



# Congratulations!

You are now the proud owner of a traditional Storvatt sauna. We hope it becomes a place of relaxation, conviviality, and well-being for many years to come.

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### SAFETY INSTRUCTIONS

The spa is not a toy. Never leave children unattended in or near the tub without the cover securely in place. This product is designed for sitting and relaxing—not for play or diving. It is advisable to use the spa at appropriate temperatures, especially not too high for children.

1 The maximum temperature is 45 °C. Beyond this, there is a risk of irreversible damage to the heater. Damage to this part is not covered under warranty.

### 1. GETTING STARTED

# 1.1 Spa Seal Integrity

Fill your tub with approximately 10 cm of water to avoid excessive pressure on the bottom. If you notice minor leaks, continue filling to allow the wood to absorb water and expand.

If you observe significant water leakage, do not worry. Each construction is unique, and wood is a hydrophilic material. Some installations are watertight from the first fill; others may require several days for the leaks to disappear.

The swelling process of the wood—and therefore the watertightness—may take a few days. In cold climates, this may take longer. It is possible that during the first filling, the spa may empty entirely before the wood has absorbed enough water. Be careful where the water flows, as it may damage the surrounding surface.

• The wooden cover is subject to high stress: 0% humidity on top, 100% below. This results in warping over time. The cover will gradually return to its original shape. To help counteract this, occasionally flip the cover over to balance the effect.

# **Useful Tips:**

- 1. Fill only the bottom (5 cm is enough) with hot water. This allows the wood to swell more quickly. Let it sit for a few hours, then either finish filling or wait a few more hours if it is still leaking.
- 2. Before filling your spa, always let water run through your hose for several minutes to rinse it out. A coiled garden hose containing stagnant water can become a breeding ground for bacteria that may be harmful to your bath.

# 1.2 Hygiene Guidelines



For practical reasons, individuals with long hair are advised to tie it up to prevent loose strands from dispersing into the water.

It is recommended to shower before each use of the spa. Insufficiently filtered or untreated water may cause skin irritation or redness. When used properly, the filtration system helps maintain clean water for one to three months.

### 1.3 Spa Maintenance



The wood used in spas requires very little maintenance. If your tub begins to show signs of aging after a few years of use, you can restore its original appearance by gently sanding the interior with fine-grit sandpaper.



You may clean the wooden surfaces of the spa using a high-pressure washer (e.g. Karcher), taking care to set the pressure to a moderate level to avoid damaging the wood.



Another option is to use a soft sponge with water mixed with a small amount of diluted bleach, particularly if the inner walls become slippery or sticky.



Do not forget that sunlight can be just as, if not more, damaging to wood than rain. To protect the interior of your spa, it is essential to keep it covered whenever it is not in use, to prevent drying out.

Wood is a living material that evolves over time. During the initial fillings, it is normal for the wood to release tannins, which will gradually tint the water an amber to dark brown color. This is a natural phenomenon and does not pose any risk or prevent you from enjoying your spa. However, we recommend draining the water at the end of the first week, then roughly once a month, until the water remains clear.

Once this balance is achieved, you can reduce the frequency of draining and keep the same water for 2 to 3 months, depending on usage and maintenance.

The wood may also release cellulose, visible as floating fibers in the water. This natural phenomenon is often intensified by excessive use of chemical products. To remedy this: drain the spa, allow the wood to dry completely, then gently sand the interior using fine-grit sandpaper before refilling the tub with clean water.

1 The high tannin content may also cause excessive foaming when the bubble massage system is activated. An anti-foam product included with your spa will help eliminate this inconvenience.

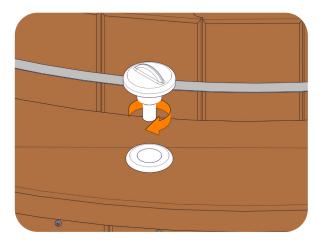
# 1.4 Periods of Non-Use

Recommended procedures:

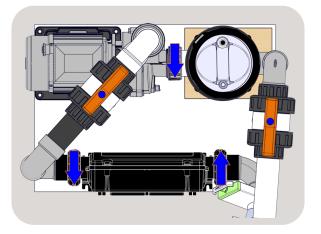
On the one hand, we recommend keeping the spa filled with water year-round, even when not in use, as it is very difficult to drain a spa completely — stagnant water may remain in the pipes.

On the other hand, due to the high risk of freezing in winter, the technical system may freeze (not covered under warranty). To «winterize» your spa, switch it to "Ready" mode, reduce the filtration cycles, and set the temperature to 10 °C, then treat the water accordingly.

To restart the spa, we recommend performing a full drain, followed by rinsing both the tub and pipework before refilling:



> Air Circuit: To rinse the air system, unscrew the venturi control on the rim, then flush with clean water for 2 to 3 minutes. Water will exit through the jets.



> Water Circuit: Open the cartridge filter (see page 10), slightly unscrew the unions on the pump and heater. Then fill the cartridge filter, allowing water to flow out of the unions for 2 to 3 minutes.

After refilling the spa, we recommend shocking the water with a chlorine shock treatment.

# 2. HEATING

# 2.1 Electric Heating

The spa heaters provide a power output of 3 kW. This allows the water temperature to rise by approximately 1 to 1.5  $^{\circ}$ C per hour. To reduce heat loss, make sure the spa is properly covered. The control panel enables you to efficiently manage the temperature increase. Ensure the spa remains covered at all times to minimize thermal loss. Use the control panel to operate your spa.

Lastly, the technical unit must remain continuously powered.



### 3. WATER TREATMENT

### 3.1 Sanitary Aspects

At 38 °C, bacterial growth accelerates rapidly, making it essential to filter and disinfect the water on a regular basis.

Spa usage frequency is also a critical factor. Based on an average of weekly visits, it is easy to reach 20 users per week — that is, 80 users per month — within a small water volume of only  $2 \text{ m}^3$ .

#### Main risks identified:

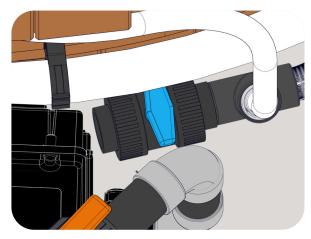
- **Pseudomonas aeruginosa** is a bacterium found in soil, water, and damp environments. Thanks to its high adaptability, it can survive under hostile conditions. It is a dangerous pathogen, particularly for immunocompromised individuals, with a high morbidity and mortality rate..
- Various bacteria, ranging from mildly to highly virulent, may also develop in humid environments. Their eradication can be difficult due to the increasing multidrug resistance of certain strains to antibiotic treatments.
- Legionella, a severe lung infection caused by bacteria, can be fatal. Its resurgence is linked to its affinity for modern sanitary hot-water networks: cooling towers, air conditioners, whirlpool baths (jacuzzis), and hot-water pipes.

Sanitary safety must be taken extremely seriously. Two aspects require close monitoring: water treatment and filtration.

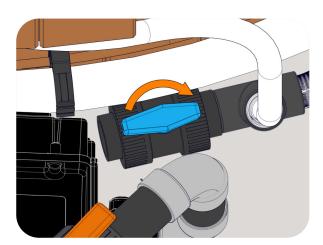
# 3.2 Filling and Draining

Filling the spa is carried out using a standard garden hose. Draining is performed via a valve located at the lower section of the technical unit. To open the valve, turn it counterclockwise ("anticlockwise").

**Important:** If the spa is not in use, make sure the valve is kept closed and do not drain the system completely. If it is emptied and subsequently exposed to rainwater, the risk of freezing increases, which could seriously damage the hydraulic circuits.



> Closed Valve: Ensure the drain valve is fully closed (position perpendicular to the pipe), as shown above, to allow the tub to be filled.



> Open Valve: To proceed with draining, position the valve so that it is parallel to the pipes.

1 It is difficult to completely drain all the water from a spa circuit. In the event of freezing, any residual water in the system may cause significant damage, which is not covered under warranty.

# 3.3 Heating and Filtration Technical Unit

VYour spa is equipped with a pump, a filter, and a heater. The pump operates at two speeds:

- Low speed: dedicated to filtration.
- High speed: used for massage.

The filter is a cartridge type, accompanied by a by-pass. The by-pass is a small flap that opens at high speed to facilitate water flow. An integrated brominator ensures continuous diffusion of bactericides (bromine).

### 3.4 Water Treatment

We recommend the use of bromine, a disinfectant highly stable at elevated temperatures, less sensitive to pH fluctuations, and generally less irritating than chlorine. Bromine is placed inside the cartridge filter tube, allowing for continuous diffusion regulated by the filtration cycles. Once the brominator is filled, you benefit from effective disinfection for approximately 15 days.

It is also necessary to carry out regular "shock" treatments, using a chlorine-free or chlorine-based product (the latter being the most powerful disinfectant), particularly after intensive spa use or in anticipation of increased use, such as during a weekend.

#### The frequency of water renewal will depend primarily on :

- The frequency of spa use.
- Whether or not bathers have showered before entering.
- The consistency and regularity of water treatment.
- The quality of the filtration.

### Tip:

• Two filtration cycles per day, each lasting between 2 and 10 hours depending on usage frequency and water temperature.



- Weekly pH control, ideally balanced at 7.2 (range: 7.0-7.6 for bromine, 7.0-7.4 for chlorine).
- Shock treatment after intensive use, such as "chlorine-free shock"
- A well-maintained, clean filter disinfected once per wee

From the very first filling, treat the water preventively with a shock treatment, either "chlorine shock" or "chlorine-free shock."

Subsequently, whether you use chlorine, bromine, or active oxygen, refer to the manufacturer's recommendations for product dosage. Check the pH levels once a week, as an excessively high pH can significantly reduce treatment efficiency.

Since Red Cedar is a highly tannic wood, the water will change color quite quickly, ranging from amber to dark red. This phenomenon will gradually diminish over several months until it disappears completely. The color change has no impact on water hygiene.

Even if the water appears clear and the chemical parameters (pH) are correct, we recommend fully draining and refilling the spa at least every three months.

# 3.5 Filtration

Filtration helps ensure even distribution of the treatment products and removes any deposits that may harbor bacteria beyond the reach of the bactericide. The filter must be cleaned regularly (weekly), as it can itself become a breeding ground for bacteria. It provides very fine filtration.

We recommend cleaning it with a specific cleaning product or soaking it in a diluted bleach solution, then rinsing it with a high-pressure water jet. The spa is supplied with two cartridges, allowing you to alternate their use.

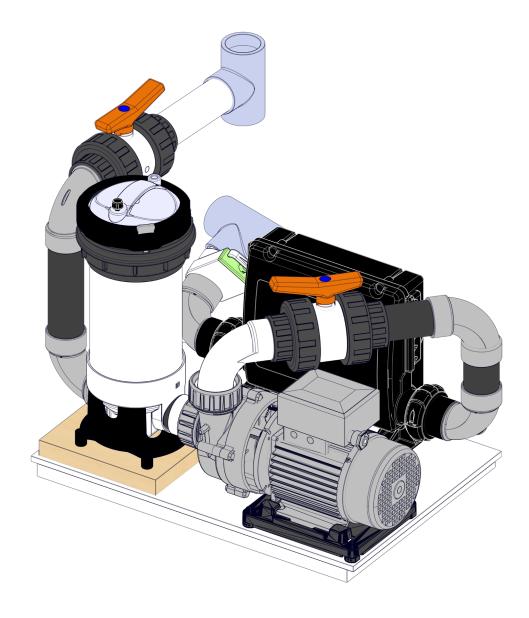
For optimal water quality, filtration and water treatment are inseparable.

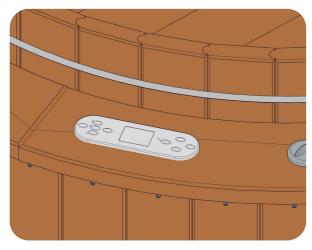


### Tip:

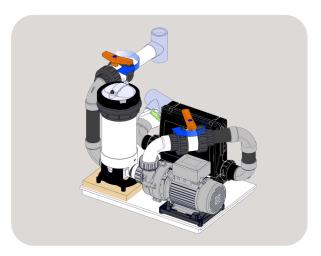
Here is the calculation for daily filtration time: Filtration time = (water temperature  $\div$  2) + 1 hour Example: 38 °C  $\div$  2 + 1 = 20 hours of filtration per day.

# Filter Maintenance and Cleaning



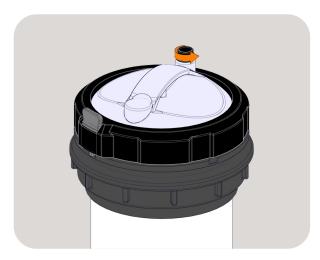


1> Switch off the spa's power at the circuit breaker on the household electrical panel.

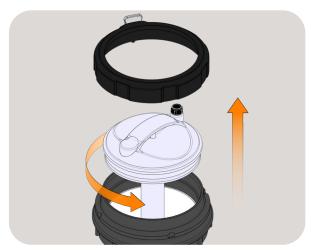


**2>** Close the valves as shown in the example above (they must be positioned perpendicular to the pipes).

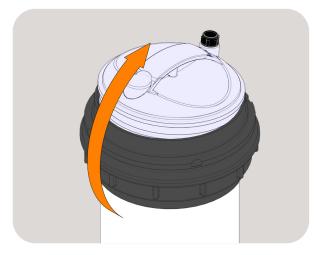
#### Ensure you hold the remainder of the filter housing during the following steps to avoid pulling on the entire



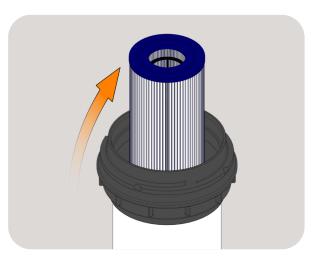
3> Unscrew the air release valve by 1 or 2 turns.



4> Unscrew the filter collar.

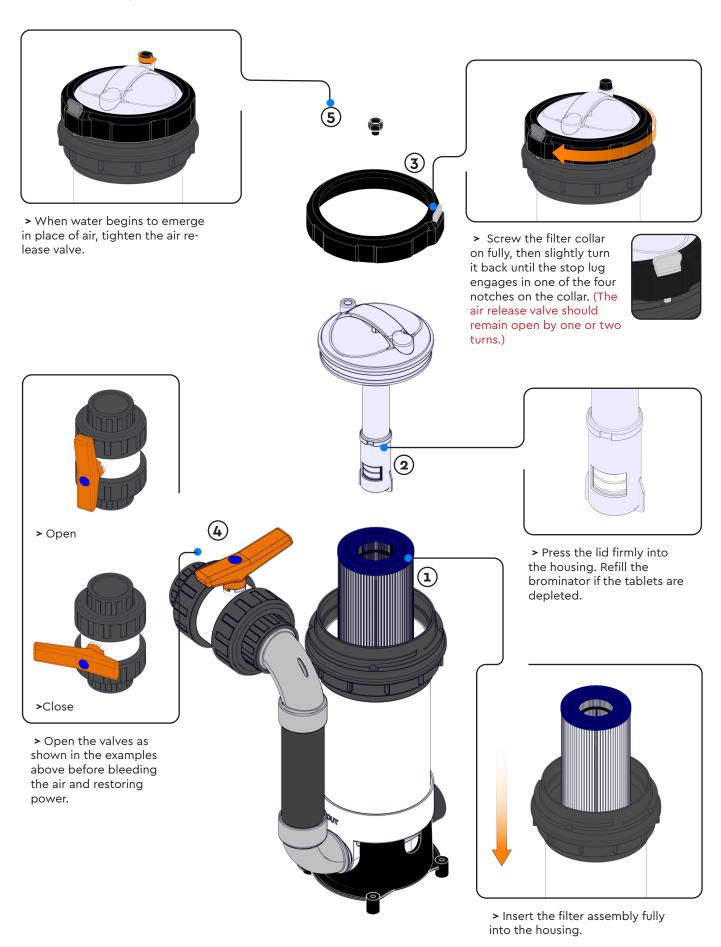


5> Open the lid by pulling on the handle; apply a levering motion as if "uncapping" the lid.



**6>** Remove the filter to clean it according to the instructions in section "3.5 Filtration", or replace it with a new one.

# Reinstalling the Filter:



- > If you restart the pump while the valves are closed, you risk causing serious damage. Such damage is not covered under warranty.
- > Regularly check that the submerged suction grates are clean. Clean them once or twice a month, depending on how often you use your spa.

For any additional questions regarding the use of your spa, please do not hesitate to contact us.

### For a Built-In Spa

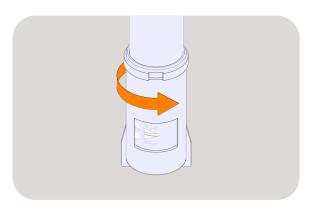
A built-in spa is installed in a concrete shell, at the bottom of which is a drain trap. This trap must remain accessible at all times and be cleaned regularly.

If it becomes blocked, the water level could rise beneath and around the spa. The technical unit would then be submerged, potentially damaging the equipment, which would most likely need to be replaced — not covered under warranty.

You can adjust bromine dispersion directly via the brominator. The removable section can be rotated to access two functions: refilling bromine tablets and regulating the product's dispersion in the water.



1> The brominator/lid consists of three parts.



2> You can adjust the bromine output. For an 1,800 L tub, we recommend turning it to 1/4.

# 3.6 Freezing

Spas are particularly sensitive to freezing.

While the tub itself is resistant to cold, the hydraulic network cannot withstand any expansion.

In winter, the spa must remain in operation at all times.

The heater, equipped with thermal sensors, detects temperature and maintains the spa above freezing.

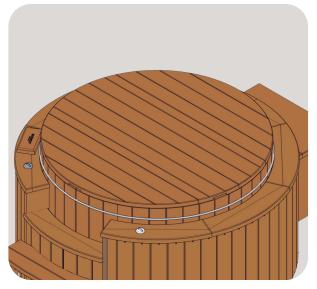
# 4. APPENDIX

# 4.1 Removing the Wooden Cover

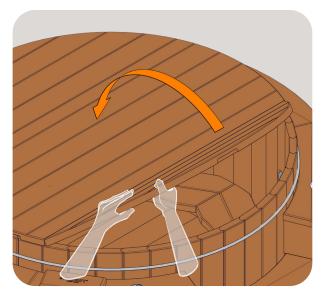


### Tipa

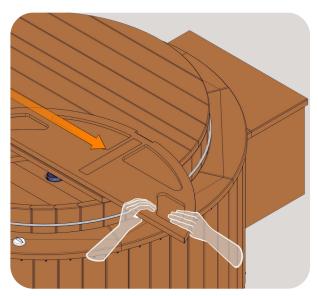
There is a technique for easily removing the different sections of the cover. Follow the procedure below to dismantle them correctly:



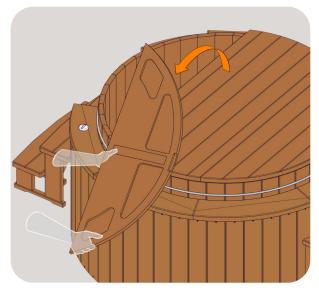
**1>** The wooden cover is made up of several removable sections.



**2>** Flip the first section of the cover onto the adjacent one to make the next step easier.



**3>** Slide out the section you have just flipped over to gently remove it.



**4>** Use the edge as leverage to lift and remove the section of the cover. Repeat the process for the remaining sections.

### 4.2 Water Maintenance Routine:

#### Filling and Start-Up

- Let water flow from the garden hose for a few minutes near the spa to thoroughly rinse the inside of the hose. Stagnant water may remain, making it unsuitable for bathing.
- Then fill the spa.
- PDuring this time, fill the bromine tube with tablets intended for this purpose (see tip on page 12).
- Check the condition of the filter: it must be clean or replaced if necessary.
- Once the spa is full and the high suction inlet is fully submerged, activate filtration.
- Check the water level again the next day.

• Never start filtration unless the high suction inlet is completely submerged. This may cause the filtration circuit to lose prime, potentially resulting in irreversible damage not covered under warranty.

- Check the pH (ideally 7.2) as well as alkalinity. If necessary, adjust using corrective products (pH+ or pH-).
- Retake the measurement 15 minutes later.
- Once the pH is balanced, apply a chlorine shock treatment directly into the spa to disinfect the water.

### Tip:



Vous devez diluer les produits en poudre dans une quantité d'eau recommandé par le fabricant pour éviter de tâcher votre bois si la filtration n'est pas en marche.

ou

Déposer les produits directement en poudre au niveau des jets de filtration pour créer une dilution dans le spa.

### 4.3 Weekly Maintenance - Private Spa Use

#### **Every Saturday**

- Clean the cartridge filter by rinsing it with clear water using a suitable solution (such as a cartridge cleaner spray).
- Check the pH level: it should ideally be 7.2. Adjust if necessary.
- Check the water's alkalinity and adjust if needed.
- Check the bromine level according to the values indicated on the container. Adjust if necessary by adding tablets into the designated tube.
- Inspect the suction grates and clean them if needed.

#### **Every Wednesday**

• Disinfect the water using "chlorine-free shock treatment" to reactivate the bromine, or "disinfection flash." These products must be added directly into the spa water with the filtration running.

Do not use the spa immediately afterward. Follow the product usage instructions carefully.

#### In Case of High Usage

- The day before, with filtration running, shock the water using "chlorine-free shock treatment" or "disinfection flash."
- Repeat the process at the end of the weekend.
- Drain the spa every 1 to 3 months (depending on usage).

Disinfection flash is a highly concentrated product (almost 100% chlorine). It must be used strictly in accordance with the manufacturer's recommended dosages.

# 4.4 Weekly Maintenance - Spa for Rental Use

#### **Every Saturday**

- Completely drain the spa.
- Clean the cartridge filter by rinsing it with clear water using a suitable solution (cartridge cleaner spray).
- Check the pH level (ideally 7.2). Adjust if necessary.
- Check alkalinity and correct if needed.
- Check the bromine level according to the packaging instructions. Adjust if necessary by adding tablets into the designated tube.
- Inspect the suction grates and clean them if needed.
- Add a "Disinfection Flash" type product.

#### Every 2 Days While Your Accommodation is Occupied

- Add a chlorine-free shock treatment to reactivate the bromine effect.
- 1 Do not use the spa immediately after treatment. Please follow the usage instructions on the products.

#### Drain the Spa After Each Rental. After Each Refill

- Check the pH level (ideally 7.2 must be between 7.0 and 7.5).
- Check the remaining bromine level (visible in the cartridge filter tube) and top up if needed.
- Add chlorine shock or disinfection flash. Warning: do not use the spa immediately after adding these products. Refer to the manufacturer's instructions.

#### Spa Non-Use

In the event of an extended period without use, it is recommended to lower the temperature to the minimum (10 °C), shock the water, and keep the brominator filled. Before any reuse, the water should be shocked again or the spa should be completely drained.



#### Astuce:

To open the filtration system, simply perform a motion similar to opening a bottle cap.

Excessive use of products may damage the wooden walls:
Red Cedar can release cellulose (fine white particles). In such cases, the spa must be drained, the interior walls lightly sanded, rinsed, and then refilled with water.



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