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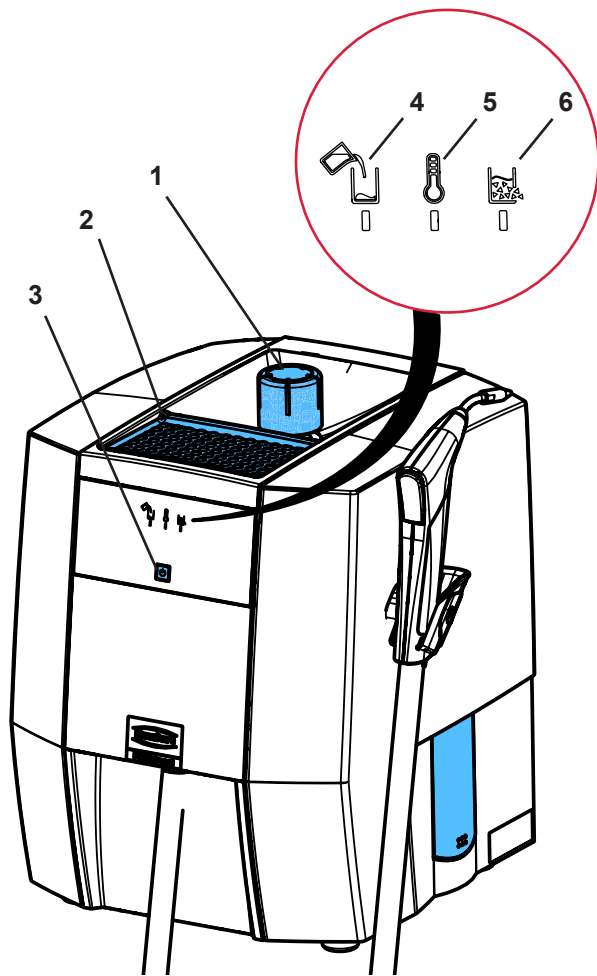
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# POWER steamer 1 & 2

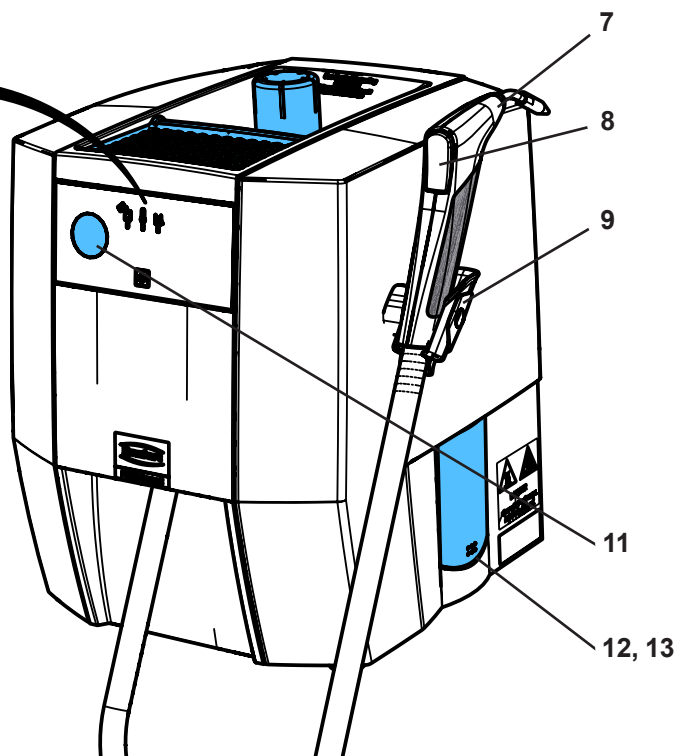
Quick Start Guide

Made in Germany

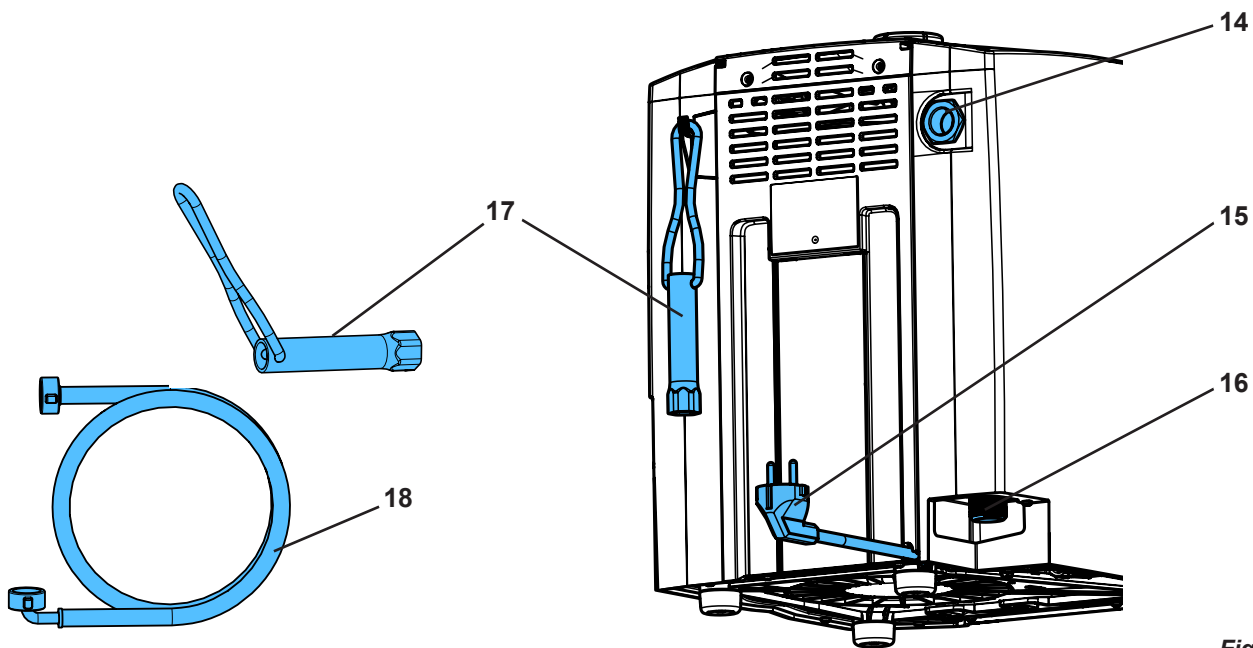
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**POWER steamer 1**



**POWER steamer 2**



**Fig. 1**

# Introduction

This Quick Start Guide contains instructions on the operation of the unit and relevant safety information.

Detailed information about the unit is provided in the instructions for use, which you can download from our website at [www.renfert.com/p918](http://www.renfert.com/p918).

Enter the following item number: 18450000 or 18460000.



## Symbols used

Symbols with the following meanings are used in these instructions or on the equipment:



**Danger**

**Immediate danger of injury. Consult accompanying documents!**



**Electrical current**

**Danger due to electrical current.**



**Danger**

**Hot surfaces.**



**Risk of explosion**

**Opening under pressure could cause parts to be ejected explosively.**



**Danger**

**Pressurized hot steam!**

**Do not open while the unit is hot!**



**Danger**

**Danger of injury due to hot liquids or steam.**



**Caution**

**Risk of damage to the equipment if the instruction is not followed.**



**Notice**

***Provides the operator with useful information that eases use.***



The operating instructions are also available in electronic format on our website.

Visit [www.renfert.com/p918](http://www.renfert.com/p918), and enter the following item number: 18450000 or 18460000.



The product complies with the applicable EU regulations.



Within the EU, the equipment is subject to the provisions of the WEEE Directive.

Other symbols are explained as they occur.

## Safety

### Intended use

This steam cleaning unit is intended exclusively for cleaning dental items.

Do not direct steam at living creatures under any circumstances!

Commercial use only!

### Improper use

Only spare parts and accessories supplied or authorized by Renfert GmbH may be used with this product. If other spare parts or accessories are used, this could have a detrimental effect on the safety of the equipment, increase the risk of serious injury and lead to damage to the environment or the product itself.



**Only Renfert descaling solution or descaling solution authorized by Renfert may be used for descaling!**

**Other descaling solutions could damage the pressure tank and mechanical components, quickly causing complete failure.**

## Hazard and warning information



### General information

- ▶ If the unit is not used in accordance with the supplied operating instructions, the intended safety can no longer be guaranteed.
- ▶ The unit may only be operated using a power cord equipped with a plug appropriate to the local power supply. Any necessary modifications must be carried out by a qualified electrician.
- ▶ Only operate the unit if the information on the nameplate corresponds to the specifications of your local mains power supply.
- ▶ The unit may only be plugged into electrical sockets that are connected to the protective conductor system.
- ▶ The power plug must be easily accessible.
- ▶ Disconnect the unit from the mains power supply before carrying out work on the electrical parts.
- ▶ It is the responsibility of the operator to ensure that national regulations are complied with during operation and regarding recurring safety inspection of electrical equipment. In Germany, these are DGUV Regulation 3 in conjunction with VDE 0701-0702.
- ▶ Check connection cables (such as power cords), tubes and housing (such as the key pad) regularly for damage (such as kinks, cracks and porosity) or signs of ageing.  
Do not operate equipment with damaged connection cables, tubes or housing parts or other defects!
- ▶ Defective equipment must be taken out of service immediately. Disconnect the power plug and secure the equipment against further use. Send the equipment in for repair!
- ▶ Only operate the equipment under supervision.
- ▶ Please observe the national accident prevention regulations!
- ▶ Information on REACH and SVHC is available on our website at [www.renfert.com](http://www.renfert.com), in the Support area.

### Specific information

- ▶ **Caution: Danger of burns!**  
During operation, high temperatures are present at the lid of the tank and the filler opening, at the upper cover of the unit, at the steam outlet nozzle, and at the service opening on the side.
- ▶ If steam is used for extended periods, the handpiece and the steam hose can become extremely hot!
- ▶ In the case of improper use, there is a danger of scalding due to hot steam!
- ▶ Do not open the tank cap or the cap of the service opening while the pressure tank is still pressurized. Danger of scalding due to hot steam or hot water!
- ▶ Place the unit so that there is no risk if steam is discharged from the outlet opening of the over-pressure valve (14).
- ▶ When operating on a base (e.g., a sink), its edge may not be higher than 20 mm (approx. 3/4").
- ▶ The tank cap must be properly closed during operation.
- ▶ **POWER steamer 2:** Turn off the water supply after work has been completed.
- ▶ Check the sealing of the tank cap and the service cap regularly for damage. Replace damaged sealing.
- ▶ Do not direct the steam at people.
- ▶ Unauthorized persons are not permitted within range of the steam jet. To prevent injuries, be careful with the hot steam.
- ▶ To prevent electrical accidents as well as damage to the unit, steam must never be directed at the unit and liquid must never be allowed to enter the unit.
- ▶ Do not operate the unit with an empty pressure tank. This causes damage to the unit!
- ▶ Do not use chemical additives. Only use water to operate the unit.
- ▶ Steam cleaning units can cause unpleasant levels of noise during operation. Wear personal hearing protection when in the working area.
- ▶ The user is responsible for verifying the cleaning result.
- ▶ When descaling, observe the instructions for use of the descaling solution.
- ▶ Keep away from sources of ignition! Enrichment of hydrogen in the tank when operated with a water softening system with regeneration salt! Rinse weekly.

## Service life

The maximum service life strongly depends on the conditions of use, in particular on compliance with the prescribed cleaning and maintenance intervals.

## Authorized persons

Operation and maintenance of the equipment may only be performed by trained personnel.

Unauthorized persons, in particular children, are not permitted to use this equipment.

Any repairs not described in these operating instructions may only be performed by a qualified electrician.

# Product description

## Assemblies and functional elements

See Fig. 1 (on inside cover)

- |  |  |
|--|--|
| 1 Tank cap   | 10 ---                                     |
| 2 Model tray   | 11 Manometer (POWER steamer 2 only)        |
| 3 ON / OFF button  | 12 Service flap                            |
| 4 "Tank empty" indicator (red)                               | 13 Service cap                             |
| 5 "Heating / Ready for operation" indicator (orange / green) | 14 Overpressure valve - outlet opening     |
| 6 "Calcification state" indicator (yellow)                   | 15 Power cord                              |
| 7 Handpiece  | 16 Water connection (POWER steamer 2 only) |
| 8 Steam button   | 17 Service cap tool                        |
| 9 Handpiece holder   | 18 Water hose (POWER steamer 2 only)       |

## Scope of delivery

- 1 Steam cleaning unit
  - 1 Tank cap
  - 1 Quick Start Guide
  - 1 Service cap tool
  - 1 Cleaning brush
  - 1 Sealing set
  - 1 Water hose (POWER steamer 2 only)
- Test strips for determining the water hardness and rinsing intervals

# Startup

## Unpacking

⇒ Check the delivery for completeness (compare with the scope of delivery).



**Do not lift the unit using parts that extend outwards, such as the handpiece holder, for example.**

⇒ Remove the shipping restraint.

⇒ Screw in the tank cap (1).

## Setup

⇒ Place the unit on a stable, level work table.

⇒ Do not cover the ventilation slots on the back of the unit.

⇒ To the rear, ensure that there is at least 5 cm of space to the wall.

⇒ Place the unit so that the power plug can be accessed easily.



**The outlet opening of the overpressure valve (14) must not be closed or blocked in any way.**

## Opening / closing the service opening

### Opening



Observe the steps:  
First loosen the nuts – do not remove them!



**Danger due to pressurized steam!** Before opening the revision cap, ensure that the pressure tank is no longer pressurized. To do so, open the tank cap (1) and remove it.



*Reduce the existing pressure if required using the steam outlet function (see Chap. "Releasing pressure - steam outlet").*



**Danger due to hot water!**  
The water in the pressure tank may still be hot.

⇒ Open the service flap (12) by applying pressure to the lower edge of the service flap.

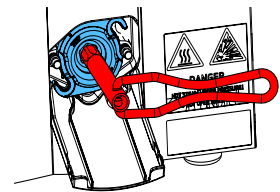
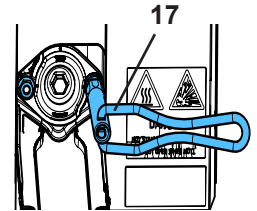
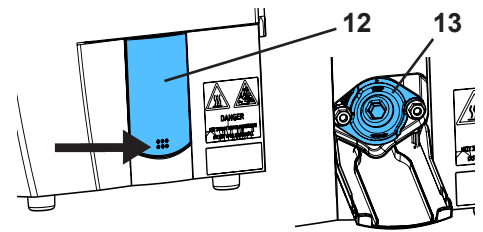
⇒ Loosen both fastening nuts at the service cap (13) by two turns each using the tool provided (17).

⇒ Use the tool to turn the service cap approx. 20° to the left and allow water to drain out through the service flap.

Once the tank is empty:

⇒ Remove the fastening nuts.

⇒ Turn the service cap to the left until stop and remove it.



### Closing



**Do NOT lubricate threaded bolts!**

⇒ Check and clean the sealing in the service cap. Replace if damaged.

⇒ Clean the sealing surface of the pressure tank.

⇒ Place the service cap into position rotated at approx. 45° and turn it to the right until stop.



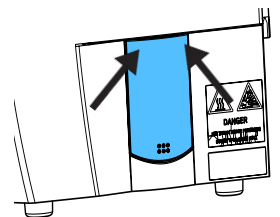
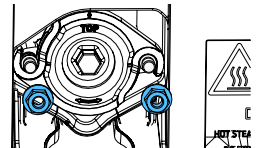
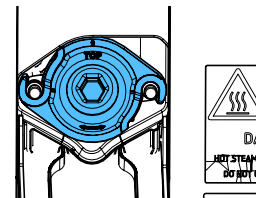
**Note the correct position: TOP = up!**

⇒ Place the fastening nuts into position and turn them by hand until stop.

⇒ Tighten the fastening nuts using a tool until they are finger tight.

⇒ Wipe out the service flap.

⇒ Lift up the service flap and close by pressing the upper corners.



### Rinsing the unit



*Due to the manufacturing process, release agents or other foreign substances may still be in the pressure tank.*

*These substances can initially cause odors during operation. This decreases over time.*

*It is also recommended to rinse the unit before operating it for the first time.*

⇒ Place the unit so that water can flow from the service opening (12/13) into a sink.

⇒ Open the service opening.

⇒ Pour 3 - 4 l of water into the tank cap opening and allow it to drain out through the service opening.

## Water quality / rinsing intervals

- !** The unit is only suitable for operation with drinking water. Water that does not comply with drinking water regulations is not permitted as it may contain substances that damage the unit.
- !** The chlorine concentration must not exceed 4 mg/l.
- !** Before startup, determine the water hardness and calculate the resulting rinsing intervals. Test strips for determining water hardness are part of the scope of delivery.
- !** Weekly rinsing is mandatory if a desalination system is used, regardless of the water hardness measured.
- !** Water from a softening system results in water with a high pH value in the tank. This can corrode the tank and may result in total failure of the unit.
- !** When using a desalination system, ensure that no regeneration water with a high concentration of salt/brine or acid enters the unit.

The following rinsing intervals must be observed depending on the hardness of the water:

Test strips					
German degrees (°dH) / degree of General Hardness (dGH)	< 3	> 4	> 7	> 14	> 21
English degrees (Clark degrees) (°e)	< 3.75	> 5	> 8.75	> 17.5	> 26.25
French degrees (°fH)	< 5.4	> 7.2	> 12.6	> 25.2	> 37.8
Parts per million (ppm CaCO <sub>3</sub> )	< 53.4	> 71.2	> 125	> 249	> 374
Rinsing interval	8 weeks	6 weeks	4 weeks	2 weeks	Weekly

- i** With the **POWER steamer 2**, Renfert recommends using the Power steamer water softener (see online for accessories) to reduce water hardness.
- i** A maintenance plan is available online at [www.renfert.com/p918](http://www.renfert.com/p918). Enter the following item number: 18450000 or 18460000 and select "Downloads".



## Water connection - POWER steamer 2

- !** Risk of brackish water flowing back into the water supply! To protect drinking water against non-drinking water, a system separator must be installed between the building water connection and the steam cleaning unit. The operator is responsible for implementing these measures.
- !** Observe the minimum and maximum connection pressure (see Chap. "Technical data" at the end of these instructions).
- !** Risk of water damage due to possible loosening of the water hose!  
After operation, or when the unit is unattended, turn off the water supply at the water shut-off valve.
  - ⇒ Check that the connections are fitted with gaskets.
  - ⇒ Connect the angled connection of the water hose (18) to the water connection (16).
  - ⇒ Connect the straight connection of the water hose to the water supply with the water shut-off valve.
  - ⇒ Carefully open the water shut-off valve and check the leak-tightness of the connections.

## Filling the pressure tank

⇒ Unscrew the tank cap (1).

⇒ Only fill with the required quantity in accordance with the recommended fill quantity.



**Recommended fill quantity, see Chap. "Technical data" at the end of these instructions.**



**Danger of scalding!**

**Excess water remains in the funnel-shaped upper housing.**

**This must be removed before operation.**

⇒ Wipe off / remove excess water in the funnel-shaped upper housing.

⇒ Screw in the tank cap and tighten until it is finger tight.



**The POWER steamer 1 can be operated using both drinking water and distilled or deionized water.**



**If the unit is a POWER steamer 2 and if it was connected to the water supply, it fills automatically after it is switched on.**

## Electrical connection

⇒ Insert the power plug into a building electrical socket.

◆ All the LEDs light up.

The unit can be switched on using the ON / OFF button as soon as the LEDs go out.

## Operation

### Switching on / off

#### Switching on:

⇒ Switch on the unit by pressing the ON / OFF button (3).

◆ The "Heating / Ready for operation" indicator (5) lights up in orange, the unit heats up.

◆ POWER steamer 2: The tank fills automatically.

◆ Once the working pressure has been reached, the "Heating / Ready for operation" indicator (5) lights up in green.



**As a result of filling, the thread of the tank cap contains water. This audibly turns to steam during heating.**



**How long it takes for the unit to heat up also depends on the mains voltage applied. If the unit is cold and filled with 3 l of cold water, it could take between 20 and 40 minutes.**

#### Switching off:

⇒ Briefly press the ON / OFF button

◆ The heating is switched off.

◆ All indicators are switched off.

⇒ POWER steamer 2: Turn off the water supply.

### POWER steamer 2:

In the case of the POWER steamer 2, the pressure tank is automatically filled to the fill level probe if necessary, after the unit is switched on.

Depending on the available water pressure, filling is carried out in several stages.

## Steam cleaning

⇒ Wait until the working pressure has been reached, the "Heating / Ready for operation" indicator (5) lights up in green.

⇒ Hold the steam nozzle in the sink and drain the condensate from the steam hose by briefly pressing the steam button (8).

⇒ Steam cleaning objects



**Wear appropriate personal protective equipment when steam cleaning!**



**i** *Observe the following when steam cleaning:*

- ▶ Always check that the item to be cleaned is suitable for steam cleaning.
- ▶ Hold the item in the steam area at least 2 cm away from the nozzle. At frequent intervals, check the cleaning progress (visual check) as well as any adverse effects on the sensitive surfaces of the item being cleaned.
- ▶ The user is responsible for verifying the cleaning result.



**Do not dip the handpiece in water!**

**Danger of scalding due to steam or hot water escaping**

**Water that has entered the handpiece from outside can become extremely hot or turn to steam.**



**If steam is used for extended periods, the handpiece and the steam hose can become extremely hot!**

### **Tank is empty - refill with water**

If there is no longer any water in the pressure tank, this is detected.

- ◆ "Tank empty" indicator (4) lights up in red.
- ◆ A short warning signal sounds.
- ◆ The heating is switched off.

### **POWER steamer 1**



**Danger of scalding due to steam escaping when opening the tank cap and when filling! Only open the tank cap when there is no longer any pressure.**

**When filling, do not bend over the filler opening of the pressure tank!**



**If the tank cap cannot be easily opened, there is still pressure. Do not force open the tank cap. Release pressure by pressing the steam button.**

- ⇒ Release the residual pressure by pressing the steam button or using the steam outlet function (see Chap. "Releasing pressure - steam outlet").
- ⇒ Do not switch off the unit.
- ⇒ Open the tank cap carefully (1) and remove it.
- ⇒ Allow the unit to cool down for at least 45 minutes to prevent hot water spraying out when filling.
- ⇒ Using a container, fill the pressure tank slowly with water through the funnel-shaped upper housing. Very slowly to begin with!
- ⇒ Wipe off / remove excess water in the funnel-shaped upper housing.
- ⇒ Screw in the tank cap and tighten until it is finger tight.
- ⇒ Confirm filling by pressing the ON / OFF button (3).
  - ◆ The "Heating / Ready for operation" indicator (5) lights up in orange, the unit heats up.
  - ◆ The water is heated using the integrated heating until the working pressure has been reached.
  - ◆ Once the working pressure has been reached, the "Heating / Ready for operation" indicator (5) lights up in green.



***The unit only reheats if it has cooled down sufficiently beforehand. If this is not the case, e.g., because too little water was refilled, the "Heating / Ready for operation" indicator flashes orange and heating is not yet activated.***

***Once the temperature has dropped sufficiently, the heating is automatically switched on and the "Heating / Ready for operation" indicator lights up permanently in orange.***

### **POWER steamer 2**

If the POWER steamer 2 is connected to a water supply that is turned on, the loss of water as a result of the steam is automatically compensated for.

### **Releasing pressure - steam outlet**

With the steam outlet function, the heating is switched off and the pressure released via the handpiece without the need to keep the steam button held down.

A corresponding description is provided in the operating instructions, which you can download from our website at [www.renfert.com/p918](http://www.renfert.com/p918) (see Chap. „Introduction“).

## Calcification indicator

The control detects the increasing calcification in the pressure tank. If the calcification exceeds a pre-defined level, this is signaled as follows:

- ◆ An acoustic signal sounds.
- ◆ The "Calcification state" indicator (6) flashes.

⇒ Rinse/descale the pressure tank at the next opportunity, for example at the end of the week.



***How quickly a pressure tank becomes calcified and how this affects the energy efficiency of the heating system depends on a variety of parameters, not all of which can be taken into consideration by the calcification indicator.***

***For this reason, descaling must be carried out every three months at the latest regardless of the calcification indicator.***

## Replacing the handpiece holder

A corresponding description is provided in the operating instructions, which you can download from our website at [www.renfert.com/p918](http://www.renfert.com/p918) (see Chap. "Introduction").

## Cleaning / Maintenance



**The unit does not contain any internal parts that require maintenance. Opening the unit is not permitted other than as described below!**



**Danger of burns!**

**Only carry out cleaning and maintenance work if the unit has cooled down and has been depressurized!**



**In the case of cleaning/maintenance work while the service cap is open (13), always place the unit so that water that flows out is collected. For example, place next to a sink.**

### Cleaning



**Do not steam clean the unit under any circumstances.**

To clean the unit, only wipe the outside with a damp cloth.

Do not use any solvent-based or abrasive cleaning agents.

### Cleaning and maintenance intervals

The intervals required for rinsing the pressure tank, descaling and checking the safety valve, as well as the steps and safety instructions required for this purpose are provided in the operating instructions, which you can download from our website at [www.renfert.com/p918](http://www.renfert.com/p918) (see Chap. „Introduction“).

### Checking the overpressure valve

A corresponding description is provided in the operating instructions, which you can download from our website at [www.renfert.com/p918](http://www.renfert.com/p918) (see Chap. "Introduction").

### Spare parts

You can find wear parts and spare parts in the spare parts list available online at [www.renfert.com/p918](http://www.renfert.com/p918).

Enter the following item number: 18450000 or 18460000.



## Disposal information



**For this reason, equipment with this symbol may not be disposed of in unsorted domestic waste within the European Union.**

Please contact your local authorities for more information on proper disposal.