Example 5**: CRYO XC™ Non-Pressurized System
   1. 50% remaining in non-pressurized nitrogen tank
   2. TEMPERATURE setting on User Interface = -120°C / -185°F
   3. Current Temperature in User Cabin = -119°C / -183°C (As the Cabin Temperature has reached a temperature of one degree warmer than the goal Temperature, this is the moment when the system recognizes the need to transfer liquid nitrogen into the system)
      a. If the Operator has FILL TIME set to 2 seconds the LN2 transfer mechanism will run for 2 seconds and the likely maximum achieved temperature will be approximately in the range of -120°C to -125°C / -180°F to -193°F
      b. If the Operator has FILL TIME set to 5 seconds the LN2 transfer mechanism will run for 5 seconds and the likely maximum achieved temperature will be approximately in the range of -130°C to -140°C / -200°F to -220°F

6) **Example 6:** CRYO XC™ Non-Pressurized System
    1. 20% remaining in non-pressurized nitrogen tank
    2. TEMPERATURE setting on User Interface = -120°C / -185°F
    3. Current Temperature in User Cabin = -119°C / -183°C (As the Cabin Temperature has reached a temperature of one degree warmer than the goal Temperature, this is the moment when the system recognizes the need to transfer liquid nitrogen into the system)
        a. If the Operator has FILL TIME set to 4 seconds the LN2 transfer mechanism will run for 4 seconds and the likely maximum achieved temperature will be approximately in the range of -120°C to -125°C / -180°F to -193°F
        b. If the Operator has FILL TIME set to 9 seconds the LN2 transfer mechanism will run for 9 seconds and the likely maximum achieved temperature will be approximately in the range of -130°C to -145°C / -200°F to -230°F

5.6.5. Cooling Phase on the CRYO XC™ and the Goal TEMPERATURE

5.6.6.1. One other important aspect of the FILL TIME setting and its effects on the Temperature inside the CRYO XC™ is the speed at which the unit achieves the Goal TEMPERATURE.

5.6.6.2. The Goal TEMPERATURE is the temperature the CRYO XC™ System will seek to achieve inside the User Cabin. The Goal Temperature is generally achieved in the first minute of the session. Once the Unit has achieved the Goal TEMPERATURE, the Unit maintains this TEMPERATURE below the set Goal TEMPERATURE throughout the rest of the session

5.6.6.3. When pressing START to begin a session, if the starting temperature inside the User Cabin is 0°C / 32°F, the goal TEMPERATURE is set to -120°C / -184°F and the FILL TIME setting is 2 seconds (e.g.), the Unit may not be able to achieve the goal TEMPERATURE even if the TIME setting for the session is 3 minutes, this is simply because not enough liquid nitrogen is being transferred into the Vapor Mechanism. To solve this, the Operator will have to increase the FILL TIME setting (e.g. 6 to 9 seconds) to speed up the cooling process. Once achieving the temperature of -90°C to -100°C / -130°F -150°F, the Operator will need to lower the FILL TIME setting to between 3 to 5 seconds to avoid exceeding the Goal TEMPERATURE of -120°C / -184°F by more than 15°.

5.6.6.4. This rule applies to any Goal TEMPERATURE the Operator sets on the Operator Screen.

5.6.7. General Settings for Experienced Users and Maximum Temperature

5.6.7.1. The temperature settings for User's that have gone through the starting phase or have previously experienced a series of sessions in the CRYO XC™ before, is generally between -120°C to -135°C / -180°F to -211°F. Meanwhile, the TIME setting for Users is gradually increased with each new session from 120s to 140s for New Users up to 180s after the User has experienced at least 4 to 5 sessions.

5.6.7.2. After going through the starting phase, if the User wishes to increase the time or temperature setting, the maximum time setting is 3 minutes (180 seconds) and the temperature should only be intensified gradually by 5° with each new session.

5.6.7.3. The maximum TEMPERATURE setting the Operator should ever set for an experienced User is -135°C / -210°F. This can only be set once the Operator is proficient in running the CRYO XC™ and the User has gone through at least 10 sessions and by doing so has confirmed that they are able to withstand the environment. 98% of Users stay within the range of -110°C and -135°C.

5.6.7.4. The maximum achieved temperature is an individual metric that is determined by the TEMPERATURE setting and FILL TIME. It is different from the goal TEMPERATURE set on the Operator Interface. The maximum acceptable achieved temperature for experienced users should be -150°C / -238°F.

5.6.7.5. For majority of Users, -150°C / -238°F is an uncomfortable experience and exposes many Users to risks of redness or frostbite. For the Users safety, we strongly advise avoiding the User's exposure to temperatures colder than -140°C / -220°F.

5.6.7.6. The Unit itself has the ability to go colder than -150°C / -240°F, but this is not recommended to any Users:

A) Temperatures below -130°C are not known to bring any additional benefits to the User.

B) Temperatures below -130° can pose a high risk to hypersensitive people, people with an allergy to cold, people that are not resistant to cold.

C) Temperatures below than -130°C are especially unsafe for people newly introduced to the treatment.

D) To draw a comparison, undergoing a cryotherapy session at temperatures of -160°C / -250°F is similar to cars having the ability to drive over the speed limit. It

is common knowledge that it may be risky to do so. This may put the passenger at increased risk. Similar to how colder temperatures may expose Users to increased risk. The Operator must ensure that the User is able to withstand the conditions inside the cryotherapy chamber.

5.6.8. FILL TIME Summary

5.6.8.1. The following section is a summary of the FILL TIME setting as it is one of the most important aspects of the Operation of the CRYO XC™.

5.6.8.2. The Fill Time setting determines the amount of time the system is blowing air into the nitrogen tank and pushing liquid nitrogen into the vapor mechanism on the Unit. The FILL TIME setting goes from 0 to 9 seconds. This setting must be adjusted:

a. according to the amount of liquid nitrogen inside the nitrogen tank
b. according to the current temperature, for example meaning whether it's the initial cooling phase going down to -80°C / -110°F
c. or if it's after the machine has achieved its goal temperature and the machine is maintaining the goal temperature.

5.6.8.3. Fill time can be set to a higher number of seconds while trying to speed up the cooling phase, for example if we quickly want to go from -10°C / 14°F down to -90° / -130°F on Fill Time setting 6s or 7s, but then reverting down to 3 or 4 seconds to not exceed the Goal TEMPERATURE.

5.6.8.4. Possible Example: The unit reached the goal temperature of -120°C after 40 seconds of starting the session and the Fill time was set to 6 seconds, After achieving -100°C the operator brings down the Fill Time from 6 seconds down to 3 seconds in order to only reach the acceptable range (10 to 15 degrees below our goal temperature) of -130°C and not -155°C which happens with higher fill time – such as 6 or 7 seconds.

5.6.8.5. A section dedicated to Fill Time settings is located on the last page. Temperatures below -130° are not known to bring additional benefits.

5.6.9. During the Session

5.6.9.1. All sessions are recommended to remain within the range of -110°C / -160°F up to a maximum of -150°C / -240°F. Any temperatures below the -150°C / -220°F point can potentially cause harm to the client in the form of frostbite. This doesn't mean setting the goal TEMPERATURE setting to -150°C / -220°F on the Operator screen. This means, temperature achieved throughout the

entire session. We advise all Operators to follow this standard to avoid any harm to the User.

5.6.9.2. Due to the physical properties of nitrogen vapors, the cool environment inside the cryo cabin may be more raw and settled after performing several sessions. The ice and frost in a cryochamber gradually build up with each session. Therefore, after the cryochamber has performed 5 – 10 sessions, upon entering the User may experience immediate exposure to a somewhat colder environment than they are expecting or are or physically prepared to enter. Please take caution when introducing new clients to this environment.

5.6.9.3. the User is not feeling comfortable with the temperature inside the User cabin but won't mind waiting for the temperature adjustment through settings, the Operator can adjust the temperature settings on the screen, and it will take effect within about 20 seconds.

5.6.9.4. If the User is not feeling comfortable with the temperature inside the User cabin and wishes to quickly make the session less intense, one way to do that is to ask the Operator to crack the doors open a couple of centimeters in order to quickly let out some of the vapors. The Operator must then set a less intense goal temperature on the Touchscreen. However, the Operator must always try to avoid this situation by setting the correct temperatures and Fill Time settings.

5.6.9.5. The User will also have the ability to open the Door at any time, as only a magnet holds the doors. The User will need to push on one door only, never both doors.

5.6.9.6. If the User wishes to end the session, the Operator can push the STOP button on the Operator Touchscreen which will end the session immediately.

5.6.9.7. The Operator can adjust the time settings, fill time settings and the temperature settings at any point.

5.6.10. Exiting the User Cabin

5.6.10.1. Once the session has ended, the VENT time setting kicks in. If VENT time was set to any amount of time over 0 seconds - the blower fan will pull almost all nitrogen vapors from the User cabin. This is a safety feature that is usually set to 10 seconds. We advise the use of the VENT function.

5.6.10.2. The Operator can now ask the User for the safety collar and put it away.

5.6.10.3. The Operator can now pass the robe to the User.

5.6.10.4. The Operator can bring the User lift all the way down.

5.6.10.5. Once the lift is down, the Operator must ask the User if they are ready for the Operator to crack the door open 5 centimeters.

5.6.10.6. The Operator will then leave the room and only come back for maintenance after the room is clear for entry.

5.6.11. Ending Opeartion for the day

1. In a usual scenario when we know the unit is not going to be in use, we would go through the following process right after the User has exited: Detach the transfer mechanism from the nitrogen tank. To do so, we must start by unclicking the locking mechanism by pulling up the black outer ring on the transfer mechanism.
2. We are then able to pull the transfer mechanism pipe out of the nitrogen tank. This must be performed very slowly as we need to let out any leftover liquid nitrogen from the transfer hose back into the nitrogen tank.
3. While inserting the transfer mechanism pipe into the holster we must use caution as the pipe mechanism and the nitrogen hose may be frozen through, making it more difficult to bend the transfer hose sufficiently to place it into the holster on the rear side of the machine.
4. As the frost built-up on the transfer hose and pipe will melt/thaw, we need to make sure to wipe the surface under the transfer pipe and holster after several minutes.
5. Insert the cap into the neck of the nitrogen tank.
6. The operator must check the LN2 level after finishing operation on the machine.
7. The booster pad or any other object must **never be placed** under the lift.

5.6.12. Drying Mode

5.6.12.1. Once we are finished with Operation for the day and we have put all accessories away we are ready to proceed to dry the Unit.

5.6.12.2. **Why do we dry the Unit?**

a. Keeping the Unit dry when not in use is the best method for preserving the unit in good condition.
b. Ice that is built up during operation will begin turning into water within 10 minutes of the unit being idle.
c. Generally, as part of procedure, the Operator takes a clean towel or paper towels and wipes any visible water from the cabin interior, the

area around the base of the unit and under the transfer hose/transfer mechanism that is located on the rear side of the unit.

5.6.12.3. **Drying Protocol**

d. If only one session took place the Operator can put the unit into Drying Mode for 30 minutes to one hour.
e. If the Unit had gone through two to 5 sessions the Operator must put the unit into Drying Mode for one hour to two hours.
f. If the Unit had gone through 5 to 10 sessions the Operator must put the unit into Drying Mode for two hours to three hours.
g. If the Unit had gone through more than 10 sessions the Operator must put the unit into Drying Mode for three hours.
h. Once the unit is in drying mode, we may leave the unit to dry, it will shut down after its finished drying.
i. After the Drying Mode has completed, the Operator can push the Power button to finalize the shutdown process or it can be left for the next day.

5.6.12.4. **Other**

j. If you are in a very humid area, or the humidity in your facilities is at a high level, we recommend drying the unit for 3 hours every time the unit is put into operation. Insufficient drying could lead to ice buildup inside the mechanism.
k. Place the safety collar on top of the client cabin to speed up the drying process.

5.6.13. CRYO XC™ Thermal Contrast Cryotherapy Mode

CRYO XC™ Thermal Contrast Cryotherapy Mode (TCCM)

A) From Q2 2019, the CRYO XC™ features the Thermal Contrast Cryotherapy Mode (TCCM) which is intended to further intensify the session.
B) TCCM is a feature that was specially designed for select Users. Not as a mode for mass application. Should the Operator wish to perform this treatment, it is advised that they perform the treatment immediately after turning on the machine.
C) TCCM is only viable during the first 5 back-to-back sessions. It becomes less efficient when 5 or more session have taken place as a layer of ice gradually builds up inside the Vapor Mechanism and disrupts the heating function.
D) TCCM is introduced with the HEAT TIME setting which allows the Operator to set 5 minutes/300 seconds of 50°C/120°F heat before the cryo session beings.

E) The user stands inside
F) Using TCCM will affect consumption to some degree, tests have shown that consumption is generally increased by 10 – 20%.

5.6.14. Understanding Fill Time in the CRYO XC™ Non-Pressurized System

The following table offers guidance to the Operator on how to adjust the FILL TIME settings. The conditions are always subject to change due to the dynamic nature of liquid nitrogen and nitrogen gas. The Operator must always adjust settings according to the existing conditions. The Operator must not rely on the information in the table below. It's important to note that milder FILL TIME settings always allow for adjustments with minimal risk.

FILL TIME Setting	Description
0 seconds	Setting FILL TIME to 0 seconds will not transfer any LN2 into the vapor mechanism. This setting is intended for testing purposes and for pausing the transfer process.
1 second	Setting FILL TIME to 1 second will not be sufficient to cool the system and once achieved it will not be sufficient to maintain the Goal TEMPERATURE.
2 seconds	Setting FILL TIME to 2 seconds can only be sufficient to achieve the Goal TEMPERATURE with a full dewar tank. 2 seconds FILL TIME is sufficient to maintain the Goal TEMPERATURE once the system has achieved it.
3 seconds	Setting FILL TIME to 3 seconds is generally sufficient to achieve and maintain the Goal TEMPERATURE if the nitrogen tank is at least half full. Achieving the Goal TEMPERATURE may be a little slower on this setting.
4 seconds	Setting FILL TIME to 4 seconds on the Non-Pressurized System is sufficient to achieve the Goal TEMPERATURE. 4 second Fill Time is sufficient to maintain the Goal TEMPERATURE with a 1/4 full nitrogen tank. If the tank is more than half full, 4 second FILL TIME may be excessive once the Goal TEMPERATURE has been achieved.
5 seconds	Setting FILL TIME to 5 seconds with a half full nitrogen tank or more will easily allow the system to achieve the Goal TEMPERATURE. 5 seconds FILL TIME may be a little too high to maintain the Goal TEMPERATURE and it will likely result in exceeding it even if the tank is only half full. However, higher settings can be helpful when trying to withdraw nitrogen from the bottom of the nitrogen tank.
6 seconds	Setting FILL TIME to 6 seconds will help quickly achieve the Goal TEMPERATURE but will be too high to maintain it. Leaving the FILL TIME setting on 6 seconds after achieving the GOAL TEMPERATURE will result in highly exceeding the set Goal TEMPERATURE. However, higher FILL TIME settings can be helpful when trying to withdraw nitrogen from the bottom of the nitrogen tank.
7 seconds	Setting FILL TIME to 7 seconds will help quickly achieve the Goal TEMPERATURE but will be too excessive to maintain it and will certainly result in exceeding the set Goal TEMPERATURE. This setting can only be used to speed up the cooling phase, for example between room temperature to -80°C / -110°F after which it must be lowered to 3s or 4s. However, higher FILL TIME settings can be helpful when trying to withdraw nitrogen from the bottom of the nitrogen tank.
8 seconds	Setting FILL TIME to 8 seconds will help quickly achieve the Goal TEMPERATURE but will be needlessly excessive to maintain it and will certainly result in exceeding the set Goal TEMPERATURE. This setting can only be used to speed up the cooling phase, for example between room temperature to -80°C. -80°C / -110°F after which it must be lowered to 3s or 4s. However, higher FILL TIME settings can be helpful when trying to withdraw nitrogen from the bottom of the nitrogen tank.
9 seconds	Setting FILL TIME to 9 seconds will help quickly achieve the Goal TEMPERATURE but will be needlessly excessive to maintain it and will certainly result in exceeding the set Goal TEMPERATURE. This setting can only be used to speed up the cooling phase, for example between room temperature to -80°C / -110°F after which it must be lowered to 3s or 4s. However, higher FILL TIME settings can be helpful when trying to withdraw nitrogen from the bottom of the nitrogen tank.

5.6.15. Understanding Fill Time in the CRYO XC™ Pressurized System

The following table offers guidance to the Operator on how to adjust the FILL TIME settings. The conditions are always subject to change due to the dynamic nature of liquid nitrogen and nitrogen gas. The Operator must always adjust settings according to the existing conditions. The Operator must not rely on the information in the table below. It's important to note that milder FILL TIME settings always allow for adjustments with minimal risk.

FILL TIME Setting	Description
0 seconds	Setting FILL TIME to 0 seconds will not transfer any LN2 into the vapor mechanism, this setting is intended for testing purposes and for pausing the transfer process.
1 second	Setting FILL TIME to 1 second will not be sufficient to cool the system under any circumstances.
2 seconds	Setting FILL TIME to 2 seconds will not be sufficient to cool the system and if adjusted after achieving the Goal TEMPERATURE will only barely manage to maintain it.
3 seconds	Setting FILL TIME to 3 seconds can only very slowly, but inefficiently achieve the Goal TEMPERATURE. However, 3 second FILL TIME can maintain the Goal TEMPERATURE without any issue.
4 seconds	Setting FILL TIME to 4 seconds can slowly, but inefficiently achieve the goal temperature and easily maintain the goal temperature.
5 seconds	Setting FILL TIME to 5 seconds is the standard setting for the Pressurized system and for those who do not wish to adjust the FILL TIME setting. 5 second FILL TIME is sufficient to achieve the goal temperature, but depending on the amount of LN2 in the tank may occasionally exceed the Goal TEMPERATURE. This setting can generally handle withdrawing nitrogen from the bottom of the nitrogen tank.
6 seconds	Setting FILL TIME to 6 seconds will help the system achieve the Goal TEMPERATURE fairly quickly but will be excessive to maintain the Goal TEMPERATURE for the remainder of the session. It will often result in exceeding the Goal TEMPERATURE by a margin. However, this setting can be useful when trying to withdraw nitrogen from the bottom of the dewar tank.
7 seconds	Setting FILL TIME to 7 seconds will cause the system to achieve the Goal TEMPERATURE swiftly but will be excessive to maintain the Goal TEMPERATURE for the remainder of the session. This will result in regularly exceeding the Goal TEMPERATURE by a margin. This setting can be used to speed up the cooling phase for example between the original room temperature down to -80°C / -110°F after which it must be lowered to 4s or 5s. This setting can be useful when trying to withdraw nitrogen from the bottom of the nitrogen tank.
8 seconds	Setting FILL TIME to 8 seconds will cause the system to achieve the Goal TEMPERATURE very quickly but will be excessive to maintain the Goal TEMPERATURE. This will result in significant exceeding of the Goal TEMPERATURE. This setting can only be used to speed up the cooling phase, for example between the original room temperature down to -80°C / -110°F after which it must be lowered to 4s or 5s. This setting can be useful when trying to withdraw nitrogen from the bottom of the nitrogen tank.
9 seconds	Setting FILL TIME to 9 seconds will cause the system to achieve the Goal TEMPERATURE fast but will be too excessive to maintain the Goal TEMPERATURE. Once the Goal TEMPERATURE is achieved and left at 9 seconds, this will result in significant exceeding of the Goal TEMPERATURE. This setting can only be used to speed up the cooling phase, for example between room temperature to -80°C / -110°F after which it must be lowered to 4s or 5s. This setting can be useful when trying to withdraw nitrogen from the bottom of the nitrogen tank.

5.7. Limitation of Liability for Unit Performance

The conditions under which the liquid nitrogen exits from the nitrogen tank are the exclusive responsibility of the Operator as these variables are entirely in the hands of the Operator. It is the Operator that connects the nitrogen tank, and the Operator must ensure that the correct conditions are met when connecting and opening the nitrogen tank.

5.7.1. Main prerequisites for the correct operation of the CRYO XC™ Pressurized System to perform include:

A) The pressure that the safety relief vent installed on the nitrogen tank is set to release excess pressure at when used with the CRYO XC™ Pressurized System:
   a. the optimal pressure setting is 1,5 BAR/22 psi set by the safety relief vent on the nitrogen tank (the vent periodically releases excess pressure to maintain the pressure level at 1,5 BAR/22 psi)
   b. the pressure setting on the nitrogen tank directly affects the performance of the CRYO XC™ Pressurized system.
   c. The pressure conditions inside the nitrogen tank can affect the safety conditions inside the room where the tank is located.
   d. This pressure can be checked on the pressure gauge installed on the nitrogen tank.

B) The pressure-building feature installed on the nitrogen tank:
   a. continuously builds pressure inside the nitrogen tank to ensure that liquid nitrogen is being burst into the vapor mechanism on the CRYO XC™ at the correct pressure level.
   b. can directly affect the performance of the CRYO XC™ Pressurized system by not building pressure quickly enough causing insufficiency of the coolant inside the mechanism leading to unsatisfactory performance.

C) The properties of the nitrogen transfer hose connecting the nitrogen tank with the CRYO XC™ Pressurized system.
   a. The hose could be a regular jacketed or a vacuum jacketed hose both of which have different insulating properties. The Vacuum jacketed hose has a better layer of protection for the coolant, causing lower consumption, but this attribute varies with each hose.

b. The insulating properties of the hose directly affect the performance of the CRYO XC™ Pressurized system.
c. The properties of the nitrogen transfer hose can directly affect the safety conditions inside the room. E.g.
d. Correctly fastened union fitting between the nitrogen tank and the fitting on the inlet pipe on the CRYO XC™ Pressurized System
e. Transfer hoses and pipe quality as well as tightness of the union can directly affect the performance of the CRYO XC™ Pressurized System as incorrectly fastened fittings on either end of the transfer hose can cause leaks.
f. The hose may be of lower quality, may be damaged and this can lead to nitrogen leaks.

5.7.2. Other potential external effects on the performance of the CRYO XC™ Pressurized System

D) Low quality, worn, damaged or incorrect nitrogen tanks.
   a. Some nitrogen tanks do not have the required build quality resulting in high nitrogen consumption.
   b. Some nitrogen tanks may be worn-out or damaged after years of use, the result of which may be high nitrogen consumption.
   c. Some nitrogen tanks may be more suitable for other purposes and can't hold nitrogen for long enough, the result of which may be high nitrogen consumption. These tanks may not be built to hold nitrogen at the required pressure for a longer period of time.

E) Limited Series of Sessions
   a. A higher number of sessions in a short span of time (more than 10 back-to-back sessions in one hour) may affect the pressure level inside the nitrogen tank and lead to a non-satisfactory session. The Operator will need to wait at least 10 minutes for the pressure inside the nitrogen tank to build-up or switch to a second nitrogen tank with the correct pressure.

F) Heat & How to correctly store liquid nitrogen
   a. Depending on where the nitrogen tanks are stored, the equipment owner could be excessively losing liquid nitrogen

from exposing the nitrogen tank to the sun which speeds up the exaporation rate of liquid nitrogen.

b. The ideal storage area for a nitrogen tank is a cool ventilated place.

G) Liquid Nitrogen Suppliers

a. Some nitrogen suppliers don't fill nitrogen tanks fully and claim to have filled it to the brim solely for gain. This often brings up questions about nitrogen consumption of the unit.

b. The length and mode of transportation of nitrogen tanks may affect the amount of nitrogen that is delivered to the location as a bumpy trip can cause the contents of a nitrogen tank to dissipate quicker.

H) Operator

a. The Operator is the person responsible for ensuring the pressure on the tank is correct, all connections are tight, that there are no leaks and that there is sufficient liquid nitrogen inside the pressurized nitrogen tank to run a session.

5.7.3. Main Prerequisites for the correct operation of the CRYO XC™ Non-Pressurized System include:

I) Correctly locked connection between the dewar transfer mechanism and the CRYO XC™ Non-Pressurized System

J) The Operator must ensure there is no ice buildup inside the dewar transfer mechanism or the stainless steel pipe that is inserted into the dewar vessel. With incorrect procedure while stowing away the transfer mechanism, the transfer hose may be left in a position where there is ice buildup or nitrogen left in the transfer pipe which can block the transfer hose the next time liquid nitrogen passes through the transfer hose. In roder to prevent this from happening, the transfer hose must be positioned downward to pour out any water or condensation.

K) The Operator must ensure they never leave the transfer mechanism inside the nitrogen tank when it's not not in use.

L) The Operator is the person responsible for ensuring there is sufficient liquid nitrogen inside the pressurized nitrogen tank to run a session.

M) Liquid Nitrogen Suppliers
   a. Some nitrogen suppliers don't fill nitrogen tanks fully and claim to have filled it to the brim solely for their gain. This often brings up questions about nitrogen consumption of the unit.
   b. The length and mode of transportation of nitrogen tanks may affect the amount of nitrogen that is delivered to the location as a bumpy trip can cause the contents of a nitrogen tank to dissipate quicker.

N) The Operator is the person responsible for ensuring that all connections are tight and that there is sufficient liquid nitrogen inside the non-pressurized nitrogen tank to run a session.

5.7.4. Conditions inside the CRYO XC™ Vapor Mechanism

O) When not in use, the Vapor Mechanism must be kept perfectly dry.

P) Prior to starting the first session for the day or a set of sessions, it is expected that the Vapor Mechanism is always perfectly dry.

Q) After a series of sessions, the conditions in the Vapor Mechanism are affected by previously performed sessions with longer gaps between sessions (20 minutes and more). If the unit hasn't been used for longer than 30 minutes. It may be worth drying the machine as the ice inside the system starts to melt after 20 minutes which leads to ice/water buildup.

R) If the unit is installed in a humid environment caused by the weather/climate or humidity inside the building, the Operator must ensure the unit is perfectly dry before use and dried to perfection after use.

S) The Operator ensures that there is no ice blockage or water buildup inside the vapor mechanism or the casing on the vapor mechanism
   a. By following the maintenance protocol of drying the machine sufficiently and correctly. The doors on the cabin must be closed while drying the machine.

b. There is a risk that with incorrect drying protocols, a block of ice begins to form and grows with each use which can lead to ice blockages, water retainment inside the vapor mechanism as well as nitrogen leaks.
c. The Operator must ensure unit is not being dried while connected to any type of nitrogen tank - pressurized or non-pressurized.

5.7.5. Users experience in the CRYO XC™

The conditions that the user experiences inside the CRYO XC™ are the full responsibility of the Operator as the Operator has full control over the course of each session.

a. The CRYO XC™ acts according to the conditions in the nitrogen tank and the Operators input on the User interface.
b. Each setting on the User interface/Operator screen/Control panel directly affects the Users experience. These include primarily the PRECOOL setting, Session TEMPERATURE setting, the FILL TIME Setting, the TIME setting, the LIFT setting and the VENT settings.
c. It is the Operator's responsibility to understand how each action affects the course of the session including the intensity, duration, and idle time between sessions – All of these factors are explained within this User Manual.
d. Gaps between sessions directly affect the conditions inside the vapor mechanism and cabin. The Operator must adjust the settings accordingly.
e. It is the Operator's responsibility to understand how liquid nitrogen and nitrogen gas work and respond to different conditions in the nitrogen tanks and Operator settings.
f. The User does not come into contact with liquid nitrogen while inside the CRYO XC™.
g. Managing the temperature and fill time is fully in the hands of the Operator. The Operator must ensure that the unit does not exceed the Goal TEMPERATURE set on the Operator Touchscreen. Exceeding the temperature could be caused by a high FILL TIME setting on the Operator touchscreen.
h. Clients must never be exposed to an environment in which they can be injured or to be subject to any potential risks. It is for this reason, that we recommend that all clients start at a milder

temperature level (-110°C / -166°F) and a shorter duration of sessions (2 minutes) so that the client can adapt to the extreme environment gradually over several sessions.

5.7.6. Risk Factors for Cryotherapy – Risk Assessment

Based on our presence in the cryotherapy field since 2014, research into cryotherapy, discussions with competitors, cryotherapy businesses, feedback from our customers, our safety records we have been able to determine the primary risks of cryotherapy in relation to the equipment used, the Users conduct and Operators. The primary risks of cryotherapy include:

i. Equipment Consistency & Input Inconsistency
ii. The Equipment – Operator relationship in daily operation and the quality of operator training provided to the Operator from the manufacturer or authorized representative
iii. User's compliance with the Safety Protocol
iv. Operator's compliance with the Safety Protocol and the Operator's inputs on the equipment.

5.7.6.1. **i. Equipment Consistency & Input Inconsistency**

a. The ability of the cryotherapy chamber to continuously perform a repeated action and provide consistent results. For example, the consistent processing of liquid nitrogen inside the mechanism within the bounds of specific inputs results in nearly identical outcomes.
b. Operator's changes in inputs cause inconsistencies. These inputs include variability of nitrogen tank pressures, transfer hose specs, session intensity, temperature in session, duration of session, client size, client behavior, session scheduling. The inconsistencies stemming from these inputs are often mistakenly attributed to the inconsistencies of the cryotherapy chamber/equipment. This is an incorrect assumption. Ensuring the consistency of external inputs is entirely in the hands of the Operator and their skills and knowledge.

5.7.6.2. **ii. The Equipment – Operator Relationship & Operator Training**

a. Generally, the Operator is fully in control of the inputs on the cryotherapy chambers. Any other form of operation would expose the manufacturer to unmitigated risk in case the cryotherapy chamber owner does not comply with certain criteria for who can

enter, what intensity and duration individual Users can be exposed to and conduct of both the User and Operator. This is a critical aspect of why the cryotherapy session cannot be automated and why the Operator's expertise remains the most critical aspect of safety in operation of a cryotherapy chamber.

b. Cryotherapy chambers are generally built to generate a certain flow of cold air under certain conditions. These conditions are fully controlled by the Operator's inputs. The equipment does not automate any step in the process. The Operators adjust the temperature, the intensity, the duration and determine who is allowed to use the cryotherapy chamber based on their condition and replies in their Consent Form, and they instruct the User.

5.7.6.3. **iii. User's compliance with the Safety Protocol**

The User's incorrect positioning during the session and medical conditions.

a) Users that block the air outlets during the session are at risk of frostbite. All Users must be instructed to refrain from blocking the cold air outlets while inside the cryotherapy cabin. Blocking the outlets for an extensive amount of time (more than 10 seconds) can lead to frostbite.
b) Users that stand still with all parts of the body held in the same position throughout the entire session are at risk of frostbite.
c) Rotation inside the cabin is required to balance the exposure to cold.
d) Users that do not hold their head and chin above the cabin rim throughout the session.
e) User's touching or leaning on the doors or cabin frame. – The User should not touch any object while inside the cryo cabin except the safety collar.
f) User's body structure/size can affect circulation of air inside the User Cabin. Larger users must ensure that they are not blocking air circulation inside the User Cabin.
g) User's dishonesty about existing medical conditions.
h) Application of lotions and hydrating skincare products
i) Water droplets, wet clothes and sweat on the user's body.
j) Inhalation of nitrogen gas and Asphyxiation

i. Only occurs when the User does not follow the session protocol.
ii. To avoid exposure of the User's breathing apparatus to nitrogen vapors. the User must follow the Operator's instructions at all times.
iii. The User must keep their chin above the cabin rim at all times while the cryotherapy cabin doors are closed.
iv. The Users nose must be positioned at a 10° to 40° angle in relation to the top of the cabin rim.
v. The User must not bend down while inside the cabin.
vi. The User must actively avoid breathing in nitrogen vapors.

k) Risks are significantly minimized by following the Safety Protocol.

5.7.6.4. **iv. Operator – Compliance & Inputs**

a. Not providing the User with the Consent Form with information about cryotherapy and the effects of exposure to an extremely cold environment prior to entering the Cryotherapy Unit
b. Operators not providing safety instructions to the User prior to use
c. Operators not performing a milder session for first time Users that do not have any experience with cryotherapy.
d. Lack of Attention
    i. to readings on User interface and no adjustments of settings
    ii. to Users response to the treatment and no adjustments of settings
e. Lack of Operator Training or no Operator Training
    i. Many equipment owners employ new staff without taking them through a proper Training Session
f. Incorrect adjustment of lift to the User's height

It is of paramount importance that the source of any flaws and defects, wheter on the cryotherapy Unit, in the Operator's operation protocols or due to User's non-compliance are examined in detail to ensure the highest level of safety and quality. If the equipment owner, Operator, or the user finds any insufficiency or has suggestions for how CRYONiQ

can improve its products and services, we invite them to reach out to our team on support@cryoniq.com

5.7.7. Consumption of the unit

a. In a series of tests in CRYONiQ test facilities – The CRYO XC™ consumed between 4 and 10 liters of liquid nitrogen per session, this depends on:
    1) Nitrogen tank pressure which can vary with different tanks.
    2) The PRECOOL settings and frequency of use of PRECOOL
    3) The TEMPERATURE setting in session and adjustments during sessions.
    4) The FILL TIME Setting – meaning speed of fill time and adjusmtents during sessions and required adjustments due to level of liquid nitrogen in the tank.
    5) The TIME setting for the session
    6) How often the machine is used. Whether the unit is used by a single individual/small group or back-to-back by a business or large group of people.
    7) Idle time/gaps between sessions. How are sessions scheduled, does a business do walk-ins, is the cryotherapy chamber used continuously.
    8) The maintenance protocol – Drying the machine between sessions on a work day can affect consumption by warming up the vapor mechanism and cabin which requires more liquid nitrogen to cool down.
b. The manufacturer and affiliates provides a range of consumption on the CRYO XC™ Plus and CRYO XC™ between 4 and 10 liters per session. The manufacturer does not provide any guarantees on the level of consumption due to the many variables.
c. Should a product owner or operator require more information about consumption the manufacturer can readily provide this information in the form of results from our test facilities, guidance and operation protocol, and outcomes from existing equipment owners.

5.7.8. Ventilation

5.7.8.1.1. CRYONiQ representatives carry an advisory role in setting up a location for the use of a CRYO XC™ Plus or CRYO XC™ Cryotherapy Chamber and shall not be held liable for any insufficiencies, inadequacies or misrepresentations existing on-site.

5.8. Maintenance

5.8.1. Daily Maintenance Protocol

5.8.1.1. **Hygiene**

1) We recommend changing and washing the replaceable cloth neck strip as frequently as possible.
2) All users should receive or must be allowed to bring their own personal protective equipment (socks, gloves, robe) to the facilities. Washable PPE should only be used once and washed. Footwear may be reused if disinfected.
3) All Businesses, operators and clients must follow hygiene standards.
4) Customers will appreciate returning to a clean environment.

5.8.1.2. **Liquid Nitrogen – Pressurized System**

5) Check the gauge on the nitrogen tank to see how much nitrogen is left in the tank before closing shop and especially before starting up the machine for operation on the next day. This gives you the opportunity to track daily consumption and keeps you on top of liquid nitrogen deliveries. (Gauges only apply to the pressurized system)
6) Make sure to close the valve on the nitrogen tank before finishing for the day.

5.8.1.3. **Liquid Nitrogen – Non-Pressurized System**

7) Before finishing for the day, take the pipe mechanism out of the dewar vessel and place it into the holster on the rear side of the unit. Place the cap onto the dewar vessel. Then proceed to start the drying process.

5.8.2. Weekly Maintenance

5.8.2.1. At least once per week, we recommend taking the time to vacuum the whole User cabin to clean up any dust or dirt collected inside the unit from daily use.

5.8.3. Quarterly/Monthly Maintenance

5.8.3.1. Once per quarter, take the top panel on the rear side of the unit off, and clean the dust off the ventilator grill to assure the uninterrupted flow of air.

5.8.3.2. Check all the connections on the transfer mechanism or the transfer hose.

5.8.3.3. Grab the upper shield by the solid part and pull it out to clean the area behind the shield.

5.9. Consumables on the CRYO XC™

5.9.1. As part of maintenance, it's important to ensure that the insulating gasket inside the solenoid valve on the CRYO XC™ pressurized system is intact. In case the gasket breaks, the Unit can't be used until it is replaced. The gasket is a consumable that can be purchased from the manufacturer or authorized representatives.

5.9.2. Another important part of maintenance on the CRYO XC™ is ensuring the thermal senso that reads the temperature on the outlet is in good conditions. In case the temperature displayed on the screen is permanently stuck at 0° or 999° without any liquid nitrogen inside the system and does not change within one minute, this may mean the thermal sensor is damaged and must be replaced. Thermal sensors are consumables that can be purchased from the manufacturer or authorized representatives.

5.10. CRYO XC™ Action Log

5.10.1. The unit has a detailed database of steps performed by the operator through the user interface. This provides a detailed list of actions that were manually or automatically adjusted on the machine. This is called the Log. The Log provides the manufacturer with records of the use of the unit, technical diagnostics, as well as the drying patterns, and session statistics.

5.11. CRYO XC™ Pass Code

5.11.1. On units that are subject to a contractual obligation such as a lease agreement, it may be deemed necessary to secure the unit with a pass code that prompts a message box. In this case, the equipment owner must enter a pass code every 30 days until the lease or contractual obligation is fulfilled. This pass code can be obtained from the manufacturer or authorized representative on the condition that all obligations are met. When the obligation has been fulfilled to its full extent, a master code from the manufacturer can terminate the need for entering pass codes. The Pass Code requirement is only prompted in cryotherapy units with contractual obligations.

6. Medical Disclaimer

a. The CRYO XC™ Cryotherapy Chamber does not claim to treat, cure, or diagnose any medical conditions.
b. DO NOT use Cryotherapy to treat any illness or diseases. Whole-Body Cryotherapy sessions have not been tested or approved by the FDA or any other government agencies. There are no express or implied guarantees. Use the equipment at your own risk.
c. CRYONiQ does not recommend cold therapy as a form of treatment for any illness or disease.
d. The cold therapy products and equipment have not been tested or approved by the FDA or any other government agencies. Use at your own risk.

7. TROUBLESHOOTING TECHNICAL ISSUES – FIRST STEPS

7.1. **Troubleshooting - Power**

1) **Electrical Requirements**
If the unit does not turn on, please check if the unit is plugged into a functioning electric outlet that meets the following electrical specification:

Outlet Voltage	230V (208 – 240V)
Frequency	50 Hz (works on 60 Hz)
Amperes (Amps)	min. 20 A | Requires a 20A circuit breaker
Power Usage Max:	4000W
Idle:	140W
Session:	1000W
Drying:	3400W

3) **Unit not turning on**
If the unit does not turn on, please check if the breaker for the circuit in the buildings electric mains hasn't gone out. If it has, that could mean that the power breaker for the given circuit may not be sufficient.

SOLUTION – A 16A or 20A circuit breaker is necessary. All breakers less than 16A may be insufficient as the unit peaks at just under 15A. The unit may run but may on random occasions throw out the breaker in the mains. This does not happen on a 16A circuit breaker.

4) **Unit not turning on**
If the unit does not turn on, please check if the breaker on the rear side of cryosauna is turned on or off.

If the breaker is in the ON position, the issue is most likely somewhere else.
If the breaker is in the OFF position, the breaker recognized a discrepancy in the circuit and further troubleshooting with a CRYONiQ technician is required.

5) **Unit not turning on**
If the unit does not turn on, please check if the breaker inside the electric box cryosauna is turned on or off.

If the breaker is in the ON position, the issue is most likely somewhere else.
If the breaker is in the OFF position, the breaker recognized a discrepancy in the circuit and further troubleshooting with a CRYONiQ technician is required.

6) **Solenoid Valve not clicking (Pressurized System)**
If the solenoid valve does not make a clicking sound after pressing START PRECOOL, the most likely cause is lack of supplied electric power. Please check if the indicator on the valve is flashing.

7.2. **Troubleshooting - Liquid Nitrogen**

1)	**Lack of Liquid Nitrogen in Vapor Mechanism** If the unit is not receiving any nitrogen into the mechanism, please check if there is any nitrogen remaining inside the pressurized tank. SOLUTION – Make sure there is nitrogen inside the pressurized tank.
2)	**Lack of Liquid Nitrogen in Vapor Mechanism** If the unit is not receiving any nitrogen into the mechanism or unusually small amounts, please check the pressure on the pressure gauge located on the pressurized tank. The unit's optimal operating pressure between 22 – 37 psi / 1,5 – 2,5 BAR. The ideal pressure is 1,5 BAR or 22 PSI. If the pressure is higher or lower than the optimal range, it could cause issues with insufficient cooling, or overflows. Excessive pressure over 120 psi/8 BAR or more could damage the solenoid valve. SOLUTION – Ensure the correct pressure in the nitrogen tank.
3)	**Lack of Liquid Nitrogen in Vapor Mechanism** If the unit is not receiving any nitrogen into the mechanism or unusually small amounts, please check if all connections (hoses, reductions on both ends, solenoid valve) are tight and not leaking or damaged. SOLUTION – Double check connections
4)	**Lack of Liquid Nitrogen in Vapor Mechanism** If the unit is not receiving enough nitrogen, the reason could be that the valve on the nitrogen tank is insufficiently open. Valves on each nitrogen tank require a certain number of turns. SOLUTION – Open the valve fully
5)	**Liquid Nitrogen pouring from behind upper shield** If there is liquid coming out of the shield inside the cabin, it could mean that the vapor mechanism has been over-flooded with liquid nitrogen, potential causes include : A. The pressure inside the tank is too high (over 40 psi / 3 BAR). SOLUTION – The pressure relief valve on the nitrogen tanks needs to be set at 1,5 BAR (contact your nitrogen supplier or the person responsible for LN2 deliveries). B. Fill time on the screen is set too high or START/PRECOOLING have been pressed too many times within a very short period of time. SOLUTION – Lower the fill time, make longer gaps between sessions (at least 5 minutes)

7.3. **Troubleshooting – Session**

1)	**Temperature doesn't drop** If the temperature does not drop below the minimum for cryotherapy (-80°C or -130°F) even at lower settings than what is shown (-100°C or -155°F), then there may be insufficient nitrogen inside the pressurized tank. This could be caused by ice inside the mechanism blocking air pathways. SOLUTION – Put the unit into drying mode for at least two 3 hour cycles.
2)	**Temperature doesn't drop** If the temperature does not drop below the minimum for cryo (-100°C or -155°F). This may be caused by excess pressure released in a short period of time. The options are to self-pressurize on the pressurized tank or wait for pressure to build up. SOLUTION - Requires build up of pressure inside the pressurized tank to at least 1,5 BAR/22 PSI
3)	**Temperature doesn't drop** If the temperature does not drop below the minimum for cryo (-100°C or -155°F). This may be caused by insufficient pressure in the tank, due to an incorrect relief vent or damaged nitrogen tank. SOLUTION – Reach out to the nitrogen supplier.
4)	**Unusual temperature reading** If the temperature reads -500° / 999° at any point, then the temperature sensor is not reading correctly and may have been damaged. SOLUTION - May require replacement of the temperature sensor.

7.4. **Troubleshooting – Imperfections (Water, ice, vapor issues)**

1)	**Freezing on rear side** If ice appears on the rear side of the unit around the bottle for water extraction, please check the nitrogen pipes for any loose connections, most importantly the clamp that holds the solenoid valve inside to the vapor mechanism.
2)	**Nitrogen vapors** Vapors coming from the sides or below the cabin doors – You may need to adjust insulation beams on the Door frame.

7.5. **Troubleshooting - Screens**

1)	**Operator Interface not loading** If both displays on the Cryotherapy unit turn on, but they do not show the correct screens (operator screen + temperature display screen), but instead they show a windows background or something else, the screens must be reset by our technician. If this occurs, please contact our support team **support@cryoniq.com** or call **+421 915 761 803**
2)	**Operator Interface is flipped** If the screen on the operator panel is flipped, please contact our **support@cryoniq.com** or call **+421 915 761 803**
3)	**Screens flickering and other unusual signals** Should the touch-screen panel or multimedia display show any sign of other unusual behavior such as intermittent flashing or a dark screen even when turned on please report this to our technical team at **support@cryoniq.com** or call **+421 915 761 803**

7.6. **Troubleshooting – User Safety**

1)	**User Safety** If the User feels dizzy or lightheaded at any point during a session, the operator must immediately end the session, the client must exit the cabin and go to a location with fresh air. SOLUTION -Use the safety collar for safer application of cryotherapy. - Install an Oxygen Monitor inside the room to keep track of oxygen levels.

7.6.1. For more advanced Troubleshooting please reach out to the CRYONiQ Service Team on support@cryoniq.com or call +421 915 761 803

8. Warnings and Safety

8.1. **Symbols that are found in this manual or on the unit**

8.1.1.  Warning of possible danger, follow the instructions specified in this manual.

8.1.2.  The Manufacturer

8.1.3.  Date of Production

8.1.4. 

Unit Serial Number

8.1.5.  Follow the warnings and safety instructions in this manual, which will be used to ensure increased safety and efficiency of the product

8.1.6.  Risk of frostbite — low temperature

8.2. The temperature of air inside the cryo cabin during the session could reach down to - 160°C/-256°F. That is why The Operator must follow the CRYO XC™ safety protocol at all times. In the event of failure to comply with the instructions for the safety of operation, the User may be exposed to risk of first degree frostbite or cold burns. The Operator must pass through special training provided by the manufacturer or an authorized representative. The operator is obligated to inform the client about the safety rules, risks, the principles of cryotherapy, as well as contraindications

9. Summary of warnings and safety notices - Safety Instructions for Use

1) Before using the CRYO XC™ for the first time, we recommend reading the entire manual carefully and to make sure that all the Operators understand especially the safety-related information.
2) Use of the Unit must only be allowed to people who are familiar with the purpose of its operation that understand and accept the risks.
3) The Unit should not be used by people in a bad physical or psychological state.
4) Assembly must be carried out in accordance with the CRYO XC™ Assembly Instructions.
5) Pay attention to the meaning of the symbols on the labels attached.
6) Use the Unit only for the purposes specified by the manufacturer. Use of the unit for improper purposes may cause hazards to health and safety of the personnel as well as financial losses.
7) This device is not intended for use in a work environment with the presence of a combustible mixture of anesthetics with air or a combustible mixture of anesthetics with oxygen or nitrous oxide, in an environment enriched with oxygen or together with surgical devices.
8) The unit should be assembled in a room with sufficient ventilation in accordance with the manual; To avoid the risk of electric shock, the unit must be connected to the main supply with protective grounding.
9) Never use the Unit with a damaged power cord or power plug.
10) It is important to avoid contacting the power cord with hot or sharp objects to avoid damage.
11) Do not perform unauthorized interventions into the Unit. Failure to comply with this requirement can lead to serious risks to human health and safety.
12) Observe all maintenance measures specified by the manufacturer. Proper maintenance and maintenance of the unit will make it possible to use it more efficiently and extend the Unit lifetime.
13) Intervention or maintenance on the Unit can only be carried out by a qualified technician or an authorized representative. Please do not attempt to repair the device by yourself. Any unqualified intervention or maintenance of the unit may damage the unit and lead to warranty voidance.

10. First aid after contact with liquid nitrogen

General information:

1) A high concentration of nitrogen can cause asphyxiation (acute lack of oxygen, compromised breathing)
2) Unexpected symptoms - loss of orientation, headache, nausea, loss of consciousness. In cases of asphyxiation, the injured person requires fresh air, and a doctor must be called in immediately.
3) If the injured person is breathing, they must be taken out for fresh air.
4) In the unconscious state: provide first aid, to ensure the basic vital functions of the body; - If the injured person has stopped breathing: immediately proceed to perform artificial respiration, for which the person is put on a flat surface, then keep the injured person in a quiet and warm place. Urgently call a doctor.
5) If nitrogen enters the eyes: wash the eyes with special eye wash liquid or water for at least 15 minutes.
6) In case of skin contact: wash the frost-bitten area for at least 15 minutes with water, then apply a sterile bandage and call a doctor.

11. TECHNICAL SPECIFICATION CRYO XC™ | TECHNICAL SPECIFICATION

11.1.

GENERAL SPECS

Manufacturer	CRYONiQ s.r.o.
Classification	Non-Medical Body Care Equipment
Certificate of Conformity	CE
Other - Compliancy	Low Voltage Directive Electromagnetic Compatibility (EMC) Directive

PHYSICAL SPECS

Dimensions	W 1016 mm | 40 in L 1600 mm | 63 in H 2200 mm | 86.6 in
Total Weight	380 Kg / 830 Lbs
Floor Space	2,5 m^2 | 27 sqft
Access	- Dual Door System - Compartment Access
Safety	Nitrogen Venting System

ELECTRICAL SPECS

Power Consumption:	Max: 4000W Idle: 140W Session: 1000W Drying: 3400W
Voltage:	230 V·
Frequency:	50/60 Hz;
Amperage	20A
Circuit Breaker	C20 (20A)

SESSION SPECS

Optimal temperature during session	-110 C° to -140 C° ** -165 F° to -220 F° **
Liquid Nitrogen consumption	From 4 to 10 Liters Precool – 2 to 4 liters
Optimal Liquid Nitrogen tank	1,5 BAR | 22 psi
Lift Platform ascends/descends	30 cm | 1 ft
Maintenance - Drying	Recommended after each series of sessions

**(Not the temperature setting)

12. MARKING

12.1.

CRYONiQ

SERIAL#: U503247

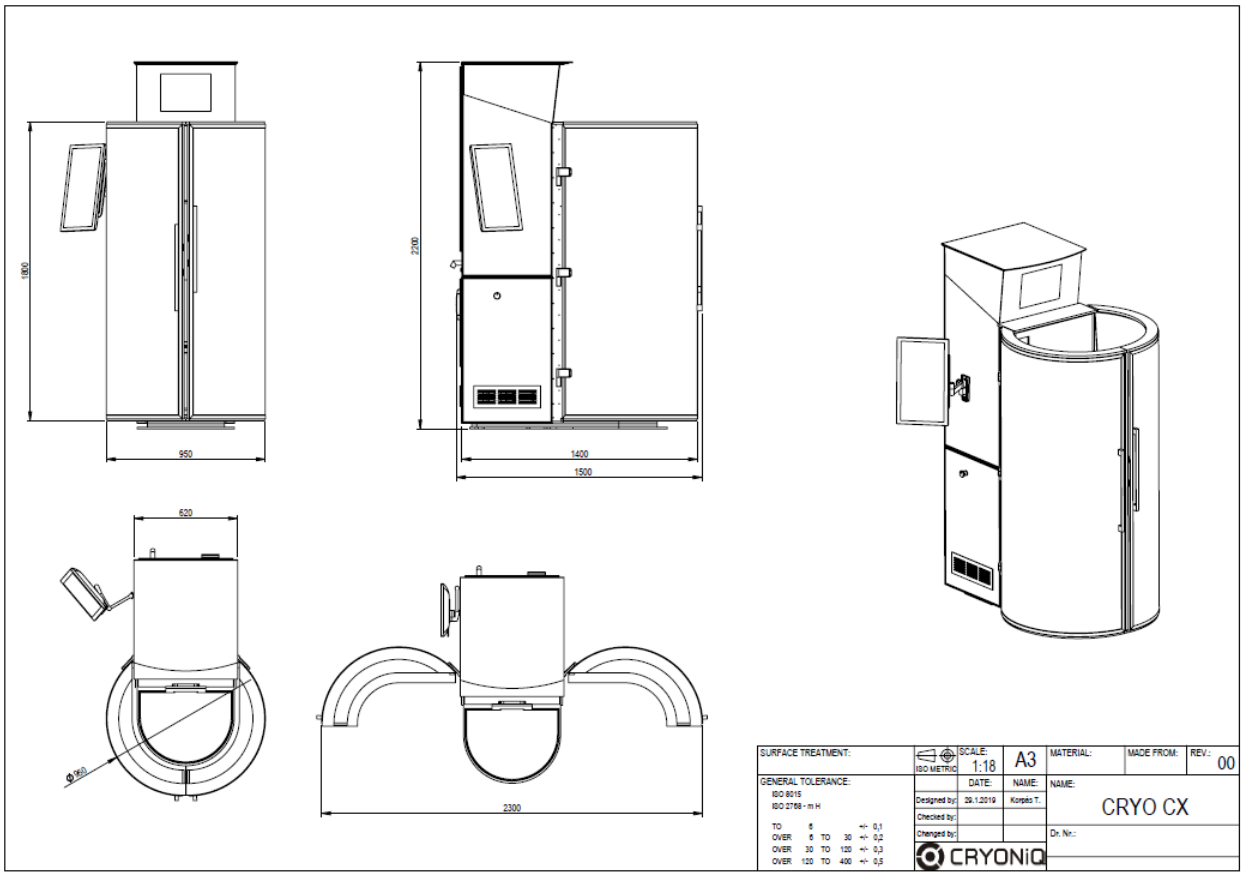
MODEL: CRYO XC™
VOLTAGE: 230V 50Hz
POWER: 4000W
WEIGHT: 350 KG

MADE IN E.U.

CRYONIQ s.r.o.
NITRIANSKA CESTA 119
NOVE ZAMKY 94002
SLOVAKIA

13. TECHNICAL LAYOUT

13.1.



14. LEGAL; INTELLECTUAL PROPERTY; DISCLAIMER OF WARRANTIES

14.1. **READ THIS INFORMATION BEFORE USING YOUR EQUIPMENT**.

14.1.1. Arbitration Agreement - This Product is subject to a binding arbitration agreement between you and Cryoniq s.r.o. or parties affiliated with Cryoniq s.r.o.

14.2. **INTELLECTUAL PROPERTY**

14.2.1. All Intellectual Property, as defined below, owned by or which is otherwise the property of Cryoniq or its respective suppliers relating to the Product, including but not limited to, accessories, parts, or software relating thereto, is proprietary to Cryoniq and protected under federal laws, state laws, and international treaty provisions. Intellectual Property includes, but is not limited to, inventions (patentable or non-patentable), patents, trade secrets, copyrights, software, computer programs, and related documentation and other works of authorship. You may not infringe or otherwise violate the rights secured by the Intellectual Property. Moreover, you agree that you will not (and will not attempt to) modify, prepare derivative works of, reverse engineer, decompile, disassemble, or otherwise attempt to create source code from the software. No title to or ownership of the Intellectual Property is transferred to the product owner. All applicable rights of Intellectual Property shall remain with Cryoniq and its suppliers.

14.3. **DISCLAIMER OF WARRANTIES**

14.3.1. Exclusion of Liability - The information below explains that a user accepts this Product as sold, including the hardware and software components as created and packaged for sale. If the user changes these parameters through a unique modification, Cryoniq will not be held responsible for damages or issues that result from these end-user changes. Except as set forth in the Standard Limited Warranty that accompanies the Product, the purchaser takes the product “as is”, and Cryoniq makes no express or implied warranty of any kind whatsoever with respect to the product, including but not limited to the: • merchantability of the product or its fitness for any particular purpose or use; • design, condition or quality of the product; • performance of the product; • workmanship of the product or the components contained therein; or • compliance of the product with the requirements of any law, rule, specification or contract pertaining thereto. Nothing contained in the User Manual shall be construed to create an express or implied warranty of any kind whatsoever

with respect to the Product. In addition, Cryoniq shall not be liable for any damages of any kind resulting from the purchase or use of the product or arising from the breach of the express warranty, including incidental, special or consequential damages, or loss of anticipated profits or benefits.

Declaration of Conformity

CE

Cryoniq s.r.o. hereby declares that the device CRYO XC™ is in compliance with CE Directives:

2006/42/EC	Machinery Directive
2014/35/EU	Low Volatage Directive
2014/30/EU	EMC Directive

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