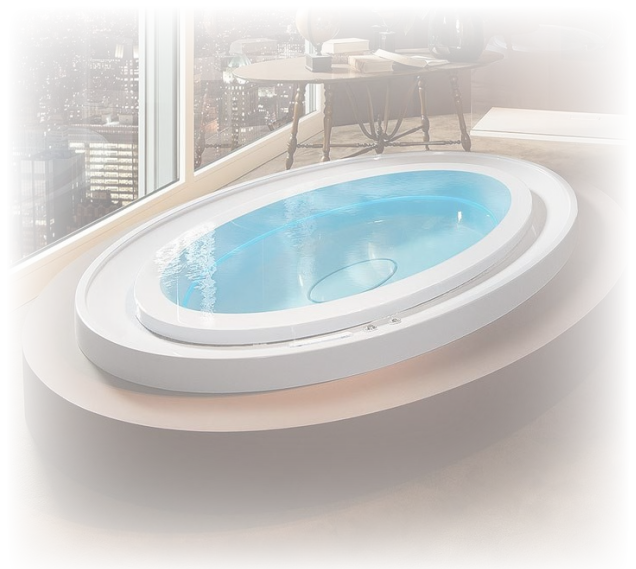


treesse

minipool

Fusion Spa

Operating and maintenance manual



Dear Customer,

We thank you for choosing a Tresser minipool and welcome you to our world of total wellness.

We remind you that our products are manufactured with superb quality materials and are accurately tested in compliance with the provisions of the safety regulations in force.

Great innovation and sophisticated design are added to this guarantee of quality and comfort.

Now sit back and relax.

Gruppo Tre S.p.A.



We hope that the use of this minipool provides you with an experience of pure pleasure.

If you have problems, contact your authorised dealer or the Manufacturer at one of the following addresses:

info@gruppotres.it
www.gruppotreesse.it
GRUPPO TRE S s.p.a.
01036 Nepi (VT) - Italy
S.S. Cassia km. 36.400
Settevene industrial area
tel. (+39) 0761 527242
fax (+39) 0761 527223

It is mandatory to keep the original proof of purchase (receipt/invoice etc.) in case servicing is required under warranty.

The serial number is indicated in the equipment compartment.

EXPLANATION OF PICTOGRAMS



Danger! Situation presenting immediate danger, or a hazardous situation that could cause injury or death.



More info: helps the installer understand a topic better



The pictogram refers to text in another document



Ecological notes for respecting the environment

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GENERAL SAFETY INSTRUCTIONS



This manual has been prepared to help you get the most out of your minipool in a safe manner, avoiding circumstances that could void the warranty.

Read this guide carefully before using the equipment and performing any maintenance, and keep it on hand for any future needs.

If you do not understanding something, contact the manufacturer for an explanation.



Unauthorised actions, tampering or modifications that do not follow the information provided in this manual can cause damages, injuries or fatal accidents and null and void the warranty.



Any use or maintenance of the minipool carried out in a manner different from what is indicated in this manual can void the warranty.



Before performing any installation or maintenance disconnect the electricity and water supply.



Avoid placing any object or substance on the surfaces of the minipool that can damage them.



DANGER!

RISK OF ELECTRIC SHOCK.

Do not place any electrical appliance - like hair dryers, lights, radios, phones or TV - closer than 1.5 m from the minipool.

SAFETY INSTRUCTIONS FOR USE



RISK OF DROWNING! To reduce the risk of accidents, do not allow children under the age of eight years, people with reduced psychological and sensory abilities or those who are inexperienced to use the minipool without close constant surveillance.



Do not dive into the minipool: risk of serious personal injury and structural damage to the equipment.



WARNING!

TO REDUCE THE RISK OF INJURY


- The minipool water must never exceed 40°C in order to avoid hyperthermia.
- Water temperatures between 38° and 40°C are still considered safe for a healthy adult. Lower temperatures are recommended for extended use (exceeding 10 minutes), for children or if you are alone.
- To minimise the risks, always feel the temperature with your hand to verify the temperature and comfort level before allowing children to get into the minipool.
- Pregnant women or those presumed to be should consult a doctor before using the minipool.
- People with infectious, skin or contagious diseases should NOT use the minipool.
- People with health problems should consult a physician before using the minipool, especially those suffering from obesity, heart disease, low or high blood pressure, circulatory problems, diabetes, clotting problems, pregnant women, etc.
- The use of drugs, alcohol, drugs, medicines before or during minipool use can lead to unconsciousness and consequent possibility of drowning.




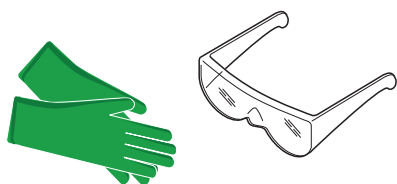
The Manufacturer recommends that you always place the optional cover when the minipool is not in use.


The cover is not designed to support weights. Do not walk, jump, sit or place any objects on it.


SAFETY INSTRUCTIONS FOR MAINTENANCE


 Perform maintenance on your minipool on a regular basis as this will maintain the surfaces and functional parts in optimal condition and also ensure maximum hygiene and safety when using the bathtub.


 During the maintenance of the bathtub and the use of chemicals, always use personal protection (e.g., protective gloves and glasses).



 For routine maintenance, use only the products indicated by the Manufacturer: other types of detergents or disinfectants could irreparably damaging the minipool surfaces and circuits (damage resulting from the use of unsuitable products is not covered by the warranty).

 Unauthorised actions, tampering or modifications that do not follow the information provided in this manual can cause damages, injuries or fatal accidents and null and void the warranty.


 Persons not involved with equipment maintenance may not pass through or occupy the work area.

 Before performing any maintenance disconnect the electricity and water




More information

HYPERTHERMIA

 Prolonged immersion in hot water may cause hyperthermia, a dangerous condition that occurs when the internal temperature of the body exceeds the normal value (37°C).


The first symptoms of hyperthermia include dizziness, fainting, drowsiness, lethargy and a body temperature higher than 37°C.

The physical effects of hyperthermia include unawareness of impending hazard, failure to perceive heat, physical inability to exit the minipool, foetal damage in pregnant women and unconsciousness resulting in a danger of drowning.

 The use of alcohol, drugs or medication can greatly increase the risk of fatal hyperthermia in hot minipools.

If you suspect hyperthermia pull the person out of the minipool and immediately call for medical assistance. While awaiting assistance, take the person to a cool place and let him or her to lie on his or her back with the head slightly raised by a pillow.

supply.

 Being potentially toxic by ingestion and contact, cleaning and disinfectant products **must be kept tightly closed and out of the reach of children or pets. When not in use, store these chemicals in their original labelled and well sealed containers in a cool, dark place, away from heat sources.**

1 BEFORE USING THE MINIPOOL...

Read these chapters before using your new minipool. They will provide you with useful tips to use it safely with maximum benefit.

USE ADVICE

- When using the minipool, do NOT wear loose clothing, pendant jewellery and tie up long hair to avoid the risk of becoming caught in moving parts.
- The time in the minipool should never exceed **20 minutes**.
- Use the whirlpool **at most three times** per week.
- Inside the minipool DO NOT use foaming detergents, soaps, bath oils, greasy lotions or products that are not compatible with the minipool.
- Before entering the minipool take a shower to remove any fatty substances (e.g., sweat, suntan lotion, etc.) that could make the water cloudy and oily.
- The paving around the minipool may become very slippery. Be careful when entering or exiting the water.

TIME IN THE WATER

For a relaxing experience the ideal water temperature is about 33-37°C for a duration of about 20 minutes. In fact, a temperature equal to that of the body fosters vasodilation and muscle relaxation.

For an energising experience, soak for about 10 minutes, preferably in the morning, at about 33°C.

For a draining experience, use the whirlpool for 5-8 minutes at a maximum of 35°-37°C. After leaving the minipool relax for a few minutes to allow the pressure altered by the heat and massage to return to normal.



More information

CHROMATHERAPY

Light is made up of seven basic colours: red, orange, yellow, green, blue, indigo and violet. The classic example of the colour spectrum that we find in nature is the rainbow.

The Egyptians, Greeks and Romans practised heliotherapy (exposure to direct sunlight) for the treatment of various disorders.

In India, ayurvedic medicine has always taken into account how colours affect the balance of the Chakras and how they can help the body and psyche to restore their natural balance.

Red: dissipates the deepest fears and maintains the person well anchored to the present and to the solidity of the earth.

Orange: stimulates feminine creativity, optimism and serenity.

Yellow: brings out emotions and desires, personal power and the ability to perceive the qualities and feelings of others.

Green: reawakens love and openness towards others, selflessness, inner goodness.

Blue: promotes the ability to listen to others. It is related to the expression of one's personality, creativity, imagination, relaxation.

Indigo: has the ability to broaden our understanding and treat disorders that affect sensory organs like eyes, nose and ears.

Violet: cool colour that promotes spirituality, inspiration and imagination.

ESSENCES AND BATH SALTS

Inside the minipool DO NOT use foaming detergents, soaps, bath oils, greasy lotions or products that are not compatible with the minipool. Otherwise the water can become oily or foamy and it could damage the sand filter, causing it to lose effectiveness.

To make your bathtub even more relaxing and stimulating, use bath salts in moderate amounts or natural essences, ensuring that the products used are **formulated to be compatible with the minipools in laminated resin**.

Products specific for minipools must not:

- Be foamy
- Be oily
- Be flammable
- Contain soluble substances
- Alter the chemical parameters of the minipool water

Follow the quantities and methods indicated on the labels of the products used.

If the water becomes foamy or cloudy after use, change the water and clean the minipool. Then try using less product or contact its manufacturer for more information.



More information

Sweet orange essence

Sweet orange essence is obtained from *Citrus sinensis* dulcis, a plant of the Rutaceae family. Having an astringent and cleansing action, it is helpful for anxiety and stress.

Neroli essence

Neroli essence is obtained from *Citrus aurantium*, a plant of the Rutaceae family. Known for its many properties, it has a calming, balancing and rejuvenating effect.

Ylang Ylang essence

Ylang Ylang essence is obtained from *Cananga odorata*, a plant of the Annonaceae family. It has a calming, hypotensive and aphrodisiac effect.

Myrrh essence

Myrrh essence is obtained from *Commiphora myrrha*, a plant of the Burseraceae family. The essence is harmonising and spiritual, increasing openness to the receipt of energy.

Lavender essence

Lavender essence is derived from *Lavandula angustifolia*, a plant of the Lamiaceae family. It performs a rebalancing action on the central nervous system, calming anxiety and nervousness.

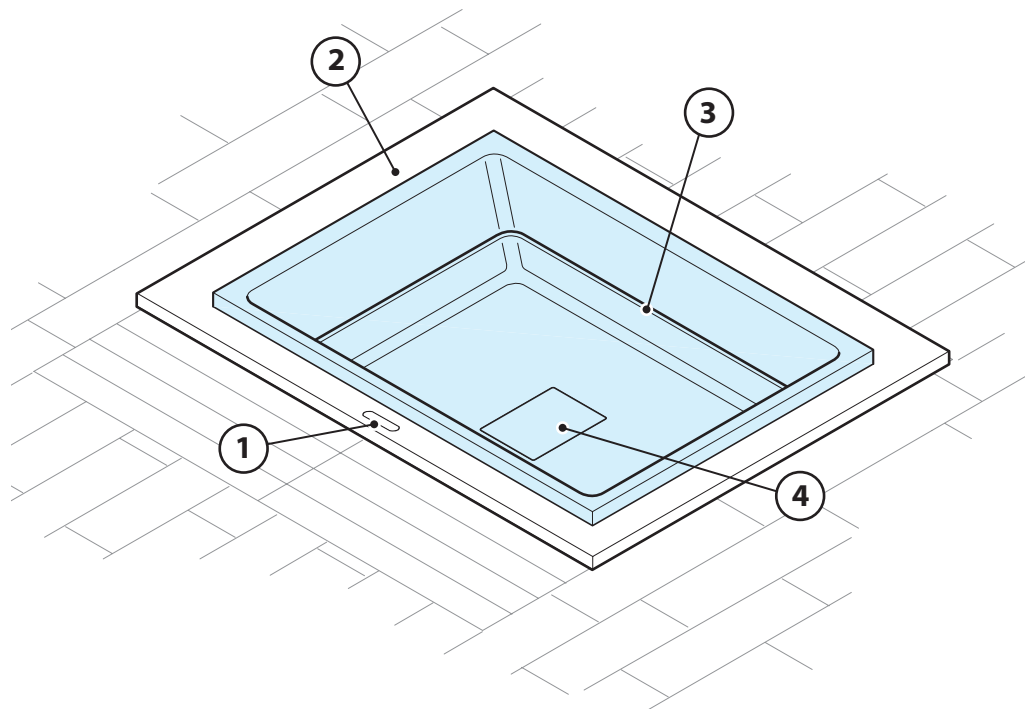
Apricot essence

Apricot essence is derived from *Prunus armeniaca* - Rosaceae, it has a delicate and pleasant scent with calming, relaxing and anti-stress effects.

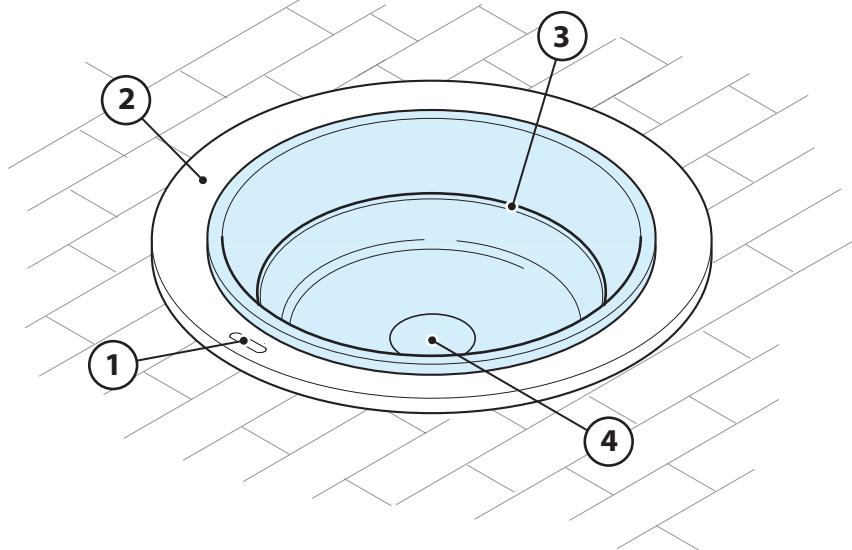
Eucalyptus essence

The essence made from eucalyptus provides an experience that is energising, balsamic and fresh.

2 MINIPOOL FUNCTIONS



- 1 - Control panel
- 2 - Overflow edge
- 3 - Whirlpool
- 4 - Filling / draining plate



The minipool must **ALWAYS** remain connected to both the electrical grid and plumbing (filling and draining): this is necessary for filtering, cleaning the filters and maintaining the minipool's water levels and temperature. **ALWAYS** cover the minipool when inactive. This protects it from the sun's rays, prevents dirt from accumulating inside the bathtub and keeps it from losing heat, thus optimising the efficiency of the heater.

FILLING THE MINIPOOL

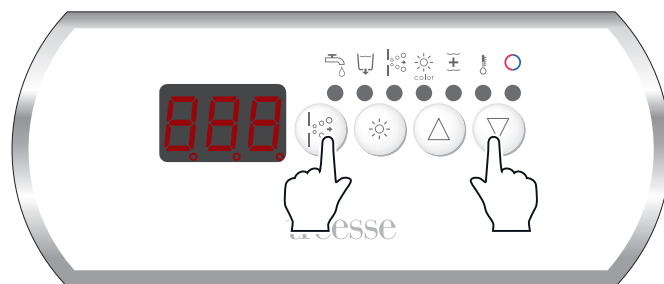
Filling is carried out by following the figures on the side (follow the instructions for your keypad).

This occurs through a concealed spout in the compartment on the bottom of the minipool and is indicated by the illuminated red LED.

Filling takes place from the bottom of the bathtub, and once it has finished the tank is filled.

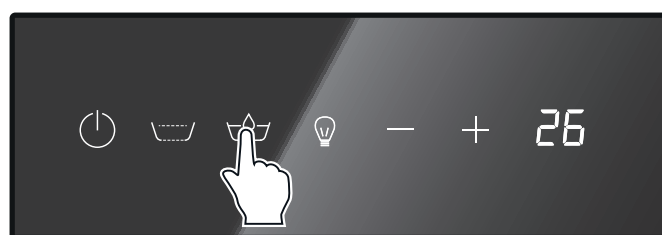
After reaching the correct level, the system automatically stops the filling and makes available the functions of whirlpool, recirculation, ozone and heater.

During minipool use the system automatically maintains the water level equal to the edge of the bathtub.



Automatic filling using the keypad

simultaneously pressing the  and  keys activates the automatic filling of the minipool, controlled by two level sensors and confirmed by the "FILL" LED



Automatic filling using the keypad pressing the key activates the automatic filling of the minipool, controlled by two level sensors and confirmed by the fixed blue key.

DRAIN AND SUCTION PUMPS

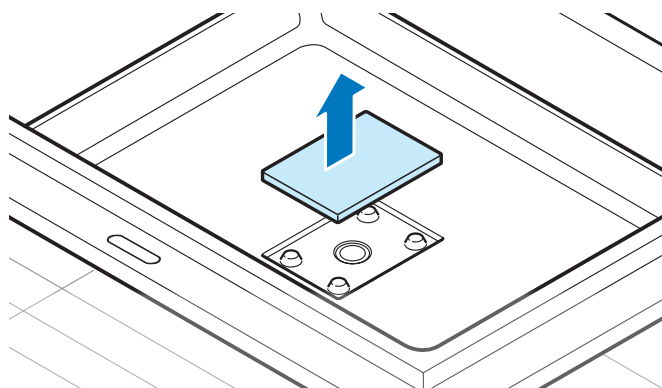
The minipool drain is positioned on the bottom, hidden by the finishing plate.

This solution makes the use of the bathtub safer and more comfortable.

To clean the drainage grate, just manually remove the finishing plate since it is simply resting on the bottom.



For this operation see page 14.

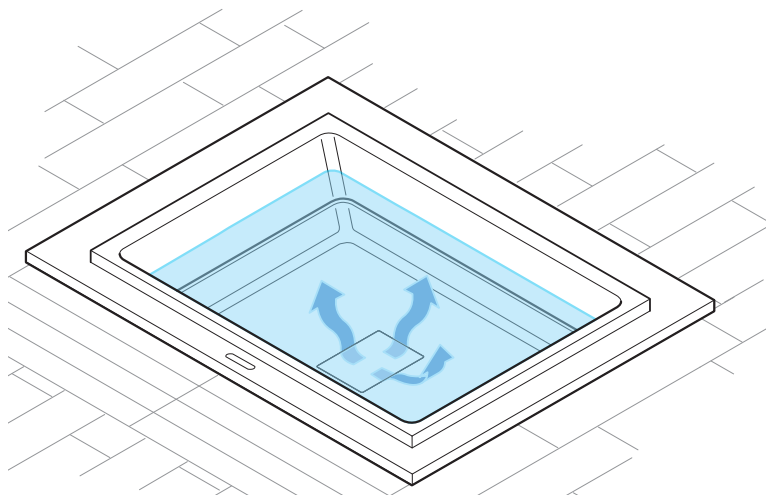


MIXING FUNCTION



Treesse minipools feature an automatic **mixing function** during which the whirlpool pump is activated.

This process is used to mix the water in the bathtub to have a more effective filtering action.

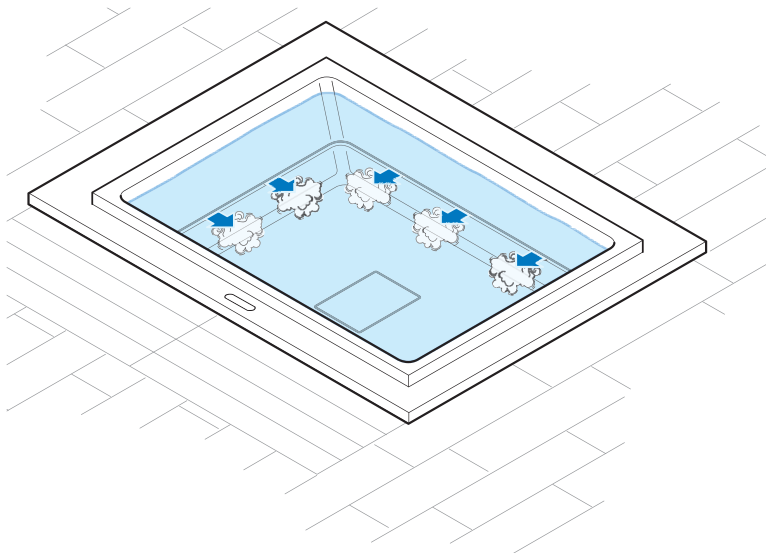


WHIRLPOOL

This minipool is equipped with the patented GHOST SYSTEM® whirlpool, a system that is truly invisible, which allows for extremely simple design solutions for bathtubs that are completely free of external nozzles and jets. GHOST SYSTEM®, an exclusive patent of Treesse Group, owes its name to the invisibility of the components, fully incorporated in the bathtub. The system is distinguished by two thin internal perimeter slots that host a large number of jets that are properly oriented.



For this operation see page 14.



More information

WHIRLPOOL

The whirlpool has a very positive effect on disorders like insomnia and anxiety. It also facilitates muscle relaxation and is therefore great after sports. It increases blood flow and helps to lower blood pressure. It also exerts a lymphodrainage action contributing to the elimination of imperfections like cellulite, also thanks to its massaging action. It provides numerous benefits by stimulating blood and lymphatic circulation. The water temperature is very important: water at 37-38°C is relaxing and promotes circulation, while the cooler temperatures have a toning and stimulating effect and can increase blood pressure.

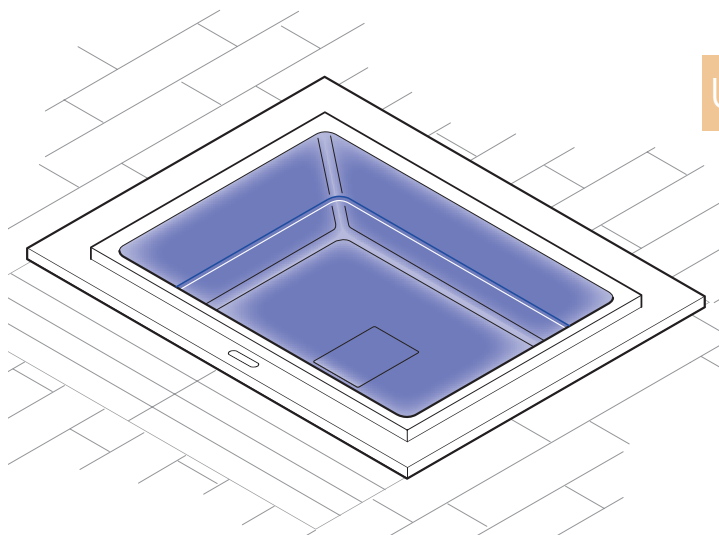
The whirlpool also promotes mental harmony, relaxation and physical well-being.

CHROMATHERAPY

Chromatherapy is standard on the infinity version, while on the version with two perimeter slots it is optional. The light "magically" moves the whirlpool in the bathtub.



For this operation see page 14.



U

OVERFLOW EDGE

The overflow edge of the minipool collects excess water and conveys it to the collection tanks under the bathtub. The water level is always constant, allowing for relaxation and a total wellness experience.

The water that overflows is recovered, filtered and automatically recirculated within the minipool through the intake grille.



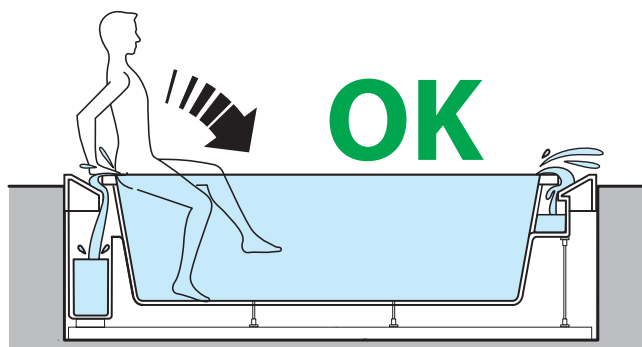
The minipool works exclusively when the bathtub and tanks are full of water.



The edge is designed to recover the overflowing water, not for abnormal movements caused by an improper use of the minipool (e.g., diving).

In this regard we strongly recommend entering the bathtub and getting in the water slowly.

When the recirculation of the water overflow is active, the heater automatically activates to manage the water temperature.

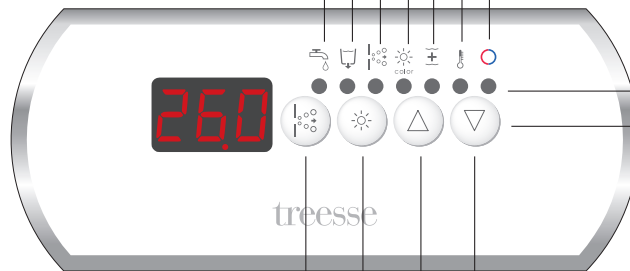


3

CONTROL PANEL: HOW TO USE IT

WHITE KEYPAD

LED chromatherapy active
LED whirlpool active
LED emptying in progress
LED filling in progress



LED washing/sanitising (ozone) active
LED heating active
LED temperature adjustment

LED KEYS

KEY COMBINATIONS

+ = *FILL bathtub*

+ = *EMPTY bathtub*

+ = *change mode from ACTIVE to STANDBY*

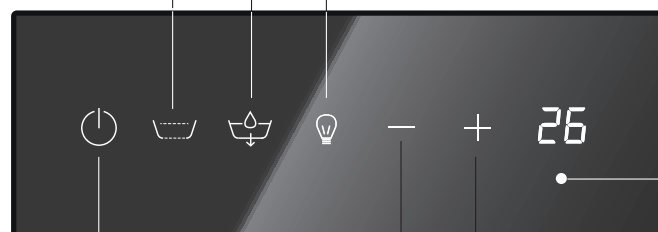
value decrease key (DOWN)
value increase key (UP)
chromatherapy activation key
whirlpool activation key

BLACK CAPACITIVE KEYPAD

chromatherapy activation key
WHITE: chromatherapy NOT active
BLUE: fixed colour
FLASHING: colours in sequence

bathtub fill/empty key
WHITE: NOT active
BLUE: filling in progress
FLASHING: emptying in progress

whirlpool activation (brief press)
WHITE: NOT active
BLUE: whirlpool in progress
filter washing (press for 2 sec.)



hidden key, not visible but active: to empty the bathtub, press it for three seconds and then press the fill/empty key

key entry/exit from sleep mode
WHITE: sleep mode NOT active
BLUE: sleep mode active

value increase key (UP)
value decrease key (DOWN)

OPERATING MODES

ACTIVE MODE

In **ACTIVE mode**, the minipool is maintained in a condition that is **readily usable by the user**.

In this state, if there are no alarms all the functions are operational and the recirculation pump is always active to filter the water.

When switched on, the control panel is set to the same state that it was in before it was turned off.

SLEEP MODE

SLEEP mode is used when the **minipool is expected to remain unused** for some time.

The water is therefore kept at a temperature (which can be set by the user) that is lower than that of normal use (the default value is 25°C, the minimum temperature that can be set is 13°C).

STANDBY mode is maintained even in the even of blackouts and power surges.

In this state, the functions are deactivated and the recirculation pump - if no water level alarms are active - is activated to maintain the temperature or to filter the water.

When the minipool is in STANDBY mode:

- The display shows the message "SBY".
- The heater starts working to maintain the temperature set (default value is 25°C).
- Filtering is in operation.
- For filtering with sanitising both the pump and the ozonator are activated twice a day (every 12 hours).

By default, the **maintenance temperature** during standby is 25°C. To change it (down to a minimum of 13°C):



press the  or  keys

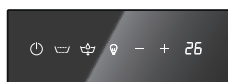


press the   keys

PASSING FROM SLEEP MODE TO ACTIVE MODE AND VICE VERSA



simultaneously press the  and  keys



press the  key

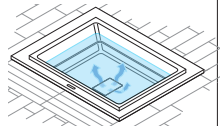
BASIC FUNCTIONS

POWER ON



The minipool is **powered on** by connecting it to the mains. At power-on all the LEDs/keys light up for three seconds, then the version (Fxx, e.g., F01) and firmware revision (ryy, e.g., r05) are displayed.

FILLING



The **bathtub is filled** by pressing:



simultaneously the



and



filling in progress is indicated by the LED



the



filling in progress is indicated by the fixed blue key

Filling takes place from the bottom of the bathtub, and once it has finished the tank is filled.

After reaching the correct level, the system automatically stops the filling and makes available the functions of whirlpool, recirculation, ozone and heater.

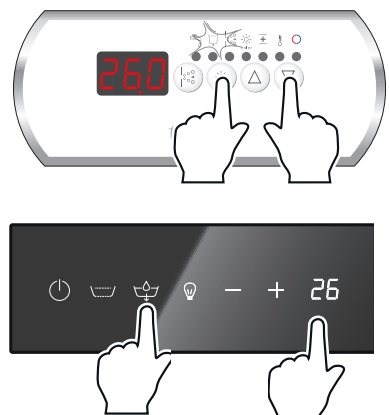
Once filling has been completed and all the conditions necessary for the operation of the minipool are met, the system automatically stops the function and makes the functions of whirlpool, recirculation*, ozone*, heater** available.

* automatic functions that cannot be activated/deactivated by the user

** automatically manages the water temperature

During minipool use the system automatically maintains the water level equal to the edge of the bathtub.

EMPTYING



hidden key

To avoid accidental emptying of the bathtub, a combination of two keys is required to perform this operation: The **bathtub is emptied** by pressing:



simultaneously the



and



emptying in progress is indicated by the



LED



of the hidden key for three seconds (located below the display, even if it is not visible it is still active), then press the



key

emptying in progress is indicated by the flashing blue key

The **emptying** of the minipool can be activated at any time. Emptying lasts about 120 minutes and for the entire duration the bathtub needs to be powered to allow it to completely drain all residual water from the tank, pipes and filter. To stop the emptying test, disconnect the power supply to the bathtub for about 30 seconds.

During emptying of the minipool, the only enabled function is chromatherapy.

OPERATIONAL FUNCTIONS

WATER TEMPERATURE SETTING

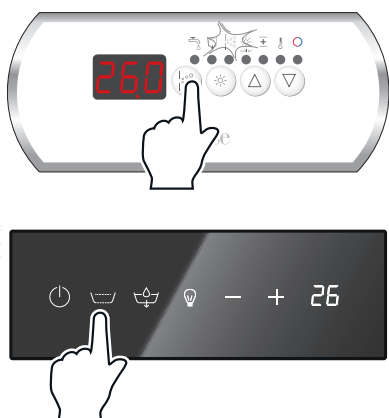
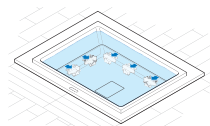


When turned on, the last temperature set by the user is recalled, which can be seen by pressing the key "+" or "-".

To change it, press the "+" or "-" keys: this will increase/decrease the displayed temperature by +/- 0.5°C.

After three seconds of inactivity, the display will return to standby and the new temperature will be entered.

WHIRLPOOL




The **whirlpool** is started by:



press the  key
whirlpool in progress is indicated by the  LED



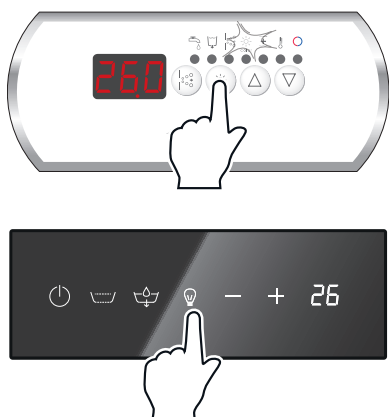
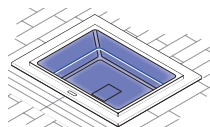
press the  key
whirlpool in progress is indicated by the fixed blue key

The function can only be activated when the water is at operational level.

When EMPTYING, the whirlpool is deactivated.

If not interrupted from the keypad, the function will be deactivated automatically after 20 minutes.

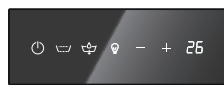
CHROMATHERAPY



Chromatherapy is started by:



pressing the "Light" key 



pressing the "Light" key 

Activates a sequence of 16 colours that vary in an automatic sequence.*

During the sequence, pressing the "Light" key again stops on the current colour (e.g., Red): the sequence is interrupted and remains fixed on the chosen colour.

If you want to change this colour, by repeatedly pressing the "Light" key you can run through all the colours to choose a different one.

Once you have selected a fixed colour, to return to the automatic sequence you must turn off and reactivate the function.

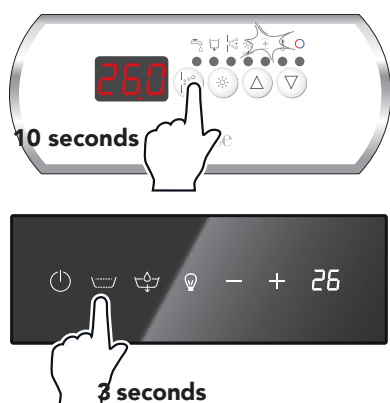
Hold the "Light" key for two seconds to turn off the function. If not switched off manually, the function stops automatically after three hours.

The function can always be activated, even if the water level is low.

* Colour sequence: White, Red, Orange, Yellow 1, Yellow 2, Yellow 3, Green 1, Green 2, Green 3, Blue 1, Blue 2, Blue 3, Blue 1, Blue 2, Blue 3, Purple.... White, Red, etc.

SPECIAL FUNCTIONS

BACKWASHING



Water filtration takes place through a sand filter connected to the recirculation pump.


Cleaning the sand filter is essential because it retains polluting materials like hair or leaves and sediment if the minipool is installed outdoors.


The best cleaning is achieved with a **backwash**, i.e., with a jet of clean water from the bottom of the filter so that the dirt can flow into the drain.

The cycle lasts 20 minutes.


In Tressse minipools backwashing is **automatic**, running automatically every 48 hours of minipool use, but can be forced **manually** by pressing:



the  key for about **10** seconds

backwashing in progress is indicated by the  LED



the  key for about **three** seconds
backwashing in progress is indicated by the appearance of the word "FLT" on the display

Backwashing disables:

- The recirculation pump
- The heater
- The ozonator

A backwash cycle can be interrupted only by turning off the power switch of the minipool.




It is recommended to change the sand **every year** (see page 30).

HEATER
OZONATOR

Automatic functions




if the heater is operating the  LED is active



if the heater is in operation, a dot flashes on the bottom right of the display

Ozonator





The ozonator is activated by the circulation pump and turns off automatically during the WHIRLPOOL function.

When the ozonator is operating the  LED is active (white keypad).

4 ALARMS

If any alarms appear during initial startup, read the instructions provided in the following table. If the solution is not possible, immediately contact the Manufacturer to request technical support.

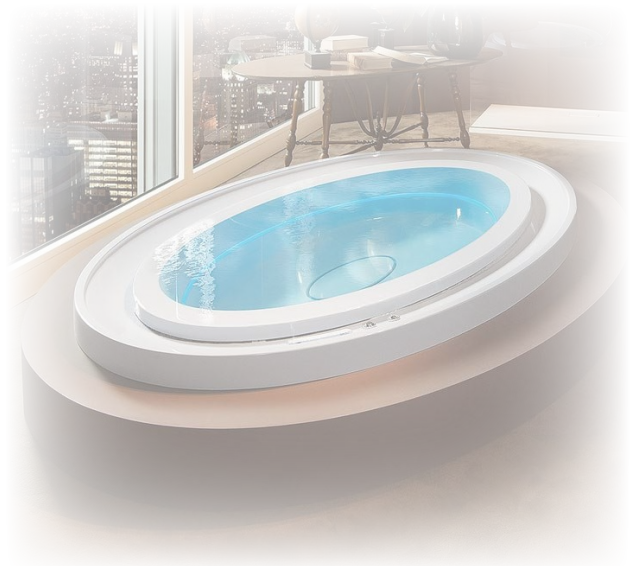
In the meantime, do not try to repair or use the minipool but rather disconnect it from the electricity and water supplies.

ALARMS NOTIFICATIONS	Screen displayed	DESCRIPTION OF THE PROBLEM POSSIBLE SOLUTIONS
H_i - 43 Temperature alarm (notification)		<p>Problem description: if the water temperature in the minipool exceeds 42°C all the functions are deactivated, the display shows the "HI" message alternating with the temperature value.</p> <p>Solutions: the alarm and the system will automatically reset when the temperature drops. If the alarm does not reset contact the Manufacturer.</p>
E_r Temperature sensor alarm (alarm)		<p>Problem description: a temperature sensor measures the water temperature inside the minipool, activating the heater when necessary. The allowed water temperatures range from 5°C to 45°C. Values outside the range cause the blocking of all functions and the permanent activation of the alarm message.</p> <p>Solutions: the alarm will reset automatically once the temperature returns to allowed values (5° to 45°). The message is also displayed if the temperature sensor malfunctions.</p> <p>Solutions: make sure that the water temperature is not outside of the permitted values, try to disconnect the power supply to the bathtub and switch it on again after 30 seconds. If the problem persists, verify that the connection with the control unit is correct and has not been tampered with. Otherwise contact the Manufacturer.</p>
FL Clogged filter alarm ("FL" alternating with the temperature) (notification)		<p>Problem description:</p> <p>The alarm occurs when there is lack of flow in the filtering circuit. The heater is blocked, the pump continues to operate and backwashing of the sand filter starts automatically.</p> <p>If the problem persists, all functions are disabled and the display shows the fixed "FL" alarm (no flow).</p>
FL No flow ("FL" fixed message) (alarm)		<p>Problem description: the alarm occurs when, after a filter backwash, lack of flow continues for more than 5 minutes. The system stops, all functions are disabled and the display shows the fixed "FL" alarm.</p> <p>Solutions: The alarm resets only by switching off the minipool and turning it back on after about 30 seconds.</p> <p>The main causes of what has been described are attributable to:</p> <ol style="list-style-type: none"> ① Excessive dirtiness of the sand in the filter due to an incorrect treatment of water in the minipool (see the section on water treatment on page 24). In this second case, empty the minipool, disassemble the filter and check the sand. Depending on the problem found when the filter was opened use suitable products to wash the sand. Finally, replace the sand (see page 30). ② Damage to the flow sensor (contact the Manufacturer). ③ Damage to the circulation pump. Once the minipool restarts, verify that the circulation pump functions correctly. Try to perform a manual backwash of the filter (see page 30).

ALARMS NOTIFICATIONS	Screen displayed	DESCRIPTION OF THE PROBLEM POSSIBLE SOLUTIONS
Co Water control unit alarm (notification)		<p>Problem description: in case of no communication with the chromatherapy controller, the system disables the function and the display shows the "Co" message alternating with the temperature.</p> <p>The other functions remain available.</p>
LL Water level alarm (notification)		<p>Problem description: the notification is activated if the water level inside the compensation tank is below the minimum for more than three seconds. The display will show the message "LL" alternating with the temperature, the functions remain enabled, the system will start filling the bathtub to restore the level (see the section on filling the minipool on page 33).</p> <p>The notification is activated when a number of people leave the bathtub at the same time (the system automatically restores the level by activating the fill function).</p>
FEr Water level sensors alarm (alarm)		<p>Problem description: the alarm is activated if there is a malfunction of the level sensors, especially when the system detects the maximum level but not the minimum level.</p> <p>Solutions: try to reset the system by cutting off power to the bathtub for about 30 seconds, check that the level sensor cable is not damaged (e.g., crushed by something), restore power to the minipool. If the problem persists, contact the Manufacturer.</p>

treesse

water treatment
and
maintenance



INTRODUCTION

Minipool water that is always clean and clear, but above all bacteriologically pure and free of algae, guarantees safety and comfort for users and offers the pleasure of a safe, relaxing bathtub.

The pool water must always be disinfected and disinfected and have a residual disinfectant content ready to eliminate any new contaminants that may be brought into the bathtub by people or the environment.



The Manufacturer recommends the use of its products as they have been tested and found to be compatible with the bathtub. The use of different products may cause damage to surfaces over time that is not covered under warranty.

The best disinfectant is **bromine**, as it is heat resistant. The product comes in 20 g slow-release tablets. It performs its maximum sanitising action in water with a pH value between 7.4 and 7.8. The use of bromine is combined with **ZERO PROBLEM antialgae** and **OXIGEN ATTIVO GR granular oxygen**. Oxygen has its own disinfecting power and serves to reactivate bromine when the active disinfecting bromine is transformed into combined bromine. Furthermore, the natural increase in water pH is inhibited.

It is always important to use high quality specific products and to check chemical parameters, in particular the pH and the level of disinfectant. There are specific kits for measuring these parameters.

In addition to chemical products, it is necessary to remember that the bottom and sides of the bathtub should be thoroughly brushed and the filtration system left running for an adequate number of hours per day to allow the removal of suspended water pollutants.

Two simple but fundamental operations should be carried out on a regular basis:

1 Check the fundamental water parameters (pH, hardness, alkalinity) - page 22

If the three parameters are not perfectly balanced, larger quantities of additives and disinfectants may be needed followed by maintenance.

For example, an excessively alkaline water makes it difficult to keep the pH stable. In turn, an unstable pH fosters the formation of algae and therefore requires the use of algicides in quantities higher than normal.

These parameters are measured by using test strips that are easily found in specialised shops. If necessary, it is possible to use specific products to bring them back to optimal values.

2 Disinfection and water cleaning - page 26

A very important operation for the hygienic and user comfort: products are added to the water that can eliminate bacteria and fungi (disinfectants like oxygen or bromine) and make it more clear and crystalline (additives like algicides, anti-foam, flocculants, etc.). Water should be checked periodically to see if the concentration of disinfectants and additives is sufficient to guarantee their effectiveness.

These two operations must be done very **frequently**, taking into account the more or less intensive use of the minipool, the number of users and the quality of the water used. Other actions, like the emptying of the minipool, are **occasional** and should be done only when needed.




It is recommended to have your minipool checked at least 1-2 times per year (for example at the end and beginning of the season for outdoor installations) by contacting the Manufacturer's service centres. This will guarantee excellent performance and durability over time, especially in the case of very intensive use.

The suggestions on the following pages only cover some general aspects. If there are problems or special needs, contact the manufacturer for suggestions.

TABLE OF ACTIVITIES

Below is a table that summarises all the activities necessary for proper maintenance. Those in blue should be carried out frequently.

ACTIVITY	INFORMATION	FREQUENCY...
CHECK PH VALUES, HARDNESS AND ALKALINITY	1 page 22	<p>Why check: Minipool water that is always clean and clear, but above all bacteriologically pure and free of algae, guarantees safety and comfort for users and offers the pleasure of a safe, relaxing bathtub.</p> <p>How often: the minipool water (both its basic parameters and the concentration of disinfectants and additives) should be checked 1 - 2 times a week under normal conditions of use (e.g., family use) or daily if the minipool is used intensively (e.g., wellness centres) or if it is installed outdoors. In this latter case, check the water especially after intense rain.</p> <p>Which products to use: reactive strips or tablets, liquid reagents or instruments for measuring the parameters are readily available in specialised shops.</p> <p>For a disinfectant, the Manufacturer recommends its products (bromine - 20 g slow-release tablets - combined with the use of ZERO PROBLEM antialgae and OXIGEN ATTIVO GR granular oxygen).</p> <p>If algae has already developed in the bathtub, the problem should be solved as soon as possible, emptying the minipool, brushing the walls and bottom of the bathtub thoroughly and performing a shock treatment with liquid oxygen (OXI BLU).</p>
DISINFECTION AND CLEANING OF THE WATER (FROM POLLUTANTS AND ALGAE)	2 page 26	
CHANGING THE FILTER SAND	3 page 30	<p>Why check: the sand filtration system is certainly the best, but to be truly effective there must be sufficient sand in the filter and it must not be packed.</p> <p>Hard, packed sand is no longer an effective filter bed because some preferential channels have been formed which must be eliminated as soon as possible.</p> <p>How often: the sand should be checked and, if necessary, replaced at least once a year.</p> <p>If flocculants are used, employ minimum doses and check the sand even more frequently.</p> <p>Which products to use: in the BATHTUB MAINTENANCE KIT you can find the specific product FILTRO-CAL LQ for cleaning and sterilising the sand.</p>
EMPTYING AND FILLING THE MINIPOOL	4 page 32 5 page 33	<p>How often and which products to use: the frequency of this operation depends on many factors, for example more or less intensive use, outdoor or indoor installation, water quality, etc.</p> <p>In general it is good practice to empty the bathtub every 30 days by performing an energetic disinfection of the pipes, using the products contained in the BATHTUB CLEANING KIT.</p>
CLEANING THE SURFACES	6 page 34	<p>How often and which products to use: cleaning the bathtub is an important operation that should be carried out frequently (at least twice a week), by brushing the walls and the bottom of the bathtub. It is also essential to sterilise the pipes and the recirculation system, an operation that can be easily carried out before emptying the pool with the products contained in the BATHTUB CLEANING KIT.</p> <p> <i>The Manufacturer recommends the use of its products as they have been tested and found to be compatible with the bathtub. The use of different products may cause damage to surfaces over time that is not covered under warranty.</i></p>



CHECKING THE WATER PARAMETERS

Specific studies on water balance have found a correlation of equilibrium among the values of **pH**, **hardness**, **alkalinity**: they must therefore be **measured** frequently and then **balanced**.

Remember that:

- The **pH** must be between **7.4-7.8** to allow the bromine disinfectants to be most effective and long lasting.
- The optimal **alkalinity** is in the range of **8-12.5°F**.
- The **hardness** should not exceed **25°F**. It can be kept under control with sequestering agents specific or limescale.

Only their perfect balance will guarantee water that is clean, clear and low maintenance.

CONVERSION TABLE

°D = German degrees

°f = French degrees

ppm CaCO₃ = American degrees (parts per million)

mg/l = milligrams per litre

g/m³ = grams per cubic metre

1 °D = 17.8 ppm CaCO₃

1 °D = 1.78 °f

1°f = 0.56 °D

1°f = 10 ppm CaCO₃



More information

TAP WATER AND WELL WATER

To ensure maximum hygiene and durability of the minipool it is essential to pay close attention to the quality of the water used.

Tap water guarantees microbiological purity and is free of metal particles (not retained by the sand filter) and organic substances. In contrast, well water often contains traces of oxides, organic substances and bacteria that can cause algae blooms and serious damage to the minipool.

WATER HARDNESS

Water hardness is determined by the amount of calcium and magnesium salts dissolved in the water.

Water classification:

.....up to 7°f	=	Very soft water
From 7°f to 14°f	=	Soft water
From 14°f to 22°f	=	Slightly hard water
From 22°f to 32°f	=	Fairly hard water
From 32°f to 54°f	=	Hard water
.....more than 54°f	=	Very hard water

(1°f = 10 mg calcium carbonate per litre of water)

WATER ALKALINITY

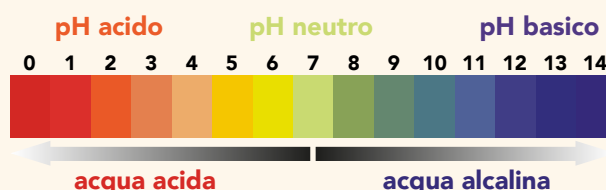
Alkalinity represents the quantity of some alkaline substances (carbonates, bicarbonates, hydrates) dissolved in water. Values lower than 80 mg/l or higher than 125 mg/l can alter the pH uncontrollably making maintenance of the water quality very difficult.

WATER PH

What is pH?

The pH indicates the concentration of hydrogen ions (H⁺) in the water and represents its acidity or alkalinity. Maintaining the pH within optimal values (**7.4-7.8** - neutral value) allows for:




- The well-being of those who use bathtub (the pH of the skin, mucous membranes and eyes is slightly acidic, close to 7, so this value meets this need)
- Duration of the minipool itself
- The best performance of water treatment products, resulting in lower consumption.



The optimal values for incoming water are highlighted in the table: the three fundamental water parameters (pH, hardness and alkalinity) are frequently measured and then balanced using specific products, readily available in specialised stores.



Minipools installed outdoors or subject to intensive use require more frequent checks of the three parameters as they are subject to the weather (e.g., heat from the sun and rain) and organic substances carried into the water by users.

PARAMETER	OPTIMAL VALUES between ...	VALUES ABOVE OR BELOW CAN...
HARDNESS (TH)	between 10°F and 25°F (100 mg/l-250 mg/l)	...cause build-up that over time can cause significant damage to the walls of the minipool, the pipes, the filters, as well as the heating unit and pumps. Very hard waters are conducive to the proliferation of algae.
<p> The unit of measurement of hardness is °f (French degree), where one degree represents 10 mg of calcium carbonate (CaCO₃) - limestone - per litre of water (1°f = 10 mg of calcium carbonate per litre of water). The simplest means to measure hardness is to use a reagent in drops or soluble tablets - readily available in specialised stores - and follow the instructions attached to the product.</p> <p>During pre-installation/installation of the minipool, if the water hardness was not optimal the installer should have added a water softener.</p> <p>If this was not done, it is possible to use specific products available in specialised shops (for example organic or inorganic stabilisers or sequestering agents). In this case, increase the frequency of the backwashing of the sand filter (see page 30).</p>		
pH	for bromine treatments it is recommended to keep the pH in the range 7.4 to 7.8	...irritation of the eyes and skin of people in the water, water with little sanitising power, excessive consumption of chemicals, decrease in the duration of the minipool components.
<p> The simplest way to measure pH is to use a reagent (usually rossophenol is used) in drops or soluble tablets, readily available in specialised stores.</p> <p>When placed in contact with the water to be analysed, it takes on a colour ranging from red (pH 8.4) to yellow (pH 6.8). By comparing the colour with colour tables one can quickly identify the pH of the water.</p> <p><i>If the pH is found to be lower or higher than optimal, it is necessary to use an acidity/basicity adjuster, easily available in specialised shops or by contacting the Manufacturer. For the quantities follow the product's instructions. Regardless of the formulation used, it is recommended to spread the product in different parts of the minipool to avoid creating excessive concentrations.</i></p> <p>The pH should usually be checked 1 - 2 times a week under normal conditions of use (e.g., family use) or daily if the minipool is used intensively (e.g., wellness centres) or if it is installed outdoors.</p> <p>In the latter case, check the pH of the water after each storm.</p>		
ALKALINITY (CAT)	between 80 and 125 mg/l 8-12.5°F	...more likely uncontrollable changes in pH
<p> The alkalinity value is determined by the following chemical compounds present in the water: carbon dioxide, carbonates, bicarbonates and hydrates. It is very important to stabilize the total alkalinity value as it also influences the pH. The alkalinity is found using the appropriate test kits that are readily available in specialised shops.</p> <p>Alkalinity can vary:</p> <ul style="list-style-type: none"> • Adding dry acid to the bathtub (to lower it). • Adding sodium bicarbonate to the bathtub (to increase it). 		

2

DISINFECTION AND CLEANING OF THE WATER

Various micro-organisms (bacteria, fungi, algae) can proliferate in the water of the minipool, fostered by the constant heat of the water.

Only some of them can be a real danger for those who use the minipool, however these micro-organisms can proliferate quickly making the water cloudy and the surfaces slippery.

There are essentially two types of treatments to be carried out:

2A Disinfection (oxygen or bromine).

2B Water cleaning (anti-algae, flocculants, etc.).

The products must be requested from the Manufacturer: For methods of use carefully follow the product's instructions.



The use of chlorine for the disinfection of the minipool is strongly discouraged as it is not suitable for the construction material (stratified resin) and not very stable at high temperatures.



When using multiple additives avoid using them at the same time (try to schedule the activities 2-3 days apart) and note their compatibility: read the information labels or request information from the product dealer.



After performing the treatments - only when there are no people in the water - activate the whirlpool function for 20 or 30 minutes and do not use the minipool until the disinfectants/additives have dropped to normal values.



Frequently check the concentration of additives in the minipool water (test strips are readily available). Some are sensitive to the action of the sun's rays or are diluted by rain or the organic substances left in the water by users.



The frequency of disinfection also depends on the intensity of use of the minipool. If it is used in public areas (e.g., wellness centre), the water must be checked and disinfected on a **daily basis** by specialised and trained personnel.

2A

DISINFECTION

(ELIMINATION OF THE BACTERIAL AND FUNGAL LOAD)

For a complete sanitisation of the water we recommend the use of **bromine** with reactivation using **granular oxygen**.

Oxygen treatment (domestic use)

This method of sanitisation is ideal for domestic use, i.e., when the minipool is used by a limited number of people for non-prolonged periods. It naturally creates crystalline water and is less aggressive towards the skin and hair, it does not have an unpleasant odour and does not alter the pH of the water.

Usually oxygen-based treatments combine two components: oxygen tablets and a liquid activator.

Bromine treatment (intensive use)

Bromine is a halogen and should be added to water at pre-established intervals (usually in the form of water-soluble tablets).

Unlike chlorine, bromine is also effective at high temperatures and with higher pH.

Not producing chloramines, it does not cause unpleasant odours, does not irritate the eyes and skin and is easily reactivated.



More information

SUPER-DISINFECTION (SHOCK TREATMENT)

This operation is an intensive disinfection treatment that consists in adding a quantity of disinfectant to the water that is slightly higher than what is used normally in order to oxidise the organic substances and eliminate the micro-organisms and algae.

The frequency is variable: it becomes indispensable if the minipool remains unused for a long time, but it can vary if it is used intensively, if it is installed outdoors because it is more exposed to pollutants and to the sun's rays.

In general, the minipool used by a family needs super-disinfection every 15 days, if used by a wellness centre at least once a week.

After completing the treatment, do not use the minipool until the value of the disinfectant has dropped to normal values.

Shock treatment can be performed using the product **OXI BLU**, made with stabilised liquid oxygen.

2B

CLEANING THE WATER

The following is a list of some possible treatments: the choice of formulation (liquid, granules, tablets, etc.) and the frequency of use should depend on your needs, the position of the minipool (outdoor or indoor) and the water quality.

Elimination of algae

Algae are single or multi-celled organisms that can form in minipools if the water is not properly disinfected. They are born from spores introduced by the environment, and if they enter water that has not been disinfected they can quickly reproduce, covering the entire bathtub. In addition to turning the water an unsightly green colour, the algae make the walls and the bottom of the pool slippery and therefore dangerous, staining them in a permanent manner. Green algae are the most common, but there are also others that are black, red or yellow.

An effective anti-algae product (**ZERO PROBLEM**) prevents the growth of algae in the minipool, particularly if it is installed outdoors and therefore exposed to long periods of sunlight. For more information on how to use the disinfectant and its dosages follow the instructions on the product's label.

If **algae has already developed in the bathtub**, the problem should be solved as soon as possible, emptying the minipool, brushing the walls and bottom of the bathtub thoroughly and performing a shock treatment with liquid oxygen (**OXI BLU**).

Flocculation treatment

Flocculation, as a support for filtration, is carried out to remove microscopic suspensions from the minipool water as they may cause cloudiness (e.g., suntan oil, lotions, cosmetics, etc.).

Flocculant is a product that is hydrated and increases its volume when it comes into contact with water. The hydrated molecules then "bind" to each other giving rise to cross-linked flakes that, depositing on the filter sand, increase the filtering power of the sand itself and therefore its ability to retain even the smallest impurities. If you use this product, check the filter frequently and replace the sand more frequently (see page 30).

Anti-foam treatment

Anti-foam products added to the water in the minipool reduce the formation of foam following the introduction of soaps, personal detergents, suntan oils or other substances.

Organic/inorganic sequestering agent

Chemical products specifically for reducing the problems associated with the presence of metals (iron, manganese) like limescale build-up and colours of water otherwise difficult to resolve. Only to be used if the content of these metals is not too high, otherwise find an alternative source of supply water.

Anti-fat treatment

Useful for removing fat deposits from the water in the minipool (e.g., sweat, tanning creams, etc.) that can cloud the water.

Anti-limescale treatment

The main problem of water hardness is the risk of precipitation of calcium carbonate with consequent build-up in all sections of the system and the minipool. The solubility of calcium carbonate is influenced greatly by pH: the higher the pH the greater the risk of precipitation.

Anti-limescale additives prevent the deposit of limescale on the surfaces of the bathtub, keeping the pipes, pumps, heat exchangers and filters clean.

They also prevent the formation of stains in the bathtub due to the iron present in the water.



More information

OZONE

TREESSE minipools come standard with an ozonator, which helps to disinfect and purify the water, but we also recommend sanitising and maintenance treatments using specific products to keep the water impeccably clean and clear.

Ozone is a very safe water sanitisation system as it eliminates 99.9% of micro-organisms, bacteria, viruses and parasites.

The use of ozone offers important advantages: it does not release flavours or odours, it does not irritate the eyes or the skin and reduces the use of further products for the disinfection of water.

The action of ozone is completed optimally by the use of bromine tablets.

TREATMENT CALENDAR

Use this calendar, making a copy of it if necessary, to note the days in which the treatments were done or when they are scheduled.



When using multiple additives avoid using them at the same time (try to schedule the activities 2-3 days apart) and note their compatibility: read the information labels or request information from the product dealer.

TREATMENT	DATE	DATE	DATE	DATE	DATE	DATE
Disinfectant treatment:						
OXYGEN						
BROMINE						
SUPER-DISINFECTION						
Anti-algae treatment						
Flocculant						
Anti-foam treatment						
Anti-fat treatment						
Sequestering agent						
Parameter check						
Minipool water change						

TREATMENT	DATE	DATE	DATE	DATE	DATE	DATE
Disinfectant treatment:						
OXYGEN						
BROMINE						
SUPER-DISINFECTION						
Anti-algae treatment						
Flocculant						
Anti-foam treatment						
Anti-fat treatment						
Sequestering agent						
Parameter check						
Minipool water change						

TREATMENT	DATE	DATE	DATE	DATE	DATE	DATE
Disinfectant treatment:						
OXYGEN						
BROMINE						
SUPER-DISINFECTION						
Anti-algae treatment						
Flocculant						
Anti-foam treatment						
Anti-fat treatment						
Sequestering agent						
Parameter check						
Minipool water change						

TREATMENT	DATE	DATE	DATE	DATE	DATE	DATE
Disinfectant treatment:						
OXYGEN						
BROMINE						
SUPER-DISINFECTION						
Anti-algae treatment						
Flocculant						
Anti-foam treatment						
Anti-fat treatment						
Sequestering agent						
Parameter check						
Minipool water change						

1 CHANGING THE FILTER SAND



Changing the filter's sand should be done after having disconnected the minipool's main power switch and after having emptied it.

The sand filtration system is certainly the best, but to be truly effective there must be sufficient sand in the filter and it must not be packed.

Hard, packed sand is no longer an effective filter bed because some preferential channels have been formed which must be eliminated as soon as possible.

The sand should be checked and, if necessary, replaced at least once a year.

If flocculants are used, employ minimum doses and check the sand even more frequently.



When filling is complete, reposition the filter in its compartment and check that the connections are correct and that there are no leaks.



It is recommended to dispose of the dirty sand according to the regulations in force in the country of use.

LEGEND FIGURE 1 ON THE NEXT PAGE:

- A) incoming water
- B) outgoing water
- C) drain



More information

WHAT IS THE SAND FILTER?

The sand filter is an effective minipool filter connected to the recirculation pump's feed line. It consists of a large container that is two-thirds filled with quartz sand. It retains the dirt and the suspended particles present in the water.

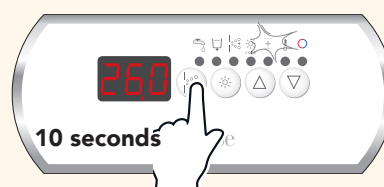
WHAT IS BACKWASHING?

Cleaning the sand filter is essential because it retains polluting materials like hair or leaves and sediment if the minipool is installed outdoors.

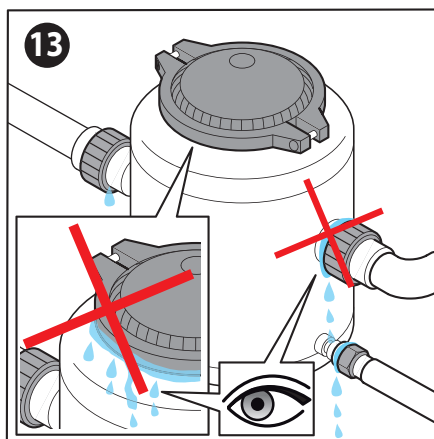
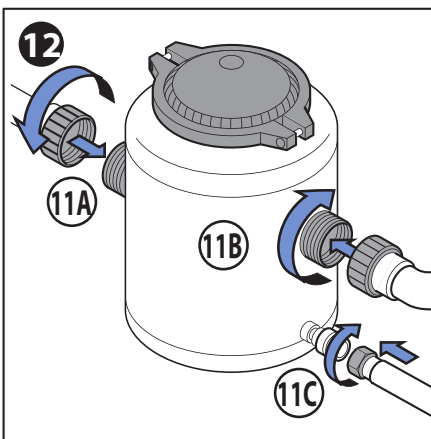
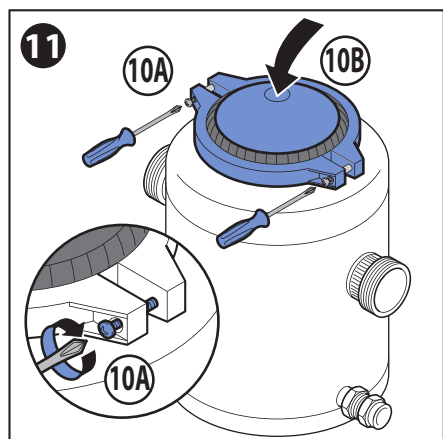
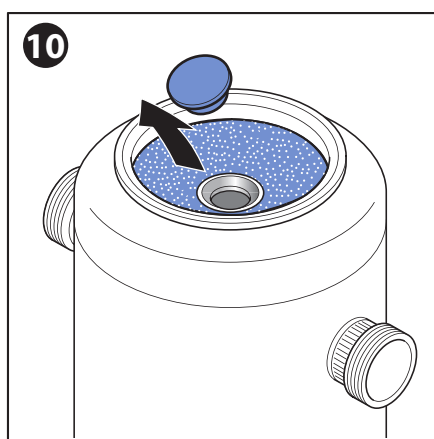
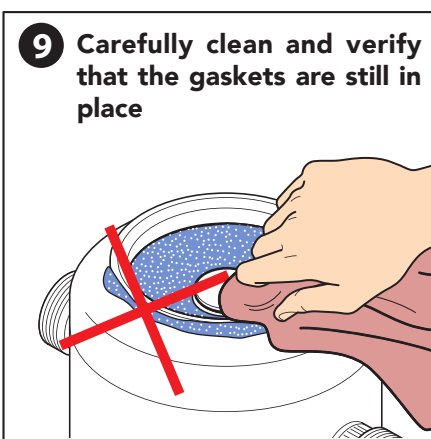
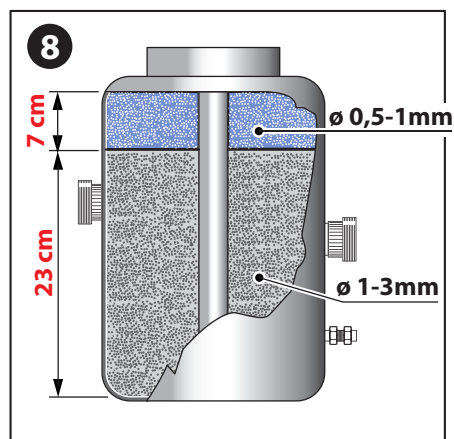
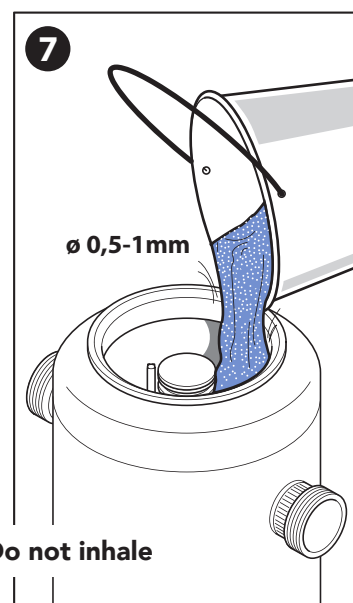
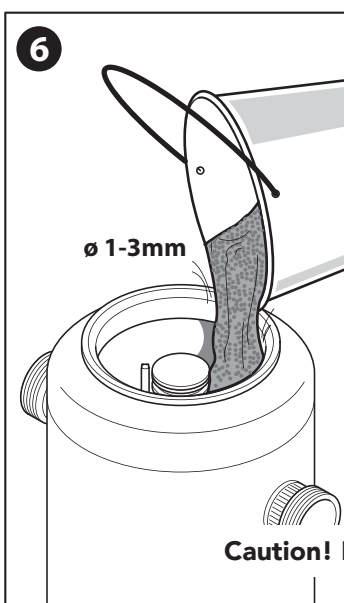
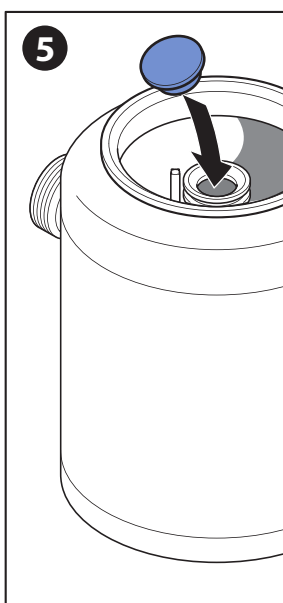
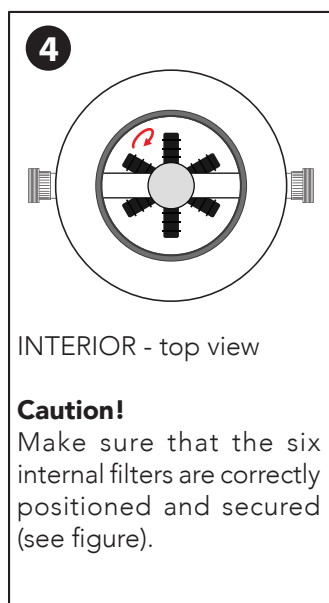
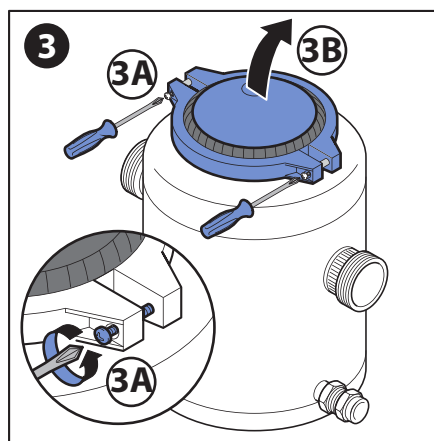
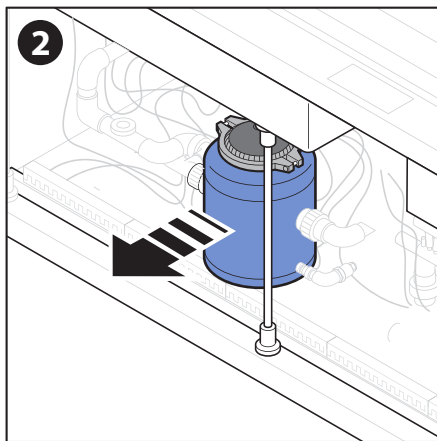
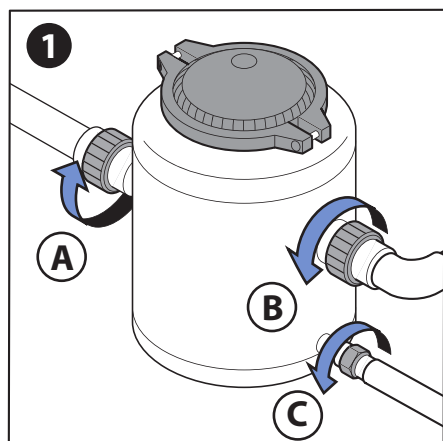
The best cleaning is achieved with a backwash, i.e., with a jet of clean water from the bottom of the filter so that the dirt can flow into the drain.

In Treesse minipools the backwashing is automatic, running automatically every 48 hours of minipool

use, but can be forced manually following the procedure indicated on the side.



PROBLEM	POSSIBLE CAUSE	SOLUTION
Low water flow	The sand of the sand filter is very dirty or the water supply is excessively hard and has clogged the sand filter. Use suitable products to return water hardness to the indicated levels (see page 22).	Replace the sand as indicated, following the instructions on granularity.
Sand inside the minipool	It is normal for there to be a minimum amount of sand inside the minipool during the first hours of use of the sand filter. After the first cleaning of the bottom the problem should no longer exist.	Cleaning the bottom with a minipool cleaner. Make sure you have used sand with granularity from 0.5 to 1 mm suitable for this type of use.
Water leaks	Some component is probably not fully tightened or the seals are worn.	Check the tightness or replace the seals.
The water of the minipool does not become clear	Most likely the filter sand needs to be changed or the pH of the water supply is incorrect and so algae grows. Use suitable products to return water hardness to the indicated levels (see page 22).	Check the condition of the sand and replace if necessary. Use anti-algae products and disinfectants. Remember that the sand filter does NOT block metal oxides that may over time damage components of the minipool.



2 EMPTYING THE MINIPOOL

In general it is good practice to empty the bathtub every **30 days**, brushing the bottom and surfaces of the minipool and performing an energetic disinfection of the pipes, using the products contained in the **BATHTUB CLEANING KIT**.

The frequency of this operation depends on many factors, for example more or less intensive use, outdoor or indoor installation, water quality, etc.

If the minipool is installed outdoors, emptying must always be done at the end of the summer season, taking care to also empty the water supply system.



Before emptying the minipool, especially if a shock treatment has just been performed, make sure that the values of disinfectants and additives are at normal values.

The minipool can be drained at any time, without people inside the minipool.

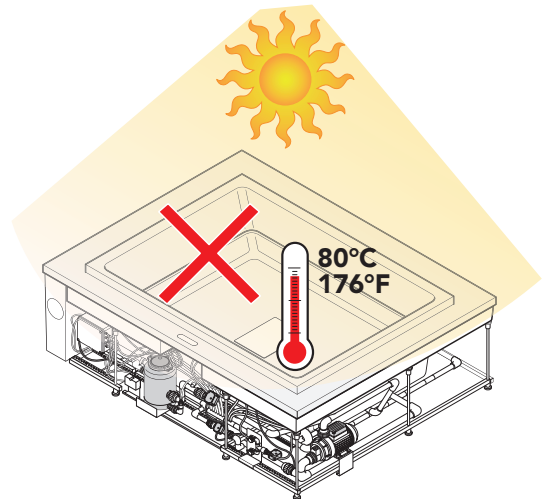
It is advisable to always empty the minipool during maintenance and at the end of the season.



Do not leave the empty minipool in **DIRECT SUNLIGHT**. The surface temperature could rise above 80°C resulting in serious damage, including cavitation and the deformation of the surface and components.

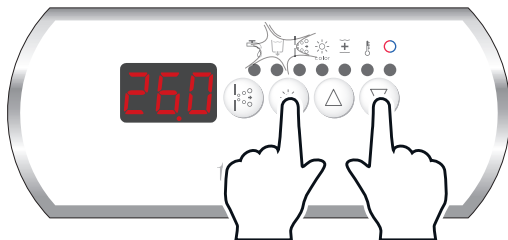
Damage caused by direct exposure to sunlight is not covered by the warranty.




In such conditions place a cover (fixed or mobile) to protect the minipool.

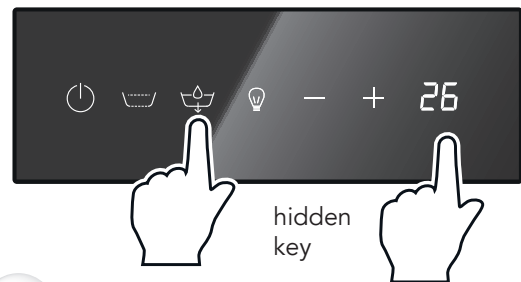



To avoid accidental emptying of the bathtub, a combination of two keys is required to perform this operation:

HOW TO EMPTY THE BATHTUB



→ simultaneously press the  and  keys 
emptying in progress is indicated by the "EMPTY" LED



→ pressing the hidden key for three seconds (located below the display, even if it is not visible it is still active), then press the  key
emptying in progress is indicated by the flashing blue key

Emptying lasts about 120 minutes and for the entire duration the bathtub needs to be powered to allow it to completely drain all residual water from the tank, pipes and filter.

During emptying of the minipool, the only enabled function is chromatherapy.

If it is necessary to refill the minipool, see the pertinent chapter on page 33.

3 FILLING THE MINIPOOL

Perform a preliminary cleaning of the minipool using a bit of water and a mild detergent.

Do not use cloths or cleaners that are abrasive, aggressive or that contain solvents because they could irreparably damage the surface of the minipool.



Do not start any operation until the minipool has been completely filled, otherwise the minipool could be damaged.

Before filling, once again check the quality of the water supply. This is very important for the well-being of the users and for the long life of the minipool.

AUTOMATIC FILLING USING THE KEYPAD

Once the pool is powered, the display will show the word "FxxRxx" and after a few seconds the display will show the current ambient temperature.

Filling is carried out by following the figures on the side (follow the instructions for your keypad).

Filling takes place from the bottom of the bathtub, and once it has finished the tank is filled.

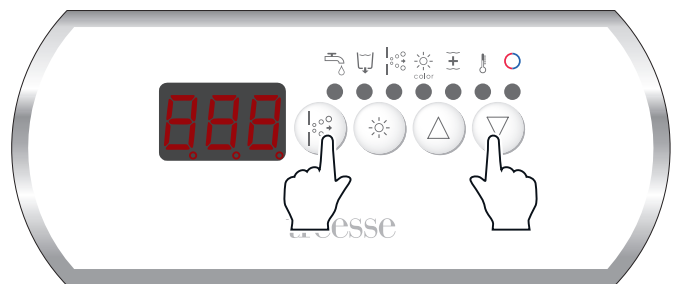
After reaching the correct level, the system automatically stops the filling and makes available the functions of whirlpool, recirculation, ozone and heater.

At this stage and until filling is completed, no other functions of the minipool - except chromatherapy - will be available.

During the filling phase, if the times for reaching the minimum (90 min) and maximum (60 min) levels in the overflow tank are not met, alarms "AL1" (minimum level)

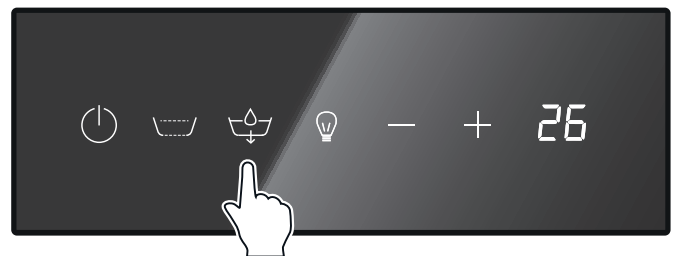
and "AL2" (maximum level) will be triggered, stopping all operation. In this case, you will have to disconnect the power and restore it after about 30 seconds using the product's main power switch and check the reason for this anomaly (leaky pipes, obstructed supply valves, insufficient pressure).

During the use of the minipool the system automatically maintains the water level flush with the edge of the bathtub.



Automatic filling using the keypad

simultaneously pressing the  and  keys activates the automatic filling of the minipool, controlled by two level sensors and confirmed by the "FILL" LED .



Automatic filling using the keypad: pressing the key activates the automatic filling of the minipool, controlled by two level sensors and confirmed by the fixed blue key.



More information

MAINTAINING THE WATER LEVEL IN THE MINIPOOL

When the minipool is completely filled a maximum sensor (SL2) and a minimum sensor (SL1) continuously monitor the water level inside the compensation tank.


SL1 (minimum sensor) = 0, the sensor does NOT detect water

SL1 (minimum sensor) = 1, the sensor detects water



SL2 (maximum sensor) = 0, the sensor does NOT detect water

SL2 (maximum sensor) = 1, the sensor detects water

If the lack of water is minimal (e.g., evaporation or a person gets out):

- The minimum sensor still detects water (SL1 = 1).
- The maximum sensor does not detect water (SL2 = 0).
-  activates automatic filling until conditions are restored and for a maximum of 60 minutes.

If the lack of water is considerable (e.g., two or more people get out of the minipool):

- Both the minimum and maximum sensors do not detect water (SL1 = 0, SL2 = 0).
-  The recirculation pump moves the water from the compensation tank to the minipool.
- The minimum sensor detects water (SL1 = 1, SL2 = 0).
-  activates automatic filling until conditions are restored and for a maximum of 60 minutes.



NON-USE OF THE MINIPOOL FOR PROLONGED PERIODS

In case of prolonged inactivity or at the end of the summer season it is good to carry out some simple operations that preserve the minipool during inactivity.

CLOSING THE MINIPOOL

- ① Empty the sand filter and dispose of it following the current regulations in the country of use (see page 30).
- ② Completely empty the minipool (see page 32).
- ③ Disconnect the minipool power switch.
- ④ Close the water supply gate valve.
- ⑤ Empty the pipes by opening the drainage valves.
- ⑥ Use a soft cloth for cleaning, moistened with a specific product for stratified resin minipools.



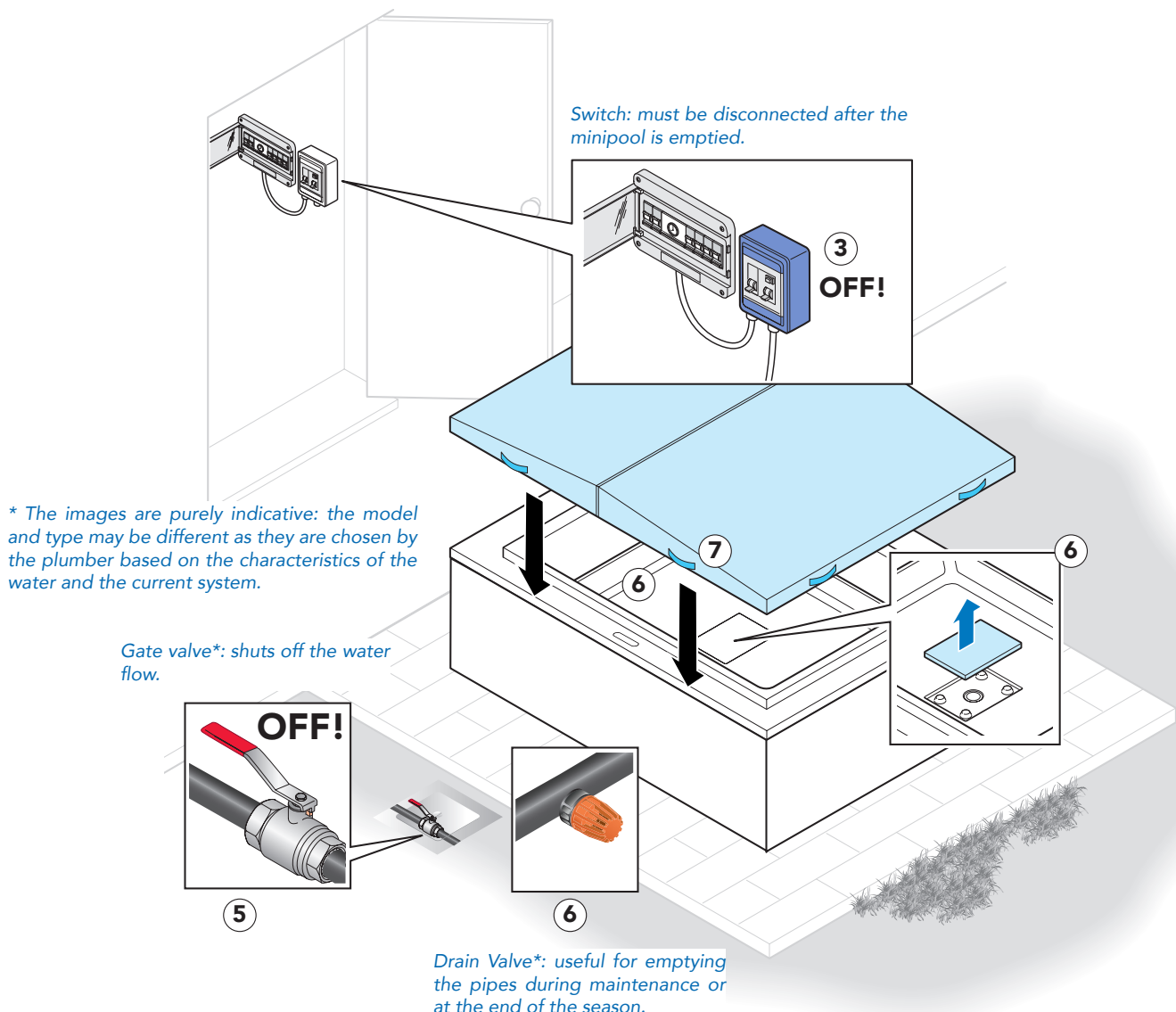
Do not use garden hoses for rinsing so as not to fill the plumbing circuit with water again.

- ⑦ Dry the minipool with deerskin and protect it with the optional cover.

RESTARTING THE MINIPOOL AFTER PROLONGED INACTIVITY

- Perform a rapid cleaning of the minipool using a bit of water and a detergent for acrylic surfaces. Do not use cloths or cleaners that are abrasive, aggressive or that contain solvents because they could irreparably damage the surface of the minipool.
- Reopen the gate valve for the water supply and, for outdoor installations, close the drainage valves.
- Check the parameters (hardness, pH, alkalinity) of the water that will be added. If the values are not optimal, after filling add specific products (see page 22).
- Fill the minipool again and fill the sand filter (see page 30 - page 33).

To preserve the surfaces it is recommended to apply wax specific for minipools in layered resin during periods of inactivity or at the beginning of the season. For methods of use carefully follow the product's instructions.



5 CLEANING THE MINIPOOL

The surface of your minipool is in stratified resin, glossy, polished and resistant: with proper maintenance and cleaning the surface will remain like new for a long, long time!



During maintenance of the minipool, use personal protection equipment all the time (i.e. protective gloves and glasses).



Before carrying out any maintenance disconnect the minipool's power supply.

For an effective and safe cleaning it is necessary to drain the minipool (see page 32).



Do not leave the empty minipool in DIRECT SUNLIGHT. The surface temperature could rise above 80°C resulting in serious damage, including cavitation and the deformation of the surface and components (damage caused by direct exposure to sunlight is not covered by the warranty).

Under these conditions or when not used, use a cover to protect the minipool (we recommend the optional Treeesse cover).

To clean the surfaces use a soft cloth and mild products suited to the bathtub's material (layered resin). They are readily available at any specialised store or upon request to the Manufacturer.

Follow the instructions for use stated on the product label. Always finish by drying it perfectly, preferably with deerskin.

Absolutely avoid abrasive, aggressive (e.g., solvents or acetone) or alcohol-based cleaners and cloths.

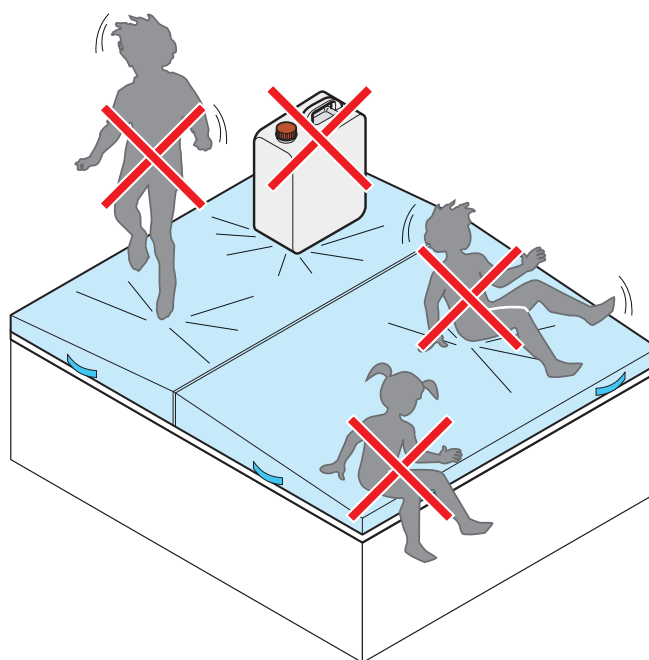
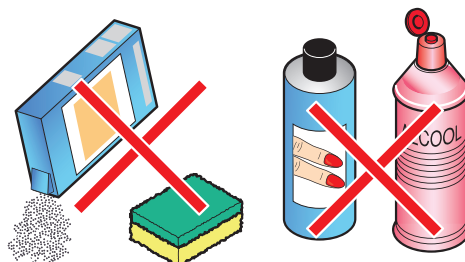
Do not use descaling products as they are too aggressive.

To clean the canvas cover use a soft cloth and mild products. They are readily available at any specialised store or upon request to the Manufacturer.

For the cleaning of the wooden panels (optional) use a soft cloth dampened with water, treating them periodically with protective products for wood.

To restore the brilliance of the surfaces or remove stubborn stains (e.g., nicotine), it is possible to use car polish spread with cotton.

To preserve the surfaces it is recommended to apply wax specific for minipools in layered resin during periods of inactivity or at the beginning of the season. For methods of use carefully follow the product's instructions.



Cover the minipool when it is not in use (we recommend the optional Treeesse cover). In addition to preserving the surfaces, it maintains the water temperature, protects it from falling leaves or other debris and also the sun's rays (if outdoors) .

The cover is especially useful if the minipool is installed outdoors. In this case it might be useful to anchor it with lashing straps in order to prevent the wind from moving it or blowing it off.



The cover is not designed to support weights. Do not walk, jump, sit or place any objects on it.

WARRANTY CONDITIONS

Under this warranty, the manufacturer will repair or replace free of charge only the parts that have manufacturing defects. Therefore under the warranty the purchaser cannot request termination of contract, compensation of damages or the complete replacement of the product.

Once the warranty has expired, service and repairs will be provided in exchange for payment. The Authorised Technical Service Centre contacted by the customer will apply the current rates, approved by the Manufacturer.

Not covered by the warranty:

- Mirrors.
- Lights.
- Fuses.
- Masonry works which may be necessary for the removal of the defective parts.
- Components that may be defective due to negligence of use, incorrect installation or maintenance, transportation and generally due to causes not directly attributable to defects in the product's manufacture.

The Manufacturer accepts no responsibility for any damage to people, animals or property resulting from failure to follow the instructions provided in the product installation and maintenance manual.

For service where there is no evidence of product defect as well as for installation, all expenses will be borne by the customer.



**IMPORTANT
NOTICE**

Service under warranty will only be performed if:

- The purchaser has documents proving the actual date of purchase.
- During installation, operation and maintenance current regulations, the instructions given in the product installation and maintenance manual and the precautions recommended by the manufacturer have all been complied with.

CERTIFICATE OF WARRANTY

With this document the manufacturer guarantees the product purchased for a period of:

2 years on fibreglass parts of tubs and showers. Excluded therefore from the warranty are fittings and electrical and plumbing equipment that guarantee the operation of the product even if sold together with it.

2 years on the remaining parts sold with the product.

The warranty starts from the date of purchase. Such date will be demonstrated by the receipt or any other document proving the purchase of the goods.

DISPOSAL AT END OF LIFE

As per Legislative Decree no. 49 art. 13 dated 2014 "Implementation of WEEE Directive 2012/19/EU on electric and electronic waste"



The WEEE symbol of a crossed out wheeled bin with a black line across it specifies that the product has been placed on the market after the 13th August 2005 and that at the end of its life it must not be disposed of together with other waste but must be disposed of separately.

All the equipment has been made with recyclable metal materials (stainless steel, iron, aluminium, zinc plate, copper, etc.) that as a percentage make up more than 90% of the weight.

The equipment must be made ready for disposal by removing the power cable and any doors for closing compartments or cavities (where present).

Attention must be paid to the management of this product at the end of its life, reducing any negative impact on the environment and improving the efficiency of resources, applying the principles of "who pollutes pays", prevention, preparation for re-use, recycling and recovery. Please remember that illicit or incorrect product disposal is punishable by law.

Information on disposal in Italy

WEEE equipment in Italy must be delivered to:

- Collection Centres (also named eco-islands or eco-platforms)
 - The dealer where new equipment is purchased who must withdraw it free of charge ("one to one" withdrawal).
- Information on disposal in European Union countries
The EU Directives on WEEE equipment has been adopted in different ways by different countries, therefore in order to dispose of this equipment correctly we suggest that you contact your local authority or your dealer in order to ask the correct method of disposal.

Below are some problems you may encounter while using the minipool.

If the solutions offered do not solve the problem contact your dealer or the minipool manufacturer for suggestions.

PROBLEM	POSSIBLE CAUSE	SOLUTION
Cloudy water, not very clear or dust in suspension	<ul style="list-style-type: none"> Water with unbalanced values (hardness, pH, alkalinity). Incorrect or infrequent water treatment. Sand filter excessively dirty or clogged. Excessive dirt brought in by users. Weather (if installed outdoors). 	<ul style="list-style-type: none"> Refer to the chapters: <ul style="list-style-type: none"> 1 page 22 2 page 26 3 page 30 Take a shower before entering the minipool to remove residues of cosmetics or lotions. Cover the minipool when not in use.
Sand inside the minipool	It is normal for there to be a minimum amount of sand inside the minipool during the first hours of use of the sand filter. After the first cleaning of the bottom the problem should no longer exist.	Refer to the chapters: <ul style="list-style-type: none"> 3 page 30 Use of minipool cleaners.
Foam on the surface of the minipool	<ul style="list-style-type: none"> Residues from sunscreens, cosmetics, soaps. Water with unbalanced values (hardness, pH, alkalinity). Overly soft water (lower hardness to 7°f). 	<ul style="list-style-type: none"> Take a shower before entering the minipool to remove residues of cosmetics or lotions. Refer to the chapters: <ul style="list-style-type: none"> 1 page 22 2 page 26
Slippery bottom and walls, the presence of algae, greenish colour	<ul style="list-style-type: none"> Water with unbalanced values (hardness, pH, alkalinity). Incorrect or infrequent water treatment 	Refer to the chapters: <ul style="list-style-type: none"> 1 page 22 2 page 26
Bad odour or mould	<ul style="list-style-type: none"> Water with unbalanced values (hardness, pH, alkalinity). Incorrect or infrequent water treatment. Water changed too infrequently. Canvas cover not cleaned well. 	<ul style="list-style-type: none"> Refer to the chapters: <ul style="list-style-type: none"> 1 page 22 2 page 26 For the cleaning of the canvas cover, see page 34

PROBLEM	POSSIBLE CAUSE	SOLUTION
Unstable pH value	A very unstable pH could be caused by a bad balance of total alkalinity (Complete Alkalimetric Titre - CAT).	Refer to the chapters: 1 page 22
Irritation of eyes, mucous membranes and skin	<ul style="list-style-type: none"> Water with unbalanced values (hardness, pH, alkalinity). Water with disinfectant treatments that are too aggressive or too concentrated. 	Refer to the chapters: 1 page 22 2 page 26
The whirlpool pumps start by themselves	The minipool has an automatic mixing function that in sequence activates the various whirlpool pumps and the blower to mix the water in the bathtub. This provides for a more effective filtering action.	

Maximum care has been paid to guarantee the accuracy of this manual.

The Manufacturer reserves the right to modify the equipment or the documentation at any time, without notice.

Therefore there might be small differences between this manual and the product you have received: we apologise in advance for any inconvenience.

The total or partial reproduction of this manual without the Manufacturer's consent is prohibited. Measurements are purely indicative and not binding.

The original language of this manual is Italian: the Manufacturer is not responsible for any mistakes in translation/interpretation.

treesse

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