

Instruction Manual: Hot Tub



Styles:
WELLNESS

Models:
180 and 200



Manufacturer's contact details

Name: UAB KUBLITA

Address: Pramonės g. 97A, 11115 Vilnius,
Lithuania

E-Mail: sales@kublita.lt

Website: www.kublita.com

Telephone: +37067167665

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1 Purpose of this manual

This instruction manual will help you to transport, set up, assemble, start running, operate, maintain, and service the hot tub as intended, in a proper, effective, and safe manner, as well as to dismantle, stop running, and dispose of it. That is why it is important that you read the following chapters carefully. If required, please consult important information more than once.

	<p>NOTE</p> <p>Please make sure that you have read and understood the instruction manual before using the hot tub for the first time or if you are assigned to do any other work on the hot tub.</p>
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It is not always obvious how you should use, operate, and transport the hot tub described below. That is why we have provided explanations here, which are, in some cases, accompanied by technical documentation (see attachments and annexes to this instruction manual).

This instruction manual provides you with information and warnings about residual risks (see Chapter 2.3). While protective measures have been introduced to reduce the level of risk, please note that it is not possible to eliminate all risks in part or entirely. The safety and warning instructions, especially those pertaining to residual risks, must be strictly followed to avoid personal injury.

This instruction manual is intended for private individuals and companies. The instruction manual must be kept near the hot tub.

The following attachments are valid together with this instruction manual and serve to inform the user:

Attachment 1: Circuit diagram

Attachment 2: EU Declaration of Conformity

Attachment 3: "Hot Tub Clean Care" Safety Data Sheet

If you have ordered optional accessories such as the "skimmer" or "sand filter unit" with your hot tub, the operating instructions for these accessories will be enclosed with this manual. These instructions, especially the safety instructions described herein, must also be read and observed by the user as well as any maintenance personnel.

2 Personal safety





2.1 Due diligence

For your safety and to maintain the hot tub during all stages of its service life, please read and follow the instructions contained within this manual. Do not make any modifications to, or repair, the hot tub yourself.

For proper use, you, the user of the hot tub, must read and follow the instructions of this manual, paying attention, in particular, to the safety instructions given in this chapter.


2.2 Symbols and Notices


This manual uses symbols, signal words, and notices to warn users of hazards and make sure that the hot tub is operated safely. These are shown and explained below by the specifications given in the standard (DIN EN 82079-1 and DIN EN ISO 7010).


	<p>DANGER</p> <p>This means that there is an imminent danger. Failure to adhere to this instruction may result in serious injury or death.</p>
	<p>WARNING</p> <p>This means that there is an imminent danger. Failure to adhere to this instruction may result in serious injury.</p>
	<p>CAUTION</p> <p>This means that there is an imminent danger. Failure to adhere to this instruction may result in minor injury.</p>
	<p>NOTE</p> <p>This symbol indicates that there is an imminent danger. Failure to adhere to this instruction may result in damage to property.</p>


2.3 Residual risks


The following residual risks remain even when the hot tub is used as intended (see Chapter 3.2) and despite the protective measures that have been introduced to minimize the level of risk. Please familiarise yourself with these residual risks and follow the measures described below to prevent a threat to life. All residual risks are described both in this chapter and at the corresponding point of occurrence of the residual risk within this manual.


	<p>DANGER</p> <p>The danger of drowning and risk of hand injuries/risk of trapped hand/finger in the jets/water inlets and return pipes! Children and persons with mental illnesses must be supervised by an adult at all times. Do not reach into the jets or water inlets and return pipes. We strongly recommend switching off the hydro massage jets when the hot tub is being used by children. The sand filter unit and skimmer must always be deactivated when the hot tub is in use. If you have long hair, please protect your hair (e.g.: by tying it up or wearing a swimming cap). Always position the hot tub so that you can easily reach and unplug the mains plug in case of an emergency.</p>
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	<p>DANGER</p> <p>Risk of circulatory problems and risk of drowning! Make sure to take sufficient and sufficiently long breaks between bathing sessions. Make sure to drink plenty of fluids (fluids containing electrolytes) when bathing. The bathing water temperature must not exceed 40 °C. Always check the bathing water temperature before entering the hot tub. Pregnant women and anyone with health conditions should consult a doctor before using the hot tub.</p>
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	<p>DANGER</p> <p>Risk of electrocution! The control box and its components may still be live while repair work is underway. The hot tub must be disconnected from the power supply before repairs are carried out and steps must be taken to make sure that the power may not be reconnected either accidentally or by unauthorized personnel. Repairs may only be carried out by qualified electricians. Unauthorized personnel are prohibited from touching the live parts. It is also prohibited to use the optional sand filter unit and/or the optional skimmer without an upstream residual current circuit breaker or to switch on either of these functions when people are using the hot tub. Any other safety instructions regarding accessories given in this manual must be followed. Only use appropriately designed garden sockets with an IP protection rating of at least IPX5.</p>
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	<p>DANGER</p> <p>Risk of electrocution! Avoid using the hot tub in stormy weather (lightning/thunder / rain). In case of stormy weather, stop bathing immediately and cover the hot tub using the optional cover, provided that it is safe to do so.</p>
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	<p>DANGER</p> <p>Risk of falling objects! Please note that there is a risk of falling objects when transporting the hot tub. The product may only be transported by experts. Do not walk or stand under a suspended load. The product may only be placed on a level surface. Make sure that the hot tub is in a stable position once the crane has been lowered. Do not remove the tensioning strap when detaching the Euro pallet.</p>
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	<p>DANGER</p> <p>Risk of toxic or harmful cleaning products! Make sure that the chemical care products you use when maintaining the hot tub are kept out of the reach of children. These may be toxic. The safety data sheets must be followed. In case of swallowing, contact the National Poisons Information Service (NPIS) immediately and follow their instructions.</p>
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	<p>WARNING</p> <p>Burn hazard, hot surfaces on/inside the stove and on the flue pipe (please note that hot ash, sparks, and steam may escape from the flue pipe)! Avoid contact with hot components. Maintain a sensible distance between yourself and the stove and between yourself and the flue pipe. Open the stove doors slowly. Should you need to touch any of the components: Please use protective gloves and/or allow any hot components to cool down before handling them.</p>
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	WARNING
	<p>Burn hazard from overloading the stove! Take care not to load the stove with too much firewood, which can fall out when the stove door is opened. When extinguishing the embers with water (not recommended), make sure to keep a safe distance to avoid coming into contact with the hot steam.</p>

	WARNING
	<p>Trip hazard! Always get in and out of the hot tub slowly and gently as surfaces, especially those of the hot tub, may be slippery. You could use the LED lights (optional extra) to improve lighting conditions if you plan to use the hot tub frequently in low lighting.</p>

	WARNING
	<p>Risk of injury from manual handling when removing transport packaging! Take care when handling sharp tools such as carpet cutters and scissors. Make sure that the tensioning strap is kept under tension. Hold this in place when cutting. Wear protective gloves.</p>

	WARNING
	<p>Risk of injury from lifting loads that are too heavy! Be careful when moving heavy loads. Lift correctly and do not exceed your carrying capacity. People with existing back problems should avoid lifting altogether. Wear protective gloves.</p>

	CAUTION
	<p>Hot water may escape from the water inlet on the stove, risk of scalding (upper pipe - see item3 in Figure 6)! Avoid direct contact with the water inlet.</p>

	CAUTION
	<p>The danger of crushing when setting down the hot tub! Take care when moving and placing the hot tub onto the bearing surface. Only hold the stepped edge. Select a level and appropriate bearing area as per the description in Chapter 5.2. Wear protective gloves.</p>

2.4 Signs by the hot tub

The warnings shown in the following illustrations.

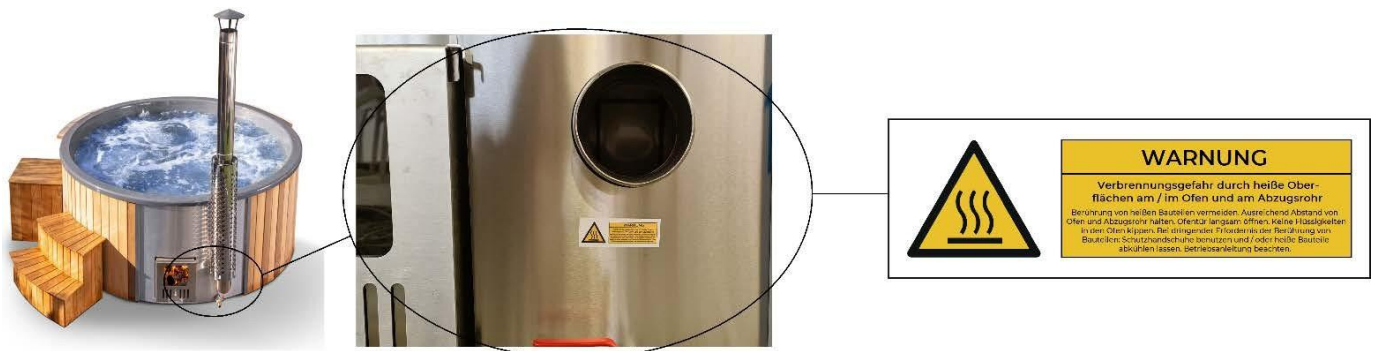


Figure 1: The burn hazard warning is not attached to the hot tub.



Figure 2: There is no warning attached to the hot tub regarding supervision of children and prohibition of sticking fingers into the jets..



Figure 3: The hot tub does not have any warning signs indicating the risk of electrocution.

2.5 Health and Safety Devices

The hot tub is designed and manufactured in such a way that leaks within the water-bearing assemblies are virtually impossible when the product is used as intended. If the hot tub short circuits as the result of a leak, the residual current circuit breaker will cut off the power to the live components.

Hot surfaces are also disguised by heat-insulating protective plates positioned on both the stove and the flue pipe.

The minimum distance between each optional pump and the inlets/outlets inside the tub is 1 m. Therefore, it is virtually impossible for hair to get caught in the motors. It is also possible to unscrew and re-screw the screens for the tub's inlets and outlets so they are fully removable should any hair get caught in them.




3 Product Description

3.1 Description of the hot tub

The hot tub is a wood-fired hot tub heated by a stainless steel wood stove for outdoor use. The tub is available in three different styles and three different sizes (170 cm length, 180 cm, or 200 cm diameter), with two different stove positions (internal and external), and comes in a variety of wooden cladding options.

The following Table 1 is a description of the three basic styles which includes information on its basic features, the advantages thereof as well as illustrations of the hot tub.

Table 1: Hot tub styles

Styles	Basic features	Advantages	Illustration
Ofuro	Oval hot tub with a length (inside) of approx. 170 cm and width (inside) of approx. 100 cm with external stove.	Very compact design; no recess in the tub.	
Wellness Integrated heater	Round hot tub with an internal diameter of 180 cm or 200 cm with an internal stove.	Compact design; bathing water is heated faster.	
Wellness external heater	Round hot tub with an internal diameter of 180 cm or 200 cm with an external stove.	More space in the tub as there is no recess for the stove.	

The tub color, number of massage jets, type of cover, lighting, cleaning accessories, etc. can also be configured for each of the three styles. The hot tub has a wood-burning stove that transfers the heat generated by the burning firewood to the water which then circulates through a separate chamber in the

stove. The water, which is automatically set in motion by heating it, will then flow into the inner area of the hot tub. This creates natural water circulation without the need for external pumps. The heating time for an optimal bathing temperature of 37 to 40°C is about 2 to 3.5 hours (depending on the design of the hot tub, the outside temperature, the type of cover, the amount of water, the heating, and the insulation). The glass-fiber reinforced and ergonomically shaped plastic tub is designed to provide seating and, in the model with an internal stove ("WELLNESS"), this provides space for the stove. The hot tub comes with the following standard features: a flue pipe with a heat shield, access steps, a thermometer, a drinks shelf, and a paddle for better heat distribution of the water. Figure 4 depicts a simplified process flow diagram. Figure 5 and Figure 6 depict a fully equipped hot tub. Table 2 gives you an overview of all standard and optional features of the hot tub.

Please observe the following warning notice, especially when using either the "WELLNESS" style with an external stove:

	CAUTION
	<p>Hot water may escape from the water inlet on the stove, risk of scalding (upper pipe - see item3 in Figure 6)! Avoid direct contact with the water inlet.</p>

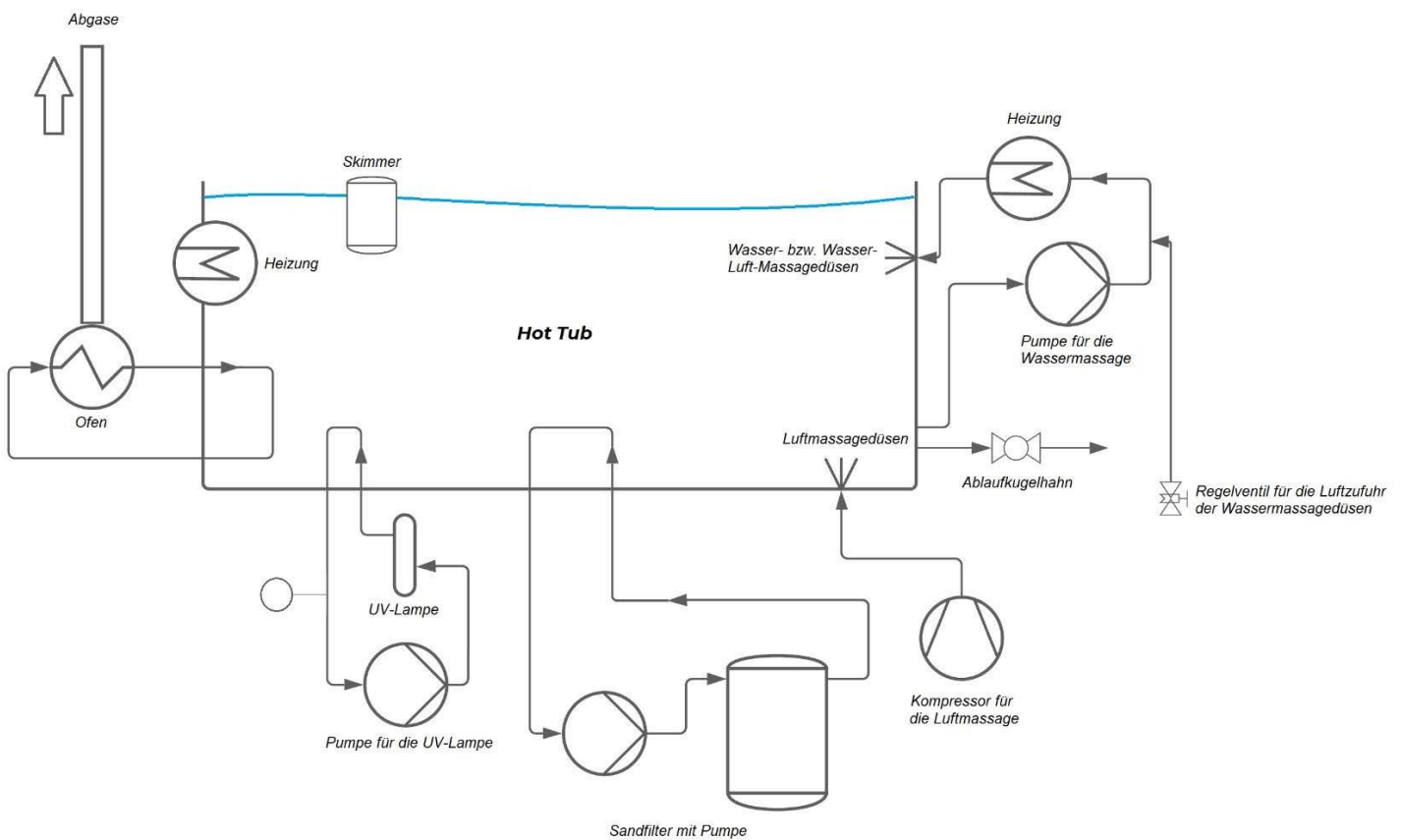


Figure 4: Simplified process flow diagram for the hot tub

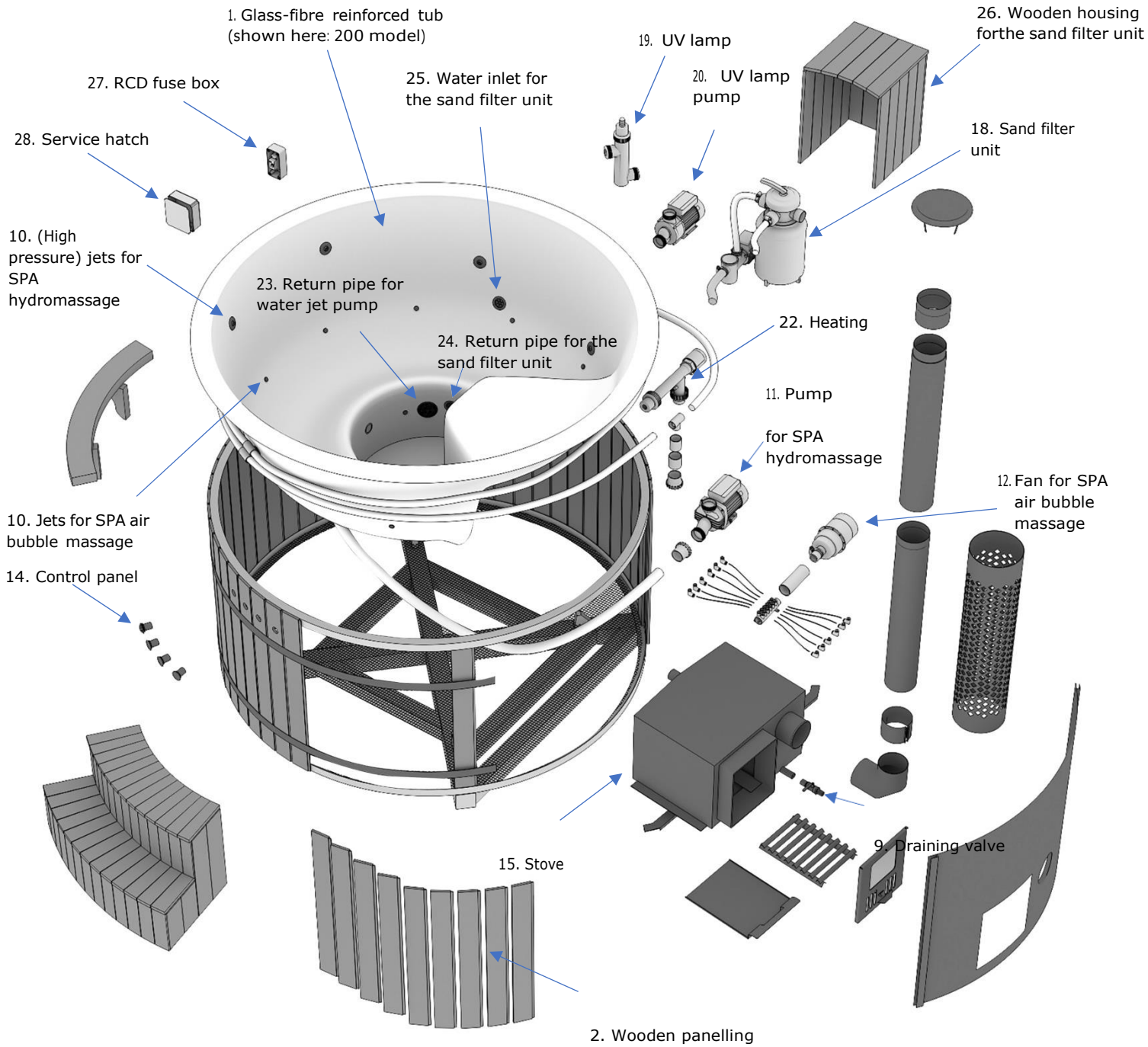


Figure 5: Exploded-view drawing of hot tub, "WELLNESS" model

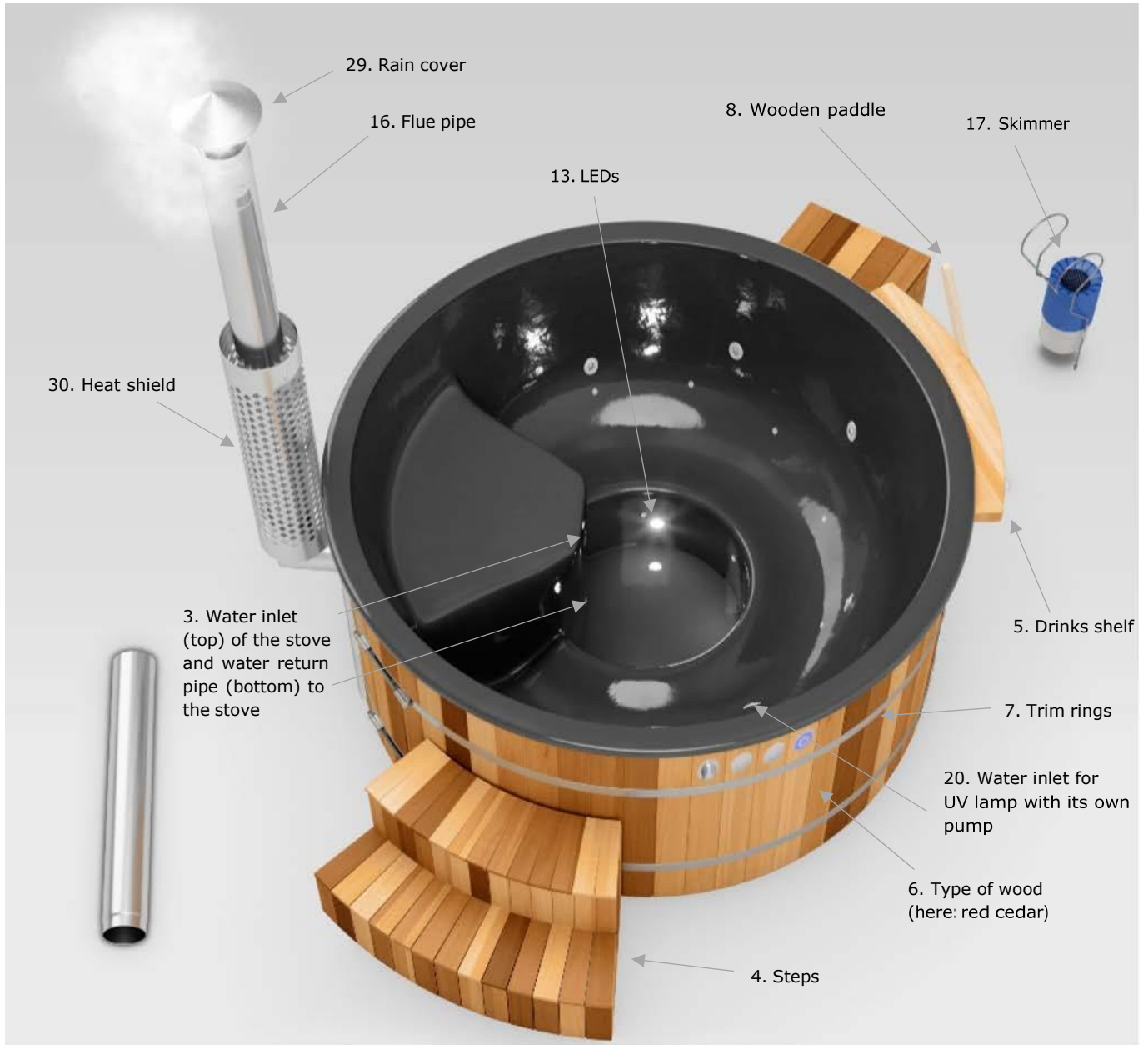


Figure 6: Isometric view of the hot tub, "WELLNESS" model

3.1.1 Hot tub styles and optional accessories

This manual describes the hot tub style "WELLNESS" as well as the features listed in Table 2 (standard and optional).

Table 2: Hot tub features optional accessories (item numbers refer to Figure 5 and Figure 6)

Item	Feature	Type	Available styles / Description
1	Glass-fiber reinforced plastic tub	Standard equipment	Available in white, blue, grey and anthracite and adapted to the different styles and the number of jets. Without a recess for the stove for hot tubs with an external stove.
2	Wood panelling	Standard equipment	Available in the following styles: Red cedar, Thermo Wood, and spruce
3	Water inlet and return pipe (stove)	Standard equipment	Connection between the hot tub and the heat exchanger for the stove
4	Access via steps	Standard equipment	-
5	Mini bar	Standard equipment	-
6	Type of wood	Optional	Available in spruce, Thermo Wood, and red cedar
-	Wood finish	Optional	Thermo Wood, spruce wood: Any color of Remmers paints catalog.
7	Stainless steel belts	Optional	-
8	Wooden paddle	Standard equipment	Added only to tubs without massage system.
9	Draining valve (1 inch) for filling and draining the tub	Standard equipment	-
-	Cover	Optional	Available as a GRP cover in white, blue, or grey, as a thermal cover in brown, grey or black, or as a wooden cover in the aforementioned wood types and finishes.
10	Combined SPA massage system	Optional	- Perfect for those who seek the maximum effect. This system consists of a combination of 8 water jets with powerful motor of 1,1 kW and 12 air-bubble jets with 0,7 kW motor. The advantages of two systems at once allow a truly remarkable effect!
11	Pump for SPA hydromassage	Optional	Depending on what you have selected for item 8, available in 1.1 kW, 1.5kW
12	Compressor for air massage	Optional	This system consists of 12 individual jets and a powerful motor of 0.7kW
13	LED lighting	Optional	LEDs with colour change function
14	Pneumatic push buttons	Optional	Optional functions: <ul style="list-style-type: none"> - LED control panel with color change function, - Regulated air supply using the water jets (valve), - Control panel for the water jet pump, air jet pump and UV lamp pump (bespoke designs available)
-	Insulated tub	Optional	Foam insulation between the tub and wooden panelling
Item	Feature	Type	Available styles / Description

15	Stove	Standard equipment	304 or 316 stainless steel (internal or external)
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16	Flue pipe	Standard equipment	With rain cover and heat shield
17	Skimmer	Optional	Please see the separate manual
18	Sand filter unit	Optional	Please see the separate manual
19	UV lamp	Optional	With its water circuit
20	Pump for UV lamp	Optional	The UV lamp operates independently of the sand filter. The jet is usually located opposite the water inlet/return pipe for the sand filter pump.
21	Thermometer	Standard equipment	-
22	Heating	Optional	-
23	Water suction	Optional	-
24	Outlet for sand filter	Optional	-
25	Inlet for sand filter	Optional	-
26	Sand filter box	Optional	-
27	Leakage reley	Standard equipment	The fuse box houses the residual current circuit breaker.
28	Leakage relay doors	Standard equipment	The fuse box is located behind the service hatch.
29	Chimney cap	Standard equipment	Serves as rain cover for the flue pipe
30	Chimney protection	Standard equipment	Serves to protect the user from burns
-	1 m flue pipe extension	Optional	-

3.2 Intended use

The hot tub may be fitted with an optional SPA massage function and optional accessories that you may operate in private households as well as in commercial establishments provided you comply with instructions contained within this manual and operate the hot tub in a stationary position outdoors. Any other use is considered improper and may lead to personal injury and damage to property.

3.3 Foreseeable misuse

The hot tub must not be used for any other purposes. The following examples of foreseeable misuse are not permitted:

- Using the hot tub indoors
- Setting down the hot tub on non-flat, insufficiently stable or combustible substrates deviating from the requirements described in Chapter 5
- Failing to comply with the other conditions regarding its installation
- Modifying / manipulating the hot tub (e.g.: inserting your insulation material between the tub and the paneling poses a fire hazard)
- Allowing children or persons with mental illnesses to use the hot tub without supervision at any stage of the hot tub's service life
- Operating the stove using liquid fuels (e.g.: heating oil, diesel, paraffin, gas, petrol, etc.)
- Firing the stove without supervision
- Extracting smoke using ventilation ducts
- Storing highly flammable material (e.g.: petrol) closer than 2 m from the stove
- Starting up the stove without water in the tub or with a water quantity below the minimum allowance of 50 mm above the upper edge of the water inlet for the stove
- Using treated wood (e.g.: impregnated pallet wood) to fire the stove
- Using paper to light firewood
- Placing the firewood on the ash pan or in front of the grate
- Using water to extinguish the fire and not maintaining sufficient distance from the fire when doing so
- Failing to comply with the maintenance and servicing requirements described in Chapter 8
- Cleaning the hot tub using a high-pressure cleaner, scourers, or aggressive cleaning agents
- Immediately drain the water after chlorinating the hot tub (see Chapter 8.3.3)
- Letting the water freeze
- Using salt water or seawater in conjunction with a 304 stove
- Exceeding the maximum number of persons allowed in, or the maximum load for, the tub
- Jumping from the edge of the tub
- Using rollers on the hot tub as a substitute for transport by crane or similar
- Placing the hot tub on an unsuitable installation site
- Heating the water temperature to over 45 °C
- Removing or manipulating health and safety devices, such as heat shields, piping, RCD, or other electrical components.

3.4 Technical data

The most important technical data for the hot tub are summarised in Table 3 and Table 4.

Table 3: Higher-level technical data for the hot tub

Properties	Hot Tub 180 (WELLNESS)	Hot Tub 200 (WELLNESS)	Hot Tub (UFURO)
Interior diameter [cm]	180	200	Length: approx. 170, Width: approx. 100
Exterior diameter [cm]	200	220	Length: approx. 190, Width: approx. 120
Interior height [cm]	85	90	90
Seat height [cm]	30	30	30
Seat width [cm]	45	45	45
Water volume [l]	1,500	1,800	approx. 1,200
Weight (without water) [kg]	200	250	approx. 180
Capacity [persons] / maximum load [kg]	approx. 4 - 5	approx. 6 - 7	2
IP protection rating	IPX5	IPX5	IPX5
Connection type	230 V Schuko / 400 V CEE, 16 A*	230 V Schuko / 400 V CEE, 16 A*	230 V Schuko / 400 V CEE, 16 A*

*The connection type (5-pin CEE plug instead of Schuko plug) and consequently the voltage for the unit may increase to 400 volts from a power consumption of **3.6 kW** depending on which optional accessories you have selected (see Table 4). This is usually the case when using the heating. In this case, the system has a CEE plug for a 400 V DC connection. The connection to be provided by the customer must then be a 5-pin CEE plug with at least 16 amperes of current.

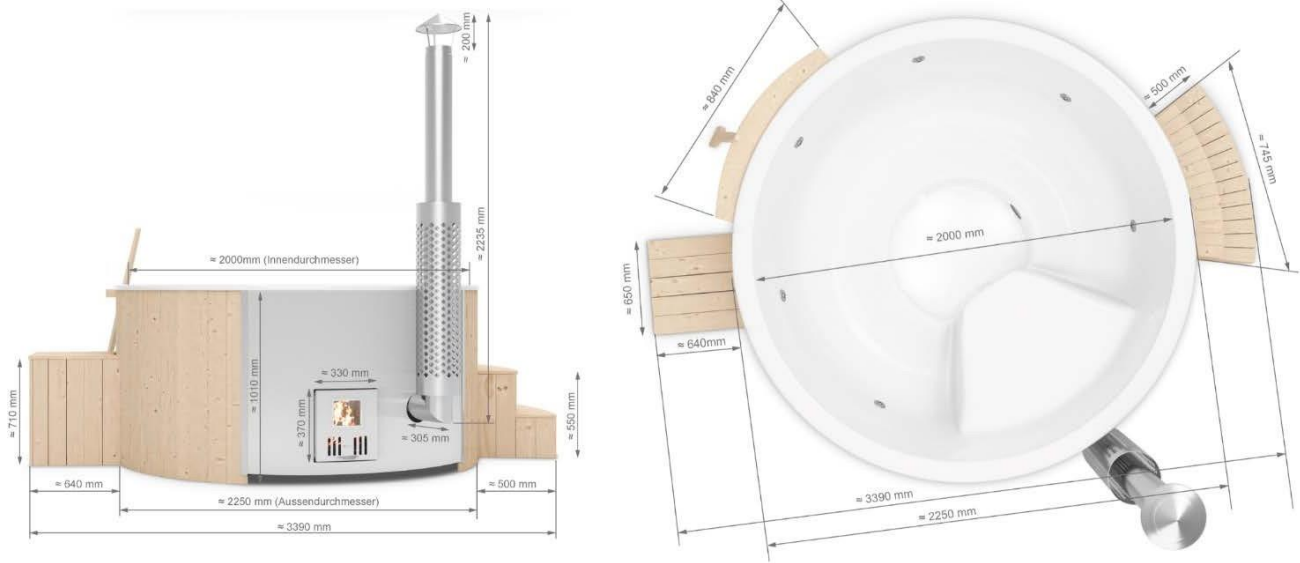


Figure 9: Dimensions for the Hot Tub 200, "WELLNESS" model

3.5 Control panel

The following Figure 10 depicts a sample control panel for the hot tub.

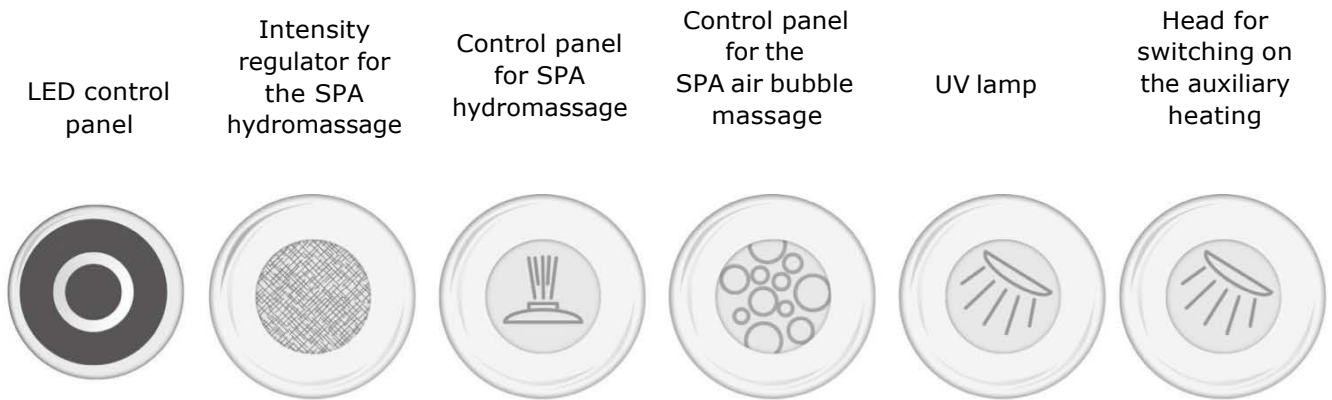


Figure 10: This is the control panel for the hot tub. Please note that the buttons may vary in their appearance or function.

The optional accessories "sand filter unit" and "skimmer" are controlled separately. These features start up as soon as the corresponding plug is inserted into the socket.

You can switch the LED lighting on or off using the control panel as per Figure 11 the one on the left (press and hold) or you can set different colors by briefly pressing the button.

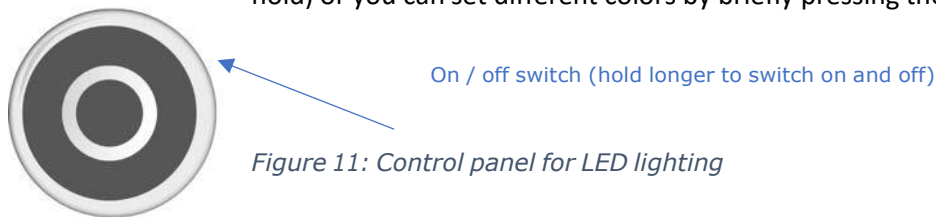




Figure 11: Control panel for LED lighting

3.6 Limitations

The hot tub can be used for an unlimited period of time provided that it is used as intended in accordance with the specifications given in Chapter 3.2, not misused (as per the description provided in Chapter 3.3), and provided that the maintenance and care instructions given in Chapter 8 are observed.


4 Transport to the installation site

	<p>Required tools / resources</p> <ul style="list-style-type: none"> • If necessary, a crane (or similar, e.g.: forklift) • Slips or chains, if applicable • Carpet knife or scissors
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	<p>DANGER</p> <p>Risk of falling objects! Please note that there is a risk of falling objects when transporting the hot tub. The product may only be transported by experts. Do not walk or stand under a suspended load. The product may only be placed on a level surface. Make sure that the hot tub is in a stable position once the crane has been lowered. Do not remove the tensioning strap when attaching the Euro pallet.</p>
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4.1 Requirements for personnel carrying out the installation


The manufacturer recommends using our trained specialist personnel to transport the hot tub to the installation site. *We would be happy to provide you with a quotation.* Should you decide to transport the product to the installation site on your own, you must comply with the requirements described in Chapter 4, otherwise the manufacturer's warranty will be voided.

	<p>NOTE</p> <p>The hot tub is intended to be used in a stationary position. It is also designed to be assembled once and transported from the manufacturer's factory to the installation site only once. If the hot tub is used as a mobile hot tub for changing locations, the manufacturer's warranty may be voided as it is not possible to rule out material damage due to improper handling.</p>
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4.2 Delivery and transport

If you have not requested assistance with installing the hot tub using our specialist personnel, the product will be delivered to you on its side, wrapped in foil, atop a Euro pallet, and placed clear of the kerb.

We recommend using a mobile crane or similar when transporting the hot tub to its place of use. The hot tub is to be transported to its installation site using slings that are fit for purpose. To do this, guide the slings through the Euro pallet and carefully lift the hot tub.

	<p>NOTE</p> <p>When transporting the hot tub by crane, forklift, or similar, you must make sure that the hot tub is securely fastened to the Euro pallet using the straps supplied. Otherwise, you run the risk of damage to property and potential personal injury.</p>
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Once the hot tub has been transported to the planned installation site, the crane must be detached from the Euro pallet. Only then should you carefully remove the packaging using suitable tools (e.g.: a carpet knife) so as not to damage the hot tub. The tensioning straps must now also be removed.

If you do not transport the hot tub using a crane or similar, but undertake this task yourself, you must carry out the turning procedure described in Chapter 5.3 and lift the hot tub by the lower edge with the help of at least 5 physically strong persons. Carefully transport the hot tub to the installation site.



WARNING

Risk of injury from lifting loads that are too heavy! Be careful when moving heavy loads. Lift correctly and do not exceed your carrying capacity. People with existing back problems should avoid lifting altogether. Wear protective gloves.

4.2.1 Disposal

Dispose of the packaging properly and in accordance with the specifications of your local waste disposal company.



WARNING

Risk of injury from manual handling when removing transport packaging! Take care when handling sharp tools such as carpet cutters and scissors. Make sure that the tensioning strap is kept under tension. Hold this in place when cutting. Wear protective gloves.


4.3 Storage

As the hot tub is designed for outdoor use, there are virtually no restrictions as far as storage is concerned. We always advise using a cover for the hot tub to avoid contamination.

If storage takes a long time, we advise dismantling at least the upper flue pipe (better: the whole flue pipe) so as not to expose it unnecessarily to the wind.

We also recommend staining and oiling the wood regularly if it is to be exposed to weather conditions and direct sunlight (see Chapter 8.7). You can ignore this step if the hot tub is to be stored in a dry place and covered.

5 Set-up, assembly, and installation

	<p>Required tools/resources</p> <ul style="list-style-type: none"> • Spirit level • Screwdriver or cordless screwdriver (slotted) • Open-end spanner or appropriately sized ratchet spanner • Electric drill • Metre stick • Carpet knife or scissors • Pencil
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5.1 Requirements for personnel carrying out the installation

The manufacturer recommends using our trained specialists to set up, assemble, and install the hot tub. *We would be happy to provide you with a quotation.* Should you decide to install and assemble the product yourself, you must comply with the requirements described in Chapter 5 otherwise the manufacturer's warranty will be voided.

5.2 Requirements for the bearing surface

The hot tub may only be installed outdoors and on a level and firm bearing surface. If the hot tub is to be placed on a combustible surface, make sure to install a protective plate made from fireproof material beneath, and in front of, the stove. The smoke must be able to escape easily and the flue pipe should not be in the direct vicinity of a neighbouring house. A well-compacted lawn is suitable, but gravel or crushed stone should preferably be used as a foundation. Unlike usual terraces/patios, the bearing surface must not be sloped otherwise the water in the hot tub will be unbalanced and air will not be able to circulate beneath the hot tub. If the bearing surface is not level, this must be leveled.


	<p>NOTE</p> <p>Make sure that all the support surfaces (see Figure 12) provided for the hot tub on the underside of the hot tub are in full contact with the ground to make sure an even application of force to the ground.</p>
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Figure 12: Bearing surface (colored red)

The following specifications for the installation site must be observed:

- For the 180 hot tub: 3 m x 3 m bearing surface (see also Figure 8)
- For the 200 hot tub: 3.50 m x 3.50 m bearing surface (see also Figure 9)
- A bearing surface of approx. 2m x 3m for the "UFURO" hot tub
- Compacted and completely level ground that can permanently withstand the tonnage of a hot tub filled with water and occupied by bathers (at least 2 tonnes).
- You must be able to ventilate the smoke
- In very cold regions, we recommend that you use an optional heater (see Item 22 as per Figure 5)
- Sufficient distance to flammable objects or equipment
- Provide a protective plate under and in front of the stove if the surface is combustible.

The following Figure 13 is a visual representation of an installation site that meets the specifications listed above.

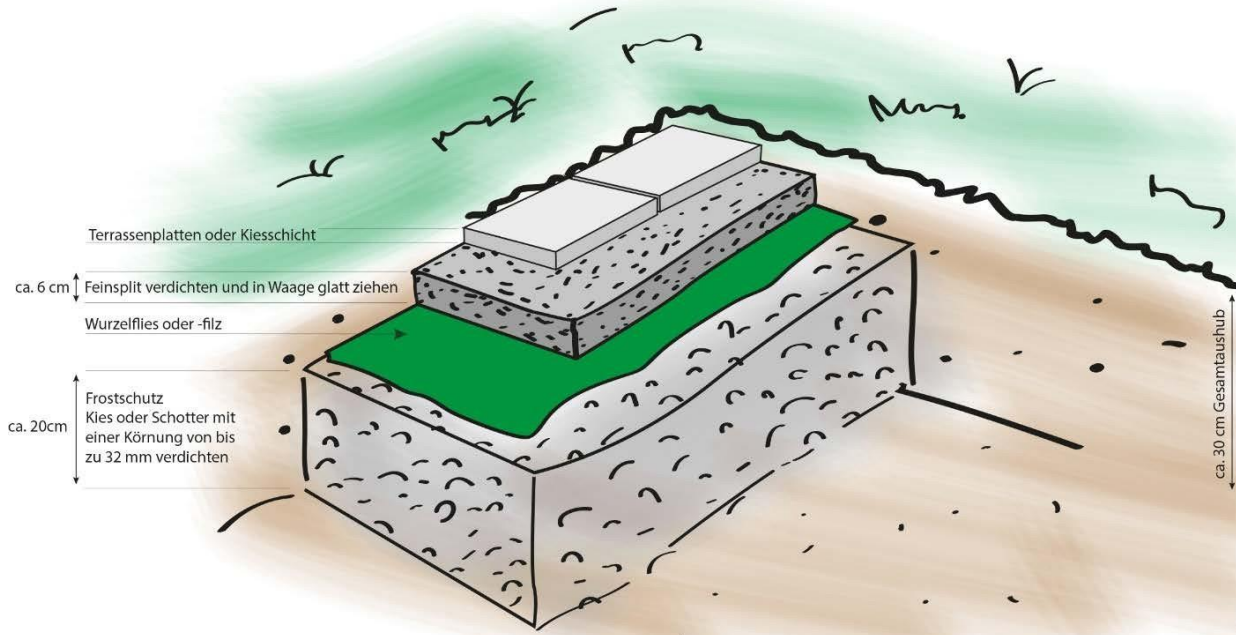






Figure 13: Correctly prepared installation site

	NOTE
	If there is no compacted floor, so that the hot tub sinks in up to the lower edge (approx. 2 cm), there is a risk of material damage and the warranty will be invalidated.

5.3 Set-up


	NOTE
	Please check all accessible parts inside the hot tub before moving the product. Vibrations can loosen parts and screw connections. If necessary, screw on any loose screw connections or re-establish the connections.

After the hot tub has been transported to the installation site in accordance with the instructions given in Chapter 4.2, it must be turned through 90° and carefully set down. Please note the unladen weight (depending on the model) will be approx. 180 to 250 kg as well as the center of gravity of the hot tub, which is slightly off-center due to the stove, and only carry out the installation if you are aware of the consequences, in particular, personal injury as a result of improper installation.


 	WARNING
	Risk of injury from lifting loads that are too heavy! Be careful when moving heavy loads. Lift correctly and do not exceed your carrying capacity. People with existing back problems should avoid lifting altogether. Wear protective gloves.


The following procedure is recommended by the manufacturer:

1. After removing the foil in the upper area, turn the hot tub with the help of 3 to 5 physically strong people.
2. The stepped edge (approx. 2 cm high) makes it easier to set down the hot tub. You must hold the hot tub by this edge when setting it down.


	<p>CAUTION</p> <p>The danger of crushing when setting down the hot tub! Take care when moving and placing the hot tub on the bearing surface. Only hold the stepped edge. Select a level and appropriate bearing area as per the description in Chapter 5.2. Wear protective gloves.</p>
---	--

3. After the first side of the hot tub has been placed on the bearing surface (make sure that the hot tub does not sink into the surface), lift the other side the using the stepped edge, cut the tension band, remove the remaining foil and remove the Euro pallet.

	<p>WARNING</p> <p>Risk of injury from manual handling when removing transport packaging! Take care when handling sharp tools such as carpet cutters and scissors. Make sure that the tensioning strap is kept under tension. Hold this in place when cutting. Wear protective gloves.</p>
--	--

	<p>NOTE</p> <p>Take care not to damage the hot tub when using a carpet knife.</p>
---	--

4. Carefully put down the second side of the hot tub.

	<p>CAUTION</p> <p>Danger of crushing when setting down the hot tub! Take care when moving and placing the hot tub on the bearing surface. Only hold the stepped edge. Select a level and appropriate bearing area as per the description in Chapter 5.2. Wear protective gloves.</p>
---	--

5. Please check that the hot tub is resting on all the designated bearing surfaces (see Figure 12) and repeat the above steps if necessary.

5.4 Assembly

The following chapters describe the installation steps you need to perform to get the hot tub ready for operation.

5.4.1 Assembling the flue pipe

Please also see our video instructions, which you can access via the following link / QR code, for a detailed explanation of how to assemble the flue pipe.

Please follow the steps below to assemble the flue pipe:

1. Remove the parts stored securely in the stove and the tub. The following parts must be included in the scope of delivery of the hot tub (see following Figure 14):

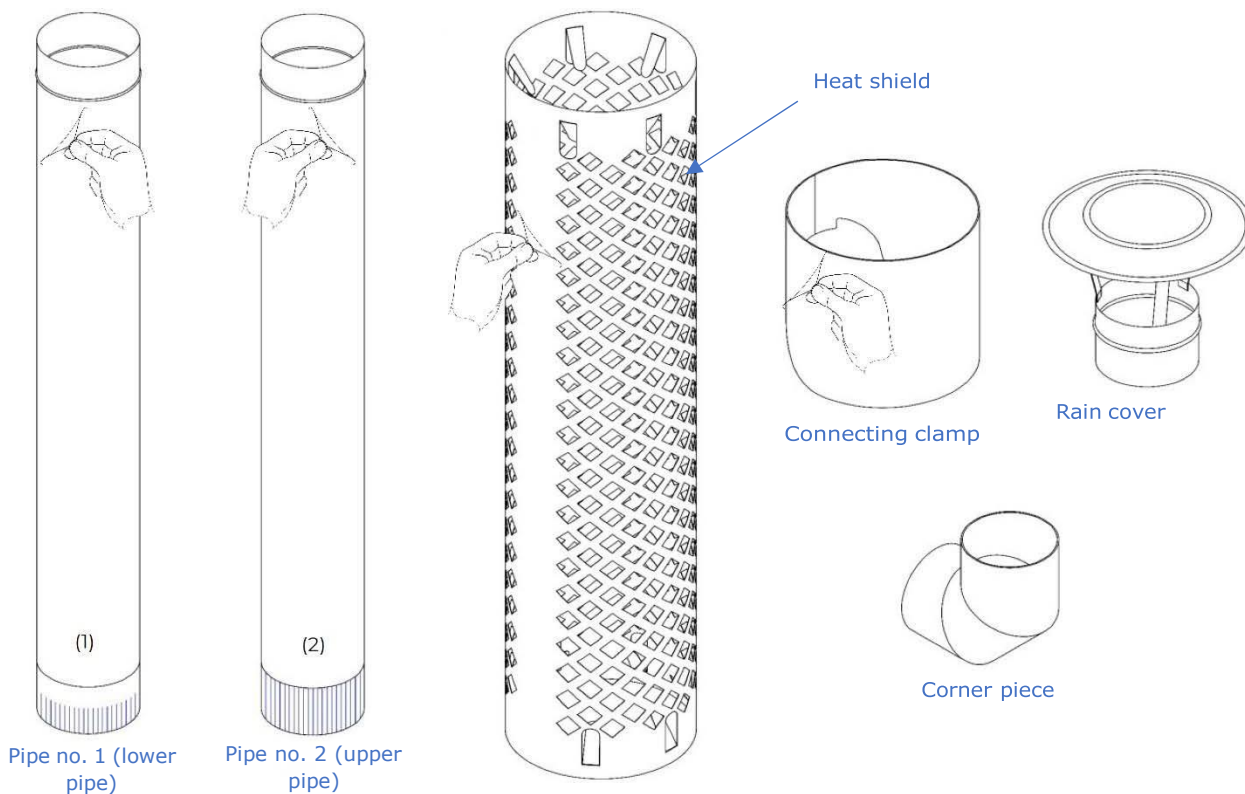


Figure 14: Scope of delivery for the flue pipe

2. Be sure to remove all protective films from the pipe parts before assembling them.
3. Note the numbers on the two pieces of pipe. The designs for the two pipe sections are not identical. The pipe piece with the number 1 is the lower piece, and the one with the number 2 is the upper piece.

4. Attach the connecting clamp to the stove spigot (see

Figure 15). However, please do not tighten it completely yet, so that adjustments can still be made afterwards.

5. Now insert the corner piece into the connecting clamp and turn the corner piece so that it is pointing upwards. You should now tighten the connecting clamp a little tighter.
6. Now insert the pipe with the number 1 into the corner piece (see

Figure 16).

7. Now bend all the integrated metal springs of the heat shield inwards to protect the tube from scratches (see Figure 17).
8. Slide the heat shield over the lower tube and bend the upper metal springs back completely and the lower ones down so that the heat shield rests neatly on the corner piece.
9. Put the rain cover on the pipe number 2.
10. Optional: If you have ordered the 1 m extension, insert it into the lower pipe number 1.
11. Now insert the upper pipe number 2 into the lower pipe number 1 (or into the 1 m extension).
12. Align the flue pipe by moving the corner piece so that it is pointing upwards.
13. Now tighten the bolts and nuts of the connecting clamp.



Figure 15: Fastening the fixing clamp to the stove spigot



Figure 16: Assembling the lower pipe



Figure 17: Sheet metal springs for the heat shield

5.4.2 Assembling the drinks shelf

Please follow the steps below to assemble the drinks shelf:

1. We recommend testing the hot tub a few times beforehand so that you know where your favorite spot is.

Remove the parts stored securely in the stove and in the tub. The following parts must be included in the scope of delivery of the hot tub (see Figure 18)

Mark the two positions of the top edge of the shelf brackets approx. 10 to 13 cm from the bottom edge of the tub (see Figure 18)

2. The manufacturer recommends this mounting position so that you can close the optional insulated cover completely. Make sure that the two top edges of the shelf brackets are in balance.

Screw the two shelf brackets into place using the screws supplied. Position the shelf on the two shelf brackets so that it is exactly in the center (see Figure 18).

3. Mark the places for the screws on the shelf board and pre-drill the holes to avoid cracks in the wood and turn the head of the screw off.
4. Screw the shelving board in place using the screws supplied.

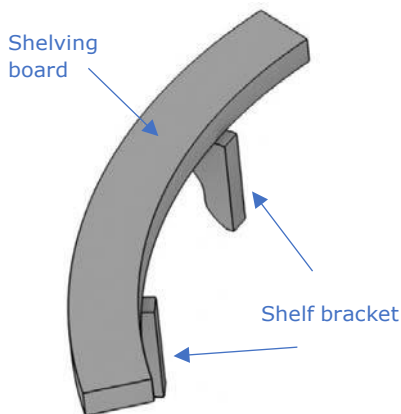


Figure 18: Scope of delivery, marking the assembly position for the top edge of the shelf brackets, positioning of the shelving board

5.4.3 Optional: Assembling the sand filter unit



To install the sand filter unit, read and follow the instructions in the sand filter unit manual attached to this manual, especially its safety instructions. Do not carry out any independent modifications or repairs to the unit. If you have not ordered a sand filter unit, please skip this chapter.

Figure 19: Sand filter unit



NOTE

KUBLITA guarantees you the proper operation of the sand filter unit for temperatures up to 42 °C.

5.4.4 Optional: Assembling the wooden housing for the sand filter unit

Please follow the steps below to assemble the wooden box:

1. Remove the parts stored securely in the stove and the tub. The following parts must be included in the scope of delivery of the hot tub (see Figure 20).
2. First screw the middle section together with the outer sections using the screws provided by the manufacturer (see Figure 20). You will recognize the outer parts from their two strips, and the middle part by its four strips. All holes have already been pre-drilled for you by the manufacturer.
3. Now place the cover on the three walls of the wooden housing and screw it together using the screws provided.
4. The wooden housing is now fully assembled and can be placed on the sand filter unit (see Figure 21).

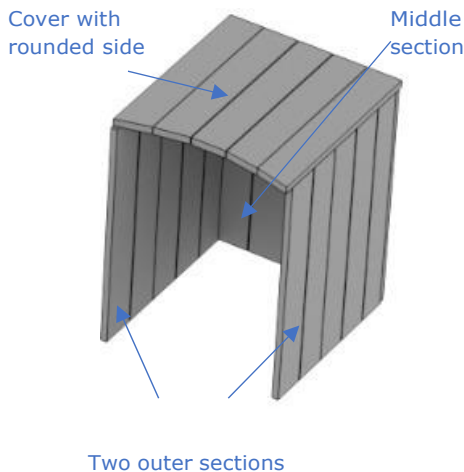
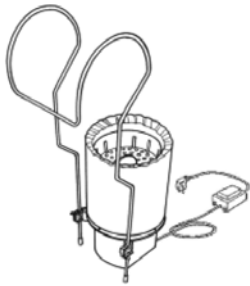


Figure 20: Scope of delivery, screwing the walls together, pulling on the cover



Figure 21: Paneling for the sand filter unit

5.4.5 Optional: Assembling the skimmer



To assemble the skimmer, please read and follow the instructions in the skimmer manual attached to this manual, especially its safety instructions. Do not carry out any independent modifications or repairs to the unit. If you have not ordered a skimmer, please skip this chapter.


Figure 22: Skimmer



NOTE

KUBLITA guarantees that the skimmer will operate properly for temperatures up to 42 °C.

6 Initial start-up

	<p>Required tools/resources</p> <ul style="list-style-type: none"> • Sponge/cleaning cloth • Hot Tub Clean Care • Firewood in accordance with Table 5
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6.1 Requirements for personnel carrying out the installation

The personnel carrying out the installation must read and understand this manual before proceeding. All instructions contained within this chapter must be followed when running the hot tub for the first time to make sure that this is done correctly.


We recommend that you test all hot tub functions when running the product for the first time so that you can benefit from any warranty claims.

6.2 Checking the position of the residual current circuit breaker




Before using the hot tub for the first time and especially before plugging the Schuko plug into the socket, please check whether the FI (residual current circuit breaker) is in the upper position. If this is not the case, flip the lever up. Only then will the hot tub be supplied with voltage. You will find the RCD inside the fuse box (see item 27 in accordance with Figure 5) beneath the service hatch (see item 28 in accordance with Figure 5). The RCD is depicted in Figure 23.

Figure 23: Position and illustration of the RCD (switched on)

	<p>DANGER</p> <p>Risk of electrocution! The control box and its components may still be live and this represents a hazard. The hot tub must be disconnected from the power supply before checking the RCD and steps must be taken to make sure that the power may not be reconnected either accidentally or by unauthorized personnel. Unauthorized persons are not permitted to touch the live parts.</p>
---	---

6.3 Cleaning the hot tub for the first time

When the hot tub is delivered, it may still contain a residual amount of dust from transport or production. You will therefore need to clean the tub surfaces before it is switched on for the first time. Open the draining valve and rinse the tub with water. Then wipe down all surfaces.

	<p>NOTE</p> <p>Avoid using aggressive cleaning agents or scourers as these may damage the hot tub.</p>
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6.4 Initial wood treatment

The manufacturer recommends staining and oiling the wood when using it for the first time, and before operating the hot tub to prevent mould and cracks in the wood.

6.5 Filling the hot tub for the first time


When filling the hot tub for the first time, you should fill the product approx. 2 to 3 times using the draining valve, a hose, or alternatively via a pump, and then drain the water again using the draining valve. Repeat this step until there are no more impurities in the water. Impurities may get into the bathing water via the part of the stove that comes into contact with water. Once there are no more impurities in the water, fill the hot tub again with water to at least 50 mm above the upper edge of the water inlet for the stove (item 3 as per Figure 6). You can also use an appropriate water hose and direct this into the tub.

You can also fill your hot tub with salt water where needed. Please use only the 316 stove for this purpose and note the increased maintenance requirements of your hot tub compared to using fresh water as described in Chapter 8.11.

6.6 Adjusting the pH level/alkalinity of the water

First of all, you will need to measure the pH level or TA value of your water using a suitable pH measuring device (e.g.: measuring strips or measuring tablets). This should be between a pH level of 7.0 and 7.4, or the TA value (alkalinity) between 80 and 120 mg/l. Water care products can develop their full effect in these areas. If this is not the case, please use pH Plus (pH value booster) or pH Minus (pH value reducer) accordingly.

6.7 Running the stove

	NOTE
	The water inlet for the stove must be filled with water before running the hot tub so as not to damage it. The water level of the tub must therefore be at least 50 mm above the upper edge of the water inlet for the stove. Do not use treated or damp wood. Always keep a certified fire extinguisher near the hot tub.

The stove can be fired with different types of firewood. These are listed below as examples along with their advantages and disadvantages. Other types of firewood may also be used to operate the hot tub at the user's own risk and discretion.



	NOTE
	It is imperative that you use firewood that is intended for this purpose to avoid damaging the hot tub. Pallet wood, or treated (e.g.: impregnated) wood can cause damage to the stove and consequently to the hot tub.

Table 5: Types of wood for the stove (examples)

Type of wood	Energy value	Flammability	Cleavability	Smoke production	Sparking	General Usability
Sycamore	moderate	high	good	low	low	recommended
Birch	high	high	good	low	low	highly recommended
Beech	high	high	good	low	low	highly recommended
Oak	high	high	good	low	low	highly recommended
Ash	high	high	good	low	low	highly recommended
Ash-maple	low	high	poor	moderate	low	not usually recommended
Spruce	moderate	high	good	low	low	recommended
Dogwood	high	high	good	low	low	highly recommended
Cherrywood	moderate	high	good	low	low	recommended
Mulberry	high	high	good	low	low	highly recommended
Poplar	low	high	good	moderate	low	not usually recommended
Pine	high	high	good	high	low	recommended
Elm	moderate	moderate	poor	moderate	low	not usually recommended
Walnut	moderate	high	good	low	low	recommended
Willow	low	high	good	moderate	low	not usually recommended
Cedar	moderate	high	good	moderate	high	recommended
Cypress	moderate	moderate	good	moderate	low	not usually recommended


As a rule, it is best to use thin, untreated pieces of spruce for the stove. The following applies here: The denser the wood, the greater the energy value. Place the wood on the grate inside the stove.


	NOTE
	Never place the firewood on the ash pan or in front of the grate. Incorrectly placed wood can lead to material damage and represent a fire hazard.

Appropriate material for lighting (e.g.: kindling or cardboard) should be placed either on the ash pan or directly onto the grate beneath the wood (see Figure 25). Use a lighter or match to light the kindling. When inserting and lighting the wood, make sure there is sufficient air supply. As a rule, the stove door should be closed. The ventilation grille inside the stove door can be opened or closed to control the air supply. The wood will burn more efficiently if you add firewood every 10 to 15 minutes when firing.

Figure 25: Stove




	NOTE
<p>The heating time is reduced if you cover the hot tub with an optional cover (ideally: insulated cover) while it is heating up. You can also switch on the optional water pumps (e.g.: the sand filter unit pump the water pumps for the jets or the UV filter) to make sure that the water is mixed well. This will further reduce the time needed to heat the hot tub. If you have not had any of the optional accessories described above installed, use the wooden paddle to mix the water.</p>	

	WARNING
<p>Burn hazard, hot surfaces on/inside the stove and on the flue pipe (please note that hot ash, sparks, and steam may escape from the flue pipe)! Avoid contact with hot components. Maintain a sensible distance between yourself and the stove and between yourself and the flue pipe. Open the stove doors slowly. Should you need to touch any of the components: Please use protective gloves and/or allow any hot components to cool down before handling them.</p>	



Heat the water until it reaches a temperature of 37 to 40 °C. This can be read on the thermometer supplied (see Figure 26), with the part intended for measuring placed in the bathing water. We recommend checking the temperature at approx. every half hour. Depending on the optional accessories installed, the size of the hot tub, and the type of firewood, the optimum bathing temperature is usually reached after approx. 2 to 3.5 hours at an outside temperature of 0 °C. If the temperature exceeds 40 °C, cool it down by adding cold water.

Figure 26: Thermometer

	NOTE
<p>Do not leave the hot tub unattended while it is heating up. You run the risk of damaging property if the water temperature exceeds 45 °C.</p>	

6.8 Optional: Switching on the pumps

The 230 V earthed plug of the hot tub (see Figure 27) must be plugged into an appropriately designed outdoor garden socket with an IP protection rating of at least IPX5.



DANGER

Risk of electrocution! Only use appropriately designed garden sockets with an IP protection rating of at least IPX5.



Figure 27: 230 V earthed plug for hot tub (to the right: Preparatory work for the sand filter unit (water return pipe to the sand filter unit))

6.9.1 Optional: Pump for SPA air bubble massage

Switch the pump for the SPA air bubble massage on and off using the push button (see the push button on the far right in Figure 10).

6.9.2 Optional: Switching on the pump for the SPA hydromassage

Switch the pump for the SPA hydromassage on and off again using the push button (see 2nd push button from the right in Figure 10).

6.9.3 Optional: Adding air to the SPA hydromassage


It is possible to add air to the SPA hydromassage. You regulate the airflow for this using the control valve (see 2nd button from the left in Figure 10).

6.9.4 Optional: Switching on the pump for the UV lamp

Switch the pump for the UV lamp on and off using the button provided. Please contact us for the exact position of the button, as the location of this may vary depending on the model.


6.9.5 Optional: Switching on the sand filter unit

It is assumed that the sand filter unit has been installed in accordance with the instructions provided in Chapter 5.4.3. Once correctly installed, follow the manufacturer's instructions to switch on the sand filter unit.

	DANGER
	<p>Risk of electrocution! It is prohibited to use the sand filter unit without an upstream residual current circuit breaker and to switch on the sand filter unit if there are people in the hot tub. The plug must be plugged into an appropriately designed garden socket with an IP protection rating of at least IPX5.</p>

6.9.6 Optional: Switching on the skimmer

It is assumed that the skimmer has been correctly assembled/installed as per the instructions given in Chapter 5.4.4. Once correctly installed, follow the manufacturer's instructions to switch on the skimmer.

	DANGER
	<p>Risk of electrocution! It is prohibited to use the skimmer without an upstream residual current circuit breaker and to switch on the skimmer if there are people in the hot tub. The plug must be plugged into an appropriately designed garden socket with an IP protection rating of at least IPX5.</p>

6.9.7 Optional: Switching on the LED lighting

You can switch the LED illumination on or off by pressing and holding the left control button as shown in Figure 10. Alternatively, you can change the colors of the lights by simply pressing the button.

6.9.8 Optional: Switching on the heating

Switch the heating on and off using the button provided. Please contact us for the exact position of the button, as the location of this may vary depending on the model. The temperature control is located in the terminal box behind the maintenance flap. Please note that heating up without a wood stove results in the following temperature increases: 3 kW electric heating = 1 approx. °C/h, 6 kW electric heating = approx. 1.5°C/h

6.9.9 Optional: Switching on the antifreeze guard

Switch the antifreeze guard on and off again using the button provided. Please contact us for the exact position of the button, as the location of this may vary depending on the model.

7 Using the hot tub

	Required tools/resources
	<ul style="list-style-type: none"> Firewood as per Table 5 Hot Tub Clean Care

7.1 Requirements for personnel carrying out the installation

The user must read and understand this manual before using the hot tub. You must follow all instructions given in this chapter while the hot tub is in use to make sure that the product is operated correctly and protects the safety of all users.

7.2 Instructions for safe operation

You must observe all safety instructions given in Chapter 2, and here in particular given in Chapter 2.3, if you are operating the hot tub safely. These are listed again below.




	DANGER
	<p>The danger of drowning and risk of hand injuries/risk of trapped hand/finger in the jets/water inlets and return pipes! Children and persons with mental illnesses must be supervised by an adult at all times. Do not reach into the jets or water inlets and return pipes. We strongly recommend switching off the hydromassage jets when the hot tub is being used by children. The sand filter unit and skimmer must always be deactivated when the hot tub is in use. If you have long hair, please protect your hair (e.g.: by tying it up or wearing a swimming cap). Always position the hot tub so that you can easily reach and unplug the mains plug in case of an emergency.</p>

	DANGER
	<p>Risk of circulatory problems and risk of drowning! Make sure to take sufficient and sufficiently long breaks between bathing sessions. Make sure to drink plenty of fluids (fluids containing electrolytes) when bathing. The bathing water temperature must not exceed 40 °C. Always check the bathing water temperature before entering the hot tub. Pregnant women and anyone with health conditions should consult a doctor before using the hot tub.</p>

	DANGER
	<p>Risk of electrocution! Avoid using the hot tub in stormy weather (lightning/thunder / rain). In case of stormy weather, stop bathing immediately and cover the hot tub using the optional cover, provided that it is safe to do so.</p>

	DANGER
	<p>Risk of toxic or harmful cleaning products! Make sure that the chemical care products you use when maintaining the hot tub are kept out of the reach of children. These may be toxic. The safety data sheets must be followed. In case of swallowing, contact the National Poisons Information Service (NPIS) immediately and follow their instructions.</p>

	WARNING
	<p>Burn hazard, hot surfaces on/inside the stove and on the flue pipe (please note that hot ash, sparks, and steam may escape from the flue pipe)! Avoid contact with hot components. Maintain a sensible distance between yourself and the stove and between yourself and the flue pipe. Open the stove doors slowly. Should you need to touch any of the components: Please use protective gloves and/or allow any hot components to cool down before handling them.</p>


	<p>WARNING</p> <p>Burn hazard from overloading the stove! Take care not to load the stove with too much firewood, which can fall out when the stove door is opened. When extinguishing the embers with water (not recommended), make sure to keep a safe distance to avoid coming into contact with the hot steam.</p>
	<p>WARNING</p> <p>Trip hazard! Always get in and out of the hot tub slowly and gently as surfaces, especially those of the hot tub, may be slippery. You could use the LED lights (optional extra) to improve lighting conditions if you plan to use the hot tub frequently in low lighting.</p>
	<p>CAUTION</p> <p>Hot water may escape from the water inlet on the stove, risk of scalding (upper pipe - see item3 in Figure 6)! Avoid direct contact with the water supply.</p>

7.3 Bathing

The following sequence of steps is recommended by the manufacturer as a means of using the product for its intended use:

1. Regardless of the features that have been installed on your hot tub, the manufacturer recommends that you shower before each use and that you do not apply any skin creams, oils, or hair products, as they reduce the quality of the water and, as a result, increase the amount of maintenance required by the hot tub
2. Remove the optional cover from the hot tub
3. Make sure that the hot tub is filled with water according to the specifications provided in Chapter 6.6 (e.g.: the water level must be at least 50 mm above the top edge of the water inlet for the stove)
4. Make sure that the pH level and the alkalinity of the water are correct. That is why you must adhere to the specifications provided in Chapter 6.7
5. If the water is dirty, run either the sand filter unit or the skimmer. Never get into the water when doing this
6. Add 35 to 65 ml of Hot Tub Clean Care detergent for a 180 hot tub / "UFURO" and 40 to 75ml for a 200 hot tub
7. Fire the stove as per the instructions given in Chapter 6.8
8. Wait until the water has reached a pleasant bathing temperature between 37 and 40 °C
9. Step carefully into the hot tub
10. Switch on the UV lamp to disinfect the water (Chapter 6.9.4)
11. Make sure to drink plenty of fluids (fluids containing electrolytes) when bathing
12. Add wood as specified in Chapter 6.8 where necessary (usually recommended every 10 to 15 minutes)
13. If necessary, use the optional SPA accessories as specified in chapters 6.9.1 (SPA air bubble massage), 6.9.2 (SPA hydromassage), (SPA hydro water air bubble massage) and/or 6.9.7 (LED lighting)
14. Do not bathe for longer than necessary. If you feel unwell, stop bathing immediately
15. After you have finished bathing, switch off all appliances
16. Carefully step out of the hot tub
17. If necessary, start the optional skimmer and/or the optional sand filter unit
18. Cover the hot tub using your optional cover
19. Empty and clean the stove as per the description provided in Chapter 8.4
20. If you have switched on the optional skimmer and the optional sand filter unit, switch them off again.

8 Maintenance and care

	<i>Required tools / resources</i>
	<ul style="list-style-type: none"> • Sponge/cleaning cloth • Hot Tub Clean Care • pH plus / pH minus • Chlorine tablets, if needed • Screwdriver • Long round brush • Ash shovel/scrapper • Magnet

8.1 Requirements for personnel carrying out the installation

Maintenance and servicing personnel must read and understand this manual. All instructions given in this chapter must be followed when maintaining and caring for the product.

8.2 Requirements for maintenance and care

The maintenance and care instructions given in this chapter must be followed by the user if the product is to reach its maximum service life. The measures described in this chapter and the intervals listed will depend greatly on which optional maintenance accessories the user has chosen as well as how long and how frequently the hot tub is used.

Unless otherwise stated in the following chapters, the requirements listed below serve as the basis for care and maintenance:

- 3 persons using the hot tub 3 times a week for two hours or, for "UFURO" hot tubs, 2 persons using the product 3 times a week for two hours
- Showering before each use
- Do not use skin creams, oils, or hair products as they reduce the quality of the water and consequently increase the amount of maintenance for the hot tub
- Using the optional sand filter unit, the optional skimmer, and the UV lamp regularly
- Using the Hot Tub Clean Care detergent regularly
- Adjusting the pH level between 7.0 and 7.4
- Cleaning the hot tub regularly when the product is not in use (e.g.: using Hot Tub Clean Care, pH Plus, pH Minus, UV lamp)
- Using fresh water as bathing water.

If circumstances change, the following intervals must be adjusted accordingly. KUBLITA is happy to answer any questions you may have.


As far as stove design is concerned, it should be noted that "316" model stoves are more resistant to corrosion than "304" model stoves. You may also use salt water or seawater in conjunction with the 316 stove. You should consider the type of water to be used when choosing the stove.

8.3 Water treatment

8.3.1 Adjusting the pH level/alkalinity

Regardless of the above basis, the pH level of the water should always be in the range between 7.0 to 7.4 or the alkalinity should always be between 80 and 120 mg/l. If this is not the case, please use pH Plus (pH level booster) or pH Minus (pH level reducer) accordingly. Please also see

Chapter 6.7 for further information. You must check and, where necessary, adjust the pH level or alkalinity of the water before each use at least.

	<p>DANGER</p> <p>Risk of toxic or harmful cleaning products! Make sure that the chemical care products you use when maintaining the hot tub are kept out of the reach of children. These may be toxic. The safety data sheets must be followed. In case of swallowing, contact the National Poisons Information Service (NPIS) immediately and follow their instructions.</p>
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8.3.2 Filtering and cleaning the water regularly


We recommend using the various optional filter systems available to extend the service life of your hot tub. The various filter systems are described below. You get the optimum filtration when using all types of filters.

8.3.2.1 Sand filter unit

You get the optimum filtration when using all types of filters. Thanks to the sand filter unit, you only have to change the water every 4 to 6 weeks. The manufacturer recommends running the sand filter unit for 10 to 12 hours a day (with reduced use of the hot tub of 1 to 2 times a week); 6 to 8 hours per day). This must be done before and/or after bathing. For this purpose, please follow the instructions in Chapter 6.9.5 and make sure that no persons are in the hot tub when the sand filter unit is in operation.

The sand filter may only be operated at water temperatures below 35 C°, otherwise, it may be damaged.


	<p>TIP</p> <p>Let the sand filter run overnight.</p>
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	<p>DANGER</p> <p>Risk of electrocution! It is prohibited to use the optional sand filter unit without an upstream residual current circuit breaker and to switch it on when there are people in the hot tub. Any other safety instructions regarding accessories given in this manual must be followed.</p>
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Please maintain and service the sand filter unit in accordance with the instruction manual for the sand filter unit.

8.3.2.2 Skimmer

The skimmer, which filters coarser impurities out of the water, further reduces the water change interval by approx. 1 to 2 weeks when used as intended. The manufacturer recommends that all the water in the hot tub be completely circulated once on the day on which you plan to bathe. This can be done before or after bathing. To do this, please follow the instructions provided in Chapter 6.9.6 and take particular care that no persons are in the hot tub when the skimmer is in operation.

	<p>DANGER</p> <p>Risk of electrocution! It is forbidden to use the optional skimmer without an upstream earth leakage circuit breaker and to switch it on when there are people in the hottub. Any other safety instructions regarding accessories given in this manual must be followed.</p>
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Please maintain and service the skimmer in accordance with the skimmer's instruction manual.

8.3.2.3 Suction Pool Cleaner

If, despite using the sand filter unit and the skimmer, you notice increased contamination at the bottom of the tub, use a commercially available suction pool cleaner if necessary.

8.3.3 Disinfecting the water

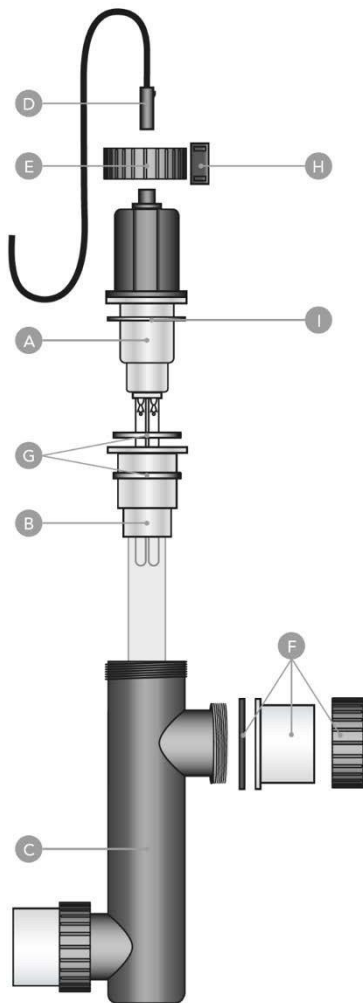
The best way to disinfect your water is to use the UV lamp as intended (see Chapter 8.3.3.1) in conjunction with the Hot Tub Clean Care detergent (see Chapter 8.3.5). You may use chlorine tablets and/or activated oxygen instead of the UV lamp or the Hot Tub Clean Care detergent. Chlorine tablets should be used in 15 to 20 mg doses as higher amounts can cause damage to the hot tub. Make sure that the pH level of the bathing water is always between 7.0 and 7.4 and the alkalinity is always between 80 and 120 mg/l, to avoid unnecessary bacteria. Please refer to Chapter 8.3.1. If you do not want to use any chemicals in your hot tub, we recommend that you change the water at least once a week.

	<p>DANGER</p> <p>Risk of toxic or harmful cleaning products! Make sure that the chemical care products you use when maintaining the hot tub are kept out of the reach of children. These may be toxic. The safety data sheets must be followed. In case of swallowing, contact the National Poisons Information Service (NPIS) immediately and follow their instructions.</p>
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8.3.3.1 UV lamp

The UV lamp kills around 90 % of all germs and bacteria in the water. It is to be operated as per the instructions given in Chapter 6.9.4. The manufacturer recommends running the UV lamp every time you bathe. Unlike the sand filter unit and the skimmer, you can also use the UV lamp when there are people in the hot tub, so there is nothing to stop it from being used every time you bathe. The UV lamp needs to be cleaned twice a year. You will need to switch off the UV lamp before you can clean it. To do this, disconnect the main plug for the hot tub from its socket. If contamination increases, the quartz glass tube (see B in Figure 28) must be cleaned. The special lamp (see A in Figure 28) must be replaced after 6,000 operating hours at the latest. The aluminum inner lining can be cleaned using a soft brush for better water flow.

The following steps are to be carried out twice a year:




1. Please contact us for details on where the UV lamp is to be installed. Then remove the corresponding profile boards by removing the screws with a screwdriver
2. Disconnect the cable (see D in Figure 28) from the lamp
3. Using a slotted screwdriver, click the black fastening clip (see H in Figure 28) loose from the screw ring (see E in Figure 28)
4. Loosen the screw ring (see E in Figure 28) and remove the special lamp (see A in Figure 28) from the quartz glass; replace the special lamp (see A in Figure 28) if necessary. Caution is advised as the special lamp is a very sensitive component
5. Using a large flat-bladed screwdriver or similar, carefully prise out the quartz glass (see B and step in Figure 28) (see figure on the right)
6. Clean the quartz glass using a suitable cleaning agent. Always use a soft cloth to clean the quartz glass to avoid scratches
7. When reinserting the quartz glass into the housing, make sure that the sealing rings (see G in Figure 28) and the flat O-ring (see I in Figure 28) are in the correct position

Figure 28: UV lamp details

8. Carefully reinsert the lamp (a new one if necessary) into the housing. Screw the screw ring (see E in Figure 28) back onto the housing. The lamp only fits into the quartz glass in one way
9. Insert the end of the cable (see D in Figure 28) into the upper part of the special lamp (see A in Figure 28)
10. Reattach the UV lamp to its designated position
11. The profile boards are to be fixed again in the position provided for them.

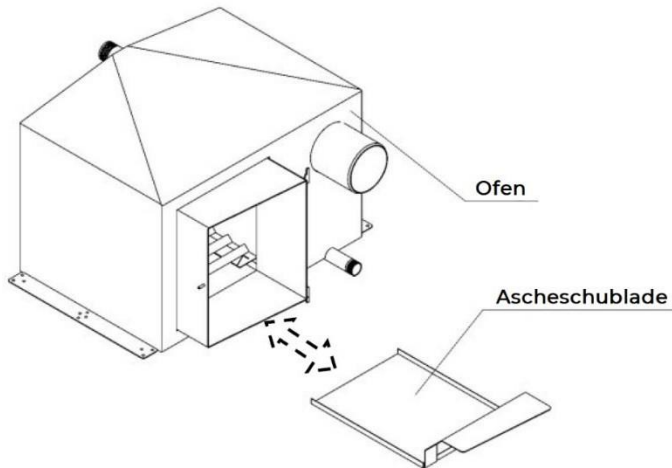
8.3.3.2 Hot Tub Clean Care Detergent

The manufacturer recommends a re-dosing of the Hot Tub Clean Care detergent of 35 to 65 ml (180 hot tub / "UFURO") and 40 to 75 ml (200 hot tub), once a week. To do this, simply tip the detergent into the water in the tub.

	DANGER
	<p>Risk of toxic or harmful cleaning products! Make sure that the chemical care products you use when maintaining the hot tub are kept out of the reach of children. These may be toxic. The safety data sheets must be followed. In case of swallowing, contact the National Poisons Information Service (NPIS) immediately and follow their instructions.</p>

8.4 Emptying and cleaning the stove

The stove must be emptied and cleaned after each use. First of all, you will need to wait until it has cooled down completely before you can empty and clean the stove, (optimally overnight), and then empty the ash pan and/or remove the rest of the ash using an ash shovel or scraper (see).



Always dispose of the ash in a non-flammable container provided for this purpose. Afterward, we recommend cleaning the stove with a damp cloth (water or non-corrosive cleaning agents). Care must be taken to remove the soot while continuing to maintain the efficiency of the stove.

Figure 29: Stove and ash pan (here: without stainless steel cladding)



NOTE

Do not drain the water while it is heating up or while the stove is still hot otherwise, you will damage the stove. Do not place hot stove parts directly in snow or water, as they may deform and become unusable if they cool down too quickly.

8.5 Cleaning the flue pipe

The manufacturer recommends cleaning the flue pipe 2 to 3 times a year. To do this, you will need to wait until the flue pipe has cooled down completely. The two-part flue pipe should be separated when cleaning so that you can better access all inner areas of the pipes. Then remove the lower tube from the corner piece. If necessary, remove the corner piece by loosening the clamp between the corner piece and the stove spigot. After disconnecting the flue pipe, remove any ash or soot from both pipe sections as well as from the corner piece and the spigot for the stove using suitable tools (e.g.: a long round brush). It is essential that you clean the flue pipe to maintain the performance of the stove and, this must be carried out by the customer, as the stove is not subject to the law for German chimney sweeps in outdoor areas Follow the instructions provided in Chapter 5.4.1 for details on how to assemble the flue pipe.

8.6 Draining/changing the water

The manufacturer recommends changing the water every 5 to 7 weeks when using all the optional equipment listed in Chapter 8. If the skimmer is not used, this interval is reduced to approx. 4 to 6 weeks. If there are no other optional accessories, the interval is reduced accordingly. The pH level or the alkalinity of the water greatly affects when it is time to change the water. This should always be within the ranges specified in Chapter 8.3.1. For example, if all chemical substances (chlorine tablets, Hot Tub Clean Care detergent) are not used, the manufacturer recommends changing the water weekly. We also recommend not leaving the water in the hot tub for a long period to avoid corrosion damage inside the stove (especially when using the 304 stove). Open the draining valve to drain the tub (see position 10 of Figure 5). Be sure to clean the tub using a sponge/cleaning cloth (no aggressive cleaning agents) each time you drain the water.



NOTE

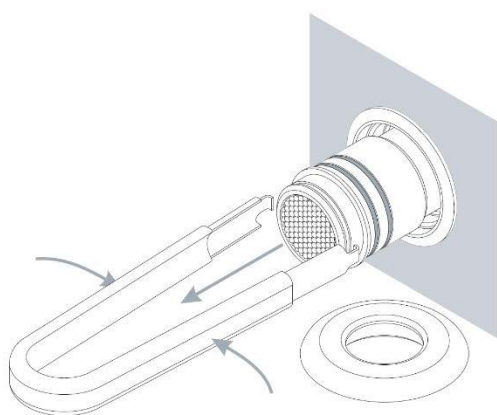
To avoid damage to your lawn, do not drain the water directly onto your lawn after chemical treatment or chlorination.

8.7 Wood treatment

The manufacturer recommends staining and oiling the wood 2 to 3 times a year to prevent mould and cracks in the wood. The stain protects against UV radiation and has a moisture-regulating effect. Oil provides an additional protective layer against weathering, has a dirt-repellent effect, and allows the wood to retain its natural appearance.

8.8 Replacing LEDs

If an LED is defective, replace it by following the steps listed below:



1. Contact us to obtain a replacement LED
2. Drain the water completely
3. Unscrew the cover of the LED
4. Remove the bulb using a suitable pair of pliers (see Figure 30)
5. Cut the cable
6. Solder on the replacement LED, and seal this using the heat shrink tubing and insulating tape
7. Screw on the cover.

Figure 30: Replacing an LED



NOTE

Only change the LED if you are a trained electrician. Otherwise, please instruct our qualified personnel to proceed with this task.

8.9 Ventilation

If you use the thermal or GRP cover regularly, but not the hot tub itself, we recommend ventilating the hot tub at least once a week by removing the cover and putting it back on the hot tub after about half an hour.

8.10 Winter preparations

Please note that the water in the hot tub can freeze at temperatures (depending on the altitude of the bearing site) below 0 °C.



NOTE

Avoid letting the water freeze to prevent damage to the hot tub caused by the expansion of the water when thawing (e.g.: inside the hose systems for the SPA air bubble massage systems). You must therefore be drained off the way when the hot tub is not in use for long periods.

The following measures are recommended to prevent damage to the hot tub and to prepare the hot tub for the winter. It is also possible to combine them:

1. Drain the water and switch on all jet buttons and the sand filter unit to allow all the water to escape from all the pipes. Let the systems run for approx. 30 minutes
2. If you use an optional cover, the water will not cool down as quickly. This means that it can remain in the hot tub at lower outside temperatures without freezing compared to other models without an optional cover. The insulated cover made of leather has the best heat-insulating properties
3. By using the optional tub insulation, which is installed directly under the tub, the water does not cool down as quickly, so it can remain in the hot tub at lower outside temperatures without freezing compared to the variant without optional tub insulation
4. If necessary, you can leave one of the pumps (sand filter unit, UV lamp, or water jets) running for a shorter period as a means of circulating the water permanently. This also has a freezing point-raising effect. You should consider whether this measure is economically and ecologically justifiable
5. Using a heater (see item 22 as per Figure 5) that stays set to winter mode
6. Using an antifreeze guard (see item 32 as per Figure 5).

8.11 Using salt water

It is usually possible to bathe in salt water. Please only use the 316 stoves (standard equipment) for this purpose to avoid corrosion damage. Continue to increase the cleaning intervals for all components to prevent salt deposits or discoloration.

8.12 Long periods of non-use

In summary, the manufacturer recommends the following when the hot tub is not in use for long periods:

1. Drain the water as per the description in Chapter 8.6
2. Clean the hot tub as per the instructions given in Chapter 8.6
3. The upper flue pipe (better: the whole flue pipe) must be dismantled so as not to expose it unnecessarily to the wind (see Chapter 4.3)
4. Treating the wood as per the instructions given in Chapter 8.7
5. Cover the hot tub using an optional cover.

8.13 Summary of the maintenance and servicing steps

Table 6 gives you an overview of the maintenance and servicing steps to be carried out, including details of the time intervals recommended by the manufacturer.



	NOTE
	The requirements described in Chapter 8.2 also apply to the data in Table 5. If the conditions differ or if there are unforeseeable circumstances for the manufacturer (e.g.: heavy soiling due to failure to cover the hot tub, very long periods of non-use, etc.), the intervals must be adjusted accordingly by the user.

Table 6: Maintenance and servicing steps for the hot tub

Running order	Maintenance and servicing steps for the hot tub (for maintenance tasks for optional accessories please refer to Chapters 8.3.2.1, 8.3.2.2, and 8.3.3.1)	Time intervals recommended by the manufacturer, in chronological order
1	Filtering the water using the sand filter unit as per Chapter 8.3.2.1	10 to 12 hours a day (with 1 to 2 bathing sessions per week, reduced to 6 to 8 hours per day).
2	Adjusting the pH level/alkalinity as per Chapter 8.3.1	2 to 3 times a week,
3	Filtering the water using the skimmer as per Chapter 8.3.2.2	after each use
4	Empty and clean the stove as per the instructions given in Chapter 8.4	once the stove has cooled after each use
5	Supporting 4 and 5: Disinfect the tub using chlorine tablets or activated oxygen as per the description in Chapter 8.3.3	using a dispenser or according to the manufacturer's instructions.
6	Disinfect the water using the UV lamp as per the instructions given in Chapter 8.3.3.1	on a sporadic basis, please also note that you can do this while bathing (provided that no chemical additives have been used (e.g.: Point 5 or 7), 24 hours per day)
7	Disinfecting the product using the Hot Tub Clean Care detergent as per Chapter 8.3.3.2	Once a week 180 Hot Tub / "UFURO": 35 to 65 ml 200 Hot Tubs: 40 to 75 ml
8	Change the water as per Chapter 8.6 (please bear points 1 and 2 in mind)	Once a week
9	Clean the tub using a sponge/cleaning cloth	Every time the water is drained
10	Change the water as per the instructions given in Chapter 8.6 (please bear points 1, 2, 4, and 5 in mind)	Every 4 to 6 weeks
11	Change the water as per the instructions provided in Chapter 8.6 (please bear points 1, 2, 3, 4, and 5 in mind)	Every 5 to 7 weeks
12	Clean the flue pipe as per the description in Chapter 8.5	Twice or three times a year
13	Clean the tub using a suction pool cleaner as per the description in 8.3.2.3	Where needed


9 Decommissioning/Dismantling/Disposal


	Required tools/resources
	<ul style="list-style-type: none">• Screwdriver or cordless screwdriver• Open-end spanner or appropriately sized ratchet spanner• Use other tools, where needed



If the hot tub is no longer required, it can be taken out of service, dismantled, and recycled by the requirements of the local waste disposal company.



You must follow these steps when decommissioning the product:

1. Disconnect all power plugs
2. Drain the tub
3. Clean the tub of all chemical substances.

	DANGER
	Risk of falling objects! Please note that there is a risk of falling objects when transporting the hot tub. The product may only be transported by experts. Do not walk or stand under a suspended load. The product may only be placed on a level surface. Make sure that the hot tub is in a stable position once the crane has been lowered. Do not remove the tensioning strap when detaching the Euro pallet.

	DANGER
	Risk of toxic or harmful cleaning products! Make sure that any chemical care products used for maintaining the hot tub are kept out of the reach of children. These may be toxic. The safety data sheets must be followed. In case of swallowing, contact the National Poisons Information Service (NPIS) immediately and follow their instructions.

 	WARNING
	Risk of injury from lifting loads that are too heavy! Be careful when moving heavy loads. Lift correctly and do not exceed your carrying capacity. People with existing back problems should avoid lifting altogether. Wear protective gloves.

 	CAUTION
	The danger of crushing when setting down the hot tub! Take care when moving and placing the hot tub on the bearing surface. Only hold the stepped edge. Select a level and appropriate bearing area as per the description in Chapter 5.2. Wear protective gloves.

The extent to which you can dismantle the product will depend on your local waste management service and its requirements. The hot tub can be dismantled into all its parts as per Figure 5, without the use of any special tools.