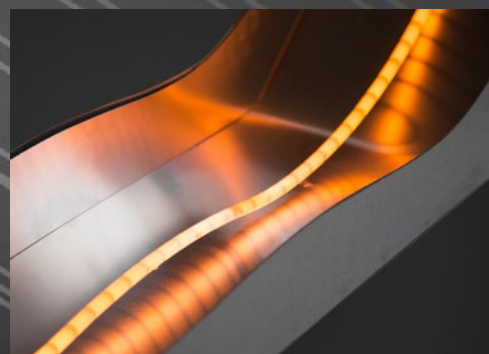


INFRARED

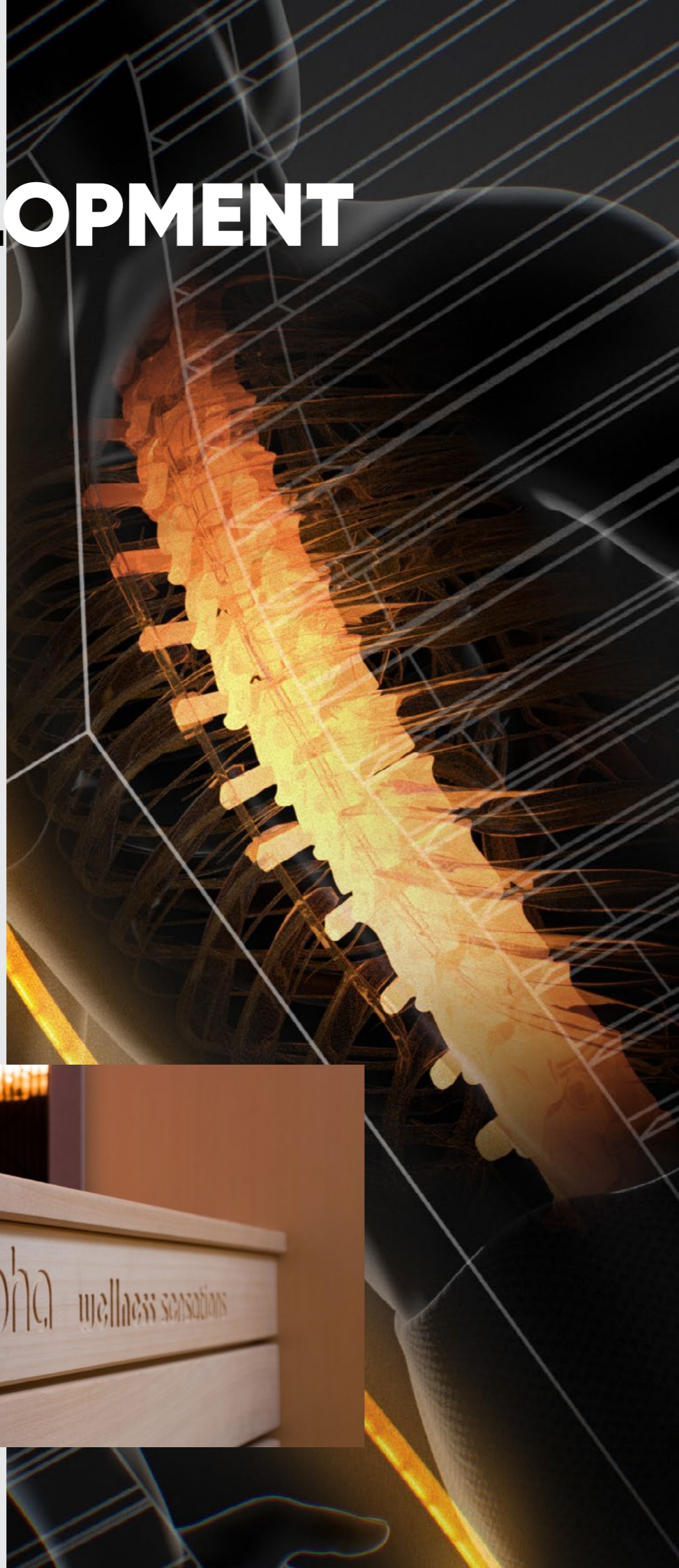
TECHNOLOGY AND APPLIED SYSTEMS



If you can dream it
we can build it

DEVELOPMENT

Since the introduction of infrared cabins in the early '90s there have been many technological developments. The first cabins had ceramic heaters and a mechanical timer. Today's Infrared cabins have more health benefits and comfort. The infrared cabins made by Alpha Wellness Sensations are, among other things, fitted with sophisticated electronic control panels and newly- developed quartz heaters. On the following pages, we will discuss the various systems that have been used over the years.



2002

PANEL HEATER

It is available in panels of various dimensions which are fitted with flat heater elements. Originated in Austria and was used between 2002-2007 years. Today it is used as floor heating and emits mainly long infrared waves (IR-C).

1996

INCOLOY MAGNESIUM OXIDE HEATER

A metal tube made of a special alloy fitted with an electrical resistance wire which will heat up. This tube (virtually indestructible) is also filled with magnesium oxide powder. The name of the tube comes from its filling. Mainly produces IR-C/IR-B.

1993

CERAMIC HEATER

The ceramic tube is heated by the internal electrical resistance heating wire. The tube is filled with magnesium oxide powder, which is used as a high-temperature insulator, which produces mainly long and medium-wave infrared (IR-, C/IR-B). It is rarely used inside infrared cabins anymore.

2015

ERGONOMIC HEATER

A large part of the energy of the ergonomic full spectrum infrared heater penetrates deeply into the skin layers and generates a deep relaxing heat. The formula behind the success is our patented full-spectrum infrared heater, based on the S curve, which perfectly matches the anatomy of the body. The back is completely supported along the contours of the body down to the lowest part.

2009

DUO HEATER

DUO is a very different type of infrared heater with two heating elements in one casing. A smart design and two separate heat sources: magnesium oxide heater and quartz heater for balanced and controllable heating.

2005

QUARTZ HEATER

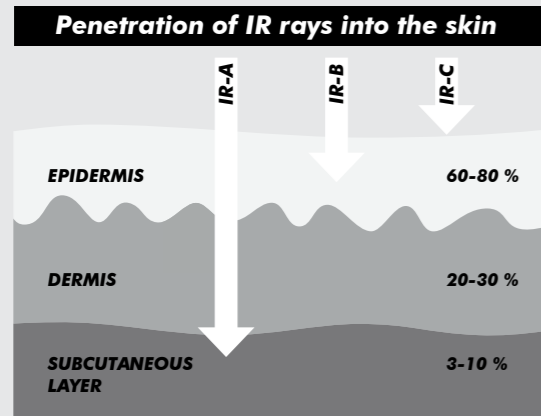
The most sophisticated system for the infrared cabin, heats the body immediately without preheating. The heat will safely penetrate deeper in muscular tissue, resulting in total relaxation. Emits the entire infrared spectrum (IRC/ IR-B/ IR-A).



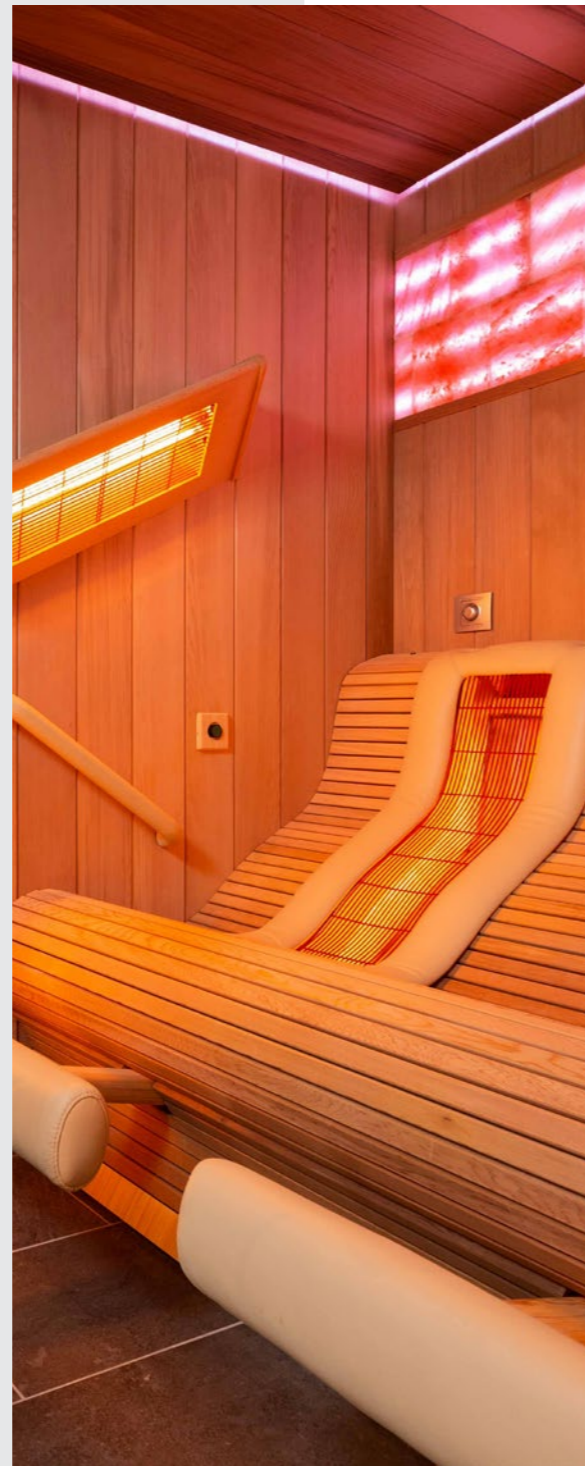
INFRARED SYSTEMS IN USE

DIRECT HEAT & MEASURED VALUES

Chaleur quartz infrared heaters have a measurement from 3 to 10% IR-A, 20 to 30% IR-B and 60 to 80% IR-C. It depends on the point of measurement, power, and output given by the control panel. With this knowledge, it is impossible to assign any fixed value to infrared heaters. Chaleur quartz infrared heaters are specially designed in collaboration with the Seibersdorf research centre in Austria to ensure the correct and safe ratio between IR-A, IR-B, and IR-C. By virtue of this, we are able to ensure, in combination with the correct power control, optimal and safe penetration depths.



Full-spectrum quartz heaters by Alpha Wellness Sensations can also be used in open spaces. This is possible because the infrared energy penetrates directly into the body because of the shorter wavelength of the infrared. This is only possible with a full-spectrum infrared heater. Other infrared heaters such as the long-wave heater generate warm air which is very pleasant to be in, and in which relaxing perspiration is possible. To reach the deeper muscular tissue and to obtain an even higher state of relaxation, a full-spectrum quartz infrared heater is essential.



Watch the 3D animation video of the ergonomically shaped heater.



S-CURVE



PATENTED FULL SPECTRUM INFRARED HEATER

This patented full-spectrum infrared heater, ergonomically designed based on the S-curve, will seamlessly fit the body's shape. The back is fully supported from top to bottom, along the contours of the body. The comfortable and attractive seat is the ultimate in relaxation and can help relieve back pain. The combined infrared energy helps to relax and relieve pain.

- Type:** Ergonomically-shaped Full-spectrum infrared heater
- Capacity:** 600 Watt
- Patent no:** MD A 2015 0022
- Warm-up time:** Few seconds
- Purpose:** Relaxation seats
- Shape:** S-curve

CONTROL UNITS



IR DIMMER

A wooden or plastic dimmer is used for gradually adjusting the heating intensity of the back heaters (in combination with IR START).



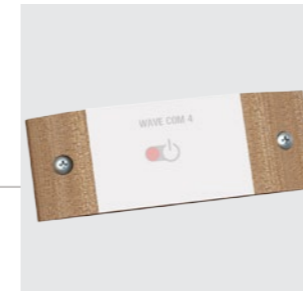
ALPHA

This control unit has 2 zones (back & front) where you can change the intensity in increments of 25%, while the leg and floor heating can be switched on or off. You can also choose to set the temperature, and the heaters will regulate to keep a stable temperature.



INFRAWAVE

The Infrawave control unit is compact and very easy to use. It offers you the possibility to regulate two separate zones: in 5% increments. However, the leg heater, floor heating, and lighting can be switched on and off. The timer can be set until 99 minutes. Maximum heater capacity is 3400watt.



IR SWITCH

The switch box can be used as a button, switch or timer. For example, this switch can turn on optional infrared heaters in a traditional sauna. The session duration can be set in the timer. The display has a smooth design and can be installed both inside and outside the sauna. The power box can be installed in the service room or on the roof of the cabin. The maximum power output is 3,6 kW.



IR START

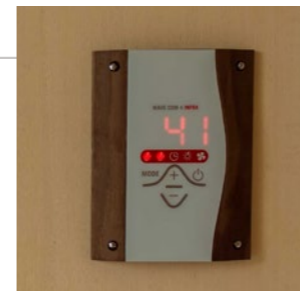
We often install a simple push button with an overrule timer in commercial facilities. As a result, the heaters (in certain zones) automatically switch off after a factory pre-set time and this setting cannot be changed by the sauna bather. This avoids end users tampering with a digital timer.



IQPC

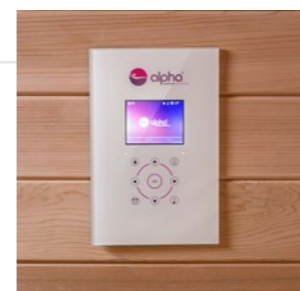
Infrared Quartz Precision Control

This IQ Precision Control can operate separately in three zones of 1500 W and the floor heating can be turned on and off. Optionally you can have a second display, a door switch, and a coin box. The maximum power of the six outputs can be set and there are additional power boxes to increase the power by 3500W each.



IR-DESIGN

This design control unit is high temperature and humidity resistant while suitable to use in a sauna environment up to 100°C. With different power levels, two separate zones (1500W each), extendable time limit, and bench sensor. The digital control is available in different designs: wooden, black, or white. The pre-set user programs offer different therapy possibilities: relaxation, heating, short, and long endurance. The device can be extended up to 12 kW and several displays can be connected to one control unit. There are two additional outputs for extra circuits.



AASC-ALPHA

Alpha Adaptive Smart Control

This ultra-modern digital control unit is furnished as a standard feature in our infrared cabins of the medium and premium range. It can be installed both inside and outside the cabin. The six outputs are dimmable from 1%. This way we can create different zones and a unique personal experience in the cabin. Options such as Bluetooth music, colour therapy, and ventilation can be easily controlled remotely via the app. It is also possible to measure the heart rate with a sensor bracelet so that the heaters are automatically dimmed when the pre-set rate is reached.

With a dimmable control unit, the power of infrared heaters can be adjusted. With a lower capacity, the core temperature of the full spectrum heater is lower. As a result, the wavelength moves more to the long-wave range allowing you to choose the setting that best suits your personal needs. Muscle relaxation with a higher or lower temperature inside the cabin. Alpha Wellness Sensations makes it possible. Controlling the setting is easy and convenient.

SAFETY TESTED



SEIBERSDORF
LABORATORIES

EMMISSION SPECTRUM FOR QUARTZ HEATERS

Infrared radiation can be seen as radiation heat with spectral distribution in three spectral bands: short waves (IR-A), medium-length waves (IR-B), and long waves (IR-C). Our infrared heaters produce a full infrared spectrum, in which the maximum energy is emitted at wavelengths below $3\mu\text{m}$. In the spectral band below $1.4\mu\text{m}$, the infrared emission of Chaleur infrared heaters is comparable to that of the sun.



NO NEED TO PREHEAT FOR A LONG TIME,
THE HEAT CAN BE FELT IMMEDIATELY
AFTER TURNING ON.

INFRARED HEATERS WITH FLOCKED GRID

Infrared heaters on the market often have a glass filter installed. Alpha Wellness Sensations uses flocked grids. They are not only safer because they do not retain heat, but they also allow more infrared heat to pass through, making our infrared heaters much more efficient.

OPTIMAL PENETRATION DEPTH INTO THE SKIN

With their special emission spectrum to suit the characteristics of human skin, tested Chaleur infrared heaters provide pleasant heating of the body with a unique warmth that penetrates deep (5 mm) into the skin. The result is a relaxed, enjoyable and rapidly reached sensation, enabling a shorter session in the infrared cabin. These full-spectrum heaters offer unprecedented efficiency and comfort, thanks to fast heating and ability to convert electrical energy into heat specifically where it is needed in the body. The infrared emission of Chaleur infrared heaters with wavelengths below $1.4\mu\text{m}$ can reach the dermis (up to a depth of 5 mm), to where the heat is transferred at a higher volume. This produces effective and optimal heating of the body, which would not be possible by using middle-wave or long-wave heaters.



HEALTH

TOP TEN ARGUMENTS WHY INFRARED WARMTH CONTRIBUTES TO WELLBEING.

1 IMMUNE SYSTEM

Body temperature will rise during use. An artificial fever is produced. Boosting your immune system.

2 IMPROVED BLOOD CIRCULATION

Heating of the muscles will increase blood flow, comparable to intense exercise. Body temperature rise will bring about better blood circulation and dilation directly into capillaries, arteries, and other blood vessels.

3 CARDIOVASCULAR STIMULATION

Regular use of an infrared cabin can create comparable ambient stress to the cardiovascular system. Thanks to the deep penetration of the infrared heat, the heating effect will go deep into the muscles and internal organs. The hypothalamus will produce an increase in heart volume as well as rate. Because of this, positive heart stress will occur which will produce the desired cardiovascular training and a positive effect on one's condition. For people who are confined to a wheelchair or handicapped, it is often very hard to stimulate the cardiovascular system.

4 DETOXING

Increased blood circulation will stimulate perspiration glands. Perspiration is healthy. Sweat contains toxins and waste products that have built up inside the body. Daily perspiration detoxifies the body. Some of the toxins found in sweat are heavy metals (lead, mercury, nickel, cadmium) and alcohol, nicotine, sodium, sulfuric acid, and cholesterol.

5 RHEUMATIC CONDITIONS

When having rheumatic inflammation, it is most important to improve blood circulation at the site of the inflammation so that complementary antibodies will form. Research by the MST* has shown that infrared heat has an actual, wholesome effect on people with rheumatic conditions. The research was led by Dr. Frits Oosterveld, Professor at the Academy for Physiotherapy, and rheumatologist Professor Hans Rasker at Topclinic Hospital MST. (*Medisch Spectrum Twente).

6 PURIFYING THE SKIN

Good perspiration is obtained after just a few minutes inside the infrared cabin. Deeper impurities and dead skin tissue is removed, resulting in glowing skin, which will feel completely clean. It will improve skin colour and elasticity. It has also been proven with increased blood circulation, skin disorders such as acne, eczema, psoriasis, and burns will fade. In addition, open wounds will heal faster, and scars will lessen.

7 OVERALL SENSE OF WELL-BEING

The sensation of well-being will increase because of the relaxing infrared heat. Nervous symptoms are reduced and a good night's rest is encouraged. A distinct, relaxing, and enforcing effect of the deeper warmth will be experienced after the first few sessions.

8 INSOMNIA

For those who prefer a more holistic approach, the luxury of relaxing in an infrared cabin is healthier and arguably more effective than taking medication. It also has a more soothing effect. The penetrating warmth and tranquillity of an infrared cabin will help you fall asleep naturally.

9 CARDIOVASCULAR DISEASE

Research shows that sweat consists of 80% water. The remaining 20% consists of liposoluble toxins and heavy metals, acids, sodium, ammonia, fat, and cholesterol. Too much cholesterol and fat are responsible for cardiovascular disease. Regular use of the infrared cabin will reduce or remove these substances.

10 MUSCULAR PROBLEMS AND SPORTS WARM-UP

Infrared works by penetrating the joints, muscles, and tissue, and by increasing oxygenation. It reduces pain at nerve-endings and muscle spasms. Before exercising, it is advisable to warm up the muscles in order to prevent any injury.



FROM DESIGN TO PRODUCTION

A special infrared cabin, completely designed to your personal preference; a bespoke sauna or hammam especially for you. At Alpha Wellness Sensations, we know that your wishes and ideas are much more important than the standard options you can choose. You don't have a design yet but do have an idea, a picture or sketch of a wellness project? Don't hesitate to contact us. We will combine our experience and expertise with your wishes, create a (3D*) design and transform it into a fully-finished wellness product!

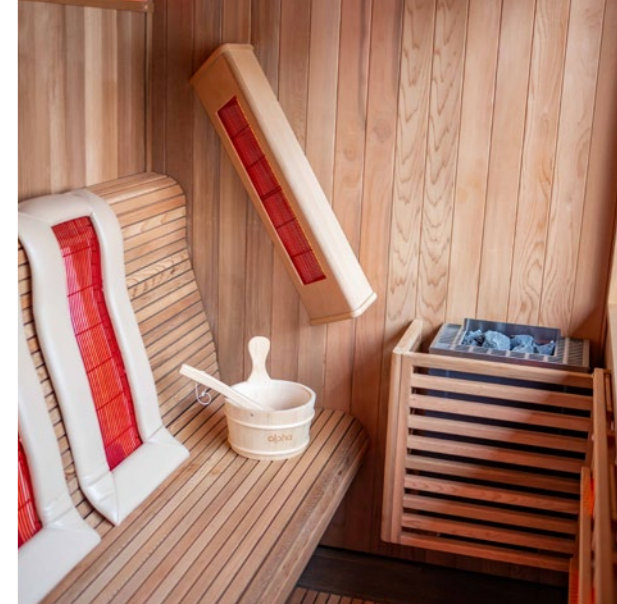
BESPOKE PROJECTS, ENCLOSED EQUIPMENT AND FREE-STANDING CABINS

The entire Infrared range can be fully customized to your needs :

- » cabin: dimensions, appearance (with glass front, without door ,etc.), accessories (different hinges and handles), features;
- » benches: shape (standard, ergonomic, semi ergonomic) and size;
- » heaters: position, type , length;
- » interior: different wood kinds, salt stones, natural stone or different colour lights;
- » control units: ALPHA , AASC, IQPC,IRDESIGN, IR-START, IR-SWITCH, IR-DIMMER;



BESPOKE



Why Infrared by Alpha Industries

- » Over 60 years of **experience** in the wellness industry.
- » We never stayed the same! That's why we are **trendsetters and innovators** in the wellness industry. Compared to our competitors who have used the same technologies over the years, we continue to evolve; you can see this from our wide range of heaters:
 - **1993** - Ceramic Heater;
 - **1996** - Incoloy-Magnesium Oxide Heater;
 - **2002** - Panel Heater;
 - **2005** - Quartz (Full-Spectrum) Heater;
 - **2009** - Duo Heater
 - **2015** - Ergonomically shaped Quartz Heater.
- » Which heater to choose? We use now: Magnesium/ Quartz (Ergonomic)/ Duo heaters. The higher the frequency, the shorter the wavelength, and thus more energy. The higher the temperature of the infrared source (IR heater), the shorter the wavelength, the deeper the penetration. See the difference:

Magnesium	Criteria	Quartz
longer 1.4-3 μm	wave length	shorter 0.7-1.4 μm
$\geq 170^\circ\text{C}$	temperature	$\approx 200^\circ\text{C}$
shallow	penetration	deep
long	pre-heat time	short

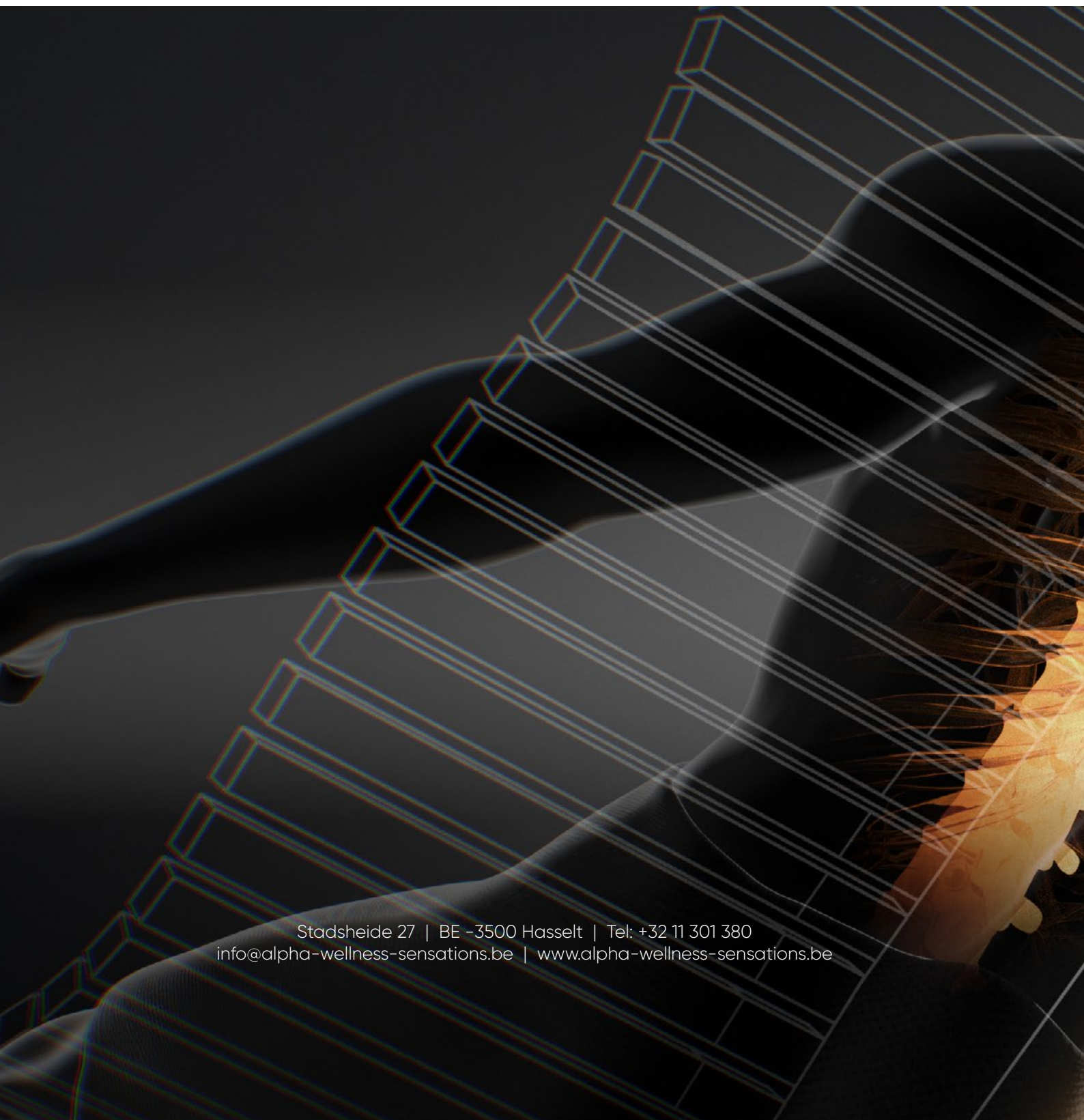
- » Full-spectrum quartz **can also be used in open spaces**. Because of the shorter wavelength of the infrared, energy penetrates directly into the body.
- » The safe full-spectrum infrared heater warms up the body directly **without pre-heating time**; the heat can be felt immediately after turning on.
- » The wider reflector housing achieves **absolute returns** with the built-in reflector

This is in contrast to our competitors. They often install three elements in a separate small casing.

- » Ergonomically shaped full spectrum infrared heater **fully supports the back** from top to bottom, along the contours of the body.
- » With a dimmable control unit, the power of **infrared heaters can be adjusted**, allowing you to choose the setting that best suits your personal needs.
- » Options such as Bluetooth music, colour therapy and ventilation can be easily **controlled remotely** via AASC-Alpha Adaptive Smart Control. It is also possible to measure the heart rate by using a sensor bracelet so that the heaters are automatically adjusted when the pre-set rate is reached.
- » Most infrared heaters on the market have a glass filter installed, Alpha Industries uses flocked grids which are not only **safer** because they do not retain heat, but they also allow more infrared heat to pass through, which is much **more efficient**.
- » **Tested security.** All readings and inspections were carried out by the renowned Seibersdorf scientific research laboratory in Austria and TUV inspection institute in Germany.
- » All cabins are made of Canadian Cedar wood, which is **naturally antimicrobial**, no matter how much moisture or sweat is released into this species of lumber, it is impossible to grow fungus, mould or bacteria.
- » We buy wood with environment and forest protection labels, from Vancouver Island, and transport it directly to our **factory**, where the raw material is transformed into a finished product that meets the highest quality and functionality standards for you.



We will combine our experience and expertise with your wishes, create a **3D design**, and transform it into a fully-finished wellness product, completely designed to your personal preference.



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