



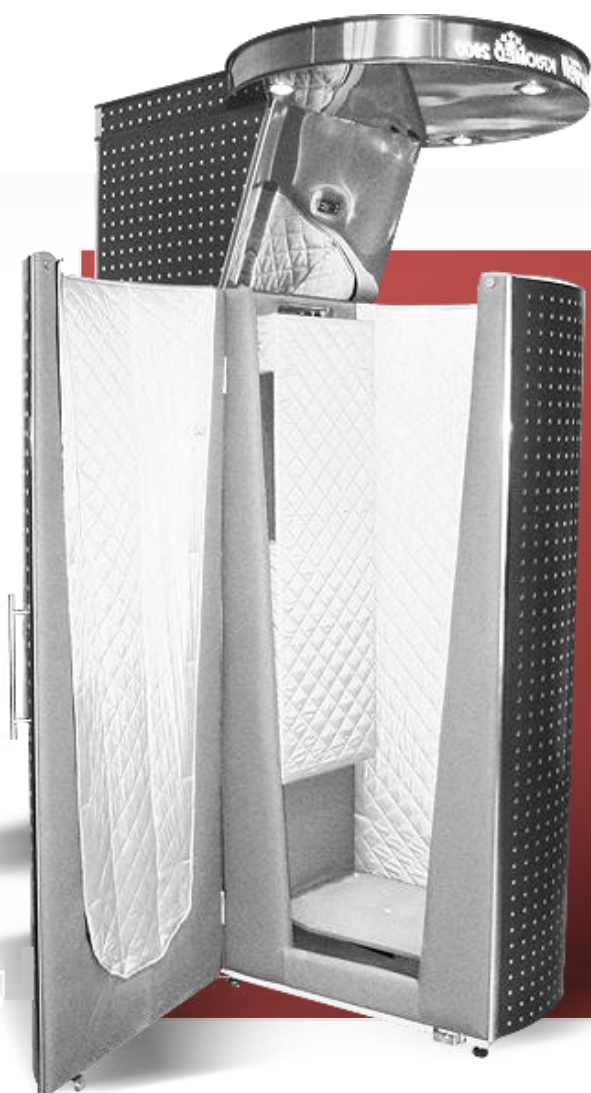
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CrioSauna



Presentation



The Criosaua is an individual cabin running on liquid nitrogen that despite its small size allows you to manage cryotherapy sessions to about 20 patients per hour. It is the ideal device to become familiar with cryotherapy techniques and it incorporates the major advances in this field worldwide.

Our Cryosaunas comply with European legislation to obtain medical European Medical Certification Class 2a

Cryotherapy

Cryotherapy involves exposure to extreme temperatures between -120°C and -160°C for a period of time ranging between 1 and 3 minutes. This exposure produces a change in the hormonal system of the patient and other biochemical effects yielding substantial analgesic effect - in other words, the relief of body pains - while acting as a powerful agent of physical stimulation.

A single session can eliminate the feeling of fatigue, relieving muscle tension while promoting blood flow in the skin and internal organs. Furthermore, it achieves a reduction of edema and inflamed tissues because it improves the generation of healing and inflammatory hormones in the body of the patient.

Thus, cryotherapy is an excellent complement to the treatment of various disorders of the bone-muscle system, neurological diseases, certain skin conditions, and in relieving post-traumatic or postoperative pain



Operation

The cold production in the cabin is done by evaporation of liquid nitrogen coming to the Criosaua from an external cryogenic tank. This takes place in a mixing and expansion chamber separated of the main cabin. It uses two electro-valves releasing and evaporating liquid nitrogen. One, with higher flow, ensures that the working temperature is reached as quickly as possible. The other with a lower flow rate is responsible for regulating and maintaining that temperature constant.



The Criosaua is equipped with a lift to adjust the height of each patient to the cabin, so that the user is immersed only to the shoulders always leaving his head above the level of the gas mixture.

A freezing time of 5 to 10 min is needed to achieve operating temperatures. At that time you can and give treatment sessions and the only settings the operator needs to adjust are the treatment temperature and time. All other technical parameters for the machine to perform these cycles are already preset and act automatically. At the end of cycle an indicator sounds, the cab absorbs the gas mixture and the lift is lowered so that the patient can go out of the cabin

comfortably, leaving the machine ready for the next session.

At the end of all treatments must be carried out a drying cycle for the machine to return to room temperature in a slow way and at the same times performing the absorption of all moisture present in the cabin. In this way it prevents further condensation problems that may be harmful to patients and to the machine itself.

Advantages

Our Criotech© cryosaunas show multiple advantages against our competitors' models. It's not for nothing that ours is the only one with the medical certification from European Union "European Medical Certification Class 2". Amongst our main advantages we highlight:

- **User friendly**

The operator only needs to enter temperatures and treatment times. All other settings are automatic in preset programs that regulate flow, internal temperatures, security settings, etc.

- **Double valve system**

Our dual valve system keeps the working temperature practically constant all along the treatment time with the beneficial health effects this entails. Other cabins that do not incorporate this system, waste half the treatment time only to reach operating temperature and then they show large differences in temperatures during the rest of cycle time.

- **Gas absorption**

During treatment, the system absorbs the cryogenic gases mixture from the top side of the cabin always releasing the user's head and allowing it normal breathing room air. At the end of the cycle, the gases are absorbed from the bottom side, emptying the cabin from gases and allowing the user a comfortable exit or entrance to the cabin.

- **Safety**

The whole design of the machine is based on security for both users and operators: Nitrogen is supplied in cryogenic pressure tanks which prevents direct manipulation of liquid nitrogen. The gas mixture is made in an expansion chamber, so that any problem of condensation is separated from the cabin preventing irritation or even burning of user's skin. Gas absorption avoids problems of

displacement of nitrogen by oxygen. Its simplicity of use prevents security problems due to incorrect adjustments by the operator. And finally, the drying cycles keep the machine in perfect condition, extending its life and eliminating safety problems caused by parts in disrepair.

- **New features**

Recently we have improved our CryoSaunas with two new safety measures. Our models include now as a standard feature an Oximeter which allows measuring the Oxygen concentration in the room. Also, when a CryoSauna cycle is interrupted for whatever reason by opening the door the Nitrogen supply is automatically cut off avoiding increasing the content of Nitrogen in the room.

Specifications

CRIOSAUUNA external dimensions of cabin

Width of cabin: close doors	900 mm
Width of cabin: open doors	1550 mm
Length of cabin	1600 mm
Total height including luminous roof	2450 mm
Height of cabin	1850 mm

Weight per cabin including a person 350 to 400 kg

Height of user 150 to 200 cm

CRIOSAUUNA Electrical specs

Power	Up to 1,5 kW
Supply (3-phase option)	380V/3p/50Hz
Supply (monophasic option)	240V/1p//50Hz

CRIOSAUUNA Technical data

Range of working temperatures	-120°C/-150°C
Freezing time to reach working temperature	5 - 10 min
Treatment time (operator controlled)	1 - 3 min
Treatment time advised per session	2 min
Treatment maximum duration	3 min
Maximum waiting time between treatments	2 min
Oximeter	Included
Safety Nitrogen supply cut with door open	Included

Averaged consumption of liquid Nitrogen

During freezing cycle	~ 5 - 10kg
During treatment	~ 1,5 kg/min
Requirement for a standard session of 1 min 30 s.	~ 2,5 kg
For a 10 persons group with standard treatment and waiting times (including freezing time)	~ 35 kg

Requirements

The room must be at least 15 m² in surface and the ceiling higher than 2.55m
Is needed an exit for exhaust gases to the exterior. It must allow to pass through two pipes of Ø130mm or one of Ø170mm
The room must have forced ventilation able to renew the volume of air at least 5 or 6 times per hour

