schaerer
swiss coffee competence

# SOUL NA

## Operating Instructions


Translation of the Original Operating Instructions

12.2024 en Doc. no.: 3370020563

**WARNING**

RISK OF FIRE OR ELECTRIC SHOCK
DO NOT OPEN

WARNING TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK), NO USER-SERVICEABLE PARTS INSIDE, REPAIR SHOULD BE DONE BY AUTHORIZED SERVICE PERSONEL ONLY. FOR CONTINUED PROTECTION AGAINST FIRE AND ELECTRIC SHOCK, REPLACE WITH THE SAME TYPE AND RATING OF FUSE.

**CAUTION**

DISCONNECT FROM POWER SUPPLY BEFORE SERVICING.

**ATTENTION**

RISQUE D'INCENDIE OU D'ÉLECTROCUTION
NE PAS OUVRIR.

POUR RÉDUIRE LE RISQUE D'ÉLECTROCUTION, PRIÈRE DE NE PAS RETIRER LE COUVERCLE OU LA PARTIE ARRIÈRE. AUCUNE PIÈCE ACCESSIBLE AU CLIENT NE SE TROUVE À L'INTÉRIEUR. LES RÉPARATIONS DOIVENT ÊTRE EFFECTUÉES EXCLUSIVEMENT PAR LE RÉPARATEUR AGRÉÉ. POUR UNE PROTECTION CONTINUE CONTRE LE FEU ET LE CHOC ÉLECTRIQUE, REMPLACER PAR UN FUSIBLE DE MÊME TYPE ET DE MÊME CALIBRE.

**ATTENTION**

DÉBRANCHER L'ALIMENTATION ÉLECTRIQUE AVANT DE RÉPARER

# Legal information

**Publisher**
Schaerer AG, Postfach 336, Niedermattstrasse 3b, CH-4528 Zuchwil, Switzerland

**Edition**
12.2024

**Concept and editing**
Schaerer AG, Postfach 336, Niedermattstrasse 3b, CH-4528 Zuchwil, Switzerland

# Table of contents

# 1 Safety

## 1.1 Characters and symbols

### 1.1.1 Safety notes

DANGER

**Immediately dangerous situation that could result in death or serious injury.**

The measures described for preventing this danger must be strictly observed.

WARNING

**Generally dangerous situation that could result in serious injury.**

The measures described for preventing this danger must be strictly observed.

CAUTION

**Generally dangerous situation that could result in minor injury.**

The measures described for preventing this danger must be strictly observed.

NOTE

**There is a situation that could result in damage to the machine.**

The measures described for preventing this danger must be strictly observed.

### 1.1.2 Warning signs used

Symbols for dangers and instructions can appear both in the operating instructions and on the machine.

| Character | Type of danger | Character | Type of danger |
|---|---|---|---|
|  | Warning of hot fluids |  | Warning of hot surface |
|  | Warning of hot steam |  | Warning of dangerous electrical voltage |
|  | Warning of poisonous substances |  | Warning of hand injuries |

### 1.1.3 Instruction signs used

| Character | Meaning | Character | Meaning |
|---|---|---|---|
|  | Read documentation! |  | Wear safety gloves! |
|  | Wear safety goggles! |  | Wash hands! |
|  | Pull out power plug! | | |

## 1.2 Proper use

The machine is designed to dispense coffee beverages, hot water, milk beverages, powder beverages (toppings & chocolate) and flavors (syrup) in various versions and combinations in cups, mugs or glasses.

The bean hopper may only be filled with coffee beans, the powder container only with choco powder, the milk container only with milk and the manual inlet only with ground coffee.

The machine is intended for commercial use in hotels, restaurants or similar places. The machine may be installed in self-service locations and be operated without supervision. The machine may be used in stores, offices or similar working environments, hotels, motels and bed and breakfasts and may be operated by non-professionals or customers.

Use for this purpose is subject to these operating instructions. Any other use or use beyond this is considered improper use. The manufacturer does not assume liability for any resulting damage.

The machine can be used by children from 8 years of age and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they are supervised or have been given instruction concerning use of the machine in a safe way and understand the risks involved. Children must not be allowed to play with the machine. Cleaning and user maintenance must not be performed by children without supervision. Cleaning and user maintenance may only be performed by persons who have the knowledge and practical experience with the device, particularly with regard to safety and hygiene.

Use is also subject to the **General Terms and Conditions** of Schaerer AG and these operating instructions. Any other use or use beyond this is considered improper use. The manufacturer does not assume liability for any resulting damage.

## 1.3 Foreseeable misuse

Any use of the machine that goes beyond the intended use or any other use is considered misuse and can lead to hazardous situations. Improper handling of the machine can lead to injuries.

- Read the operating instructions carefully before use.
- Only allow qualified service staff access to the service area of the machine and optional accessories.
- Only have cleaning and user maintenance done by persons who have the knowledge and practical experience with the machine, particularly with regard to safety and hygiene.
- Have trained persons supervise the machine in self-service mode and in regular operation so that they are available to answer questions from the user and ensure compliance with the cleaning and maintenance measures.
- Only use sufficiently cooled milk.

- Only use the optional steam wand to foam milk.
- Never modify safety equipment of the machine.
- Only use the machine when it is functioning perfectly and is not damaged.
- Only fill the bean hoppers with coffee beans.
- Only fill the powder container with automatic coffee machine powder.
- Only fill the milk container with milk.
- Only fill the manual inlet with ground coffee.

## 1.4 Obligations of the operator

The operator must ensure regular maintenance and inspection of the safety equipment by a Schaerer AG service partner, its representative or other authorized persons. Material defects must be reported to Schaerer AG in writing within 30 days. For hidden defects, the deadline is 12 months from the time of installation (work report, handover protocol), but no longer than 18 months after leaving the factory in Zuchwil.

Damaged or defective safety-related parts such as safety valves, safety thermostats, boilers, etc. must be replaced and may not under any circumstances be repaired.

The operator is responsible for complying with the maintenance instructions.

## 1.5 Staff requirements

WARNING

**Risk of injury due to insufficient qualification!**

Improper handling can lead to considerable personal injury and property damage.
All work may only be carried out by qualified staff.

Only persons who can be expected to carry out their work reliably are permitted as staff. Persons whose ability to react is impaired, for instance by drugs, alcohol or medication, are not allowed to work on the machine.

When selecting staff, the age and occupation-specific regulations applicable at the place of use must be observed.

The following qualifications are specified in the operating instructions for various areas of activity:

**Instructed person**

Has been instructed by the operator about the assigned tasks and the possible dangers of improper behavior.

**Specialist staff**

Is able to carry out the work assigned to him/her and independently identify and avoid possible dangers based on his/her professional training, knowledge and experience as well as knowledge of the relevant regulations.

**Service staff**

Is a qualified person who has been specially trained by the manufacturer or operator for service tasks.

**Electrician**

Is able to carry out work on electrical equipment and independently identify and avoid possible dangers based on his/her professional training, knowledge and experience as well as knowledge of the relevant regulations. The qualified electrician is trained for the specific location where he/she is working and knows the relevant standards and regulations.

## 1.6 Residual risks

Maximum safety is one of the most important product features at Schaerer AG. The effectiveness of the safety equipment is only guaranteed if the following chapter on preventing of injuries and health hazards is observed.

These safety notes can be requested from Schaerer AG or downloaded directly from the website (schaerer.com/member) from the Media Pool.

### 1.6.1 Risk of electrocution!

DANGER

**Danger to life from electrocution!**

Improper handling of electrical devices can result in electrocution. There is danger to life.

- Only have work on electrical equipment carried out by a qualified electrician.
- Connect the device to a fused circuit.
- Observe the relevant guidelines on low voltage and/or the national or local safety regulations and directives.
- Earth the connection in accordance with regulations and secure it against electric shock.
- Make sure that the supply voltage matches the specifications on the serial plate of the device.
- Never touch live parts.
- Always switch off the main switch or disconnect the device from the power supply before carrying out maintenance work.
- Make sure that the device can be disconnected from the power supply with all poles. Disconnected connections must be visible at all times from the location of the device and the disconnection must be secured by a locking mechanism.
- Only have connection cables replaced by qualified service staff.

### 1.6.2 Danger due to cleaning products

Read the information on the packaging of the cleaning product carefully before using it. If not available, the safety data sheet can be requested from the sales company (see cleaning product packaging).

WARNING

**Risk of poisoning from cleaning products!**

There is a risk of poisoning if cleaning products are ingested.

- Keep cleaning products away from children and unauthorized persons.
- Do not ingest cleaning products.
- Never mix cleaning products with other chemicals.
- Only use cleaning and descaling products for their intended purpose (see label).
- Do not eat or drink while using cleaning products.
- Ensure good ventilation when using cleaning products.
- Wear protective gloves when using cleaning products.
- Wash your hands thoroughly immediately after using cleaning products.

**Emergency information**: Ask the cleaning product manufacturer (see cleaning product label) for the telephone number of the emergency information center (Toxicological Information Center). If your country does not have such an institution, contact the following office:

| Swiss Toxicological Information Center | |
|---|---|
| Calls from abroad | +4144 251 51 51 |
| Calls from Switzerland | 145 |
| Internet | www.toxi.ch |

### 1.6.3 Danger due to allergies

CAUTION

**Health risk due to additives!**

Beverages with additives or residues can trigger allergies. There is a risk to health.

- In self-service mode: Observe the information plate attached to the machine. The information plate contains information about any additives that cause allergies.
- In user mode: Inform staff that any additives used may cause allergies.

### 1.6.4 Danger due to bacteria

CAUTION

**Health problems due to contaminated water!**

Improper handling of water can lead to health problems.

- Make sure that the water is free of dirt and bacteria.
- Do not connect the machine to pure osmosis or other aggressive types of water.
- Make sure that the carbonate hardness is between 4 and 6 °dKH or 8 and 12 °fKH.
- Make sure that the total hardness is higher than the carbonate hardness.
- Do not exceed the maximum chlorine content of 50 mg per liter.
- Make sure that the pH value is between 6.5 and 7 (pH neutral).

CAUTION

**Health problems due to contaminated coffee!**

Improper handling of coffee can lead to health problems.

- Check the packaging for damage before opening.
- Do not fill with more coffee beans than are needed in one day.
- Close the bean hopper lid immediately after filling.
- Store coffee in a dry, cold and dark place.
- Store coffee separately from cleaning products.
- Use the oldest products first ("first in – first out").
- Use coffee before the expiration date is exceeded.
- Always close opened packages tightly so that the contents remain fresh and are protected from contamination.

CAUTION

**Health problems due to contaminated/incorrect milk!**

Improper handling of milk can lead to health problems.

- Do not use raw milk.
- Only use pasteurized milk or milk that has been heated using a UHT process.
- Only use homogenized milk.
- Used pre-cooled milk with a temperature between 3 °C (37,4 °F) and 5 °C (41 °F).
- Wear protective gloves when working with milk.
- Use milk straight from the original package.
- Never refill milk. Always clean the container thoroughly before filling.
- Check the packaging for damage before opening.
- Do not fill with more milk than is needed in one day.
- Close the milk container cover and cooling unit (internal and external) immediately after filling.
- Store milk in a dry and dark location with a maximum temperature of 7 °C (44.6 °F).
- Store milk separately from cleaning products.
- Use the oldest products first ("first in – first out").
- Use milk before the expiration date is exceeded.
- Always close opened packages tightly so that the contents remain fresh and are protected from contamination.

CAUTION

**Health problems due to contaminated automatic coffee machine powder!**

Improper handling of automatic coffee machine powder can lead to health problems.

- Check the packaging for damage before opening.
- Do not fill with more automatic coffee machine powder than is needed in one day.
- Close the powder container cover immediately after filling.
- Store automatic coffee machine powder in a dry, cold and dark place.
- Store automatic coffee machine powder separately from cleaning products.
- Use the oldest products first ("first in – first out").
- Use automatic coffee machine powder before the expiration date is exceeded.
- Always close opened packages tightly so that the contents remain fresh and are protected from contamination.

## 1.6.5 Danger due to heat

CAUTION

**Risk of scalding due to hot fluid!**

There is a risk of scalding in the dispensing area for beverages, hot water and steam.

- Never reach under the dispensing points during dispensing or cleaning.

CAUTION

**Hot surface!**

The dispensing points and the brewing unit can get hot.

- Never touch hot machine parts.
- Only touch the beverage outlet using the provided handles.
- Only clean the brewing unit when the machine has cooled down.

### 1.6.6 Danger due to mechanics

CAUTION

**Risk of crushing due to moving components!**

The beverage outlet and user panel can be moved manually. The grinding mechanism and the brewing unit move during operation. There is a risk of crushing when handling moving components.

- Only touch the beverage outlet using the provided handles.
- Always push the user panel up or down with both hands.
- Never reach into the bean hopper or the opening of the brewing unit when the machine is switched on.

## 1.7 Danger of property damage

NOTE

**Property damage due to improper handling of the machine!**

Improper handling of the machine can lead to property damage or contamination.

- If the water has a carbonate hardness of more than 6 °dKH, install a limescale filter. Damage may otherwise occur due to limescale.
- Do not operate the machine if the water supply is blocked. Otherwise the boilers will not be refilled and the pump will run dry.
- Schaerer AG recommends routing the water connection with a water stop valve on the manufacturer side to prevent water damage in the event of hose breakage.
- After a longer standstill period (e.g. company vacations), clean the machine before using it again.
- Protect the machine from the effects of the weather (frost, moisture, etc.).
- In the event of faults, see the table in the **Troubleshooting** chapter and call in a qualified service technician if necessary.
- Only use original spare parts from Schaerer AG.
- Immediately report externally visible damage and leaks to the service partner and have the affected parts replaced or repaired.
- Do not spray the machine with water or clean it with a steam cleaner.
- Do not place the machine on a surface where water jets could be used.
- When using caramelized coffee (flavored coffee), clean the brewing unit twice a day.
- Only fill the bean hopper with coffee beans, the powder containers only with automatic coffee machine powder, the milk container only with milk and the manual inlet only with ground coffee (or cleaning tablet during cleaning).
- Never use freeze-dried coffee. This will clog the brewing unit.
- If the machine and/or additional devices are transported at temperatures below 10 °C, store the machine and/or additional devices at room temperature for three hours before connecting the machine and/or additional devices to the power supply and switching them on. Otherwise there is a risk of short circuits or damage to electrical components due to condensation.
- Always use the new hose set supplied with the machine (drinking/waste water hose). Never use old hose sets.

# 2 Technical data

## 2.1 Types of beverages and output

Depending on the machine variant and options, the following beverages can be prepared:

| Max. beverage output per hour | | |
|---|---|---|
| Espresso 50 – 60 ml | Approx. 180 cups | |
| Coffee 120 ml | Approx. 180 cups | |
| **Recommended daily output** | | |
| Espresso 50 – 60 ml | Approx. 250 cups | |
| Coffee 120 ml | Approx. 250 cups | |
| **Available beverages** | Standard | Option |
| Espresso | x | |
| Coffee | x | |
| Coffee/Café crème | x | |
| Mug (250 ml)[ZW] | | x |
| Pot (500 ml)[ZW] | | x |
| Americano[AC, ZW] | | x |
| White americano[**, **, AC, ZW] | | x |
| Latte (light/dark)[*, **] | | x |
| Cappuccino[*, **] | | x |
| Latte macchiato[*, **] | | x |
| Espresso macchiato[*, **] | | x |
| Chociatto[***] | | x |
| Hot chocolate[***] | | x |
| Flat white[*] | | x |
| Hot milk[*] | | x |
| Hot milk foam[*] | | x |
| Cold milk[*] | | x |
| Cold milk foam[*, **] | | x |
| Best Foam™ milk foam[*] | | x |

| **Available beverages** | Standard | Option |
|---|---|---|
| Hot water/External hot water | x | x |
| Steam | | x |
| Powder beverages/Instant beverages | | |
| Liquor/Coffee | | x |

Recommended machine equipment:

* With fresh milk

** With fresh milk and/or topping (milk powder)

*** With choco

AC Brewing accelerator

ZW Additional water

## 2.2 Machine data

| Boiler nominal power* | Steam boiler | Hot water boiler |
|---|---|---|
| | 3000 W | 3000 W |

* See serial plate for special equipment. The specified values correspond to the standard equipment.

| Operating temperature | Steam boiler | Hot water boiler |
|---|---|---|
| Minimum operating temperature (T min.) | 10 °C (50 °F) | 10 °C (50 °F) |
| Maximum operating temperature (T max.) | 192 °C (377.6 °F) | 192 °C (377.6 °F) |
| Operating temperature | 127 °C (261 °F) | 95 °C (203 °F) |

| Overpressure | Steam boiler | Hot water boiler |
|---|---|---|
| Working pressure | 0.25 MPa (36.26 psi) | 0.8 MPa (116.03 psi) |
| Permissible operating overpressure (p max.) | 0.5 MPa (72.52 psi) | 1.2 MPa (174.04 psi) |
| Test overpressure | 2.4 MPa (348.09 psi) | 2.4 MPa (348.09 psi) |

| Capacities | |
|---|---|
| Drinking water capacity | Fixed water connection |
| Coffee bean hopper capacity | About 1200 g each |
| Grounds container capacity | 60 – 70 coffee cakes |

| External dimensions | |
|---|---|
| Machine width | 330 mm (12.99″) |
| Width with ProCare cleaning module | 843 mm (33.19″) |
| Height including bean hopper and key | 821 mm (32.32″) |
| Depth | 600 mm (23.62″) |

| Weight | |
|---|---|
| Empty weight | Approx. 55 kg (121 lbs)* |

* See serial plate for special equipment. The specified values correspond to the standard equipment.

| Sound pressure | |
|---|---|
| Continuous sound pressure level | < 70 dB(A)* |

* The A-weighted sound pressure level (slow) and Lpa (pulses) at the workplace of the operator is below 70 dB(A) in every operating mode.

## 2.3 Power supply connection at the building

| Power supply | Connection values | | | Fuse protection at the building | Connection cable Conductor cross-section |
|---|---|---|---|---|---|
| 2L, PE | 208 – 240 V | 60 Hz | 2700 W –3500 W | Max. 30 A | 3 x 12 AWG |
| 2L, PE | 208 – 240 V | 60 Hz | 2700 W –3500 W | Max. 20 A | 3 x 14 AWG |

To increase safety, a ground fault circuit interrupter with a nominal residual current of 30 mA is integrated in the machine.

## 2.4 Water connection values

| | | |
|---|---|---|
| Water pressure | Minimum: | 0.1 MPa (14.50 psi) |
| | Maximum: | 1.0 MPa (145.04 psi) |
| Water input temperature | Minimum: | 10 °C (50 °F) |
| | Maximum: | 30 °C (86 °F) |

Water quality

| | | |
|---|---|---|
| Chlorine content | Maximum: | Please observe the local regulations on the maximum permitted chlorine content. |
| pH value | Minimum: | 6.5 |
| | Maximum: | 7 |

| | | |
|---|---|---|
| Carbonate hardness (German) | Minimum:<br>Maximum: | 4 °dKH<br>6 °dKH |
| Carbonate hardness (French) | Minimum:<br>Maximum: | 8 °fKH<br>12 °fKH |
| Total hardness | | > Carbonate hardness |

## 2.5 Ambient conditions

| | | |
|---|---|---|
| Ambient temperature | Minimum:<br>Maximum: | +10 °C (50 °F)<br>+40 °C (104 °F) |
| Relative humidity | Maximum: | 80% RH |
| Height above sea level | Maximum: | 2500 m (8202 ft) |

## 2.6 Serial plate

| Type designation | Model |
|---|---|
| SOUL NA | No model variant |

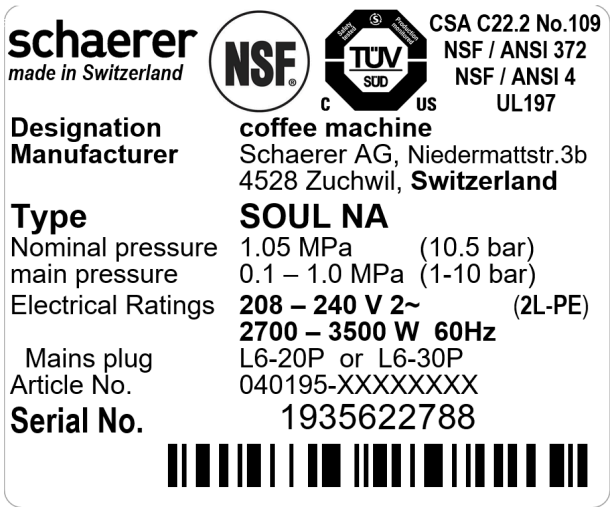



Figure: Serial plate

The serial plate is located on the front of the machine behind the cover on the right.

To read the data from the serial plate:

1. Pull the grounds drawer out of the machine.
2. Open the cover on the right of the grounds drawer.

In the event of a fault or warranty claim, report the following data from the serial plate (examples):

- Machine type
- Nominal power > e.g. 2900 ... 3400 W

- Nominal voltage > e.g. 220 ... 240 V
- On-site fuse value > e.g. 16 A
- Serial number > [YYCW XXXXXX] > e.g. 2001 XXXXXX

An additional serial plate is located on the rear behind the lower cover plate.

# 3 Compliance information

## 3.1 Manufacturer address

| Manufacturer | Documentation manager |
|---|---|
| Schaerer AG<br>Postfach 336<br>Niedermattstrasse 3b<br>CH-4528 Zuchwil<br>T +41 32 681 62 00<br>F +41 32 681 64 04<br>info@schaerer.com<br>www.schaerer.com | Schaerer AG<br>Director of R&D GBU PCM<br>Postfach 336<br>Niedermattstrasse 3b<br>CH-4528 Zuchwil |

## 3.2 Applied standards

Schaerer AG declares that this machine complies with all relevant provisions of the named directives. This declaration loses its validity if changes are made to the devices that have not been arranged with us. The following harmonized standards have been applied. A **DNV GL – Business Assurance** quality management system is used for proper implementation of the requirements and is certified in accordance with ISO 9001:2015, ISO 14001:2015 and ISO 45001:2018. Schaerer AG bears sole responsibility for issuing this declaration of conformity.

| International (CB) | |
|---|---|
| Safety | Sanitation |
| • UL197<br>• CSA C22.2 No.109 | • NSF / ANSI 372<br>• NSF / ANSI 4 |

| | |
|---|---|
| CB | Scheme > International system of mutual recognition of test reports and certificates |
| NSF | National Sanitary Foundation: Product testing, inspection and certification organization |
| UL | Underwriters Laboratories: Product safety standards for the US market |
| CSA | Canadian Standards Association |
| ANSI | American National Standards Institute |

# 4 Product description

## 4.1 Overview

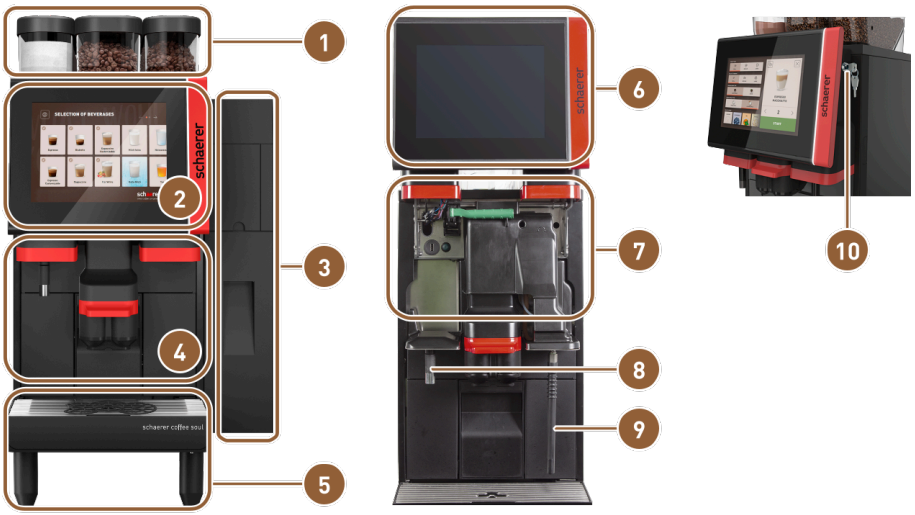



Figure: Machine overview

1. Bean hoppers and powder containers (type and number depends on configuration)
2. User panel with 10”/12” touch screen
3. ProCare unit
4. Dispensing area with beverage outlet and optional hot water/steam outlet
5. Machine drip tray with cup positioning aid and optional ADA user panel
6. User panel turned upwards
7. Area with internal operating elements
8. Hot water dispensing (optional)
9. Steam wand (optional)
10. Closing device for user panel

### 4.1.1 Machine feet

Figure: Machine feet

The machine is supplied with machine feet of 100 mm length as standard.

## 4.2 Connections and interfaces

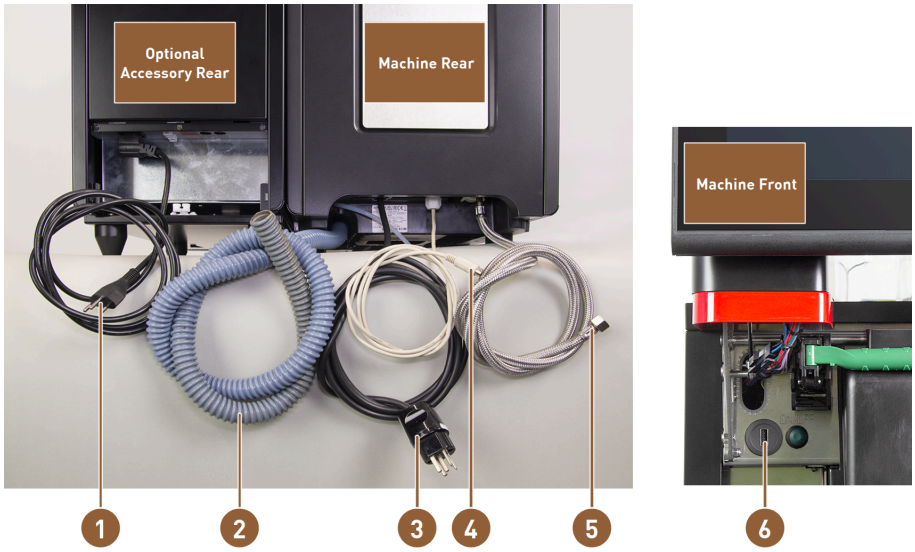



Figure: Connections of coffee machine to side cooling unit

1. Power cable with cold device plug and country-specific power plug for optional accessory
2. Waste water outlet hose ø 20 mm for siphon or external waste water tank; the hose may vary depending on the country.
3. Power cable with plug or fixed connection with main switch; the hose may vary depending on the country.

   The serial plate provides information on the maximum required fuse protection and the required minimum conductor cross-section.
4. Interface cable for communication between the coffee machine and optional accessories
5. Mains water supply 3/8" or connection to optional external drinking water tank
6. USB port and communication interface

See 2.3 "Power supply connection at the building"
See 6.3 "Installation"

## 4.3 Operating elements

### 4.3.1 Operating elements on the machine


Figure: Overview of external operating elements

1. Manual inlet for ground coffee
2. Touch screen
3. User panel, can be turned upwards
4. Beverage outlet, manual up/down adjustment or optional automatic discharge height adjustment (AHA)
5. Grounds container
6. C
7. Drip tray with drip grid and optional ADA user panel

### 4.3.2 Operating elements in the machine

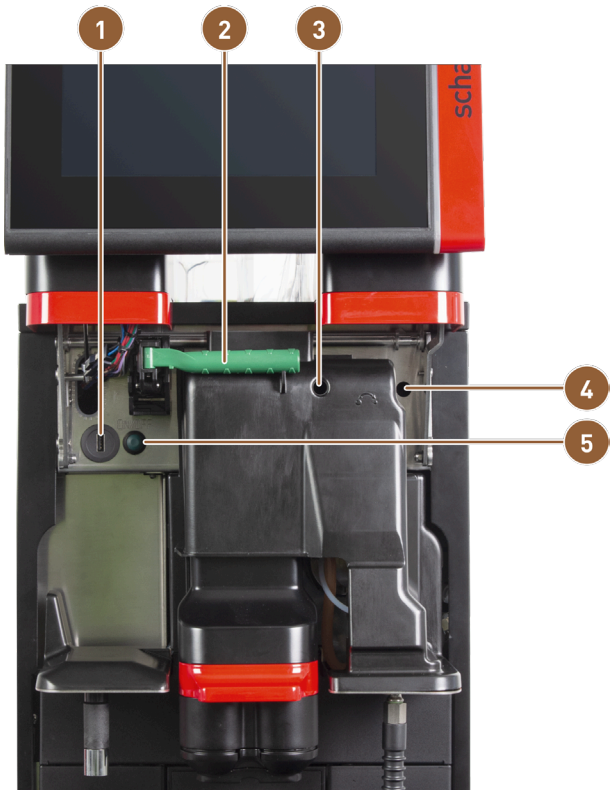



Figure: Operating elements in the machine

1. USB port
2. Release lever for bean hoppers and powder containers
3. Manual grinding level adjustment for center grinder (standard equipment)
4. Manual grinding level adjustment for the optional right grinder
5. Machine ON/OFF button (press and hold for 4 s to switch off)

If the machine is equipped with the optional **automatic grinding level adjustment** function, the adjustment devices for manual grinding level adjustment are not available. In this case, the coffee machine automatically adjusts the grinding level based on the brewing time of a reference beverage. The reference beverage is configured by the service technician.

### 4.3.3 Bean hopper with integrated manual inlet

Bean hopper and powder container covers are optionally available with a closing device.

The center bean hopper with integrated manual inlet is standard.

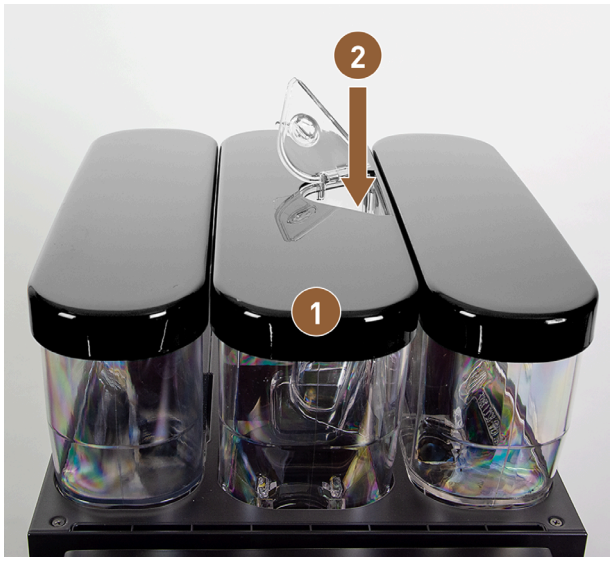



Figure: Bean hopper with integrated manual inlet

1 Center bean hopper

2 Manual inlet for ground coffee (e.g. decaffeinated coffee)

### 4.3.4 User interface

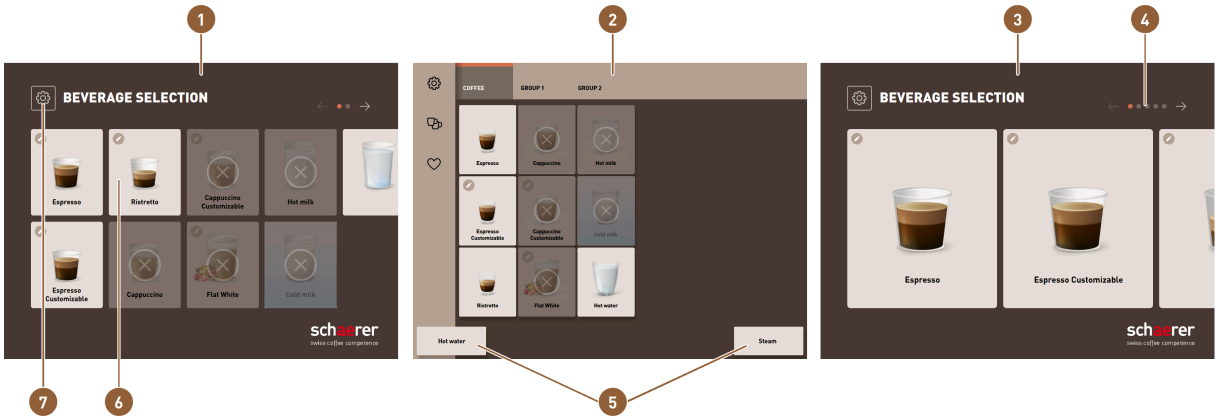



Figure: User interface: Overview

1 User interface for beverage selection in Self-service mode

2 User interface in Staff mode

3 User interface with selection via beverage groups

4 Navigation to the next or previous screen

5 Output of hot water or steam

6 Beverage button with icon or text only

7 Access to Service menu

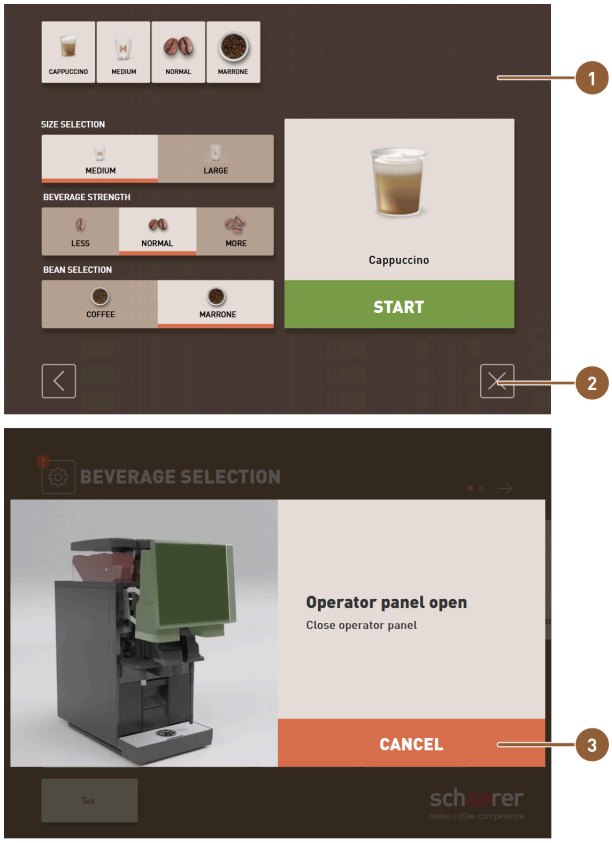



Figure: Overview: Operating functions on the interface

1 Selection of beverage options

2 Button [X]: Back or cancel

3 Error messages or instructions for action

## 4.4 Equipment variants

### 4.4.1 Schaerer Coffee Soul with 10-inch display


Figure: Schaerer Coffee Soul NA with 10-inch display

The standard version of the Schaerer Coffee Soul with the 10-inch display is equipped with decor elements according to the configuration and a 10-inch touchscreen.

Various configuration options can be configured during an order.

### 4.4.2 Schaerer Coffee Soul with 12-inch display


Figure: Schaerer Coffee Soul NA with 12-inch display

The standard version of the Schaerer Coffee Soul with the 12-inch display is equipped with chrome front elements, decor elements according to the configuration and a 12-inch touch screen.

Various configuration options can be configured during an order.

### 4.4.3 Ambient light with function

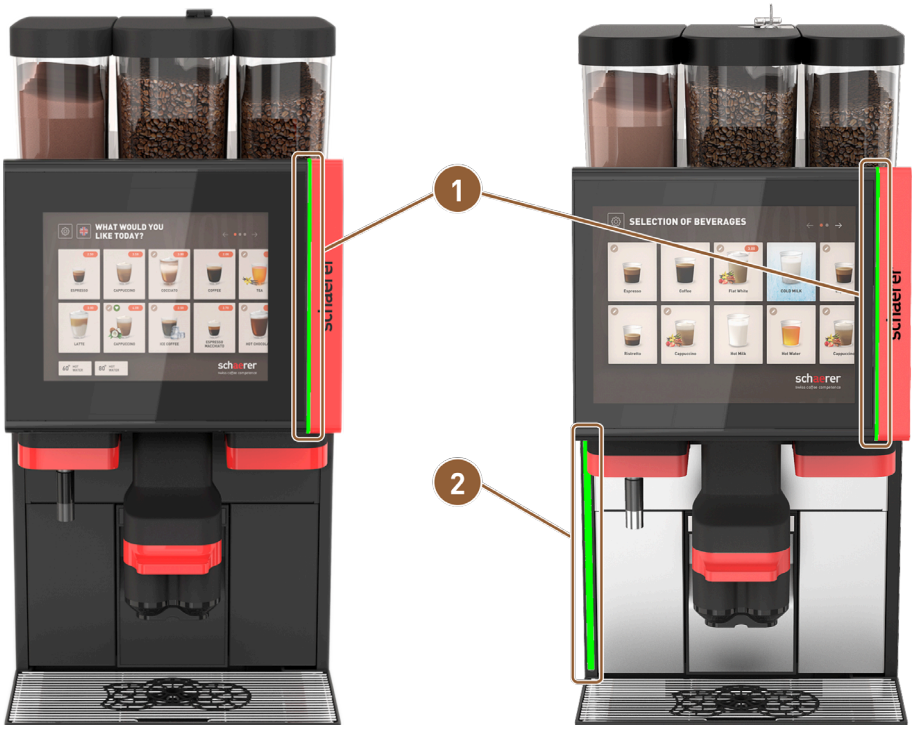



Figure: Ambient light with function

1 Lighting right of display (10" display and 12" display)

2 Lighting on left machine side (12" display only)

The ambient light to the right of the display **(1)** on both machine versions and on the entire left-hand side of the machine **(2)** on the SOUL with 12-inch display can be color-coded and also provides information on the operating status of the machine.

### 4.4.4 Automatic height-adjustable beverage outlet (AHA)


Figure: Automatic height-adjustable beverage outlet

With the **AHA** option, the optimum height of the beverage outlet is automatically adjusted to the selected beverage.

The **AHA** option cannot be retrofitted.

### 4.4.5 Drip tray with operating unit

The drip tray collects spilled beverages, drips and cleaning water. During installation, the drip tray must be connected to a waste water hose, which is either fed into an external waste water tank or connected directly to the waste water connection.

The machine is equipped with an additional operating unit on the front that enables navigation on the screen.


Figure: Drip tray with operating unit

| Button | Behavior |
|---|---|
|  | Navigates to the left in the menu. |
|  | Navigates to the right in the menu. |

| Button | Behavior |
|---|---|
|  | Confirms the selection. |
|  | Deletes the last input. Press and hold to return to the main menu. |

### 4.4.6 Steam wand

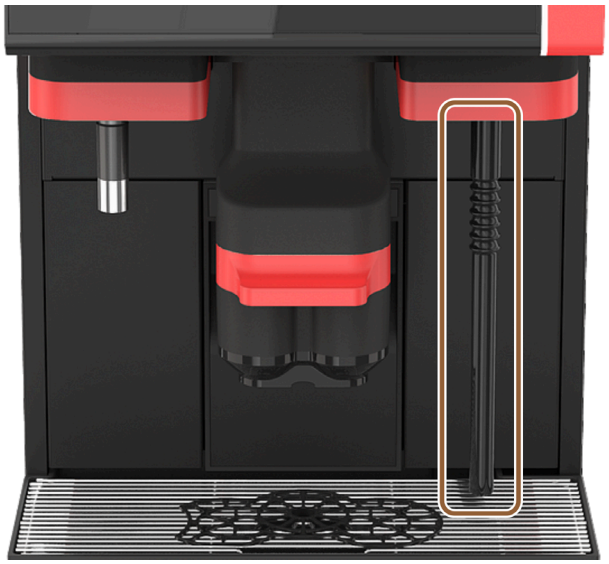


Figure: Steam wand

The machine can optionally be equipped with a steam wand. The steam wand function allows for separate manual milk heating and barista-style milk foaming.

The steam wand is mounted to the right of the beverage outlet.

The **steam wand** option cannot be retrofitted.

The following steam wand versions are possible:

| Name | Description |
|---|---|
| Powersteam | The steam outlet is started and stopped manually. |
| Autosteam | The steam output is started manually and stopped automatically by a temperature sensor when a programmable target temperature is reached. |
| Supersteam | The steam output is started manually and stopped automatically by a temperature sensor when a programmable target temperature is reached. In addition to the steam, air is blown in through an air pump. |

### 4.4.7 Hot water outlet

Figure: Hot water outlet

The separate hot water outlet enables manual dispensing to the left of the beverage outlet.

The **hot water outlet** option cannot be retrofitted.

### 4.4.8 Additional water for preparing americanos

Figure: Additional water

In addition to dispensing coffee, hot water (additional water) can be dispensed into the cup through the beverage outlet.

This option suited to preparing **americanos**.

The sequence of coffee and additional water is defined in the beverage configuration.

The **additional water** option cannot be retrofitted.

### 4.4.9 Brewing accelerator

Figure: Brewing accelerator

The **brewing accelerator** allows for more efficient dispensing of large beverages (e.g. americanos) with improved beverage quality. Additional hot water is fed into the coffee outlet after the brewing unit.

The **brewing accelerator** option cannot be retrofitted.

### 4.4.10 Lockable bean hoppers

Figure: Lockable bean hoppers

Lockable bean hoppers can be supplied as an option. The bean hoppers can also be ordered with a closing device.

### 4.4.11 Additional grinders


Figure: Equipment with second grinder and powder system

The machine can optionally be equipped with up to three grinders and three bean hoppers.

When equipped with two grinders, an additional bean hopper is available on the right. An optional powder container is always placed on the left-hand side. A second grinder can be used to process a second coffee bean type.

When equipped with three grinders, an additional bean hopper is installed on the left instead of the powder container.

The **second or third grinder** option cannot be retrofitted.

Bean hopper variants:

- Standard bean hopper 1200 g

### 4.4.12 Powder system 2000 g (choco or topping)


Figure: Powder system

Choco and/or topping powder can be used with a **powder system** to the left of the standard center grinder.

The **powder system** option cannot be retrofitted.

### 4.4.13 Mixing cup for powder or topping system

The machine can optionally be equipped with a choco or topping powder system. A mixing cup is part of the equipment in this case.


Figure: Operating elements on mixing cup for powder or topping system (option)

- A Ventilation
- B Water supply line
- C Mixing cup
- D Choco / Topping line

When installing the mixing cup, make sure that the **(A)** ventilation, **(B)** water supply, **(C)** mixing cup and **(D)** choco/topping line connections are fitted correctly and pushed in as far as they will go.

The mixing cup must be removed from the machine upon instruction during the cleaning program.

See 8 "Cleaning"

### 4.4.14 Twin powder system

Figure: Twin powder system

The **Twin powder system** provides two powder types in one container.

The powder container for Twin Choco or Twin Topping is divided in the center and has two compartments for different types of powder.

The **Twin powder system** option cannot be retrofitted.

### 4.4.15 Decor elements


Figure: Decor elements

**Decor elements** can be used to adapt the machine to its surroundings.

Different colors are available.

The **decor elements** option cannot be retrofitted.

### 4.4.16 External waste and drinking water tank monitored

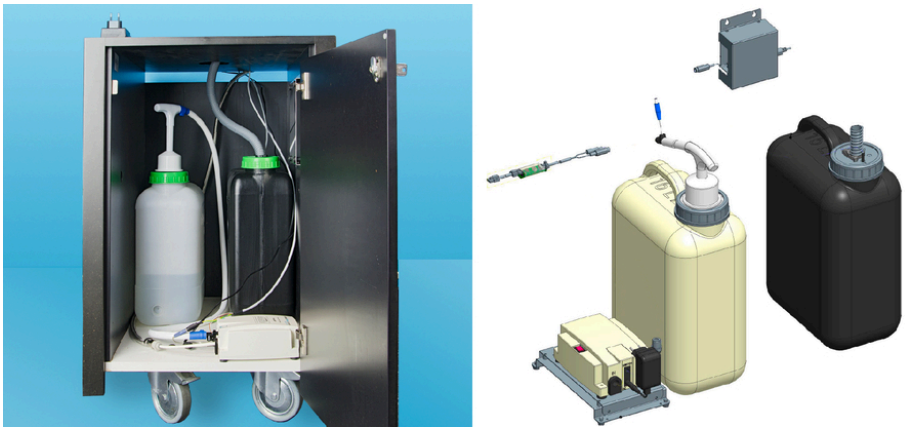


Figure: External waste water and drinking water tank

The machine can also be used in mobile applications thanks to the optional device with the external waste and drinking water tanks.

The fill level of both tanks is monitored.

The option can be retrofitted from software version v2.0.

### 4.4.17 Under-counter grounds disposal

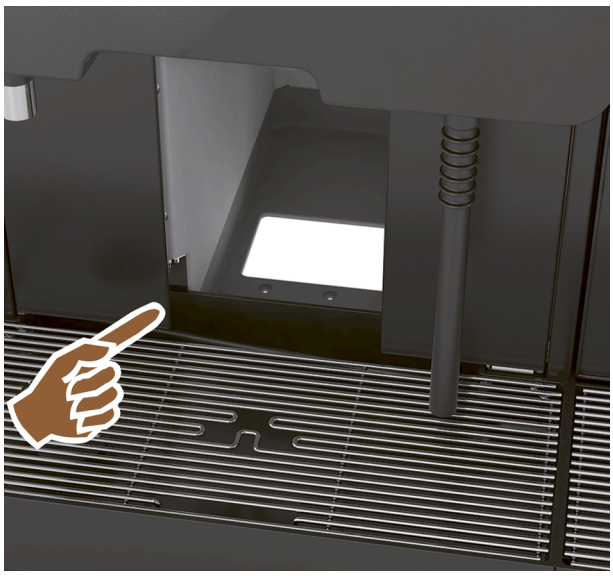


Figure: Under-counter grounds disposal

The grounds container and the machine base have an opening that continues into the counter. The coffee grounds are collected in a large container under the counter.

An **under-counter grounds disposal** unit increases the capacity for the ejected coffee cakes.

The **under-counter grounds disposal** option can be retrofitted.

### 4.4.18 Cup positioning aid

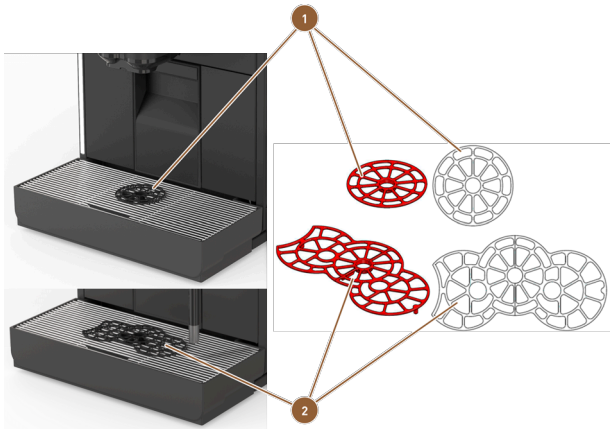



Figure: Cup positioning aid

1 Single cup positioning aid

2 Cup positioning aid for two cups

Various cup positioning aids for snapping into the cup platform for one or two cups or mugs are available as an option.

The two-cup positioning aid is supplied as standard.

The **cup positioning aid** option can be retrofitted.

### 4.4.19 Best Foam™ (fresh milk system)


Figure: Best Foam™ (fresh milk system)

The **Best Foam™** function allows for integrated automatic milk heating and barista-style milk foaming.

Cold milk and cold milk foam can be dispensed.

A cooling unit is mandatory with the **Best Foam™** function.

The **Best Foam™** option cannot be retrofitted.

### 4.4.20 Hot & Cold (cold beverages)


Figure: Hot & Cold (cold beverages)

The **Hot & Cold** function allows for hot and cold beverages to be dispensed alternately.

The **Hot & Cold** option cannot be retrofitted.

### 4.4.21 Schaerer Coffee Link (data exchange)


Figure: Schaerer Coffee Link

The **Schaerer Coffee Link** digital solution provides comprehensive information for quality assurance as well as for monitoring and optimizing individual business processes.

Various types of data can be read from the machine via the Schaerer **Coffee Link** web portal.

The **Schaerer Coffee Link** option can be retrofitted.

### 4.4.22 Payment systems

Figure: Payment systems

Commercially available **payment systems** in accordance with the MDB standard can be connected.

Possible interfaces:

- MDB-S
- DIVA 2
- DIVA2 Max

Connection to dispensing and cash register systems:

- Via e-protocol
- Via CSI protocol

Coin and token testers or coin changers can be placed to the left or right of the machine.

The **payment systems** option can be retrofitted.

### 4.4.23 Flavour Point

The machine is optionally equipped with the **Flavour Point** syrup module. This allows various syrup ingredients to be used to flavor beverages.

Figure: Flavour Point

The device is placed directly under the machine as an under-counter solution.

The **Flavour Point** option cannot be retrofitted.

### 4.4.24 Operating elements on the Flavour Point


Figure: Operating elements on the Flavour Point

1. Connection for four adapters for syrup bottles or four hoses from the cleaning set
2. On/Off press switch

## 4.4.25 SOUL with side cooling unit

The machine can be operated with a side or under-machine cooling unit.


Figure: Right side cooling unit

The machine is supplied with a *right* machine connection as standard.

The *right* side cooling unit does not require additional adjustments. The cooling unit features a 10 l milk container and its own removable drip tray with drip grid.

Placing the side cooling unit on the *left* requires additional adjustment of the milk hose guide in the machine.

NOTE

**Conversion of the machine**

Placing the cooling unit anywhere other than to the right of the machine requires conversion work. The description of the conversion work and the necessary components are enclosed with the side cooling unit.

### 4.4.26 Side cooling unit for Centre Milk (CM)


Figure: Side cooling unit for Centre Milk (CM)

The additional side cooling unit can also be placed between two machines, supporting the Centre Milk function.

The side cooling unit with Centre Milk equipment provides a simultaneous milk supply for two machines.

NOTE

**Conversion of the machine**

Placing the cooling unit anywhere other than to the right of the machine requires conversion work. The description of the conversion work and the necessary components are enclosed with the side cooling unit.

### 4.4.27 Operating elements on the cooling unit


Figure: Side cooling unit thermostat / operating elements

A Operating elements of the cooling unit

B Cooling unit on/off toggle switch

### 4.4.28 ProCare overview


Figure: Overview of outside

1. Cam lock
2. Hose adapter
3. Connections for Plug&Clean
4. CAN bus connection cable
5. Power cable

The Plug&Clean connections **(2)** are used for complete hose cleaning. The two milk hoses **(3)** are connected here and are also cleaned when Plug&Clean cleaning is selected.

The hose adapters **(3)** are the connecting piece between the milk hose and the suction pipe. The suction pipe is led into the milk cooling box.

The ProCare unit is connected to the power supply with the power cable **(5)**.

The CAN bus connection cables **(4)** enable exchange of data and commands between the machine and the optional accessories.

The cam lock **(1)** locks the drawer when closed, preventing unauthorized access.

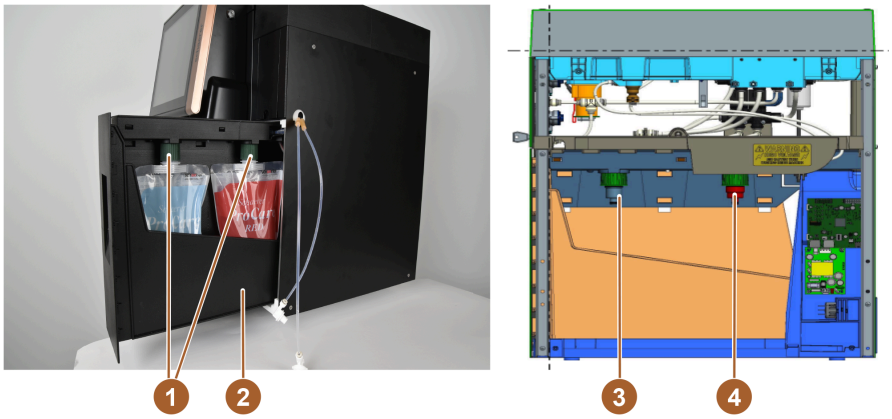



Figure: Overview of interior

1. Cap nut
2. Collecting tray
3. Coupling for blue ProCare cleaning bag
4. Coupling for red ProCare cleaning bag

The cap nut **(1)** secures the connection of the ProCare cleaning bags to the coupling and the drawer housing.

Both ProCare cleaning bags are located in the collecting tray **(2)**. The collecting tray also acts as a collecting basin in the lower area. If liquids accidentally escape from the cleaning bags, they are collected. A sensor simultaneously triggers an error message.

The blue ProCare cleaning bag is placed over the coupling nozzle **(3)** and tightened with the cap nut. The coupling is monitored by a sensor.

The red ProCare cleaning bag is placed over the coupling nozzle **(4)** and tightened with the cap nut. The coupling is monitored by a sensor.

NOTE

**ProCare cleaning system**

Detailed information on this topic can be found in the **ProCare** operating instructions.

# 5 Transport

## 5.1 Scope of delivery of accessories

| Quantity | Name | Article number |
|---|---|---|
| Documentation | | |
| 1 | Operating instructions (IO) | ** |
| 1* | Supplementary instructions for optional accessories (cup warmer + Cup & Cool) | ** |
| 1* | Side cooling unit operating instructions | ** |
| Scope of delivery of cleaning/maintenance | | |
| 1 | Blue ProCare cleaning bag | 101044 |
| 1 | Red ProCare cleaning bag | 101045 |
| 1 | Brush 75-40 (brewing chamber) | 067409 |
| 1 | Cleaning brush (beverage outlet) | 062951 |
| Scope of delivery of machine | | |
| 1* | Stainless steel drip tray | 100910 |
| Scope of delivery, general | | |
| 1 | Measuring spoon | 067111 |
| Powder system* | | |
| | Powder container outlet orifice | 079940 |

* Optional, depending on machine version

** Language-dependent article number

## 5.2 Conditions for transport

CAUTION

**Risk of injury during transport!**

Improper transport of the machine can lead to injuries.

▶ Observe the general health and safety regulations in accordance with local regulations.

NOTE

**Property damage due to improper transport!**

Improper transport during relocation of the machine can damage it.

▶ Use a trolley to transport the machine.

▶ Secure the machine on the trolley and pull the trolley.

- ▶ Disconnect the following before relocating the machine:
  - Drinking water supply
  - Power supply
  - Waste water outlet
- ▶ Make sure that the new location has no obstacles or uneven spots.

# 6 Installation and commissioning

## 6.1 Unpacking

CAUTION

**Cuts and eye injuries from packaging material!**

Sharp-edged packaging material can cause injuries. Cutting tensioning straps can cause eye injuries.

▶ Wear gloves and safety goggles when unpacking.

### 6.1.1 Unpacking machine

1. Unpack the machine.
2. Remove the supplied accessories from the accessory box.
3. Check the remaining contents of the packaging for supplied accessories.
4. Check the delivery for completeness.
5. Keep the original packaging for possible return.

### 6.1.2 Unpacking accessories

The following accessory parts are delivered:

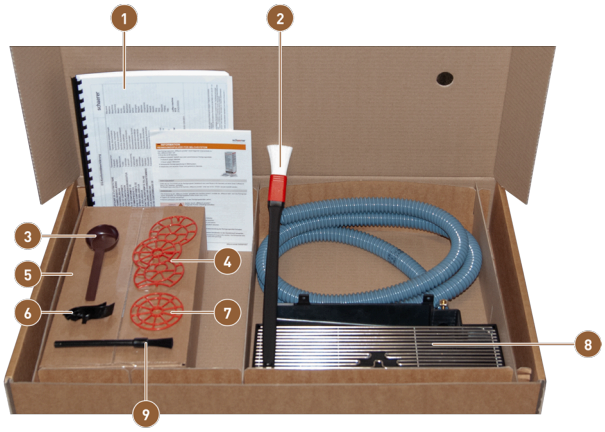



Figure: Accessories included in delivery

1. Operating instructions and declaration of conformity
2. Brush for cleaning inside of grounds container
3. Spoon for ground coffee for manual inlet
4. Cup positioning aid for two cups
5. Cleaning product (according to machine equipment)
6. Milk hose guide to the left
7. Single cup positioning aid
8. Drip tray with assembled wastewater hose
9. Small cleaning brush

## 6.2 Setup

### 6.2.1 Setup conditions

The following conditions apply to the location of the machine:

- The installation surface must be stable, horizontal and level so that it cannot become deformed under the weight of the machine.
- The machine must not be set up on hot surfaces or near heat sources.
- The machine must be set up in such a way that it can be supervised by trained staff at all times.
- The required supply connections must be led up to 100 cm (39.4") to the machine location in accordance with the manufacturer-side installation plans.
- The locally applicable kitchen regulations must be observed.
- Clearances for maintenance work and operation must be maintained:
  - Enough space must be left at the top for filling the coffee beans or powder; 20 cm (7.87") is recommended.
  - A distance of at least 5 cm (1.97") must be left from the rear of the machine to the wall to allow for sufficient air circulation.

### 6.2.2 Climatic conditions

The following climatic conditions apply to the location of the machine:

- Ambient temperature of +10 °C to +40 °C (+50 °F to +104 °F)
- Relative humidity of max. 80 % RH
- Maximum height above sea level of 2500 m (8202 ft)
- The machine is designed exclusively for indoor use. It must not be used outdoors and must never be exposed to weather conditions (rain, snow, frost).

## 6.3 Installation

The machine must be installed in accordance with the applicable national and local electrical and plumbing regulations. This also includes adequate backflow protection.

See 6.2.1 "Setup conditions"
See 6.3.1 "Connecting power"

The following connections are required on the installation side:

- Socket for power plug or fixed connection with main switch
  - The serial plate provides information on the maximum required fuse protection.
  - The serial plate provides information on the minimum required conductor cross-section.
- Mains water supply 3/8" or connection to the external drinking water tank
- Siphon or external waste water tank for the Ø20 mm waste water hose
- Optional interface for communication between the machine and the optional accessories

All connections on the machine side are ready for use on delivery.

1. For better accessibility, position the rear of the machine approx. 5 cm (2") above the support plate.
2. Prepare the connections on the installation side.

### 6.3.1 Connecting power

DANGER

**Danger to life from electrocution!**

There is a risk to life due to electrocution when connecting the machine.

- ▶ Make sure that the phase is fused with the ampere value specified on the serial plate.
- ▶ Make sure that the device can be disconnected from the power supply with all poles.
- ▶ Make sure that the manufacturer-side electrical system is designed in accordance with IEC 364 (DIN VDE 0100).
- ▶ Never operate a device with a defective connection cable. Have a defective connection cable or plug replaced immediately by a qualified service technician.
- ▶ Schaerer AG advises against the use of an extension cord. If an extension cord is used in spite of this advice (minimum cross-section: 14 AWG), observe the manufacturer data for the cable (operating instructions) and comply with the locally applicable regulations.
- ▶ Attach the connection cable in such a way that nobody can trip over it. Do not pull the cables over corners and sharp edges, do not pinch them and do not let them hang freely in space. Do not place cables on hot objects and protect them from oil and aggressive cleaning products.
- ▶ Never lift or pull the device by the connection cable. Never pull the plug out of the socket using the connection cable.
- ▶ Never touch the cable or plug with wet hands. Never insert wet plugs into the socket under any circumstances.

DANGER

**Danger to life due to defective or non-original connection cable!**

If the connection cable is defective or not original, there is a risk of electrocution and fire.

- ▶ Only use original connection cables. The country-specific original connection cable is available from the service partner.
- ▶ Connection cables that can be plugged in at both ends can be replaced by the customer.
- ▶ Have permanently connected connection cables replaced by a service technician.

The electrical connection must be made in accordance with the regulations of the respective country. The voltage specified on the serial plate must match the supply voltage at the installation site. The power socket and power switch must be accessible to the operator at the installation site.

- ▶ Establish the power connection.

See 4 "Product description"
See 2 "Technical data"

### 6.3.2 Connecting water

CAUTION

**Health problems due to improper handling of water!**

Improper handling of water can lead to health problems.
The following points must be observed:

- The water must be free of dirt and bacteria.
- Do not connect the machine to pure osmosis or other aggressive types of water.
- The carbonate hardness must not exceed 4 – 6 °dKH (German carbonate hardness) or 8 – 12 °fKH (French carbonate hardness).
- The total hardness must always be higher than the carbonate hardness.
- The minimum carbonate hardness is 4 °dKH or 8 °fKH.
- The maximum chlorine content must not exceed the local regulations on the maximum permitted chlorine content.
- The pH value must be between 6.5 and 7 (pH neutral).

Machines with drinking water tank (internal and external):

- Fill the drinking water tank with fresh water daily.
- Rinse the drinking water tank thoroughly before filling.

CAUTION

**Health problems due to improper handling of coffee!**

Improper handling of coffee can lead to health problems.
The following points must be observed:

- Check the packaging for damage before opening.
- Do not fill with more coffee beans than are needed in one day.
- Close the bean hopper lid immediately after filling.
- Store coffee in a dry, cold and dark place.
- Store coffee separately from cleaning products.
- Use the oldest products first ("first in – first out").
- Always close opened packages tightly so that the contents remain fresh and are protected from contamination.

NOTE

**Property damage due to poor water quality!**

The machine can be damaged if poor materials and incorrect water values are used.
Check the recommended water quality and optimize it if necessary.

The measures described for preventing this danger must be strictly observed:

- The water must be free of dirt and the chlorine content must not exceed the local regulations on the maximum permitted chlorine content.
- Do not connect the machine to pure osmosis or other aggressive types of water.
- The carbonate hardness must not exceed 4 – 6 °dKH (German carbonate hardness) or 8 – 12 °fKH (French carbonate hardness) and the value of the total hardness must always be higher than the carbonate hardness.
- The minimum carbonate hardness is 4 °dKH or 8 °fKH.
- The pH value must be between 6.5 and 7.
- Always use the new hose set supplied with the machine (fresh/waste water hose).

The water connection must be made in accordance with the applicable regulations and the regulations of the respective country. If the machine is connected to a newly installed water line, the line and the inlet hose must be thoroughly rinsed to prevent dirt from entering the machine.

The machine must be connected to an installed drinking water line with a shut-off valve. Installation is done using the assembled pressure hose and the G 3/8" screw connection to the pressure reducer attached to the tap. The pressure reducer must be set to 0.3 MPa (43.5 psi).

The machine requires a waste water outlet. The supplied temperature-stable waste water hose is connected to a siphon on the installation side. The waste water hose should slope to the connection in order to prevent the siphon effect.

The machine with an external drinking or waste water tank is connected directly. A corresponding level monitoring device is available.

The **Supplementary Instructions for Water Quality – N° 022960** contain information on recording water values and the use of filter techniques. The supplementary instructions can be requested from Schaerer AG or downloaded directly from the website (www.schaerer.com/member) from the Media Pool.

**Variant with external drinking and waste water tank**

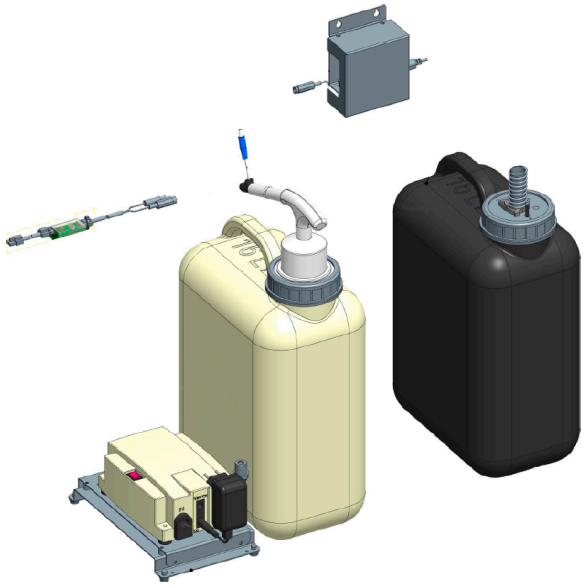


Figure: External drinking and waste water tank

The machine can optionally be operated with a monitored external drinking and waste water tank.

▶ Connect the drinking and waste water connections of the machine directly to the water tanks.

The conversion instructions for the **monitored drinking and waste water tank for the SOUL** contain information on setting up and connecting the external drinking and waste water tanks. The conversion instructions can be requested from Schaerer AG or downloaded directly from the website (www.schaerer.com/member) from the **Media Pool**.

### 6.3.3 Assembling drip tray


Figure: Assemble drip tray

1. Left front flap
2. Device base insert for grounds container
3. Right front flap
4. Mounting screws (2x)
5. Drip tray

1. Open the two front flaps **(1)** and **(3)**.
   ✓ The holes for the mounting screws **(4)** are visible.
2. Guide the waste water hose on the drip tray backwards through the machine.
3. Position the drip tray **(5)** and press it onto the machine. At the same time, lift the device base insert for the grounds container **(2)** slightly.
4. Secure the drip tray with the two mounting screws **(4)**.
   ✓ The drip tray is mounted.

### 6.3.4 Connecting ProCare unit

Prerequisite: The machine must be switched off to connect the ProCare unit.

**Overview of installation steps**

1. Connect the ProCare unit to the machine.
2. Connect the ProCare unit to the cooling unit.
3. Connect the milk hoses.
4. Connect a **CAN bus** connection cable to the machine.
5. Connect the other **CAN bus** connection cable to the optional accessory (e.g. milk system).
6. Connect the power plug to the power supply.
   ✓ The module is switched on.
7. Switch the machine on.
   ✓ The module connects to the machine.
8. Start the commissioning routine of the machine.

Additional information on retrofitting a coffee machine with the ProCare unit or the side cooling unit with the ProCare unit can be found in the separate ProCare installation instructions.

### 6.3.4.1 Connecting ProCare unit to machine

The following requirements must be fulfilled for a machine with ProCare preparation:

- The metal bracket for holding the ProCare unit is installed in the machine.
- The side panel of the machine already has a hole for the ProCare unit mounting screw.
- The hoses for connecting to the ProCare unit are led out of the side of the machine and secured with cable ties.

Connecting ProCare unit

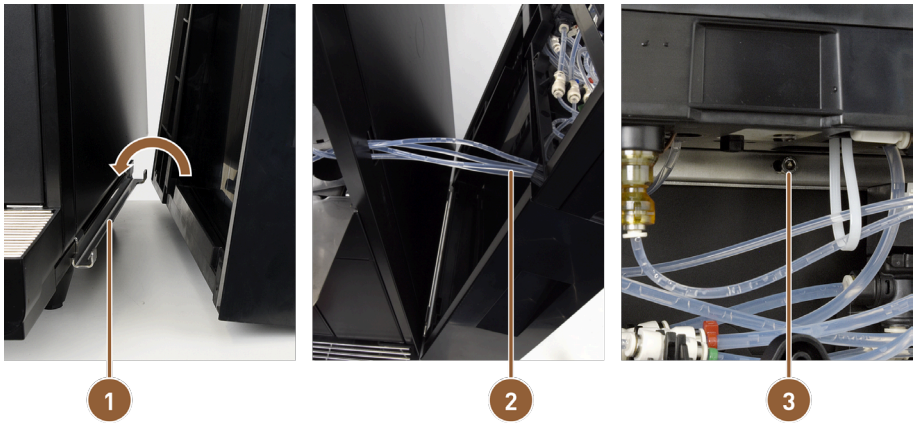



Figure: Fasten ProCare unit to machine

1. Connecting plate
2. Hoses to ProCare unit
3. Mounting screw

1. Snap the ProCare unit into the connecting plate **(1)** on the machine.
2. Insert the Teflon hoses **(2)** into the ProCare unit.
3. Screw the ProCare unit to the machine **(3)**.

Connecting hoses

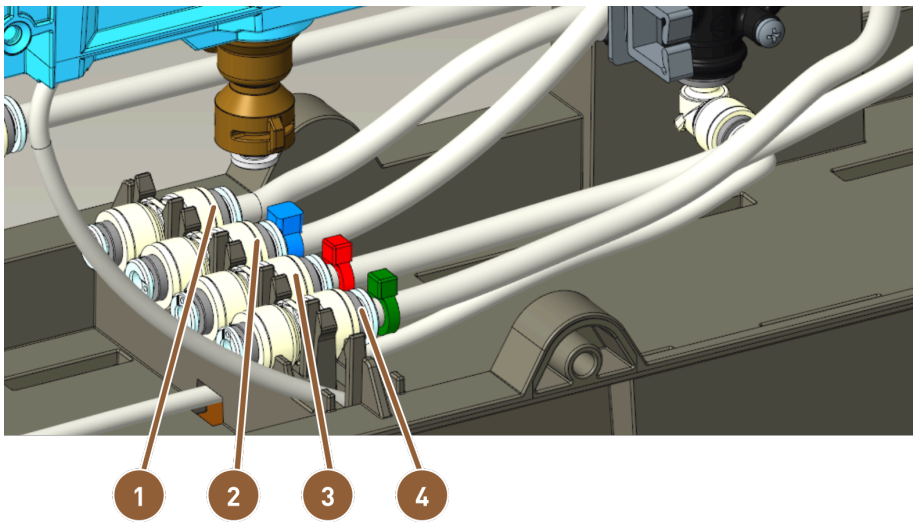



Figure: Assignment of hose connections

1. White: Milk
2. Blue: Water
3. Red: Descaling
4. Green: Coffee

1. Cut the hoses to length so that they can be placed in a loop.
2. Place the hoses in a loop in case you ever need to remove the module.
3. Connect the hoses according to the marking.
4. Make sure that the hoses do not block the closing mechanism of the front panel.

### 6.3.4.2 Connecting ProCare unit to cooling unit

Assembling cooling unit

1. Fit the metal bracket to the side of the ProCare unit where the cooling unit will be attached.
2. Close the ProCare unit with the supplied side panel on the right or left depending on the position of the housing.
3. Attach the cooling unit to the ProCare unit.

Adjusting milk hose

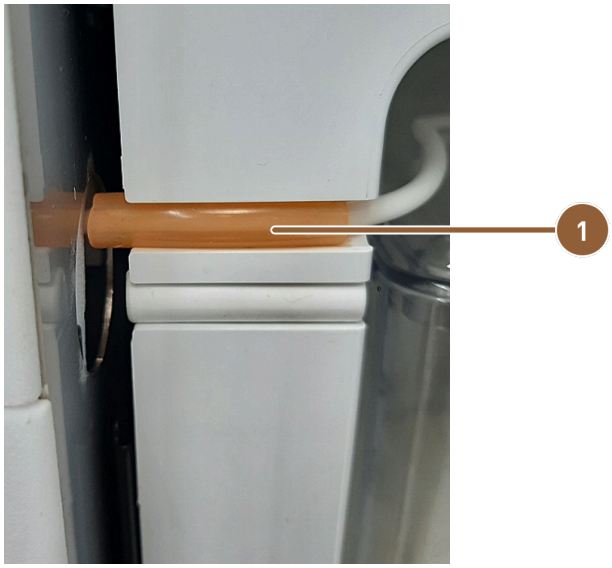



Figure: Milk hose in cooling unit

1 Orange marking hose

1. Install the milk hose and cut it to size so that it reaches the Plug & Clean connection on the ProCare unit.
2. Cover the milk hose with the 4/8 silicone orange hose **(1)** and clamp it into the recess in the refrigerator.

### 6.3.4.3 Connecting ProCare unit cable

Connect the power cable and CAN bus before switching on the device.

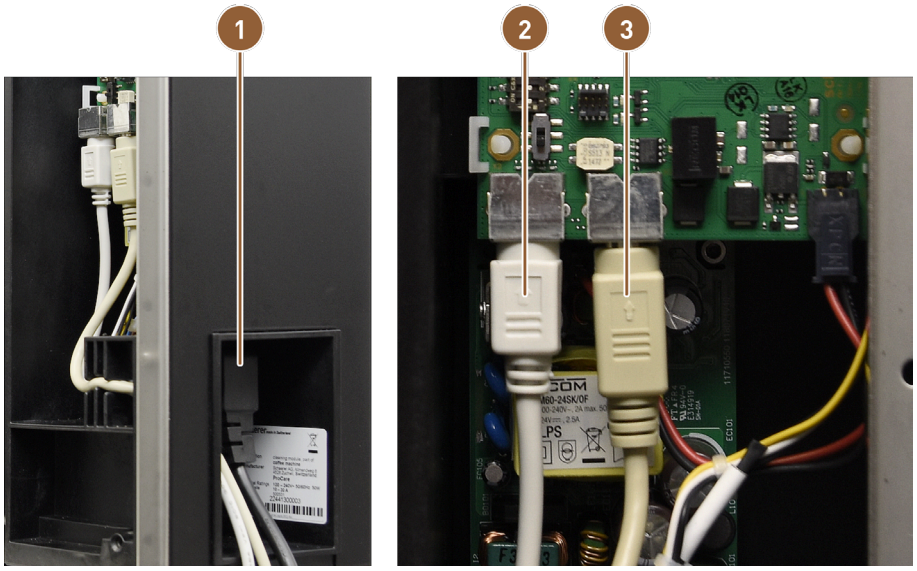



Figure: ProCare cable connections

1 Power supply connection for cold device plug
2 CAN bus cable from machine
3 CAN bus cable from cooling unit

1. Connect the cold-device plug to the connection on the back of the ProCare unit **(1)**.
2. Connect the CAN Mini-DIN 6-pin 2 m control cable **(2)** to the ProCare unit.
3. Connect the CAN bus cable of the refrigerator **(3)**.

## 6.4 Installing machine

All optional accessories with an integrated cooling unit or with feed pumps require a communication connection (CAN bus) to the machine. The connections are always serial.

### 6.4.1 Connecting optional accessories to power supply

All optional accessories require a 115 V / 60 Hz power connection. The power connection is made via a pre-assembled and tested connection cable, which is supplied with the optional accessories.

### 6.4.2 Establishing communication connection (CAN bus)

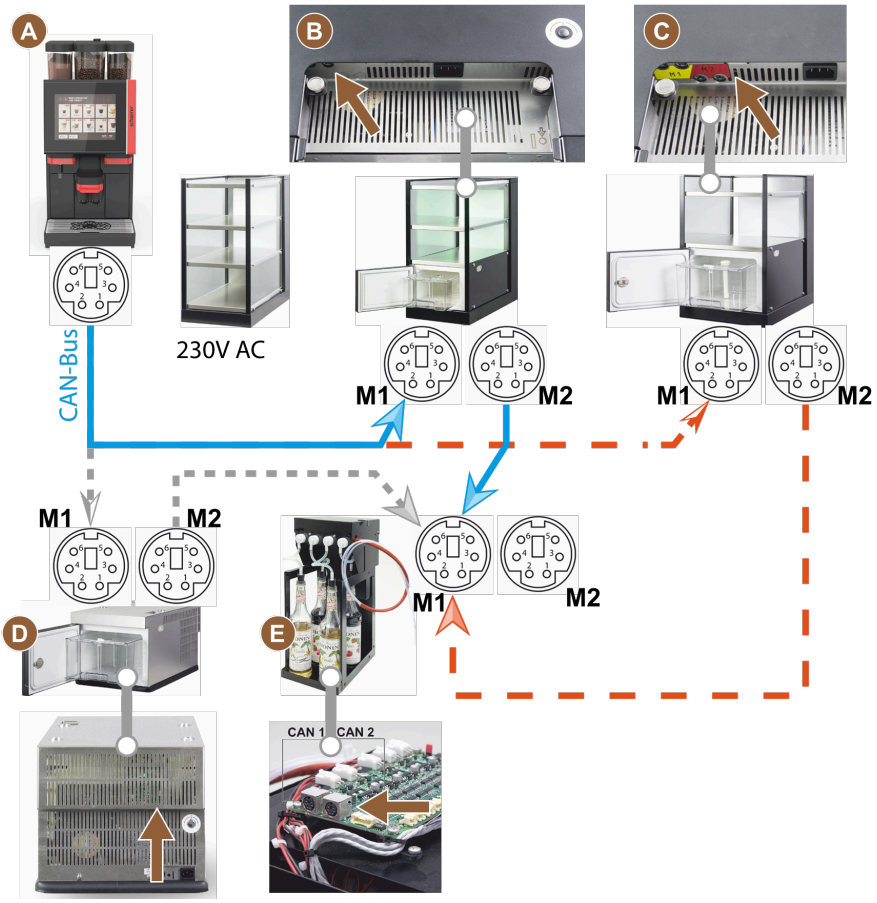



Figure: CAN bus connections from the machine to optional accessories (example display)

- (A) Machine to ... **(B)** or **(C)** or **(D)** and to **(E)**
- (B) Cup & Cool narrow/wide
- (C) Cup & Cool narrow/wide Centre Milk
- (D) Under-machine cooling unit
- (E) Flavour Point (syrup UC)

1. Establish the CAN bus connection using a control cable with a 6-pin DIN plug. To do this, connect the control cable to the communication interface of the machine.
2. Connect the other end of the control cable to the desired optional accessory.
3. If necessary, use another control cable with a 6-pin DIN plug to establish the connection from one optional accessory to another optional accessory.

### 6.4.3 Connecting the Flavour Point 4-way UC (syrup module) (optional)

The **Flavour Point 4-way UC** optional accessory cannot be retrofitted.

**Flavour Point hose connections**

Prerequisite:

- The machine was prepared for the **Flavour Point** option at the factory.
- The necessary hose connections are led out of the right-hand side of the machine.

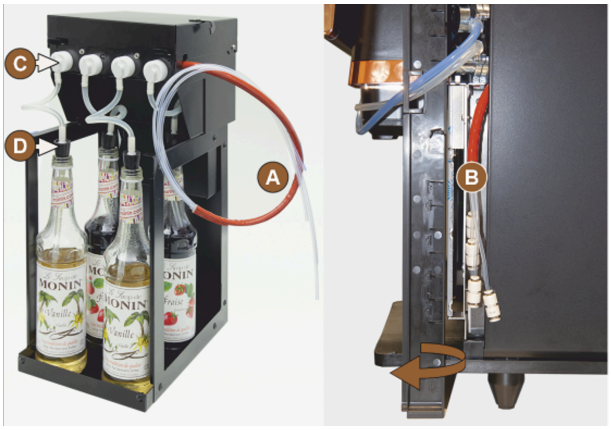



Figure: Flavour Point SOUL hose connection

1. Lift the bean hoppers and powder containers out of the machine.
2. Loosen the four screws from the machine cover.
3. Lift the cover slightly on the right-hand side.
4. Slide the narrow housing strip on the right upwards and unlock it.
   ✓ The plug-in connections led out of the machine are now accessible on the right side of the machine **(B)**.
5. Plug the connection hoses from the Flavour Point **(A)** into the prepared plug-in connections in an offset position.
6. Refit the side panels on the right and the machine cover.
7. Replace the bean hoppers and powder containers.
   ✓ The hose connection from the Flavour Point to the machine has been installed.

**Syrup type labeling**

The customer can label the device at the installation site using self-adhesive labeling strips.

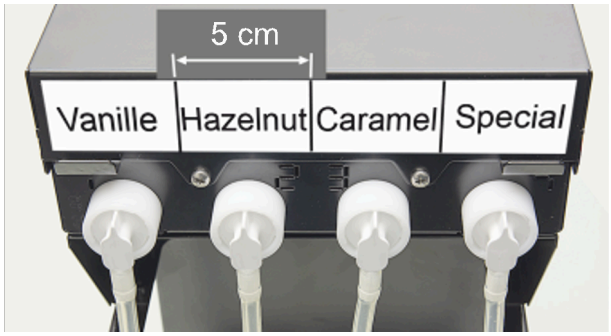



Figure: Labeling example for hose connections from syrup bottle to syrup pump

1. Divide the labeling strips into 4 fields (4 pumps) of approx. 5 cm (2").
2. Label the syrup pumps according to the type of syrup bottles connected.
   ✓ The syrup bottle to syrup pump hose connection is labeled.
   ✓ After cleaning, assignment to the syrup types is clearly visible.

## 6.5 Display-guided commissioning

The commissioning program starts automatically when the machine is switched on for the first time. All installation points are explained in the program. Service technicians can start the commissioning program manually at any time.

See 7.2 "Switching on“

# 7 Operation

## 7.1 Recurring additional tasks

### 7.1.1 Filling bean hopper

WARNING

**Cutting injury!**

Risk of injury due to rotating grinding disks in the grinder.
▶ Never reach into the bean hopper when the coffee machine is switched on.

NOTE

**Property damage due to clogging/blockage!**

Filling with foreign objects can cause the grinder to clog or block and destroy the grinding mechanism.
▶ Never fill the bean hopper with anything other than coffee beans.

If necessary, clean the bean hoppers and covers to remove coffee residue before filling.


Figure: Bean hoppers with maximum filling quantity

▶ Variant with bean container locking mechanism: Open the lock of the bean hopper with the key.
▶ Remove the cover of the bean hopper.
▶ Fill the bean hopper with the intended type of coffee.
▶ Only add enough so that the contents do not touch the container cover.
▶ Close the bean hopper with the cover. Lock the bean hopper (if lockable).
  ✓ The bean hopper is filled and locked.
  ✓ The coffee beans do not touch the cover.

### 7.1.2 Filling powder container

WARNING

**Risk of crushing due to rotating dosing screws!**

The dosing screws inside the powder container rotate. There is a risk of crushing when reaching in.
▶ Never reach into the powder container when the device is switched on.

NOTE

**Property damage due to clogging!**

There is a risk of clogging if the machine is filled with unauthorized automatic coffee machine powder.

▶ Never fill the powder container with anything other than powder for automatic operation.


Figure: Maximum fill level

1. Variant with powder container locking mechanism: Open the powder container lock with the key.
2. Remove the cover of the powder container.
3. Fill the powder container with choco or topping powder.
4. Only add enough so that the contents do not touch the container cover.
5. Close the powder container with the cover. Lock the powder container (if lockable).
   ✓ The powder container is filled and locked.
   ✓ The powder does not touch the cover.

## 7.1.3 Refilling water

**Variant with mains water supply**

NOTE

**Property damage due to closed water line!**

The machine can be damaged if the water pump runs dry.

▶ Before switching on the machine, make sure that the main water valve (tap) of the water supply line is open.

1. Open the shut-off valve on the main water valve before switching on the machine.
2. Close the main water valve at the end of the day.

**Variant with external drinking water tank**

Figure: External drinking water tank

1. Unscrew the cover of the external drinking water tank.
2. Rinse the external drinking water tank thoroughly with fresh water every day.
3. Clean the cover of the drinking water tank with fresh water.

4. Fill the drinking water tank with fresh drinking water, making sure not to exceed the maximum fill level.
5. Close the external drinking water tank with the cover.
6. Reinsert the drinking water tank.

### 7.1.4 Filling BestFoam™ milk system

CAUTION

**Risk of infection due to contaminated milk!**

Contamination in the milk pump can lead to health problems.
- ▶ Always carry out cleaning after installation, commissioning or recommissioning.
- ▶ Carry out the display-guided cleaning program before dispensing a beverage for the first time.

NOTE

**Property damage due to milk that is not pre-cooled!**

The cooling unit only maintains the temperature of pre-cooled milk.
- ▶ Only use milk that has already cooled down to at least 5 °C (41 °F) for refilling.

See 8.6 "Display-guided cleaning"

**Side cooling unit**

Filling quantity:

- Milk container of the side cooling unit = maximum 10 l

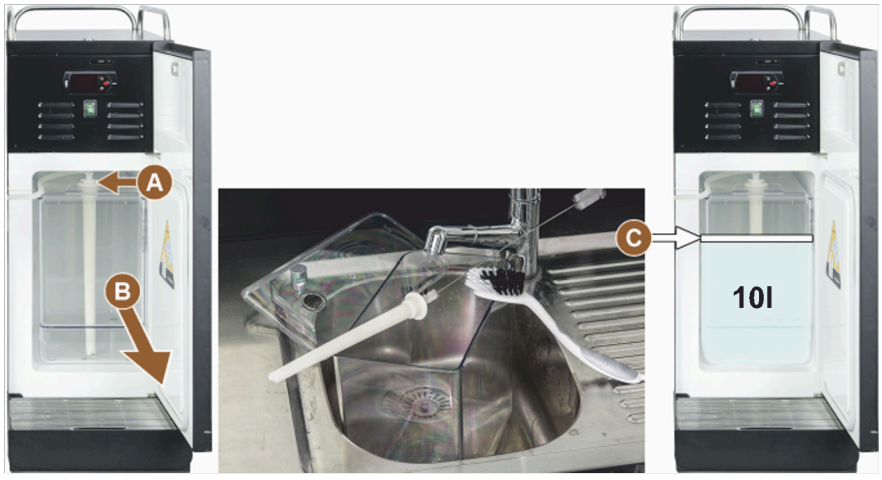



Figure: Clean and fill cooling unit

- A Milk hose adapter
- B Milk container
- C Maximum fill level

1. Open the door of the cooling unit.
2. Remove the adapter from the milk hose **(A)** from the milk container cover.
3. Pull out the milk container **(B)**.
4. Lift off the milk container cover.

5. Rinse the milk container, riser tube and cover with fresh water.
6. Fill with milk and observe the maximum fill quantity **(C)**.
   ✓ The milk must not touch the milk container cover.
7. Close the milk container with the milk container cover.
8. Insert the milk container into the cooling unit.
9. Insert the adapter from the milk hose into the milk container cover.
10. Close the door of the cooling unit.

Regularly check if the cooling temperature is between 3 – 5 °C (37.4 – 41 °F).

### 7.1.5 Filling the Flavour Point (optional) or changing bottles

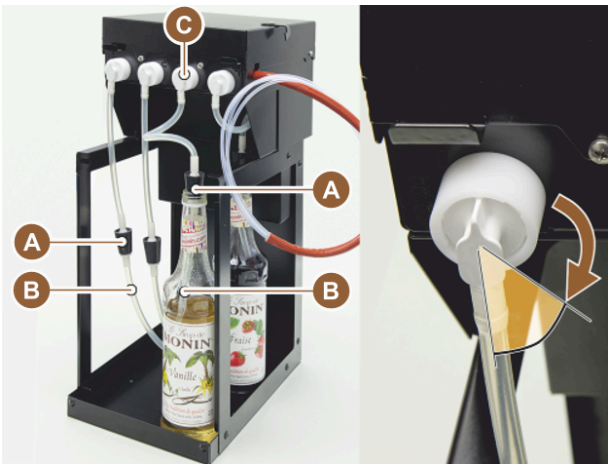



Figure: Flavour Point: Refill or bottle change

- A Plugs
- B Syrup hose
- C Hose adapter

1. Place the syrup bottles (max. 4 bottles) in the Flavour Point.
2. Remove the cap from each bottle.
3. Insert the stopper **(A)** with hose **(B)** into the bottle and press the stopper firmly into place.
4. Insert the adapter **(C)** into the Flavour Point and lock the bayonet catch by turning it to the right.
5. Repeat the above steps for all syrup bottles.

After connecting the syrup bottles, the syrup hose must be filled. The **Ingredient management** routine in the Service menu is used for this purpose.

See 7.8.5 "Scope of functions", „Ingredient management"

## 7.1.6 Opening and closing user panel

CAUTION

**Risk of crushing due to falling user panel!**

The user panel can fall down under its own weight.

▶ Hold the user panel firmly and move it up or down in a controlled manner until it clicks into place.

### Opening user panel


Figure: Open user panel

1. Lock locked
2. Lock unlocked
3. Top side of user panel released
4. User panel pushed upwards

1. Move the key in the closing device **(1)** to the horizontal position.
   ✓ The lock is open **(2)**.
2. Unlock the user panel at the top **(3)** by pulling firmly.
   ✓ The user panel is unlocked.
3. Push the user panel upwards from below **(4)** with both hands as far as it will go.


Figure: User panel closed and opened

✓ The user panel is automatically held in the upper position.
✓ All operating elements behind the user panel are now accessible.

**Closing user panel**

The machine is only ready for use when the user panel is closed.

Prerequisite:

- The closing device of the user panel can only be closed if the locking mechanisms of the bean hoppers and powder containers are closed.

1. Using both hands, gently push the open user panel down as far as it will go.
2. Press the user panel in lightly at the top edge.
   ✓ The user panel is closed.
3. If necessary, lock the closing device again with the key.
   ✓ The lock is closed in the vertical position.
   ✓ The user panel is locked.

## 7.1.7 Removing bean hoppers and powder containers

Bean hoppers or powder containers can be removed from the machine. The central locking mechanism unlocks the bean hoppers and powder containers together.

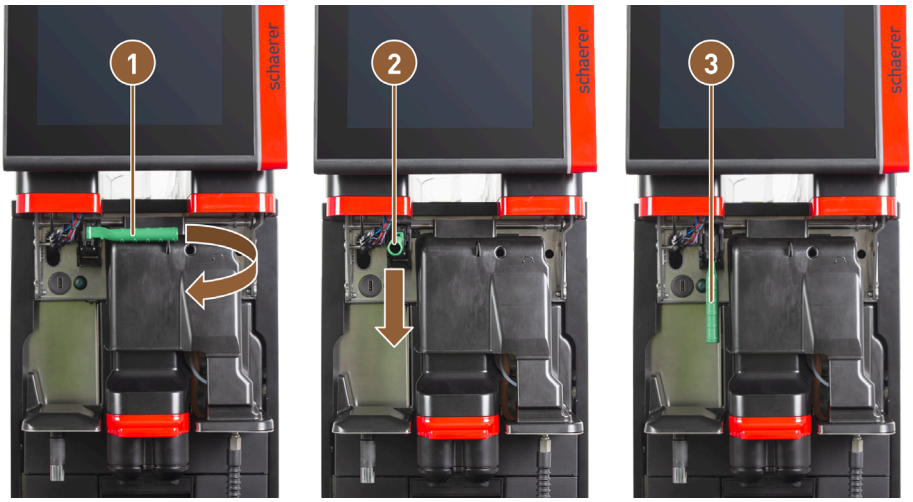



Figure: Unlocking bean hoppers and powder containers (optional)

1 Horizontal position: Bean hopper locked
2 Position to the front
3 Position to the rear: Bean hopper unlocked

1. Open the user panel.
2. Swivel the green handle of the central locking mechanism forward from the horizontally folded position **(1)** to position **(2)**.
3. Fold the green handle of the central locking mechanism **(2)** downwards.
   ✓ The bean hoppers and powder containers are now unlocked. The green handle of the central locking mechanism is in position **(3)**.

See 7.1.6 "Opening and closing user panel"

### 7.1.8 Inserting ProCare cleaning bag

One ProCare cleaning bag can be used for approx. 100 cleanings.
Empty cleaning bags must then be replaced.

The cleaning bags are filled with cleaning powder and sealed. The blue cleaning bag contains an alkaline-based cleaning product, the red bag contains an acid-based cleaning product.


Figure: Opening ProCare

1 Drawer with collecting tray

1. Open the cam lock and pull out the drawer with the collecting tray **(1)** and the cleaning bags.
   The cam lock is located under the milk connection flap (Plug&Clean).


Figure: Remove cleaning bag

2 Cap nuts

2. Loosen the cap nuts **(2)** from the cleaning bags.
3. Remove and dispose of the empty cleaning bags.
4. Remove the sealing caps and the protective film from the new ProCare cleaning bags.
5. Place the new ProCare cleaning bags on the free coupling nozzles and tighten the sealing caps of the cleaning bags with the cap nuts.

The couplings are different sizes. That means the cleaning bags can not be interchanged.

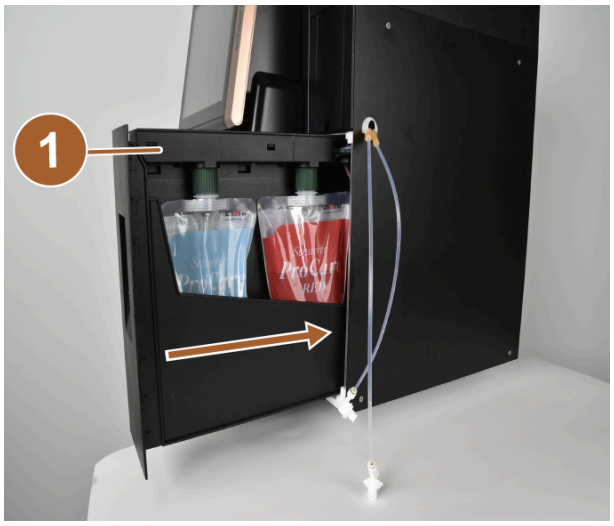



Figure: Inserting drawer

1 Drawer

6. Slide the drawer **(1)** back into the housing and close the ProCare.
   ✓ A dialog with the following **ProCare** message: **Cleaning bag inserted** opens.
7. Confirm with **OK**.
   ✓ The screen for conditioning the inserted cleaning bag opens.

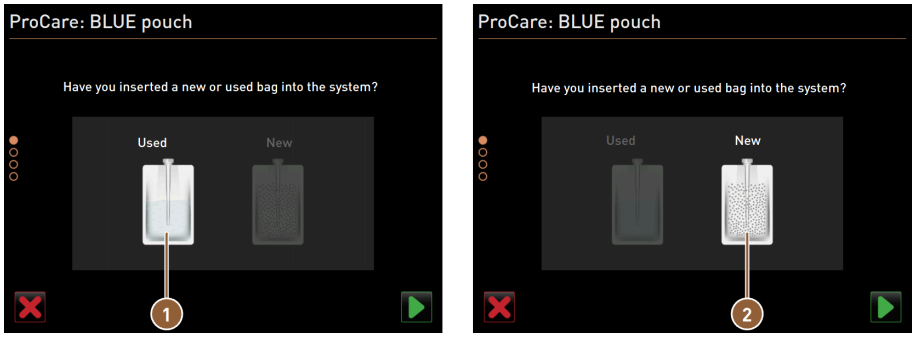



Figure: BLUE ProCare example: Changing cleaning bag

1 Used cleaning bag: Air is extracted.

2 New cleaning bag: Is filled with water, then the air is extracted.

8. Tap on **Used** if you have inserted a used cleaning bag or on **New** if you have inserted a new cleaning bag.
9. Confirm your selection with .
   ✓ The air is now extracted from a used cleaning bag **(1)**. A new cleaning bag **(2)** is filled with water and the air is then extracted.
   ✓ A confirmation dialog with the following **ProCare** message: **Exchange of bag successful** opens.
10. Confirm with .
    ✓ The cleaning bag(s) have been inserted and conditioned. ProCare is ready for cleaning processes.

The same process can be initiated manually via the Service menu.

**To change the bag using the Service menu:**

1. Open the Service menu with .
2. Tap on the **Maintenance intervals** button.


Figure: Display of remaining content

1 Red cleaning bag

2 Blue cleaning bag

3. In the **Maintenance intervals** screen, tap on the button for the **ProCare** menu item: **RED bag** or **ProCare: BLUE bag**.
4. Change the bag or cancel the process.
   ✓ You will be taken back to the main menu.

# 7.2 Switching on

## 7.2.1 Check before switching on

NOTE

**Property damage due to closed water line!**

The machine can be damaged if the water pump runs dry.

▶ Before switching on the machine, make sure that the main water valve (tap) of the water supply line is open.

1. For mains water supply: Make sure that the main water valve is open.
2. For drinking water tank: Make sure that the drinking water tank is filled with fresh water.
3. With standard waste water outlet: Make sure that the waste water hose is laid correctly.
4. For external waste water tank: Make sure that the external waste water tank is connected and empty.
5. Make sure that the bean hoppers are filled.
6. Make sure that the grounds container is empty and correctly inserted.
7. Make sure the machine is correctly connected to the manufacturer-side power supply in accordance with national or local safety regulations.

### 7.2.2 Switching on machine

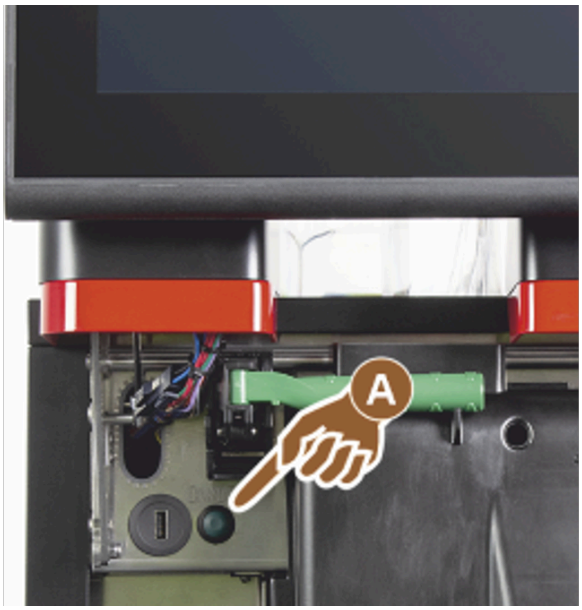



Figure: Switch-on button

1. Check the power connection of the machine.
2. Unlock the user panel.
3. Push the user panel firmly upwards.
4. Briefly press the switch-on button **(A)**.
   - ✓ The machine starts.
   - ✓ The user interface appears on the touch screen and heating begins.
   - ✓ The machine is ready for use as soon as the required temperature is reached.
5. Close the user panel.

When the machine is switched on for the first time, a display-guided setting of machine configurations and a hardware calibration are performed automatically.

See 7.1.6 "Opening and closing user panel"

### 7.2.3 Switching on side cooling unit (optional)


Figure: Switch on side cooling unit

1. Open the door of the cooling unit.
2. Move the toggle switch **(A)** to position **I**.
3. Hold the button **(B)** down for approx. 3 s.
   - ✓ The device is switched on.
   - ✓ The current internal temperature of the cooling unit is shown on the display.

#### Switching cooling unit to standby

▶ Hold the button **(B)** down for approx. 3 s.
   - ✓ The cooling unit switches to Standby mode.

#### Setting temperature

1. Hold the button **(B)** down for approx. 3 s.
2. Set the temperature 3 – 5 °C (37.4 – 41 °F) higher with button **(B)** or lower with button **(D)**.
3. Confirm the setting with the button **(C)**.
   - ✓ The cooling unit switches to the operating mode.
   - ✓ The current internal temperature of the cooling unit is shown on the display.

For optional accessories, also see the detailed information in the separate description for optional accessories.

### 7.2.4 Switching on Flavour Point (optional)

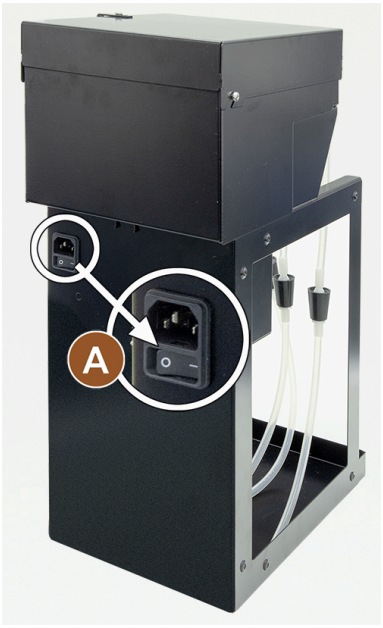



Figure: Switch on Flavour Point

▶ Move the toggle switch **(A)** to position **I**.

✓ The **Flavour Point** syrup module is switched on.

## 7.3 Positioning beverage outlet


Figure: Positioning beverage outlet

**Positioning beverage outlet (with manual beverage outlet)**

▶ Guide the beverage outlet up to the cup using the handle.

**Positioning beverage outlet (with automatic height-adjustable beverage outlet)**

The AHA (automatic height-adjustable beverage outlet) automatically adjusts to the correct outlet height for the previously selected beverage.

## 7.4 Operating modes

The user interface of the machine can be set to one of the following operating modes by service technicians:

- Guest mode
- Staff mode
- Frequent user mode

### 7.4.1 Functions of the operating modes

The user interfaces in the various operating modes **(Guest mode**, **Staff mode** and **Frequent user mode**) have different functions and fault messages.

The following table provides an overview of the active functions and displays in the default setting.

| **Operating mode** | **Guest mode** | **Staff mode** | **Frequent user mode** |
|---|---|---|---|
| **Display of notification mode** | **Simple** | **Specific** | **Specific** |
| Double button visible | 0 | ON | 0 |
| **DECAF** button visible | 0 | ON | 0 |
| **Barista** button visible | 0 | 0 | ON |
| **Cup size** button visible | 0 | 0 | 0 |
| Beverage icons visible | ON | ON | ON |
| Icon set | Paper cups | Default | Paper cups |
| Screensaver | ON | 0 | ON |
| Beverage groups | Customized | Customized | Customized |
| Activate beverage preselection | 0 | ON | 0 |
| Activate preselection via touch screen | 0 | ON | 0 |
| Number of positions in the preselection | 0 | 0 – 8 (8) | 0 |
| Activate preselection via external buttons | 0 | 0 | 0 |
| Beverage preselection section left | 0 | ON | 0 |
| Beverage preselection section right | 0 | ON | 0 |
| **Warm-up rinsing** button visible | 0 | 0 | 0 |
| **Service** button visible | ON | ON | ON |
| Display group selection | 0 | 0 | 0 |

| Operating mode | Guest mode | Staff mode | Frequent user mode |
|---|---|---|---|
| Sequential beverage modification | ON | 0 | 0 |
| Display **position cup** | 0 | 0 | ON |
| Display **progress** | ON | 0 | ON |
| Display **beverage complete** | ON | 0 | 0 |
| Display **beverage complete** interruption | 0.5 – 60 s (3 s) | 0.5 – 60 s (3 s) | 0.5 – 60 s (3 s) |
| Access to Service menu | PIN | PIN | PIN |

| | |
|---|---|
| 0 (red) | Inactive by default; activation is not possible. |
| 0 (yellow) | Inactive by default; activation is possible. |
| ON (green) | Active by default; deactivation is possible. |
| ON (white) | Active by default; deactivation is not possible. |

### 7.4.2 Guest mode

The preconfigured **Guest mode** user interface supports operation of the machine by guests without any knowledge of the machine.

Guest mode is the operating mode with the smallest range of functions. Service technicians can also make individual settings.

It is not possible to preselect beverages (double beverages, decaffeinated coffee, barista) in Guest mode.

Available beverages are displayed in groups.

**Prerequisite:**

The **Display beverage selection** function is activated in the operating mode.

You are guided through the menu step-by-step for beverage dispensing.

**Quantity structure for groups and beverages:**

- 10 tabs (groups)
- 24 beverages per tab (group)
- A maximum of 240 beverages are available.

**Possible functions in Guest mode:**


Figure: **Guest mode** standard user interface


Figure: Beverage groups in Guest and Frequent user mode

**(A)** Display of a maximum of 240 beverages (10 groups with a maximum of 24 beverages each)

**(B)** Navigation through beverage groups (arrow)

**(C)** Access to Service menu

**(D)** Selection via beverage groups

**Steps up to beverage dispensing:**

- Select desired beverage
- Define cup/mug size
- Select coffee roast (optional)
- Confirm selection
- Payment (with payment system, option)
- Instruction to position cup/mug
- Start dispensing
- Fill ground coffee (with separate manual inlet)
- Confirm manual inlet
- Beverage dispensing is performed.
- Display of progress of beverage dispensing
- **Beverage complete** display

Service technicians can expand or reduce the standard configuration with the following additional functions:

- Screensaver *ON*
- **Service menu (C)** button visibly *ON*

- Group selection **(D)** (maximum 10 groups with horizontal navigation **(B)** possible) *OFF*
- Sequential beverage modification *ON*-fixed
- Instruction to **position cup/mug** *ON*
- Display **progress** information *ON*-fixed
- Display **Beverage complete** information *ON*

### 7.4.3 Staff mode

The preconfigured **Staff mode** user interface supports operation of the machine by operating staff with machine knowledge. Beverages are selected exclusively by qualified staff.

Staff mode is the operating mode with the widest range of functions.

It is possible to preselect beverages (double beverages, decaffeinated coffee, barista) in Staff mode. The **Select group** screen is not available.

Instead, the groups are displayed on tabs at the top. A vertical menu is also available on the left. The beverage groups and tabs can be named and assigned as needed by service technicians.


Figure: Tabs in Staff mode

The modification of the beverages is displayed and performed in full on the **Dispense beverages** screen. An autostart can be activated for predefined beverages.

**Quantity structure for groups and beverages:**

- 10 tabs (groups)
- 24 beverages per tab (group)
- A maximum of 240 beverages are available.


Figure: **Staff mode** standard user interface

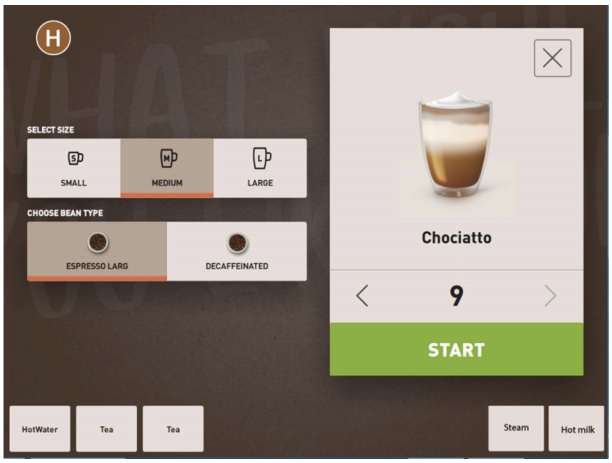



Figure: Selection of beverage options in Staff mode

**Possible functions in Staff mode:**

**(A)** Display of a maximum of 24 beverage fields per group (10 possible groups)

**(B)** Horizontal wiping scroll function (finger)

**(C)** Beverage filter (DECAF, double beverage)

**(D)** Access to Service menu

**(E) Barista** preselection (coffee strength) *OFF*

**(F)** Maximum 3 separate additional beverages (left)

**(G)** Maximum 2 separate additional beverages (right)

**(H)** Screen for selection of beverage options

**Steps up to beverage dispensing:**

- Preselection (e.g. DECAF or double beverage)
- Preselection of coffee strength (barista)
- Select desired beverage
- Define beverage options
- Payment (with payment system, option)
- Start dispensing
- Fill ground coffee (with separate manual inlet)
- Confirm manual inlet
- Beverage dispensing is performed.
- Display of progress of beverage dispensing

Service technicians can expand or reduce the standard configuration with the following additional functions:

- **(C)** button for double beverage dispensing *ON*
- **(C)** button for decaffeinated coffee (DECAF) *ON*
- **(E)** button for coffee strength (barista) *OFF*
- Beverage preselection possible (multiple dispensing) *ON*
- Display of number of preselected beverages *OFF*
- **Service menu button (D)** visible *ON*
- Display of **Position cup/mug** information *OFF*
- Display of **Progress** information *OFF*
- Display of **Beverage complete** information *OFF*

### 7.4.4 Frequent user mode

The preconfigured **Frequent user mode** user interface allows for operation of the machine by advanced operators (office area). The service technician can also make individual settings.

It is not possible to preselect beverages (double beverages, decaffeinated coffee, barista) in Frequent user mode. The tabs at the top and the vertical menu on the left are not available.

Frequent user mode is the operating mode with a middle range of functions. Service technicians can also make individual settings.

The modification of the beverages is displayed and performed in full on the **Dispense beverages** screen.

Available beverages are displayed in groups.

**Prerequisite:**

The **Display beverage selection** function is activated in the operating mode.

You are guided through the menu step-by-step for beverage dispensing.

**Quantity structure for groups and beverages:**

- 10 tabs (groups)
- 24 beverages per tab (group)
- A maximum of 240 beverages are available.


Figure: **Frequent user mode** interface


Figure: Selection of beverage options in Frequent user mode


Figure: Beverage groups in Guest and Frequent user mode

**Possible functions in Frequent user mode:**

**(A)** Display of a maximum of 240 beverages (10 groups with a maximum of 24 beverages)

**(B)** Navigation through beverage groups (arrow)

**(C)** Access to Service menu

**(D)** Maximum 3 separate additional beverages (left)

**(E)** Screen for selection of beverage options

**(F)** Selection via beverage groups

**Steps up to beverage dispensing:**

- Select desired beverage
- Define cup/mug size
- Select coffee roast (optional)
- Confirm selection
- Payment (with payment system, option)
- Instruction to position cup/mug
- Start dispensing
- Fill ground coffee (with separate manual inlet)
- Confirm manual inlet
- Beverage dispensing is performed.

Service technicians can expand or reduce the standard configuration with the following additional functions:

- **(E)** button for coffee strength (barista) *ON*
- Screensaver *ON*
- **Service menu (C)** button visibly *ON*
- Group selection **(F)** (maximum 10 groups with horizontal navigation **(B)** possible) *OFF*
- Instruction to **position cup/mug** *ON*
- Display of **Beverage complete** information *OFF*

## 7.5 Beverage supply

**Limited beverage selection**

Machines with an external drinking water tank are limited in their beverage selection. It is not possible to dispense cooled beverages with an external drinking water tank.

Powdered beverages are **always** dispensed hot with an external drinking water tank, regardless of the set temperature.

**Cancellation of beverage selection after inactivity**

Beverage selection can be automatically canceled after 5 – 40 s of inactivity.

In this case, the user interface is displayed for a new beverage selection process.

The time period can be adjusted by service technicians in the **Configuration > Operating mode > Reset selection time-out** settings.

### 7.5.1 Selecting beverage

**Navigating to beverage**

Prerequisite: The machine is ready for use.


Figure: Guest and Frequent user mode: Scrolling to beverage

▶ Use the arrow buttons **(1)** to scroll through the beverage displays.
  ✓ The desired beverage button appears.


Figure: Staff mode: Direction selection of beverage group

▶ Open the desired beverage group **(1)** directly via the corresponding tab.
  ✓ The saved beverage buttons appear.

**Staff mode: Preselecting beverage options**

Prerequisite: The user interface is in **Staff mode**.

Possible preselections in the menu:

- Double beverage dispensing
- Decaffeinated coffee
- Coffee strength (barista)


Figure: Beverage preselection in the left menu

▶ Select a beverage option via a preselection in the left menu, e.g. coffee strength.
  ✓ All beverages with the corresponding option appear.

**Staff mode: Selecting beverage type**

Prerequisite: The tab with the beverage group or the preselection contains configured beverages.


Figure: Beverage types

▶ Tap on the desired beverage button.
✓ A screen with more beverage options opens.

## 7.5.2 Modifying beverage

Possible beverage options:

- Beverage type (e.g. coffee, espresso, cappuccino)
- Beverage size (S, M, L)
- Coffee type (2-3 grinds)
- Milk type (Twin Milk)
- Chocolate (with powder system)
- Aroma (with Flavour Point syrup system)

Prerequisite: The selected beverage is marked as modifiable with the pencil icon .

The preselection of ingredients and beverage size can be set and activated by service technicians in the beverage configuration.

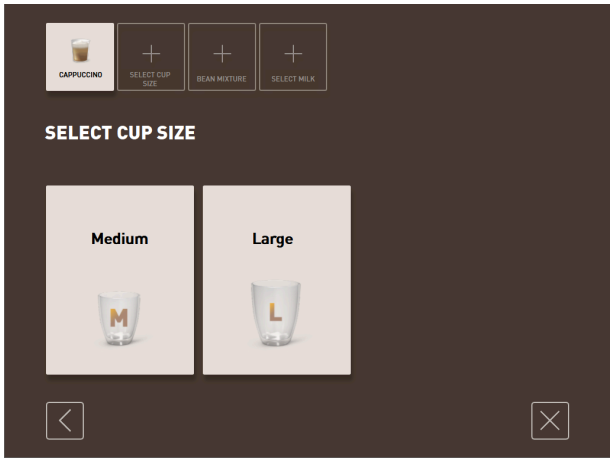



Figure: Guest mode: Determining beverage modification sequentially

1. Tap on the button with the desired modification.
   ✓ The desired modification appears.
   ✓ Additional modifications are displayed for selection.
2. Select the additional modifications.

### Sequential beverage modification

**Sequential beverage modification** is active in Guest mode and cannot be deactivated.

**Sequential beverage modification** asks for a preselection of beverage options step by step. The options are each offered for selection in a separate display.

### Progress display for sequential beverage modification

Prerequisite:

- The beverage is configured for serving with different ingredients.
- The **Beverage selection progress** type of display is available in Guest mode.

The progress display provides information about the beverage options already selected and those still to be selected.

Each selected ingredient is displayed by a icon.

Each step still to be selected is shown with an empty display field.

The **Beverage selection progress** display cannot be deactivated.


Figure: Selection of beverage

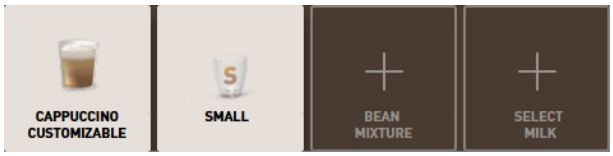



Figure: Selection of beverage size

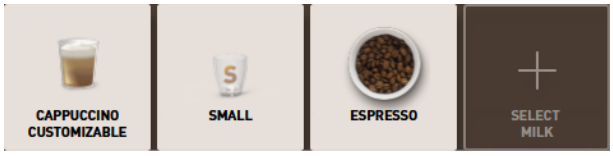



Figure: Selection of coffee type

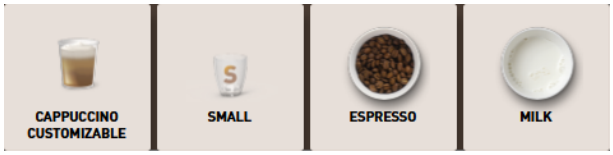



Figure: Selection of ingredients

### Direct beverage modification

**Direct beverage modification** is active in Staff mode and in Frequent user mode and cannot be deactivated.

With this function, the selection of beverage options is offered directly in the same display.


Figure: Staff mode: Directly define beverage modification

1. Tap on the button with the desired modification **(1)**.
2. If necessary, set multiple dispensing **(2)** (1 to 9 beverages).
   ✓ The selected modifications are active.


Figure: Frequent user mode: Directly define beverage modification

▶ Tap on the button with the desired modification **(1)**.
   ✓ The selected modifications are displayed summarized in the upper area **(2)**.

## 7.5.3 Preselecting double beverage

Double beverages can be dispensed in Staff mode. This allows two cups to be filled at the same time, with the respective quantity per cup being dispensed once on the left-hand side and once on the right-hand side of the beverage outlet.

Prerequisite:

- The **double button visible** function is activated in Staff mode.
- Beverages with double dispensing have been configured.

Figure: Double beverage preselection

To activate double beverage dispensing:

▶ Tap on the **Double beverage dispensing** button.

✓ All beverages that are configured for double beverage dispensing are actively displayed for selection in the user interface.

The preselection option for double beverages can be set by service technicians in the beverage configuration.

## 7.5.4 Dispensing preselected beverages multiple times

The function is available if the parameter is activated in the **Configuration > Operating mode > Activate preselection via touch screen** setting.

### Multiple dispensing (Staff mode)

Prerequisite: The preselection is activated in operating mode (maximum 1 – 9 beverages).

Preselection for several beverages is only available in **Staff mode**.


Figure: Display of beverages

1. Select a beverage.
2. Select the desired ingredients.
3. Set the number of beverages using the arrow buttons **<** 1 – 9 **>**.

✓ The beverage dispensing process is repeated a maximum of nine times.

✓ The progress of all dispensing processes is displayed.

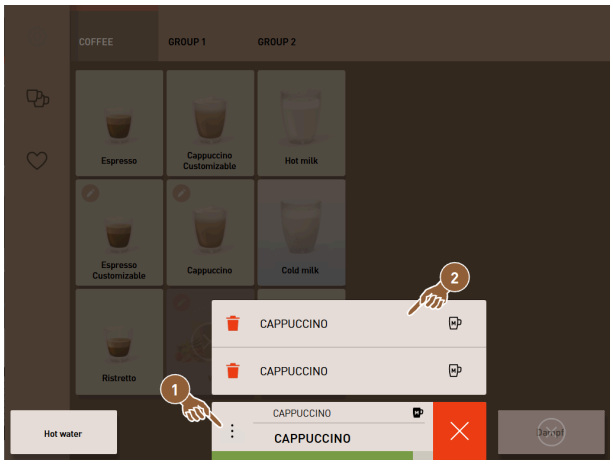



Figure: List with preselected beverages

4. Tap on the three-dot menu **(1)**.
   ✓ A list with the preselected beverages **(2)** appears.
   ✓ When beverage dispensing is complete, this is displayed in green.
5. Remove the cup or mug from the beverage outlet.

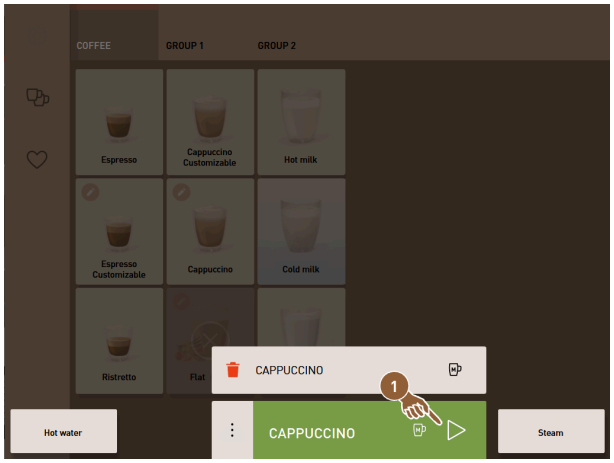



Figure: Dispensing additional beverage

6. Tap on the **Play (1)** button.
   ✓ The first beverage is confirmed.
   ✓ Dispensing of the next beverage from the list starts.
7. Repeat step 3 for the other beverages.

## 7.5.5 Preselecting decaffeinated coffee

In Staff mode, decaffeinated coffee can be preselected directly. This means that only beverages for which a variant with decaffeinated coffee is available are displayed as active.

Prerequisite:

- The **DECAF button visible** function is activated in Staff mode.
- The machine is equipped with two bean hoppers, one of which is filled with decaffeinated beans.
- Alternatively, the machine can be filled with decaffeinated ground coffee through the manual inlet.

Figure: Decaffeinated coffee preselection

Variant with second grinder

▶ Tap on the **Without caffeine** button.
   ✓ Only the beverages that have been configured with decaffeinated coffee beans are available for selection.

Variant with ground coffee and manual inlet

▶ Tap on the **Without caffeine** button.
   ✓ Only the beverages that have been configured as a source with **DECAF** are available for selection.
   ✓ During dispensing, you will be instructed to add the decaffeinated ground coffee.

See 7.6 "Using manual inlet"

The **decaffeinated coffee** preselection can be set by service technicians in the beverage configuration.

### 7.5.6 Barista preselection

In Staff mode, the strength of the beverage to be dispensed can be influenced once using the **Barista** function.

Three settings are available: **Mild**, **medium** and **strong**.

After the beverage has been dispensed, the barista field returns to the standard setting of **medium**.

Prerequisite:

- The **Barista** function is available for activation in Staff mode.
- The beverage has been configured with the **Barista** function.

Figure: Barista preselection

To change the beverage strength:

▶ Tap on the button with the desired coffee strength.

✓ Only those beverages whose strength can be adjusted are available for selection.

The **Barista** preselection can be activated in Staff mode by service technicians.

### 7.5.7 Positioning cup/mug

Prerequisite: The **Position cup** function is activated in the operating mode.

During beverage dispensing, an instruction to position the cup or mug appears.


Figure: **Position cup/mug** animation is shown in the display.

1. Place the cup or mug under the beverage outlet.
2. For manual beverage outlet: Pull the beverage outlet down onto the cup or mug.

The **Position cup** instruction can be activated in the operating mode by service technician.

## 7.5.8 Paying for beverage

Prerequisite: A payment system is activated and the beverage contains a beverage price.

If a payment system is activated, an instruction for payment appears first.

The selected beverage options are confirmed with the **PAY** button. The payment process is then started.

Once the payment process has been completed, the **PAY** button changes to the **START** button.

The **START** button starts the beverage dispensing process.

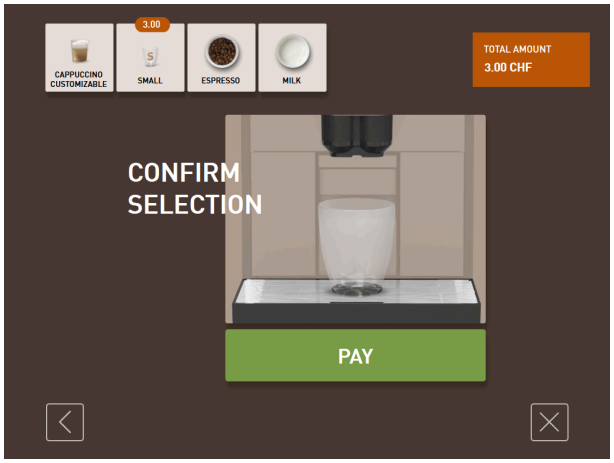



Figure: Button for payment

1. Tap on the **Pay** button.

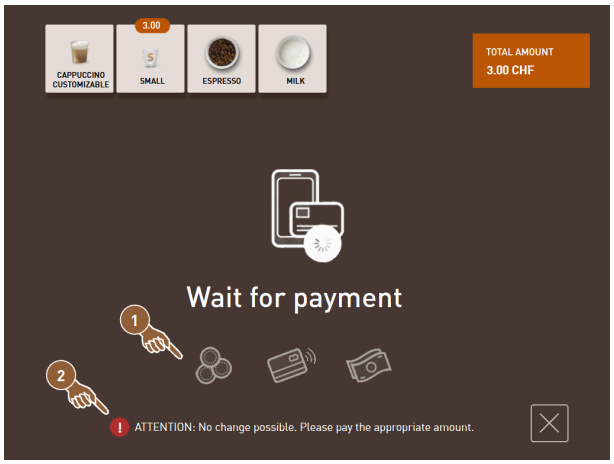



Figure: Instruction for payment

- ✓ The screen with the payment methods offered **(1)** appears.
- ✓ In the case of coin change systems, **(2)** is displayed if it is no longer possible to change coins.

2. Select an available payment method.
3. Confirm the payment process and complete the payment process.
   - ✓ Beverage dispensing starts.

## 7.5.9 Dispensing beverage

**Variant: Dispensing without payment system**

Prerequisite: The beverage has been modified and is ready for dispensing.

The **START** button appears once beverage preselection has been completed.

The **START** button confirms the selected beverage options and starts the beverage dispensing process.

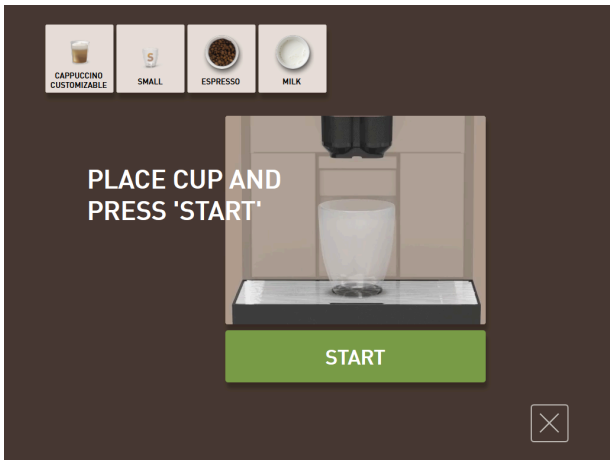



Figure: Beverage ready for dispensing

1. Tap on the **START** button.
   ✓ The **Position cup** instruction appears.
2. Tap on the **START** button again.
   ✓ The beverage is dispensed.

The **Position cup** instruction can be activated or deactivated by service technicians in the configuration for the respective operating mode.

## 7.5.10 Progress display for beverage dispensing

Prerequisite: Beverage dispensing starts.

**Variant: Guest/Frequent user mode**

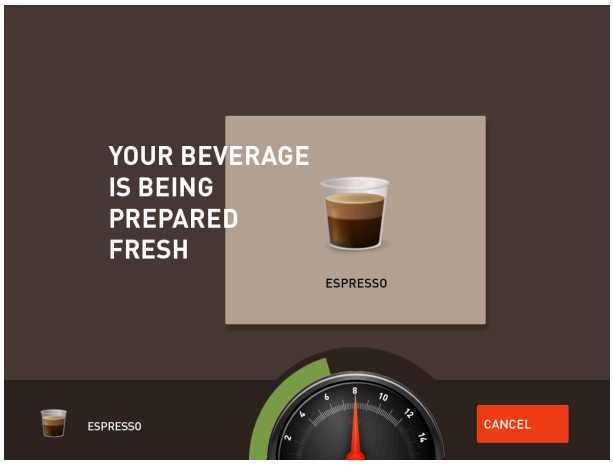



Figure: Progress (Guest and Frequent user mode)

**Guest and Frequent user mode: Displaying progress**

- The progress is displayed as a green bar in a semicircle. The dynamic green bar runs around the digital manometer in a semicircle from left to right.
- The digital manometer provides information about the current water pressure during a coffee brewing cycle.

- The progress display provides information about the remaining dispensing time during beverage dispensing.
- The progress display can be activated in the operating mode.

**Variant: Staff mode**

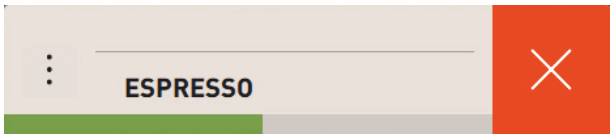



Figure: Progress (Staff mode)

**Staff mode: Displaying progress**

- The progress is displayed as a green bar.
- The dynamic green bar runs horizontally from left to right.
- The progress display with bar can be activated in the operating mode.

## 7.5.11 Completion of beverage

The display informs you when dispensing is complete.

Prerequisite: The information appears if the parameter is activated in the **Configuration > Operating mode** setting.

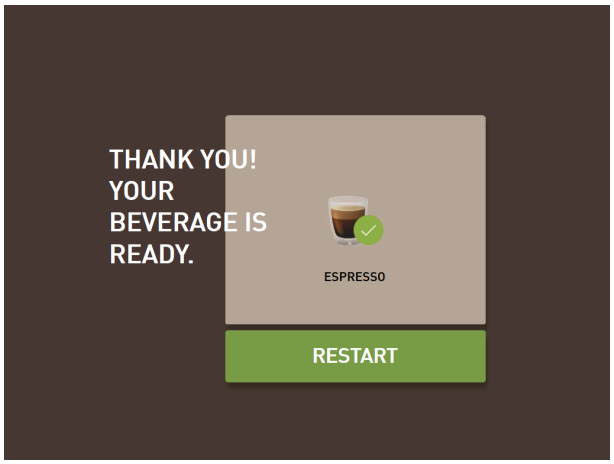



Figure: Display of **Beverage dispensing completed**

▶ Remove the cup or mug from the drip tray.
✓ The **Remove cup/mug** animation is shown in the display.

## 7.5.12 Canceling beverage dispensing

**Canceling before beverage dispensing**

Figure: **Cancel** button

The button cancels the pending beverage dispensing process and takes you back to the beverage selection screen.

The button appears while beverage options are being selected. The current selection and any preselected beverage options are then canceled before the beverage is dispensed.

**Canceling during beverage dispensing**

The **CANCEL** button appears during beverage dispensing.

The **CANCEL** button cancels the beverage dispensing process. Pre-selected beverages are also deleted.

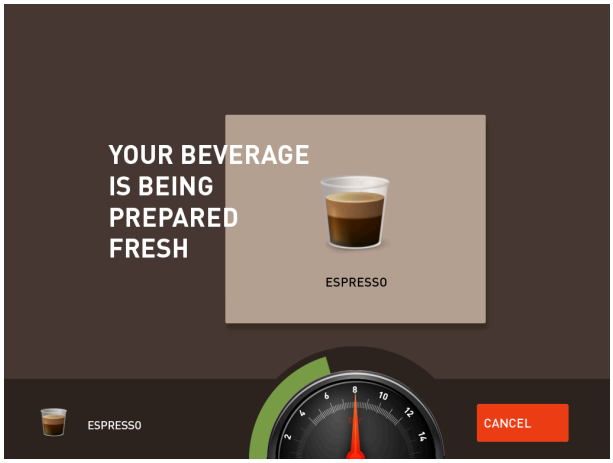



Figure: Guest and Frequent user mode: Canceling beverage dispensing

Guest and Frequent user mode: Canceling beverage dispensing

1. Tap on the **CANCEL** button.
   ✓ Beverage dispensing is canceled.

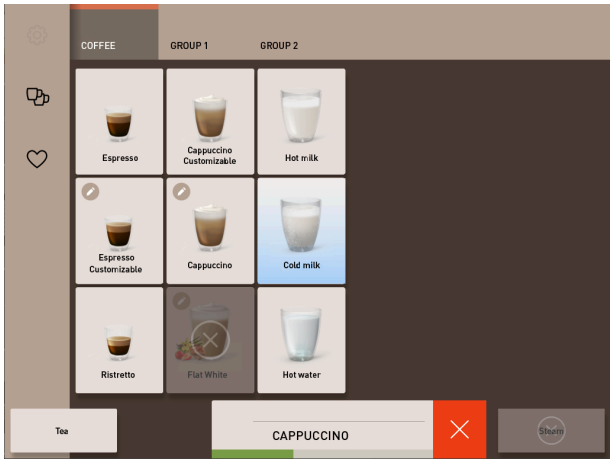



Figure: Staff mode: Canceling beverage dispensing

**Staff mode: Canceling beverage dispensing**

1. Tap on the **(X)** button.
   ✓ Beverage dispensing is canceled.

## 7.6 Using manual inlet

Ground coffee is available for preparing a beverage using the manual inlet.

The configuration for coffee beverages with ground coffee is available in the beverage settings. Configuration can be carried out by service technicians.

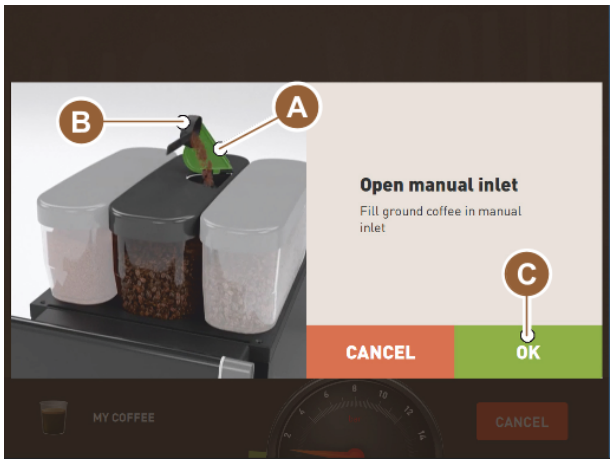



Figure: Instruction for adding ground coffee

1. Select a beverage group with beverage options on the user interface.
2. Select a beverage with the option for pre-ground coffee, e.g. decaf.
3. If necessary, select the other dispensing options, such as small, medium or large.
4. Start the dispensing process.
   ✓ An animation instructing you to insert ground coffee appears.
5. Open the cover **(A)** of the manual inlet.
6. Pour a portion of ground coffee into the opening of the manual inlet using the measuring spoon **(B)** provided.
7. Confirm this with **OK (C)**.
   ✓ Beverage dispensing starts.

## 7.7 Generic functions of the user interface

### 7.7.1 Navigation in the interface

In **Guest mode** or **Frequent user mode**, you can navigate by **swiping** left or right across the screen. You can also use the arrow buttons to **scroll** through all beverage groups.

Figure: Navigation in Guest mode with arrow buttons

- The **arrow <** button navigates to the left to the previous beverage group.
- The **arrow >** button navigates to the right to the next beverage group.

The number of dots corresponds to the number of beverage groups available.

In **Staff mode**, you navigate by **swiping** across the beverage groups at the top of the screen.


Figure: Tabs in Staff mode

- Tapping on a tab directly selects a beverage group.
- Swiping to the left or right on the tabs navigates to the previous or next beverage group.

The number of tabs (beverage groups) is not fully visible.

Figure: **Back** button

Figure: **Next** button

The < button takes you back to the previous screen. The > button leads you to the next screen.

## 7.7.2 Display of beverages

### Type of display

The type of display for the beverages on the user interface depends on the operating mode.

The beverage buttons can be individually named and assigned via media packages at the request of the customer.

The configuration of the display is carried out by service technicians.


Figure: Types of display of the beverage buttons

Ⓐ Default (display with glass) Ⓑ Cup (display with cup)

Each beverage button can be individually assigned a beverage. The beverage button starts the corresponding beverage dispensing process or preselection for additional ingredients and beverage options.

**Size of display**

The display size of the beverages is defined in the **Menu card** configuration.


Figure: Small and extra large beverage display

Available display sizes:

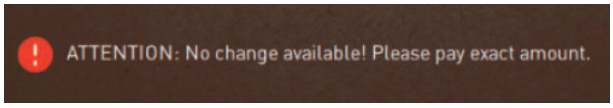
- Small
- Medium
- Large
- Extra large
- Dynamic

## 7.7.3 Pending error message or instruction for action

Error messages are displayed at the top or bottom of the user interface. If an error message is active, intervention by the user or a service technician is required.

Figure: Service button with error display

1. Tap on the error message display.




   ✓ The Service menu appears.
2. Select the pending error message with the **(>)** button in the Service menu.
   ✓ The **Smart info** window with additional information appears.

## 7.7.4 Error messages (simple)

Error messages or instructions are shown differently on the display depending on the set operating mode.

In Guest mode, the default setting for error messages is **simple**.

Service technicians can change the setting to **specific error messages**.

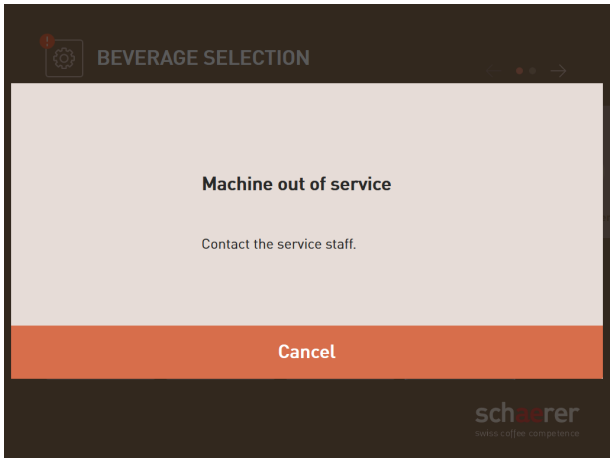



Figure: Simple error message

Simple error messages show the following information:

- The machine is no longer ready for use.
- The **Inform service staff** instruction appears.

### 7.7.5 Error messages (specific)

Error messages or instructions are shown differently on the display depending on the set operating mode.

In Staff or Frequent user mode, the default setting for error messages is **specific**.

Service technicians can change the setting to a **simple error message**.

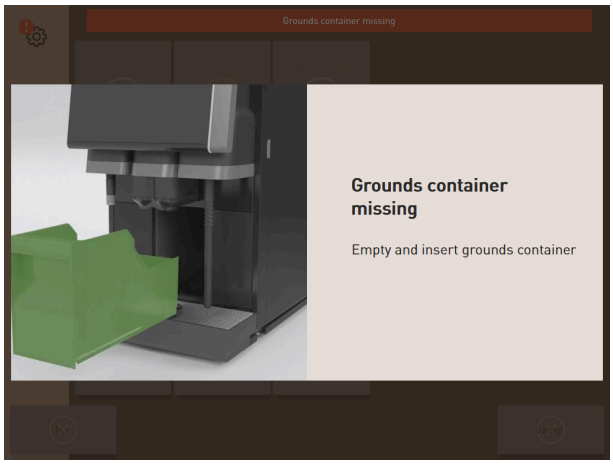



Figure: Specific error message

Specific error messages show the following information:

- Instructions for action or errors are displayed immediately.
- The machine can be independently restored to the ready for use condition if necessary.

## 7.8 Service menu

### 7.8.1 Service menu button

The **Service menu** button may be displayed differently depending on the operating mode.

Figure: **Service menu** button in Guest mode

Figure: **Service menu** button in Staff mode and Frequent user mode

The **Service menu** button has two functions.

- Control function: The Service menu is opened with the **Service menu** button.
- Report function: Additional information with color marking

**Control function for opening the Service menu:**

▶ Tap on the **Service menu** button.

✓ The **Service menu** screen opens.

**Report function: Additional information with color marking**

In the user interface, the **Service menu** button provides information about pending information or error messages.

Figure: **Service menu** button with messages

- **Without color code**: No messages are pending in the Service menu.
- **Orange**: Information is available in the Service menu.
- **Red**: Error messages or instructions for action are pending in the Service menu.

## 7.8.2 Service menu overview

Access to the Service menu in the **Machine operator** profile can be protected by a service technician with a PIN as an option.

**Functions in the Service menu**

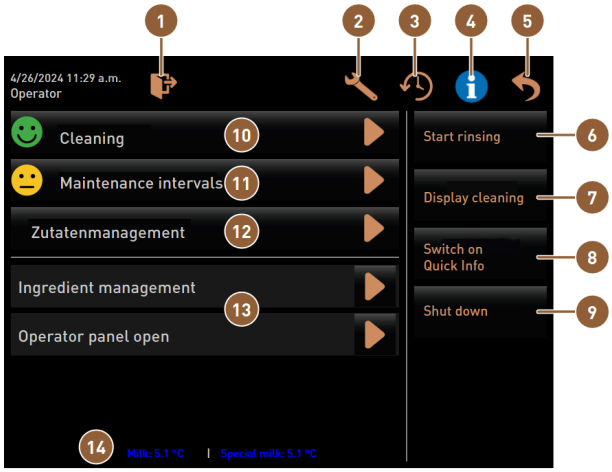



Figure: Functions in the Service menu

1. Logs out the currently registered profile or opens the log-in dialog for logging in with different profiles.
2. Opens the screen with the machine settings.
3. Shows the dialog with the beverage dispensing history and the list of dispensed beverages.
4. Shows the dialog with system information including QR code.
5. Closes the screen with the Service menu and takes you back to the user interface.
6. Direct selection: Starts rinsing process.
7. Direct selection: Locks the screen for 30 s for screen cleaning.
8. Direct selection: Displays a quick info message.
9. Direct selection: Switches the machine off.
10. Displays the cleaning status and opens the screen for performing cleaning.
11. Displays the maintenance status and opens the screen for carrying out maintenance.
12. Opens the screen for ingredient management.
13. Displays pending messages and opens the dialog with the respective instruction for action and its acknowledgment.
14. Optional: Displays the milk temperature.

**General buttons in the Service menu**

- Use the **Confirm** button to start pending actions or confirm displayed instructions for action.
- The **Next** button takes you step to step through the display-guided action steps for cleaning, descaling or grinder service.

If an error occurs during a restart, the screen with the Service menu is displayed immediately.

## 7.8.3 Quick info

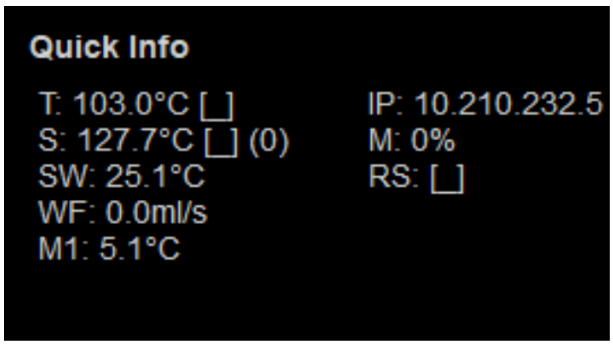



Figure: Quick info

The **Quick info** appears on the Service menu screen and provides information on the following parameter values:

- **T** displays the hot water boiler temperature in °C.
- **S** displays the steam boiler temperature in °C.
- **SW** displays the steam wand temperature in °C.
- **WF** displays the required water quantity in ml/s.
- **M1** displays the current milk temperature.
- **IP** displays the address of the network adapter.
- **M** displays the available storage space in %.
- **RS** informs about the density of beverage supply (Rush hour mode):
  - Rush hour mode is activated if more than 30 beverages are dispensed per hour.
  - When active, rinsing of the beverage outlet is suppressed.
  - The active mode is indicated by **RS[*]**.

## 7.8.4 Profiles (log in / log out)

Access rights to functions and parameters depend on the profile.

See 10 "Programming" for a more detailed overview and description of the profiles.

### 7.8.4.1 Access variant to the Service menu without PIN entry


Figure: No profile is logged in.

▶ Tap on the **Service menu** button in the user interface.
✓ The Service menu opens with the last activated user profile or without an active profile (not logged in).

### 7.8.4.2 Variant: Access to the Service menu with PIN entry

Each profile has specific authorizations. Logging in with a profile can be protected by a PIN. Service technicians can activate and deactivate profiles, define a PIN and assign it to a profile.

Prerequisite: Access to the Service menu is protected by a PIN.

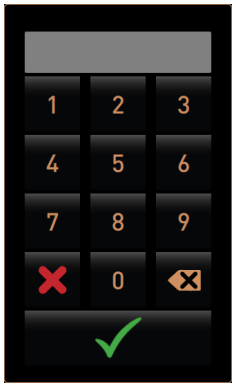



Figure: Number block for PIN entry

1. Tap on the **Service menu** button in the user interface.
   ✓ The numeric keypad for entering the PIN appears.


Figure: No profile is logged in.

2. Enter the configured PIN and confirm.
   ✓ The screen with the Service menu opens without an active user profile.
   ✓ All direct dial functions with the exception of **Free vending** are available for selection.
   ✓ **Info – Show versions** is available in the settings.

### 7.8.4.3 Access to the Profiles dialog

When the Service menu is closed, the currently logged in profile remains active.
The active profile is only logged out after logging out using the button or after a restart.

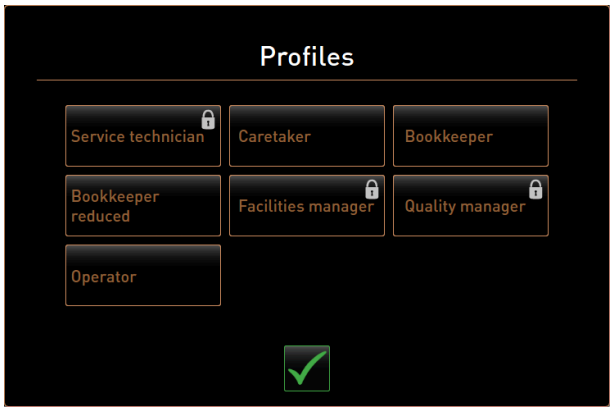



Figure: **Profiles** dialog

▶ Tap on the **Log-in** button in the Service menu.
  ✓ The **Profiles** dialog opens with the profiles configured by service technicians.
  ✓ PIN-protected profiles are marked with a lock icon.

The following profiles can be configured by service technicians:

- Caretaker
- Bookkeeper
- Bookkeeper reduced
- Chef de service
- Quality manager
- Machine operator

### 7.8.4.4 Variant for activating unprotected profile

▶ Select the desired unprotected profile, e.g. **Caretaker**.
  ✓ The Service menu is displayed with the active **Caretaker** profile.
  ✓ The functions available in the Service menu correspond to the selected profile.

See 10.3 "Profiles and authorizations" for detailed information on the functions of the individual profiles.

### 7.8.4.5 Variant for activating protected profile

Prerequisite: The profile is protected by a PIN and labeled with a lock icon.

1. Select the desired protected profile, e.g. **Service technician**.
   ✓ The numeric keypad for entering the PIN opens.

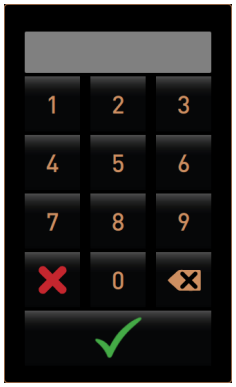



Figure: Number block for PIN entry

2. Enter the configured PIN and confirm with ✓.
   ✓ The Service menu is displayed with the selected profile.

See 10.3 "Profiles and authorizations" for detailed information on the specific functions.

7.8.4.6 Profile log out

1. Tap on the **Log-out** button in the Service menu.
   ✓ The active profile is logged out.
   ✓ Any authorizations become void.


Figure: No profile is logged in.

✓ **Not logged in** is displayed in the Service menu.

## 7.8.5 Scope of functions

### Cleaning

PIN-protected function (caretaker, operator, service technician)

▶ Tap on the **Cleaning** button.
   ✓ Display-guided cleaning starts.
   ✓ It is possible to cancel using the ✗ button.
   ✓ The last cleaning performed is displayed.

### Maintenance

In general, a green smiley indicates that cleaning or maintenance is complete. A red smiley indicates that cleaning or maintenance is pending.


Figure: Maintenance overdue

PIN-protected function (caretaker, operator, service technician)

1. Execute the displayed maintenance work.
2. Tap on the **Maintenance** button.
   ✓ It is possible to cancel using the button.
3. Acknowledge the maintenance work.
   ✓ The acknowledged maintenance work is displayed with the date and a green smiley.

### Ingredient management

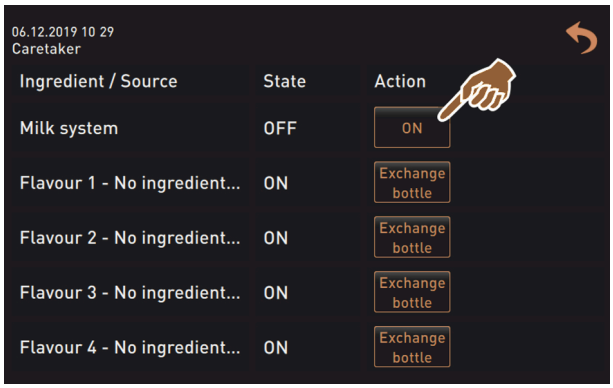



Figure: Activating ingredient

**Variant: Activating ingredient**

1. Tap on the **Ingredient management** button.
   ✓ The screen with the active ingredient opens.
2. Tap on the **ON** button in the **Action** column.
   ✓ The ingredient is activated.
3. Tap on to return to the Service menu.

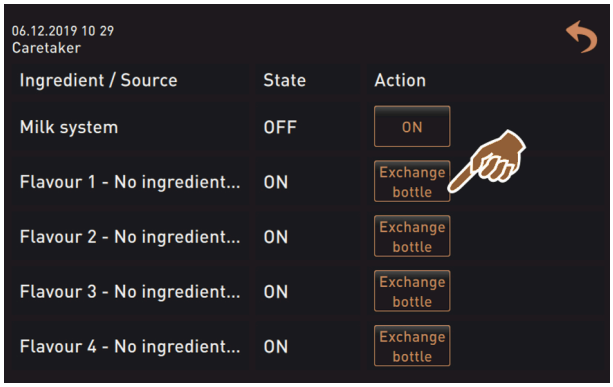



Figure: Bottle change

**Variant: Syrup bottle change**

1. Tap on the **Ingredient management** button.
   ✓ The screen with the active ingredient opens.
2. Tap on the **Bottle change** button for syrup types 1 to 4 in the **Action** column.
   ✓ The **Bottle change** screen shows the display-guided steps.
   ✓ The previously selected syrup hose is drained.
3. Remove the bayonet lock from the empty bottle at the Flavour Point and thoroughly clean the hose with the bottle adapter.
4. Confirm the cleaning process with .

5. Insert the bottle adapter with the cleaned hose into the new syrup bottle.
6. Reconnect the bayonet lock back to the Flavour Point.

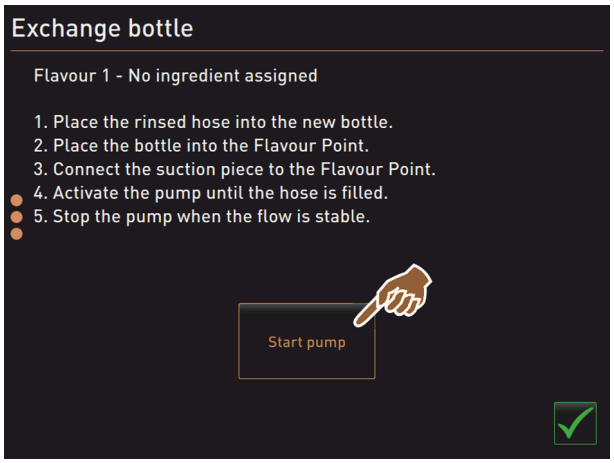



Figure: Start pump

1. Tap on the **Start pump** button and then the **Stop pump** button to refill the hose.
2. Confirm the hose filling with ✅.
   ✓ The **Bottle change** screen closes and the user interface is displayed.

### Error message or instruction for action

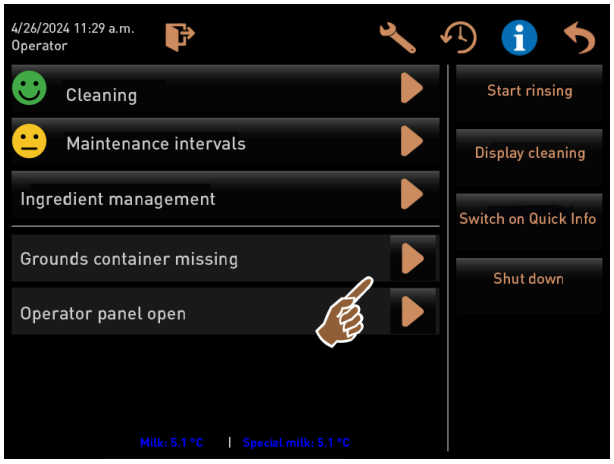



Figure: Opening error message

1. Press ▶ to open the pending message.
   ✓ The pending message appears in a separate window.
2. Correct the pending error or carry out the required action.
   ✓ The error message or instruction for action is automatically deleted from the list.
   ✓ Service technicians can see an overview of events in the **Info > Error statistics** main menu.

### Back to user interface

The button ↩ takes you back to the user interface.

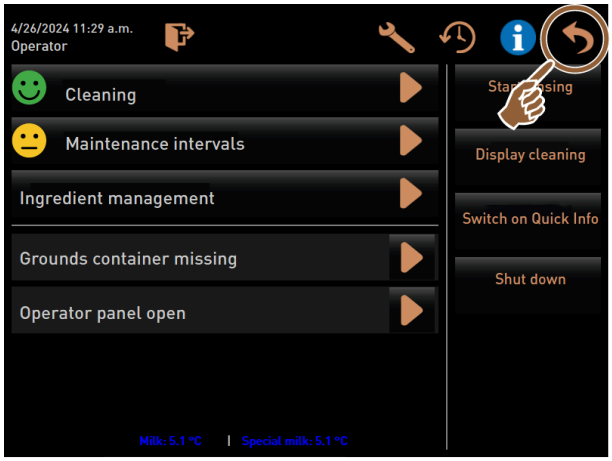



Figure: Back to user interface

▶ Tap on .

✓ The desired user interface appears.

✓ The logged-in profile is logged out.

### System information

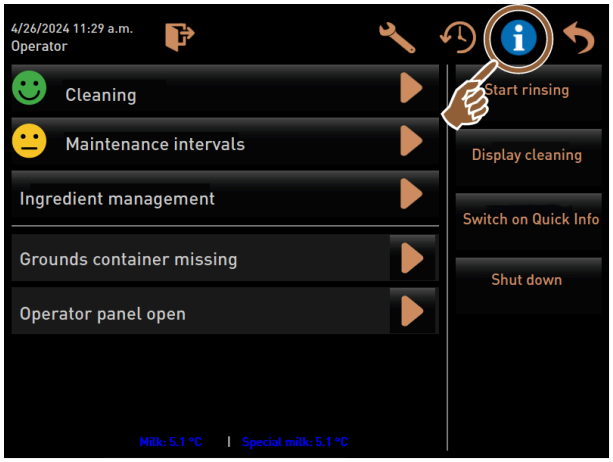



Figure: Calling up system information

▶ Tap on .

✓ The system information is displayed in a separate window.

✓ A QR code with system information also appears.

### Process of beverage dispensing

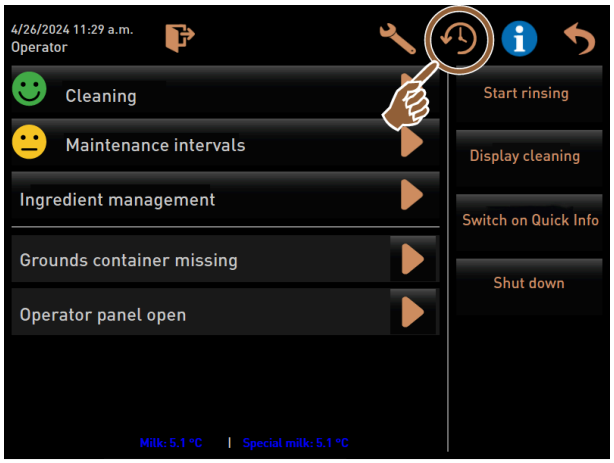



Figure: Calling up beverage dispensing

▶ Tap on .

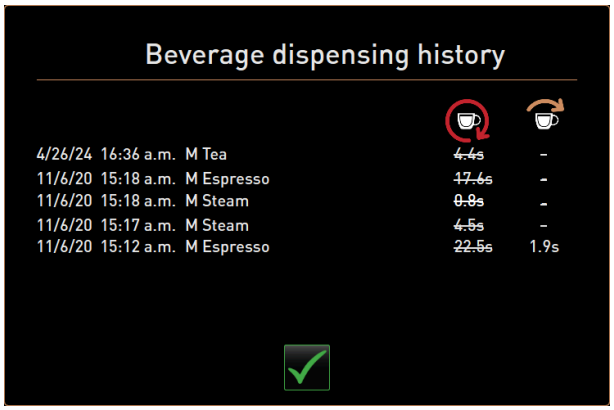



Figure: **Beverage dispensing history** dialog

- ✓ The **Beverage dispensing history** dialog opens and all beverages already dispensed are shown in a list.
- ✓ The corresponding beverage dispensing duration is also displayed for each dispensed beverage.
- ✓ The pure beverage dispensing time (coffee) is shown on the right side of the list.

The pure dispensing time for should be 10 to 15 s single coffee beverages and approx. 20 to 25 s for double beverages. However, this is only a reference value and can vary depending on factors such as grind quantity, grinding level, water temperature and type of coffee.

### Settings

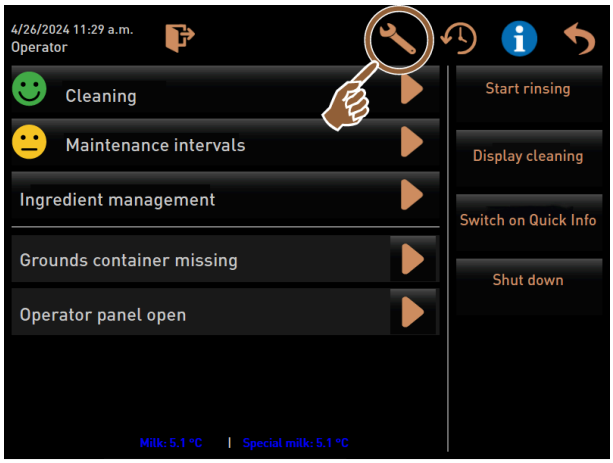



Figure: Calling up settings

▶ Tap on .
- ✓ The settings appear.
- ✓ Parameter settings are available.

The access authorization for parameter settings depends on which profile is logged in.

See 10 "Programming" for a detailed description.

### Log in/Log out

The function is used to log in and select a profile.

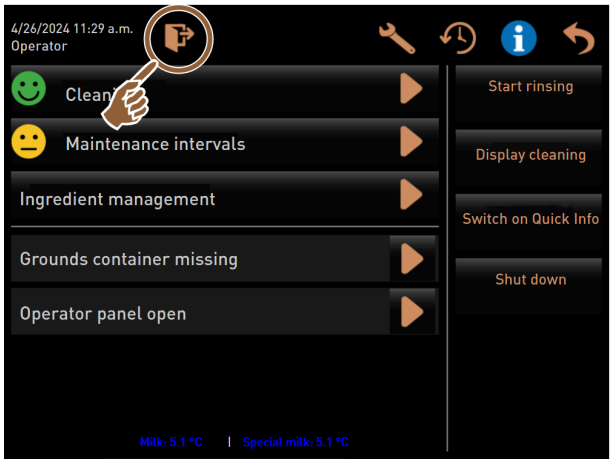



Figure: Log in/Log out

▶ Tap on .
- ✓ The window for selecting a profile opens.

See 7.8.4 "Profiles (log in / log out)" for a detailed description.

### “Start rinsing” direct selection

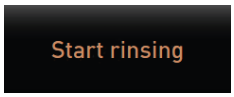



Figure: **Start rinsing** button

- ▶ Tap on the **Start rinsing** button.
  - ✓ A hot rinse is carried out for all systems (coffee system, milk system and powder system).
  - ✓ The rinsing process cannot be canceled.

See 8 “Cleaning“

### “Touch screen cleaning” direct selection

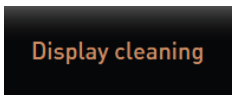



Figure: **Touch screen cleaning** button

- ▶ Tap on the **Touch screen cleaning** button.
  - ✓ The display remains insensitive for a period of 30 s and can be cleaned.

### “Switch on quick info” direct selection


Figure: **Switch on quick info** button

- ▶ Tap on the **Switch on quick info** button.
  - ✓ The quick info window with the operating statuses appears floating in the foreground.

### “Activate free vending” direct selection (with payment system)

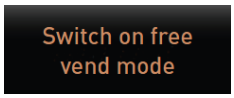



Figure: Activating free vending

- ▶ Tap on the **Activate free vending** button.
  - ✓ Beverages usually available for a change are available for free vending.
  - ✓ The **Activate free vending** button is accessible to service technicians, bookkeepers and caretakers.

### “Switch-off” direct selection


Figure: Switching off

- ▶ Tap on the **Switch-off** button.
  - ✓ The machine is powered down.
  - ✓ The machine is powered down, but not de-energized.
  - ✓ The display is blank and inactive.

# 7.9 Emptying

## 7.9.1 Emptying grounds container

NOTE

**Property damage due to possible overfilling of the under-counter grounds container!**

The under-counter grounds container is not monitored. There is a risk of overfilling. During emptying, it is possible to select a beverage without the under-counter grounds container.

- ▶ Check the under-counter grounds container according to machine usage.
- ▶ Make sure that no beverages can be dispensed while the under-counter grounds container is being emptied.

**Standard grounds container:** The standard grounds container holds approx. 60 – 70 coffee cakes. After this number has been reached, the request for emptying the grounds container appears in the user interface.

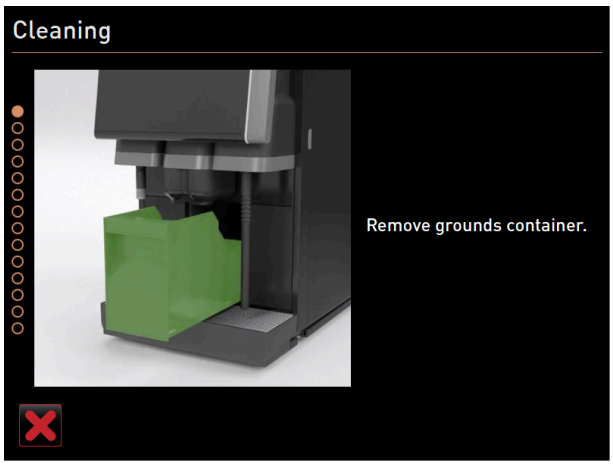



Figure: Standard grounds container

**Standard grounds container**

1. Slide the manual beverage outlet upwards as far as it will go.
2. Pull the grounds container out of the machine to the front.
   ✓ The **Grounds container removed** message appears on the display.
3. Empty and clean the grounds container.
4. Dry the grounds container and push it back into the machine as far as it will go.
   ✓ The machine is ready for use.

**Integrated grounds container**

1. Slide the manual beverage outlet upwards as far as it will go.
2. Pull the integrated grounds container out halfway.
   ✓ Accidental beverage dispensing is prevented.
3. Empty and clean the under-counter grounds container.
4. Place the under-counter grounds container back under the grounds chute of the machine.
5. Push the integrated grounds container back in as far as it will go.
   ✓ The machine is ready for use.

## 7.9.2 Emptying external waste water tank

NOTE

**Level monitoring**

The external drinking and waste water tanks feature integrated level monitoring.

- ▶ Check the mechanical function of the floater for level monitoring every time the tanks are emptied.
- ▶ Ensure that no beverages can be dispensed before the waste water tank is removed.

The machine has a waste water outlet. The drip tray is fixed and cannot be removed.

See6.3.2"Connecting water“

Prerequisite: The machine is ready for beverage dispensing.

Figure: External waste water tank

1. Slide the manual beverage outlet upwards as far as it will go.
2. Pull the grounds container out of the machine to the front.
   ✓ The **Grounds container removed** message appears on the display.
3. Remove the cover with the waste water hose from the external waste water tank.
4. Remove the waste water tank.
5. Clean the waste water tank thoroughly with household cleaner.
6. Check that the level monitoring floater is working.
7. Insert the cover with waste water hose back into the tank.
   ✓ The machine is ready for beverage dispensing.
8. Reinsert the grounds container into the machine.

# 7.10 Switching off

## 7.10.1 Switching machine to standby

DANGER

**Danger to life from electrocution!**

The machine is still powered in Standby mode.

▶ Remove the machine housings.

▶ Always disconnect the machine from the power supply before repair work.

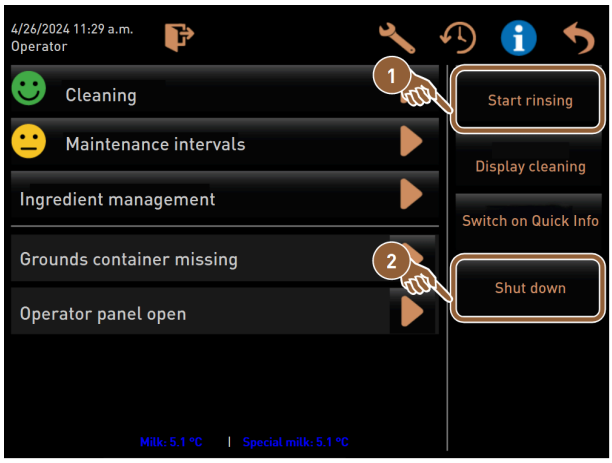



Figure: Switching off using touch screen

1 Start rinsing

2 Switch off

1. Start machine cleaning **(1)** in the Service menu.
   ✓ Cleaning is performed.
2. Carry out daily and weekly cleaning as required.
3. If present, empty and clean the external drinking water tank.

See 8 "Cleaning"

After automatic cleaning, the machine can be switched off directly from the cleaning program.

**Variant: Switching-off using touch screen**

▶ Tap on the **Switch-off (2)** button in the Service menu.
   ✓ The machine is switched off.
   ✓ The display is not displaying.
   ✓ The machine is in Standby mode.

**Variant: Switching off with button**

DANGER

**Danger to life from electrocution!**

Even when the machine is switched off, components inside the machine are live.

- ▶ Do not remove any machine housings.
- ▶ Always disconnect the machine from the power supply before repair work.

The machine can also be switched off using the switch-on button behind the user panel.

In the event of non-compliance, no warranty will be accepted in the event of damage.

See 7.2.2 "Switching on machine"

## 7.10.2 Longer downtimes (from 1 week)

NOTE

**Property damage due to frozen water!**

The boilers can be damaged by freezing water.

- ▶ If the machine is exposed to below-freezing temperatures, empty the boiler(s) beforehand.
- ▶ Contact your service partner.

During longer downtimes, for instance company vacations, take the machine and other associated devices out of operation.

When restarting the machine, first perform a daily cleaning.

- ▶ Disconnect the power connection by pulling out the power plug or switching off a main switch installed on site.
  - ✓ The machine is de-energized.

## 7.10.3 Switching off machine

CAUTION

**Health problems and property damage due to contamination!**

Uncleaned optional accessories can cause health problems and technical faults when the system is switched on again.

- ▶ Clean the machine before milk-carrying optional accessories are switched off.
- ▶ Disconnect the machine from the power supply if the optional accessories are to remain switched off for a longer period of time.
- ▶ Keep accessories such as the milk container, cover and adapter clean and dry.

1. Empty the milk container in milk-carrying optional accessories.
2. Clean the machine daily.
3. Clean accessories such as the milk container, cover and adapter in a dishwasher or rinse them thoroughly by hand in clean water.
4. Switch off the optional accessory using the main switch.

5. Keep accessories clean and dry.
6. Disconnect the power connection by pulling out the power plug.
   ✓ The optional accessory is de-energized.
   ✓ The optional accessory can be stored for a long period of time.

# 8 Cleaning

Cleaning is a prerequisite for safe and trouble-free operation. That means it is of the utmost importance and must be carried out in accordance with the described regulations.

## 8.1 Cleaning regulations and conditions

**HACCP cleaning concept: HACCP** stands for **Hazard Analysis Critical Control Point**.

The HACCP cleaning concept is intended to ensure that food is safe. Hazards associated with the processing of food or those emanating from finished products are considered and the risks assessed. The risks are mitigated by taking appropriate measures.

With proper installation, maintenance, care and cleaning, Schaerer AG machines and device fulfill the HACCP requirements.

All cleaning products are perfectly coordinated with the cleaning programs.

WARNING

**Risk of infection due to bacteria!**

Improper care and cleaning can make the dispensing of beverages hazardous in terms of food hygiene.

- Wear protective gloves while cleaning.
- Wash your hand thoroughly before and after cleaning.
- Clean the machine daily.
- Clean the milk container before each refill and after the end of dispensing.
- Never add cleaning products to the milk container; always use the blue cleaning container.
- Never add cleaning products to the drinking water tank (internal/external).
- Never mix cleaning products.
- Store cleaning products separately from coffee, milk and automatic coffee machine powder.
- Do not use abrasive cleaners, brushes or metal cleaning instruments.
- Do not touch any parts that come into contact with beverages after cleaning.
- Observe the dosing and safety notes on the cleaning product and follow them.

## 8.2 Cleaning products

DANGER

**Risk of poisoning from cleaning products!**

Cleaning products could cause poisoning if not used property.

- Only use cleaning products recommended by Schaerer.
- Keep cleaning products away from children.
- Do not touch the cleaning products with your bare hands and do not ingest them.
- Never add cleaning products to the milk container; always use the blue cleaning container.
- Read the information on the packaging and the safety data sheet carefully before using the cleaning product. If no safety data sheet is available, request one from the distributor.

NOTE

**Property damage due to incorrect cleaning products!**

The machine can be damaged if the wrong cleaning products are used.
▶ Only use cleaning products recommended by Schaerer AG for daily and weekly cleaning.

## 8.3 Cleaning stages

The following cleaning stages are possible:

- None
- Instruction
- Forced
- Automatic (with ProCare)

NOTE

**Adjustment of cleaning stage**

The cleaning stages of a cleaning process can only be adjusted by a service technician.

**Variant: None**

- No information is provided about upcoming cleanings.
- The **Service menu** button does not indicate pending cleanings with colored marking.
- The **Cleaning** button in the Service menu does not indicate any pending cleaning with a red smiley.
- Cleaning must be started manually in the Service menu.

**Variant: Instruction**

- Information is provided about pending cleanings.
- An orange colored marking is displayed on the **Service menu** button when a cleaning is pending.
- The time until the next cleaning is due is displayed in hours in the Service menu.
- The **Cleaning** button in the Service menu uses a red smiley to show when a cleaning is needed.

**Variant: Forced**

A pending cleaning with an active mandatory cleaning status cannot be postponed. The pending cleaning program does not allow for any more beverage dispensing.

Only execution of the cleaning program makes the machine ready for use again.

A service technician can define the mandatory cleaning and the duration until it is triggered in the cleaning schedule.

- Information is provided about pending cleanings.
- An red colored marking is displayed on the **Service menu** button when a cleaning is pending.
- The time until the next cleaning is due is displayed in hours in the Service menu.
- The **Cleaning** button in the Service menu uses a red smiley to show when a cleaning is needed.

**Variant: Automatic (with ProCare)**

- The screen with the cleaning sequence opens automatically at the start time.
- Cleaning is performed automatically according to schedule without intervention from the operator.
- Cleaning of the connection piece for the milk hose (Plug & Clean) can be carried out separately.

**Cleaning time window**

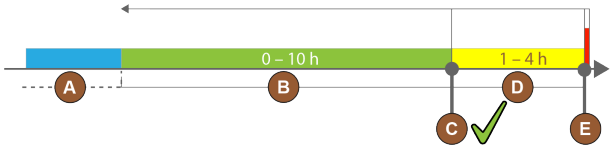



Figure: Time window for cleaning

| Pos. | Time window | Explanation |
|---|---|---|
| A | Cleanings performed in this time window are ignored. | The cleaning instruction remains unchanged after a cleaning. |
| B | Cleanings performed in this time window are too early.<br>These cleanings are still recognized as completed. | The cleaning instruction is reset after a cleaning. The next cleaning due in the cleaning schedule is displayed in **h** in the Service menu. |
| C | Time for the optimum start of a cleaning (according to the schedule). | The time remaining until the optimum start time is displayed in the Service menu. |
| D | Time window for optimum cleaning in the schedule. | The cleaning instruction is reset after a cleaning. |
| E | Time for mandatory cleaning<br>Cleaning that has not been performed can no longer be delayed from this point onwards. | The display shows that further dispensing is no longer possible. The machine is not ready for use. Cleaning is absolutely essential. |

## 8.4 Cleaning intervals

The following sections describe the cleaning intervals required for optimum and trouble-free operation. If regular checks show increased contamination, shortening the required cleaning intervals in accordance with the actual signs of contamination is essential.

NOTE

**Cleaning with high beverage volume**

If the daily volume of beverages exceeds the reference value of 200-250 beverages, two daily cleanings are recommended.

| Daily | Weekly | As needed | Optiona | |
|---|---|---|---|---|
| Automatic cleaning | | | | |
| x | | | | Automatic rinsing (if programmed) |
| x | | x | | Hot rinsing |

| Daily | Weekly | As needed | Optiona | |
|---|---|---|---|---|
| x | | x | | Milk hose rinsing |
| Cleaning program | | | | |
| x | | x | O | Milk system cleaning (upon instruction) |
| x | | x | | Coffee system cleaning (upon instruction) |
| | | x | O | Flavour Point (syrup system) |
| x | | x | O | Rinse out mixing cup with manual cleaning |
| x | x | | O | Steam boiler rinsing |
| Manual cleaning work | | | | |
| x | | | | Empty and clean grounds container |
| x | | | | Brewing chamber |
| x | | | | Clean drip tray and drip grid |
| x | | | O | Rinse out milk container |
| x | | | O | Cooling unit interior |
| x | | | | Clean touch screen |
| x | | x | O | Steam wand |
| x | | | O | Rinse out external water tank |
| x | | | O | Rinse out external waste water tank |
| | | | O | Clean optional accessories |
| | x | x | | Clean bean hoppers |
| | | x | | Lower beverage outlet part |
| | | x | O | Rinse powder container |
| | | x | O | Defrost cooling unit |
| | | x | | Clean outer surfaces |
| | | x | O | Cooling unit outer surfaces |

| Legend for cleaning intervals | |
|---|---|
| Daily | At least once a day, more if necessary |
| Weekly | At least once a week, more if necessary |
| As needed | When the machine is dirty |

# 8.5 Machine rinsing

CAUTION

**Risk of scalding due to hot water!**

During machine rinsing, hot water runs out of the beverage outlet. An automatic machine rinse is indicated by a message on the display. The functional light turns red.

- ▶ Do not reach under the beverage outlet during a machine rinse.
- ▶ Point the optional steam wand into the drip tray.
- ▶ Configured rinses are started automatically. That is why you have to make sure that the beverage outlet is always free.

## 8.5.1 Automatic switch-on/switch-off rinsing

Automatic switch-on or switch-off rinsing is standard and cannot be deactivated.

The following systems are flushed automatically after switching on and before switching off (if available):

- Coffee system
- Milk system
- Powder system
- Hot & Cold system (optional)

## 8.5.2 Configured rinsing processes

In the default setting, configured rinsing processes are triggered every hour.

In addition to the switch-on/switch-off flushing function, service technicians can set flushing processes for the following systems in the Service menu:

- Rinsing > beverage outlet (outlet rinsing interval) (1 – 180 min)
- Rinsing > milk system (external milk hose rinsing interval) (1 – 180 min)
- Rinsing > milk system (internal milk system rinsing interval) (1 – 180 min)
- Rinsing > reverse flow cooler (heat exchanger rinsing interval) (1 – 180 min)

## 8.5.3 Manual rinsing (Service menu)

Additional rinsing processes can be triggered manually at any time in the Service menu.

- ▶ Tap on the **Service menu** button.
  - ✓ The Service menu opens.

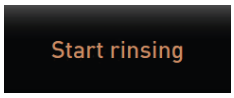



Figure: **Start rinsing** button

▶ Tap on the **Start rinsing** button.
✓ System rinsing is carried out in the same sequence as the automatic switch-on/switch-off rinsing.

See 8.5.1 "Automatic switch-on/switch-off rinsing"

## 8.6 Display-guided cleaning

With display-guided cleaning, all pending activities are shown on the screen using animations and instructions are displayed in text form.

The completed action steps must be confirmed on the screen in order to proceed to the next step.

WARNING

**Health hazard due to contamination!**

Contamination of previously cleaned machine components with cleaning products can lead to health problems.
▶ Wear protective gloves during the cleaning program.

CAUTION

**Risk of scalding from hot liquids!**

Hot liquid is dispensed during the cleaning program.
▶ Remove the drip grid before starting cleaning.
▶ Do not reach under the beverage outlet, the steam outlet or the external hot water dispensing point during cleaning.

NOTE

**Property damage due to overflowing drip tray!**

A clogged waste water outlet will cause the drip tray to overflow.
▶ Check the waste water outlet in the drip tray before starting the cleaning program.

The display-guided cleaning programs can be divided into **scheduled cleaning** and **additional cleaning**.

| Scheduled cleaning | Additional cleaning |
|---|---|
| • The programs are stored in the coffee machine control system.<br>• The type and frequency of the cleaning programs to be carried out is set in the Service menu using a cleaning schedule.<br>• Service technicians can adjust the cleaning schedule (e.g. change the cleaning stage). | • Additional display-guided cleaning programs can be started manually at any time in the Service menu.<br>• The type and scope of cleaning can be activated or deactivated individually.<br>• The processes for the activated cleaning type are carried out in the same way as for scheduled cleaning. |

Both scheduled cleanings and additional cleanings are carried out with **ProCare**.

If a **Flavour Point** module is installed, a separate cleaning program is offered in the **Cleaning** screen.

▶ Tap on the **Service menu** button.
✓ The Service menu opens.


1. Tap on the **Cleaning** button.
✓ The **Cleaning screen** screen opens.

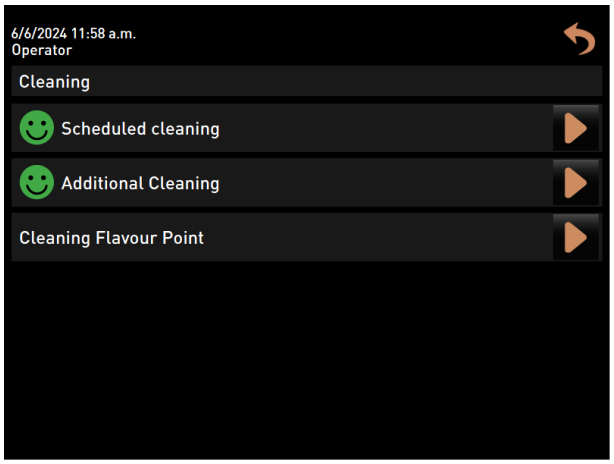



Figure: Screen with selection of cleaning types

The following cleaning types are possible:

- Scheduled cleaning
- Additional cleaning
- Flavour Point cleaning (optional)

## 8.6.1 Starting planned cleaning with ProCare

If the ProCare cleaning process was not completed correctly, for whatever reason, it must be repeated without fail. The machine can only again be ready for use if the cleaning process has been correctly completed.

The cleaning program is started in the Service menu. All actions required by the user are shown on the touch screen.

**Prerequisite:** A pending cleaning is displayed on the **Service menu** button.

Figure: **Service menu** button with pending cleaning

1. Remove the drip grid for separate cleaning.
2. Tap on the **Service menu** button.
✓ The Service menu opens.
3. If the cleaning process is PIN-protected, enter the PIN configured for this purpose.
✓ Authorization is granted.
✓ The **Cleaning** button is now active.


4. Tap on the **Cleaning** button.
✓ The **Cleaning** screen opens with the menu items for the various cleaning types.

5. Tap on the **Scheduled cleaning** button.

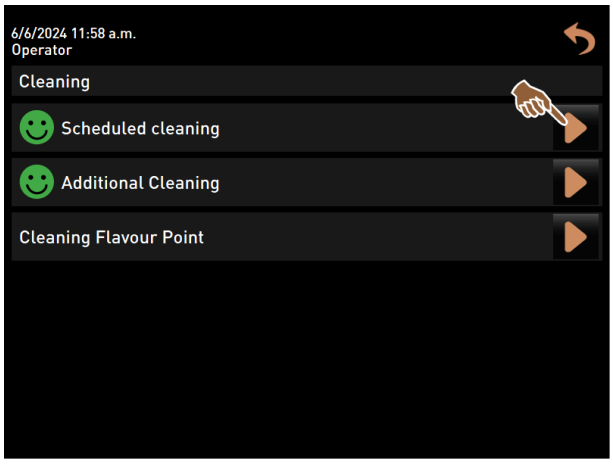



Figure: Opening scheduled cleaning

✓ The **Cleaning acc. to schedule** dialog opens.

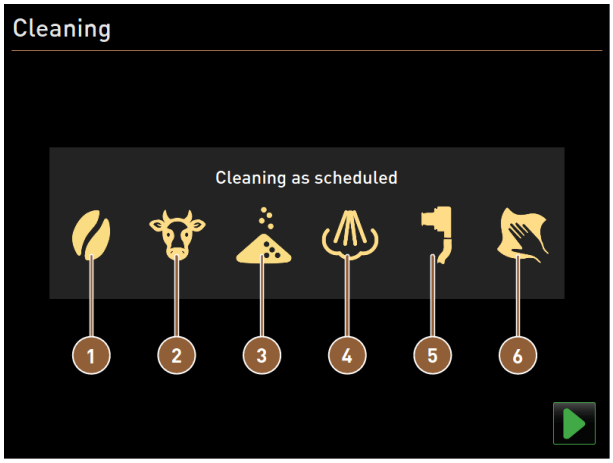



Figure: Dialog for cleaning according to cleaning schedule

1. Cleaning of coffee system
2. Cleaning of milk system
3. Cleaning of powder system
4. Cleaning of boiler system
5. Plug&Clean cleaning
6. Display-guided manual cleaning steps

6. Start the scheduled cleaning with .

✓ Cleaning is started according to the set cleaning schedule.

✓ The systems to be cleaned are highlighted in the dialog with their icon.

Connect 1 Plug&Clean connection

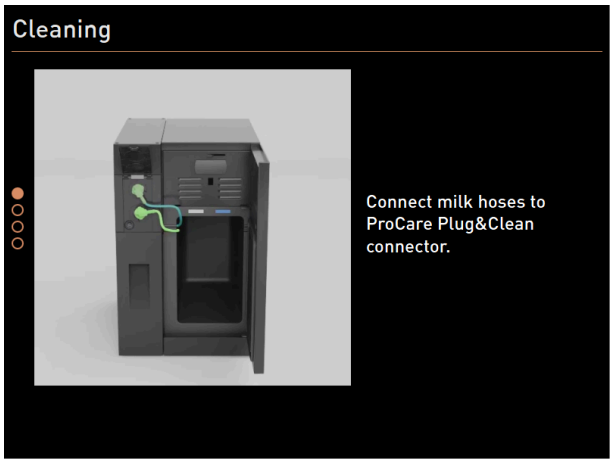



Figure: Connecting milk hoses to **Plug&Clean** connections

1. Open the door of the cooling unit.
2. Remove the milk hose or hoses from the milk container.
3. Connect the milk hose or hoses to the respective **Plug&Clean** connections on the **ProCare** unit.

### Display-guided manual cleaning steps

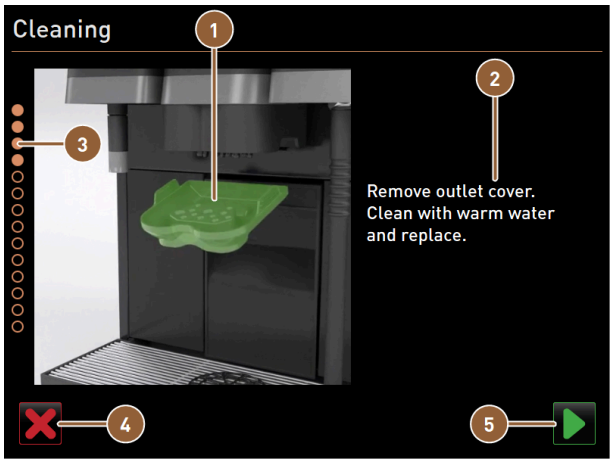



Figure: Start dialog for cleaning program

1. Image or animation of the current action
2. Instruction for action or information text
3. Progress display
4. Button for canceling cleaning
5. **Next** button to the next step

1. Follow the instructions on the screen.
2. After completing the activities shown on the screen, tap on ▶ to go to the next cleaning step.

**Manual cleaning: Grounds container**

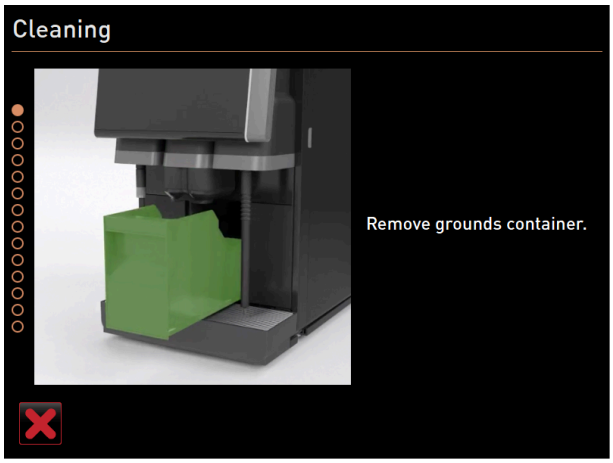



Figure: Removing grounds container

1. Push the beverage outlet upwards.
2. Pull the grounds container out of the machine.

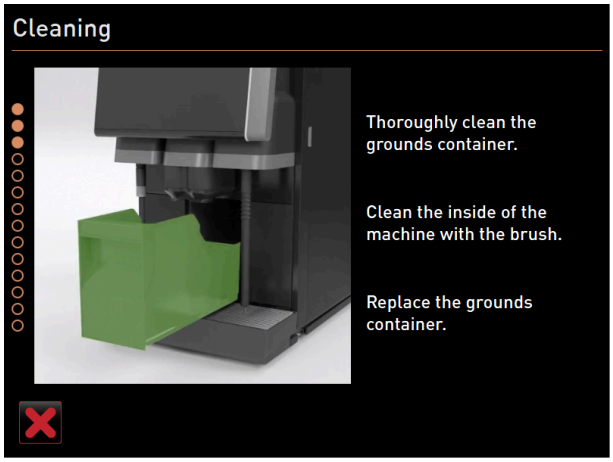



Figure: Reinserting grounds container

✓ The instruction to clean the grounds container thoroughly, clean the inside of the machine with a brush and reinsert the grounds container appears.

3. Wipe any coffee ground residue out of the brewing chamber with the brush.
4. Empty the grounds container and rinse with fresh water and dishwashing detergent, then clean and dry it.
5. Reinsert the grounds container into the machine as far as it will go.

✓ The **Remove beverage outlet cover** instruction appears.

### Manual cleaning: Beverage outlet cover


Figure: Removing beverage outlet cover

1. Release the beverage outlet cover by pressing on it in the center and pulling it down at the same time.
2. Clean the beverage outlet cover under warm running water using a brush.
3. Reinsert the cleaned cover by latching the cover in at the back and snapping it into place at the front.
   **Caution** An incorrectly inserted cover can result in splashing during beverage dispensing.
4. Check that the beverage outlet cover is seated correctly.
5. Use the button to proceed to the next step.

### Manual cleaning: Mixing cup


Figure: Lifting user panel

1. Unlock the user panel at the top by pulling it firmly towards yourself.
   ✓ The user panel is unlocked.
2. Push the user panel upwards from below with both hands as far as it will go.
   ✓ The user panel is automatically held in the upper position.
   ✓ The mixing cup is accessible.

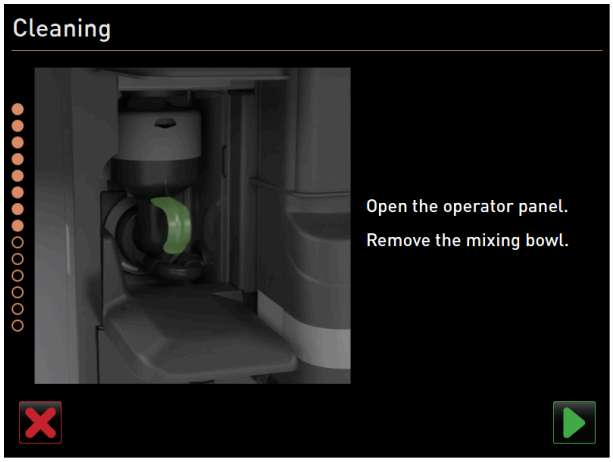



Figure: Removing mixing cup

3. Pull the mixing cup out of the machine using the recessed grip.
4. Confirm that the mixing cup has been removed with .

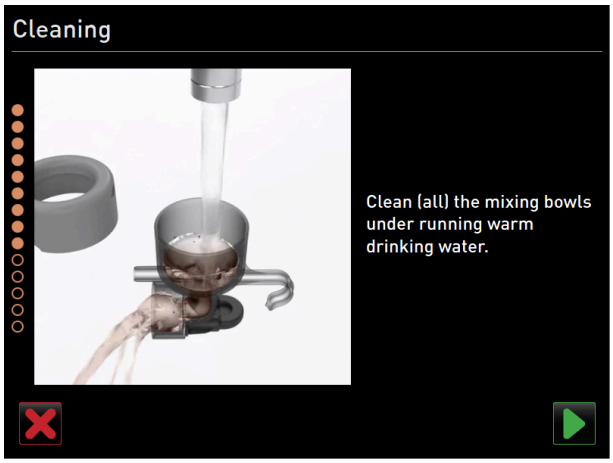



Figure: Cleaning mixing cup

5. Clean and rinse the individual parts of the mixing cup under clean warm water.
6. Wipe the mixing cup dry with a clean cloth.
7. Confirm that the mixing cup has been cleaned with .

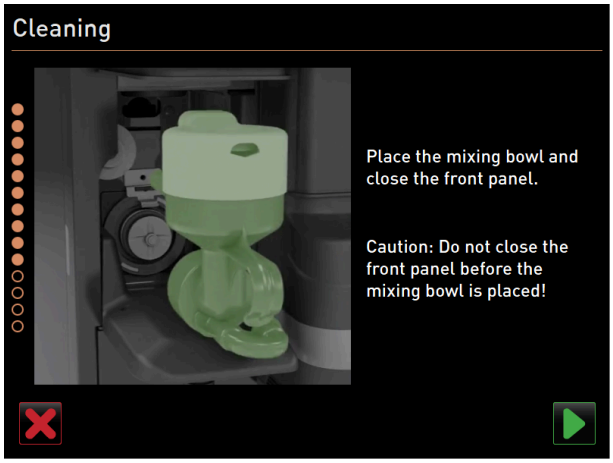



Figure: Inserting mixing cup

8. Reinsert the mixing cup.
9. Make sure the mixing cup is seated correctly.

**Caution** An incorrectly inserted mixing cup can cause flooding.

10. Close the user panel.
11. Confirm that the mixing cup has been cleaned and inserted with .
    ✓ The cleaning process starts.

**Progress display for automatic cleaning**

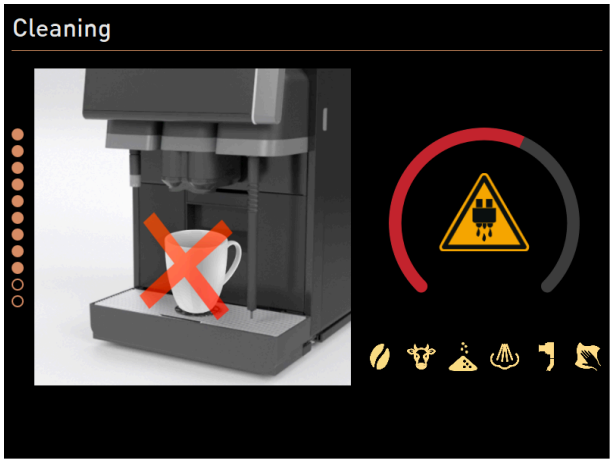



Figure: Progress display for cleaning

During cleaning, the display shows the following:

- The crossed-out cup icon symbolizes that no beverages are available at this moment.
- The progress arc indicates the completed and remaining cleaning process.
- A warning of hot escaping liquids is indicated by a warning symbol.
- The systems to be cleaned are highlighted with their icon.

**Removing Plug&Clean connection**


Figure: Removing milk hoses from **Plug&Clean** connections

1. Remove the adapter(s) of the milk hose from the respective **Plug&Clean** connection of the **ProCare** unit and wipe the adapter(s) with a damp cloth.

**Reinserting milk container**


Figure: Inserting milk container

1. Reinsert the cleaned milk container(s) into the cooling unit.
2. Reinsert the milk hose adapter into the cover of the respective milk container.
3. If needed, fill will fresh and pre-cooled milk (3 °C – 5 °C or 37.4 °F – 41 °F).
   **NOTE** Machine equipment options with **Twin Milk** contain 2 milk containers.
4. Confirm connection of the milk container(s) with .

**Completion of scheduled cleaning**


Figure: The milk system is switched on.

- ✓ The milk system is switched on.
- ✓ The systems are rinsed.
- ✓ The system is reset.
- ✓ The next scheduled cleaning in hours [**h**] is displayed in the Service menu.

1. Clean the drip grid under running water with a brush.
2. Reinsert the cleaned drip grid.
   - ✓ The machine is clean and ready for use.

## 8.6.2 Additional cleaning

Additional cleaning can be carried out at any time.

- Coffee system
- Milk system
- Powder system
- Boiler system
- Milk connection hose piece (Plug&Clean, when cleaning with ProCare)
- Manual cleaning (when cleaning with ProCare)


**Starting additional cleaning**

1. Tap on the **Additional cleaning** button.
   ✓ The screen with the available cleaning systems opens.

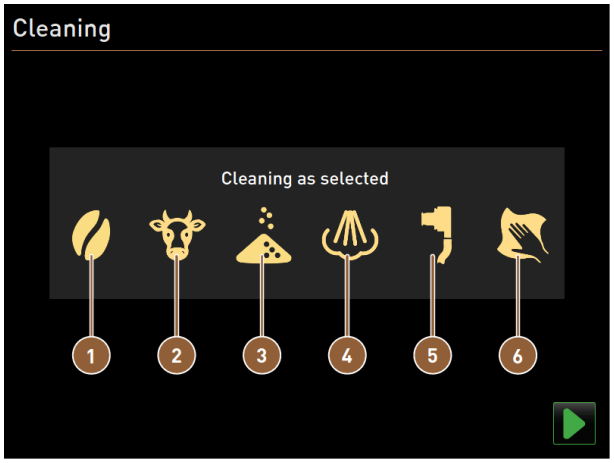



Figure: Dialog for additional cleaning with ProCare

1. Cleaning of coffee system
2. Cleaning of milk system
3. Cleaning of powder system
4. Cleaning of boiler system
5. Plug&Clean cleaning
6. Display-guided manual cleaning steps

2. Select the desired systems to be cleaned.
3. Confirm your selection with .
4. Follow the instructions on the machine screen.
   ✓ The selected systems are cleaned.

## 8.6.3 ProCare: Cleaning milk hose piece (Plug&Clean)

The milk hose piece (**Plug&Clean**) is cleaned at the end of the cleaning process.

You can start the **Plug&Clean** cleaning step manually at any time.

1. To do this, connect the milk hoses to the ProCare milk connection (**Plug&Clean**).
   ✓ The following dialog opens:

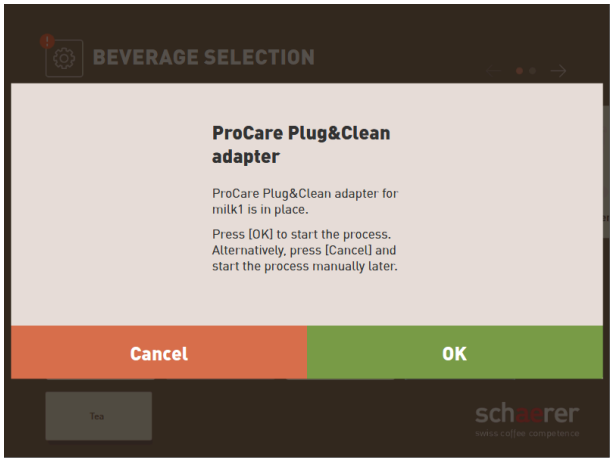



Figure: **Plug&Clean** dialog

2. Confirm cleaning on the screen with **OK**.


Figure: Removing milk hoses from **Plug&Clean** connections

3. When cleaning is complete, remove the adapter(s) of the milk hose from the respective **Plug&Clean** connection of the **ProCare** unit and wipe the adapter(s) with a damp cloth.


Figure: Inserting milk container

4. The dialog with the instruction to insert the milk container(s) appears.
5. Reinsert the cleaned milk container(s) into the cooling unit.
6. Reinsert the milk hose adapter into the cover of the respective milk container.
7. If needed, fill will fresh and pre-cooled milk (3 °C – 5 °C or 37.4 °F – 41 °F).
8. Confirm connection of the milk container(s) with .


Figure: The milk system is switched on.

✓ The **Switch on milk system** status screen appears.
✓ The system is reset.
✓ The machine is clean and ready for use.

## 8.6.4 Display-guided cleaning: Flavour Point (optional)

CAUTION

**Risk of scalding!**

There is a risk of scalding at the hot water dispensing points.
Before cleaning, hot water is dispensed into the cleaning container.

▶ Do not reach under the dispensing points when dispensing hot water.
▶ Position the cleaning container for cleaning in such a way that it cannot be knocked over.

Have the following utensils ready before the cleaning program:

- Cleaning container with four hose adapters
- Clean and damp cloth

Before cleaning, the cleaning container is filled with hot water via the beverage outlet or optionally via the separate hot water outlet.

**Starting cleaning sequence**

Cleaning can be started with the **Caretaker** or **Machine operator** profile or by a service technician.

▶ Tap on the **Service menu** button.
✓ The Service menu opens.

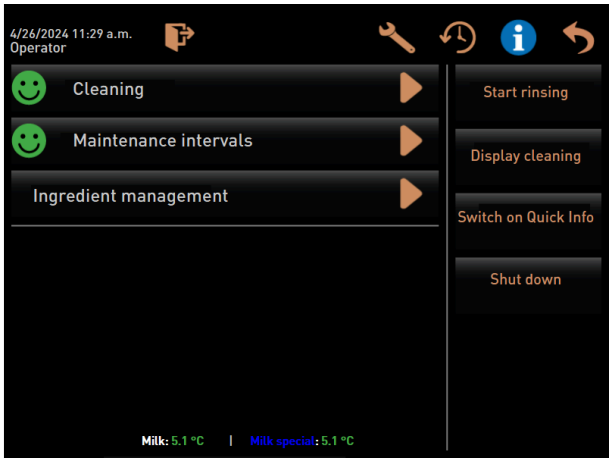



Figure: **Service menu** screen

1. Tap on the **Cleaning**. button.
   ✓ The screen for selecting a cleaning opens.

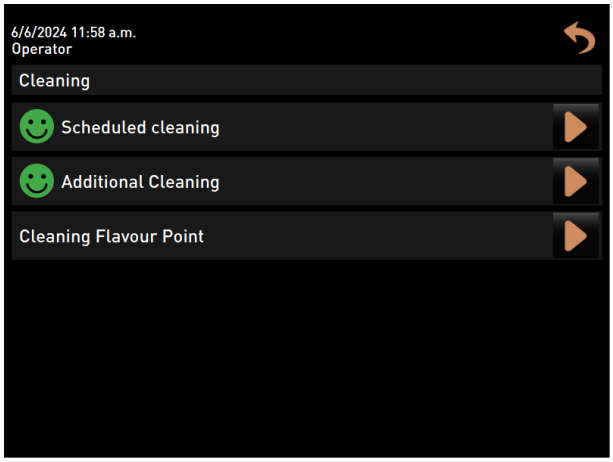



Figure: Screen with selection of cleaning types

2. Tap on the **Flavour Point cleaning** button.
   ✓ The **Flavour Point cleaning** dialog opens.


Figure: **Place cleaning container under the hot water outlet** dialog

✓ The **Place cleaning container under the beverage outlet** instruction is displayed.

3. Place the cleaning container under the hot water outlet or beverage outlet (for machines without a separate hot water outlet).
4. Use the ▶ button to proceed to the next step.

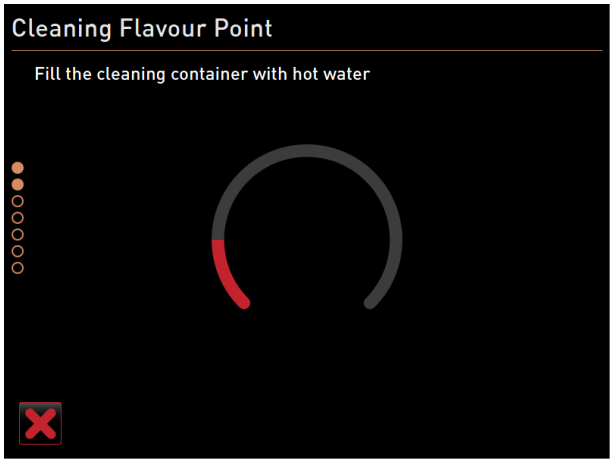



Figure: **Fill cleaning container with hot water** dialog

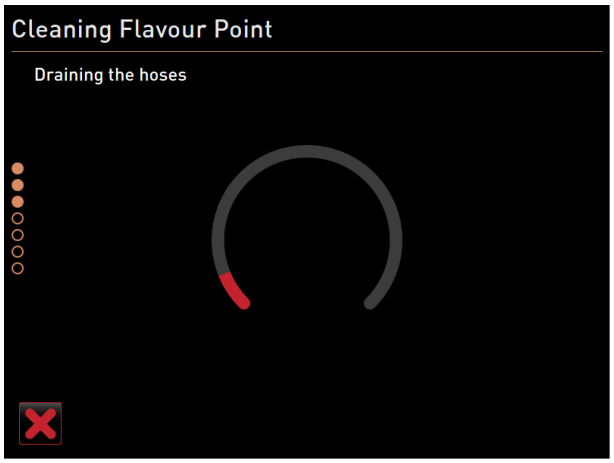



Figure: **Drain hoses** dialog

✓ The cleaning container is filled with hot water.

✓ The syrup hoses are then emptied automatically.

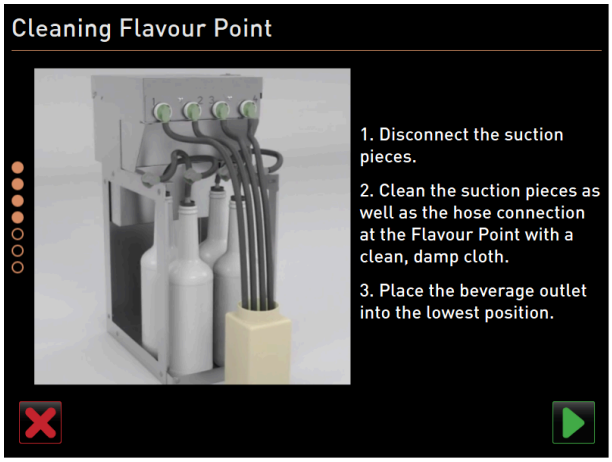



Figure: Connecting cleaning container to Flavour Point

**Connecting cleaning container to Flavour Point**

1. Remove the bayonet locks on the Flavour Point.
2. Clean the bayonet locks and connections on the Flavour Point with a clean, damp cloth.
3. Connect the hoses from the cleaning container to the Flavour Point.
4. Move the beverage outlet to the lowest position. For machines with an automatic beverage outlet, the lowest position is set automatically.
5. Start the cleaning process with the button.

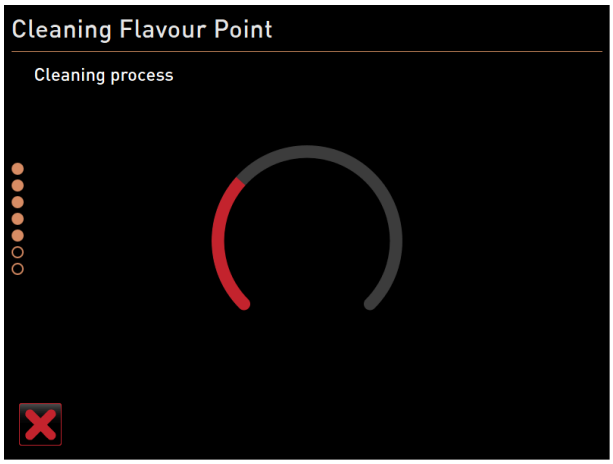



Figure: Flavour Point cleaning process is running.

**Cleaning process**

✓ The cleaning process starts.

✓ This step of the cleaning process takes approx. 5 to 10 mi.


Figure: Removing cleaning container

**Removing cleaning container**

1. Remove the cleaning container and cleaning hoses.
2. Reconnect the syrup bottles to the Flavour Point.
3. Confirm the connection of the syrup bottles with the button.

✓ The cleaning process switches to the **Refill flavor** mode.

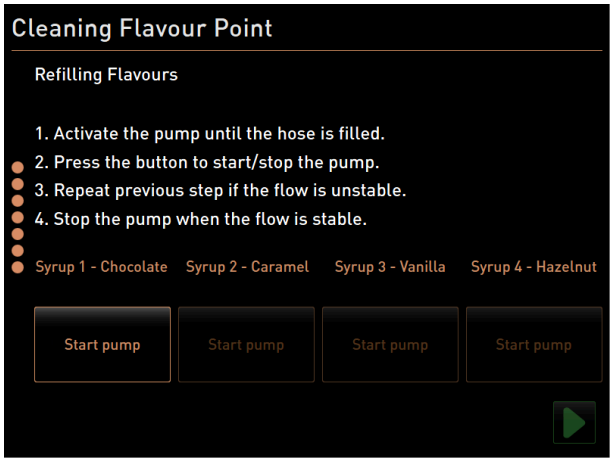



Figure: Filling of syrup hoses

**Filling syrup hoses**

1. Tap on the **Start pump** button for syrup 1.
   - ✓ Syrup hose 1 is filled.
   - ✓ The button label changes to **Stop pump**.
   - ✓ After a few seconds, the label changes back to **Start pump** and the button for the next pump is active.
2. Repeat the process with syrup 2 to 4.
   - ✓ All syrup hoses are filled again.
   - ✓ Flavour Point cleaning is now complete.
3. Close the cleaning process with the button.
   - ✓ The **Flavour Point cleaning** dialog closes.
   - ✓ The machine is restarted.
   - ✓ After restarting, the machine with the Flavour Point is ready for operation.

# 8.7 Cleaning schedule

## 8.7.1 Calling up cleaning schedule

A standard cleaning schedule is stored in the machine. The cleaning schedule can also be customized by service technicians.

▶ Tap on the **Service menu** button.
   - ✓ The Service menu opens.

1. Tap on the **Log-out** button and back on **Log-in**.
2. Log in as a service technician with the corresponding PIN.
3. Tap on the **Settings** button.
   - ✓ The **Settings** screen opens directly with the system settings.

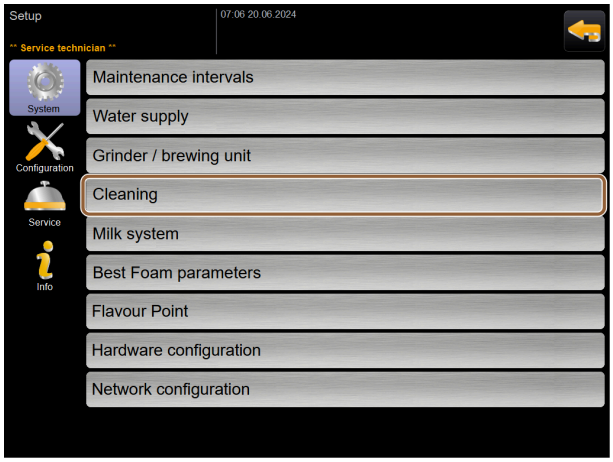



Figure: Call up of cleaning settings

4. Click on the **Cleaning** button.
   ✓ The screen with the cleaning settings appears.

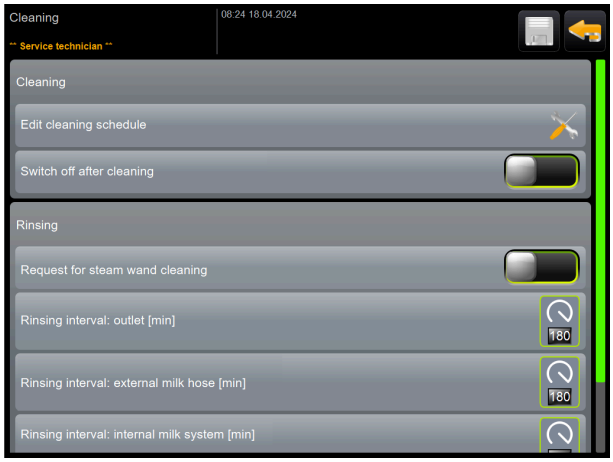



Figure: Screen with cleaning settings

5. Click on the **Edit cleaning schedule** button.
   ✓ The schedule for the cleaning tasks appears.

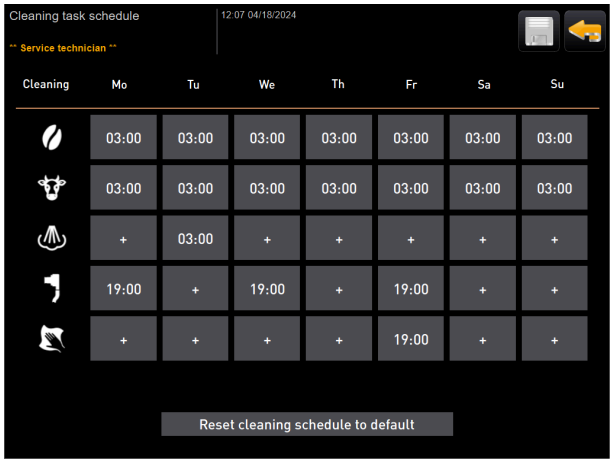



Figure: Schedule for cleaning tasks

## 8.7.2 Setting cleaning times

Standard times are predefined for the cleaning task schedule. If a customized cleaning schedule has been created, it can be reset to standard at any time. If an individually configured cleaning schedule has been reset to *Standard*, this cannot be undone.

Cleaning schedules are set for different systems on the **Cleaning schedule for cleaning tasks** screen (global settings).
Cleaning schedules can be set to daily or on different days of the week at different time intervals.

The following systems can be cleaned:

- Coffee system
- Milk system
- Powder system
- Boiler system
- Plug&Clean system (with ProCare)

**To add a cleaning task:**

1. In the table with the cleaning tasks, tap on the plus sign in the desired empty field.
   ✓ The dialog for adding a cleaning task opens.

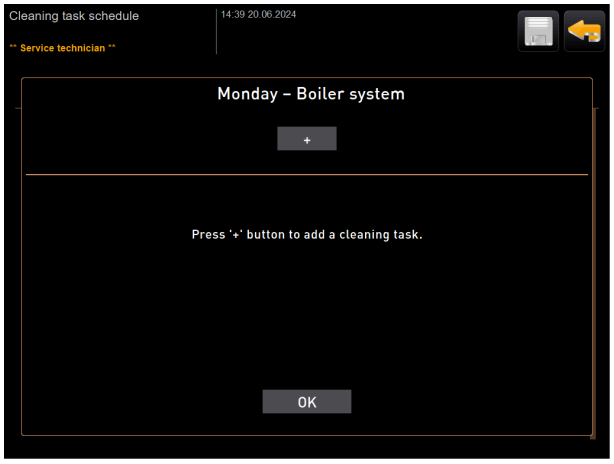



Figure: Dialog for adding a cleaning task

2. Tap on the plus sign and continue as described below.

To edit existing cleaning tasks:

▶ On the **Cleaning schedule for cleaning tasks** screen, select a system and the days of the week on which cleaning is to be carried out.
   ✓ The dialog with the settings appears.

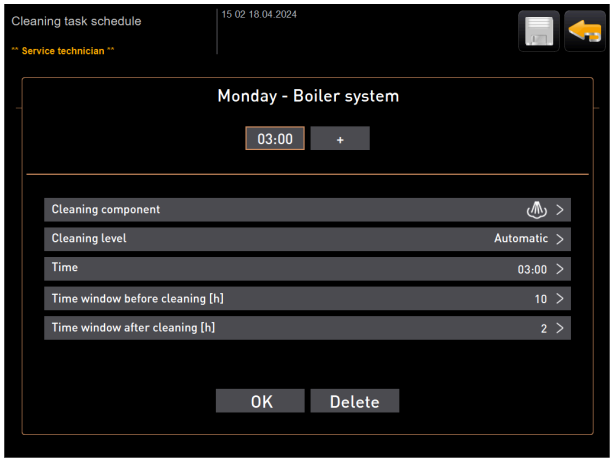



Figure: Schedule for cleaning tasks on the boiler system

**Setting cleaning stage**

1. Tap on the **Cleaning stage** line.
   Three cleaning stages are possible:
   - **Instruction**= The coffee machine is still ready for use.
   - **Forced** = The coffee machine is blocked.
   - **Automatic** = Cleaning starts automatically. (Only with ProCare)
2. Confirm the selection with the **OK** button.
   ✓ The cleaning stage is saved.

**Setting time**

You can define up to four times.

1. To do this, tap on the plus sign next to the time.
2. Tap on the **Time** line.
   ✓ The dialog with the settings appears.

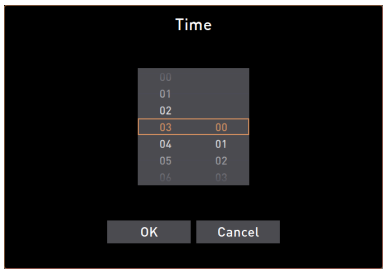



Figure: Selecting time for cleaning

3. Scroll to select the time.
4. Confirm the selection with the **OK** button.
   ✓ The selected time appears in the dialog.
5. Confirm the selection with the **OK** button.
   ✓ The time is saved.
6. Use the **Cancel** button to cancel the respective entry.

**Defining a time window before and after cleaning**

The **Time window before cleaning [h]** defines the time before a planned cleaning in which you can push forward this planned cleaning.

The **Time window after cleaning [h]** defines the time after a planned cleaning in which you can make up a cleaning before the machine is blocked (grace period).

1. Tap on the **Time window before cleaning [h]** or **Time window after cleaning [h]** line.
   ✓ The dialog for selecting the hours, similar to that for the time, is displayed.
2. Scroll to set the time window.
3. Proceed as when setting the time.
   ✓ The hours for the respective time window are displayed in the dialog.

The **Time window before cleaning (h)** and **Time window after cleaning (h)** can be used to postpone a scheduled cleaning cycle.

**Example:** A large number of customers are expected at the time of the planned cleaning. This can be avoided with the time window before and after cleaning.

## 8.8 Manual cleaning

Various components have to be cleaned manually.

### 8.8.1 Manual grounds container

CAUTION

**Health hazard due to mold growth in the grounds container!**

Coffee grounds in the grounds container can quickly lead to mold growth. If the mold spores spread into the machine, there is a health risk and a risk of contamination of the coffee.

▶ Clean the grounds container daily.

NOTE

**Property damage due to high temperatures!**

High temperatures can lead to damage.

▶ Do not clean the grounds container in the dishwasher.

**Cleaning interval: Daily**

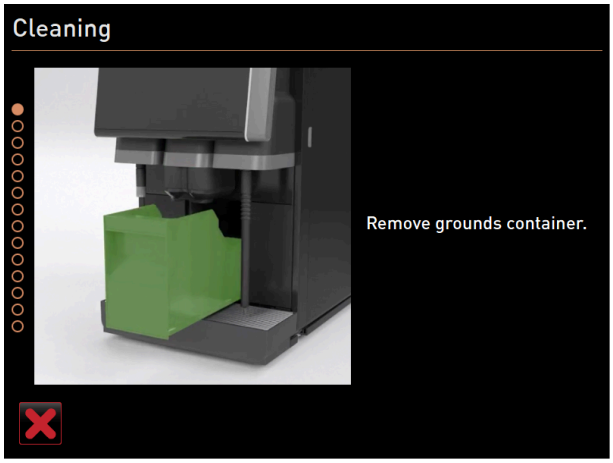



Figure: Removing grounds container

1. Push the beverage outlet upwards (manual beverage outlet).
2. Pull the grounds container out of the machine.
3. Empty the grounds container.
4. Clean the grounds container thoroughly with water and detergent.

5. Rinse out the grounds container with clean water.
6. Dry the grounds container with a clean cloth.
7. Reinsert the grounds container into the machine.
   ✓ The grounds container is emptied and cleaned.

## 8.8.2 Cleaning brewing chamber

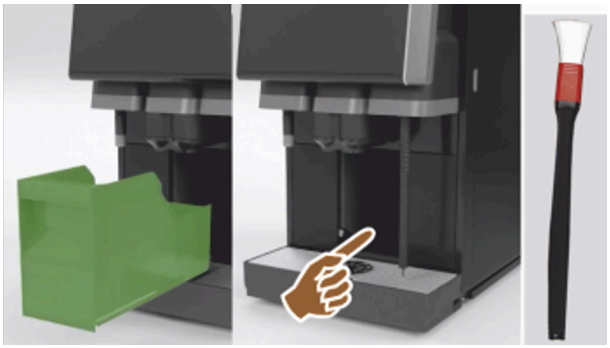


Figure: Cleaning brewing chamber

**Cleaning interval: Daily**

1. Push the beverage outlet upwards (with manual beverage outlet).
2. Pull the grounds container out of the machine.
3. Remove the ground coffee residue in the brewing chamber from the machine using the supplied cleaning brush.
4. Wipe the brewing chamber dry with a clean, moist cloth.
5. Reinsert the grounds container.
   ✓ The brewing chamber is cleaned.

## 8.8.3 Cleaning drip tray and drip grid

CAUTION

**Risk of scalding!**

Automatic rinsing guides hot water out of the beverage outlet.

- ▶ If cleaning is carried out without the display-guided cleaning program: Switch the machine off before removing the drip grid for cleaning.
- ▶ If cleaning is carried out without the display-guided cleaning program: Switch the machine off before cleaning the drip tray.

NOTE

**Danger of flooding!**

A clogged waste water outlet will cause the drip tray to overflow.

- ▶ Before descaling, check that the waste water outlet is flowing freely.

**Cleaning interval: Daily**

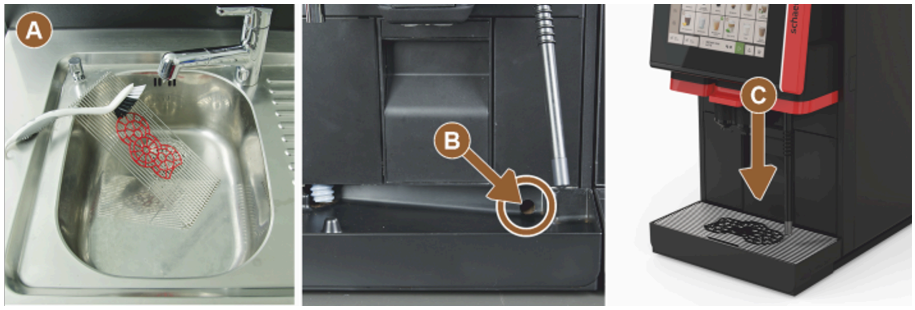



Figure: Cleaning drip tray and drip grid

1. Remove the drip grid with positioning grid **(A)** from the machine.
2. Clean the drip grid with the positioning grid thoroughly under running water and with dishwashing detergent.
3. Rinse the machine drip tray with clean water.
4. Check that the waste water outlet **(B)** is flowing freely.
5. Place the drip grid back into the drip tray and check that the drip tray is seated correctly.
6. Check that the positioning grid **(C)** is placed correctly opposite the beverage outlet.
   ✓ The drip tray and drip grid are clean.

## 8.8.4 Cleaning milk container

WARNING

**Risk of infection!**

There is a risk of infection due to contamination, milk deposits and bacteria.
- ▶ Clean the milk container and cover before each filling.
- ▶ Wear protective gloves while cleaning.

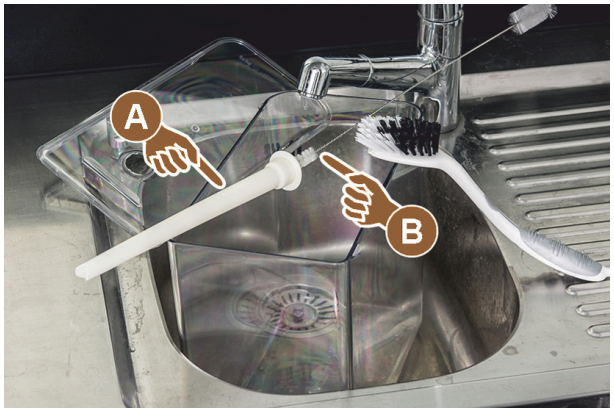



Figure: Cleaning milk container

**Cleaning interval: Daily**

1. Remove the milk container from the cooling unit.
2. Dispose of the remaining milk from the milk container.
   Observe the detailed cleaning instructions in the separate operating instructions for the **optional accessories**.
3. Clean the milk container with fresh water, dishwasher detergent and a clean, unused cloth.
4. Clean the riser pipe **(A)** with the supplied brush **(B)**.
5. Reinsert the milk container into the cooling unit.
   ✓ The milk container is cleaned.

### 8.8.5 Cleaning cooling unit (optional)

Figure: Cleaning cooling unit

**Cleaning interval: Daily**

1. Remove the milk container from the cooling unit.
2. Wipe the inside of the cooling unit with fresh water and a fresh, unused cloth.
3. Reinsert the milk container into the cooling unit.

✓ The cooling unit is cleaned.

### 8.8.6 Defrosting cooling unit (optional)

NOTE

**Property damage due to sharp-edged objects**

The surface of the interior of the refrigerator can be damaged.

▶ Never use pointed or sharp objects to remove layers of ice.

▶ Always allow layers of ice to defrost.

Figure: Defrost cooling unit

1. Switch off the side cooling unit or pull out the power plug.
2. Open the front door and leave it open.
3. Wipe up any condensation with an absorbent cloth.
4. Wait until the layer of ice has completely defrosted.
5. Close the front door and switch the device back on or reconnect the power plug.

See 7.2 "Switching on"

### 8.8.7 Cleaning touch screen

CAUTION

**Risk of scalding!**

Unintentional beverage dispensing during cleaning can cause scalding.

▶ Deactivate the touch screen in the Service menu before cleaning or switch off the machine.

NOTE

**Damage to the touch screen during the cleaning process**

Improper cleaning can scratch or otherwise damage the surface of the touch screen.

▶ Do not use abrasive cleaners.

▶ Never press on the display with force, strong pressure or sharp objects.

**Cleaning interval: Daily**

▶ Tap on the **Service menu** button.

✓ The Service menu opens.

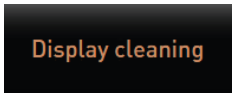



Figure: **Touch screen cleaning** button

1. Tap on the **Touch screen cleaning** button.
   ✓ The touch screen is deactivated for 30 s and no longer reacts to touch.
   ✓ A countdown appears.
2. Clean the touch screen with a paper towel and commercially available glass cleaner during the available 30 seconds.
   ✓ After the countdown has elapsed, the touch screen becomes active again.
   ✓ The touch screen is cleaned.

## 8.8.8 Cleaning steam wand (optional)

WARNING

**Risk of infection!**

There is a risk of infection due to contamination, deposits and bacteria on the steam wand.
▶ Wipe the steam wand with a clean, damp cloth after each use.
▶ Wear protective gloves while cleaning.


Figure: Cleaning steam wand

1. Press the steam dispensing button **(A)** several times to remove milk residue from the steam wand.
2. Wipe off the milk residue on the steam wand with a clean, damp cloth.

The position of the optional button **(A)** for steam dispensing depends on the selected user interface.

## 8.8.9 Cleaning external drinking water tank

DANGER

**Risk of poisoning from cleaning products!**

Residues of cleaning products in the drinking water tank can cause poisoning.
▶ Never add cleaning products to the drinking water tank.

WARNING

**Risk of infection due to bacteria!**

There is a risk of infection due to contamination, deposits and bacteria. Contamination can lead to health problems.
▶ Wear protective gloves while cleaning.

Figure: External drinking water tank

**Cleaning interval: Daily**

1. Unscrew the cover of the external drinking water tank.
2. Pull the machine drinking water hose out of the external drinking water tank and the cover.
3. Place the end of the drinking water hose on a clean cloth.
4. Rinse the external drinking water tank thoroughly with fresh water multiple times. Do not use cleaning products.
5. Clean the cover of the external drinking water tank with fresh water and dry it with a clean cloth.
6. Fill the external drinking water tank with fresh water.
7. Check that the floater moves freely (fill level monitoring).
8. Lead the water hose back through the cover and into the external drinking water tank.
9. Close the external drinking water tank with the cover.

✓ The external drinking water tank is cleaned.

## 8.8.10 Cleaning external waste water tank

WARNING

**Risk of infection due to bacteria!**

There is a risk of infection due to contamination, deposits and bacteria. Contamination can lead to health problems.

▶ Wear protective gloves while cleaning.

Figure: External waste water tank

**Cleaning interval: Daily**

1. Unscrew the cover of the waste water tank.
2. Pull the machine waste water hose out of the waste water tank and the cover.
3. Place the end of the waste water hose on a clean cloth.

4. Rinse the external waste water tank thoroughly multiple times with fresh water. Do not use cleaning products.
5. Clean the cover of the waste water tank thoroughly with fresh water.
6. Dry the cover of the waste water tank with a clean cloth.
7. Check that the floater moves freely (fill level monitoring).
8. Guide the waste water hose back into the waste water tank through the cover.
9. Close the waste water tank with the cover.
   ✓ The external waste water tank is cleaned.

## 8.8.11 Cleaning optional accessories

The care and cleaning of the optional accessories is described in the separate operating instructions 020888.

## 8.8.12 Cleaning bean hoppers

CAUTION

**Risk of injury due to rotating grinding disks!**

There is a risk of cutting injuries due to rotating grinding disks in the grinder.
- ▶ Never reach into the bean hopper when the machine is switched on.
- ▶ Wear gloves when cleaning.

NOTE

**Damage to the machine surface!**

The machine surface can be scratched by abrasive cleaners.
- ▶ Do not use abrasive cleaners when cleaning.

**Cleaning interval: Weekly**

▶ Tap on the **Service menu** button.
   ✓ The Service menu opens.


Figure: **Switch-off** button

1. Tap on the **Switch-off** button.
   ✓ The machine is in Standby mode.

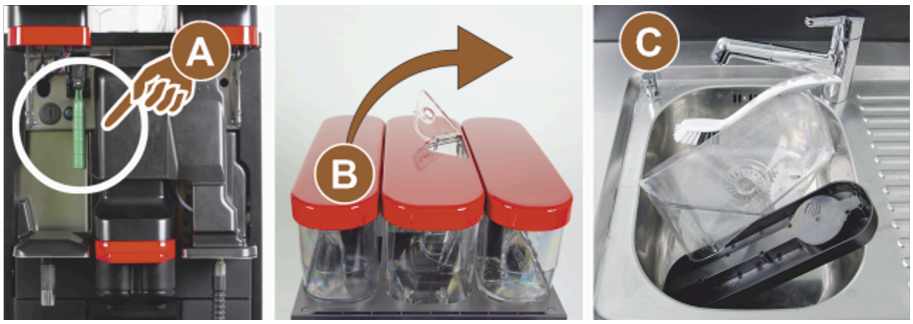



Figure: Cleaning bean hoppers

2. Unlock the bean hoppers with the central locking mechanism behind the user panel **(A)**.

See 4.3.2 "Operating elements in the machine"

3. Lift the bean hoppers out of the machine **(B)**.
4. Remove the remaining coffee beans from the machine and the bean hoppers.
5. Rinse the bean hoppers thoroughly under running water **(C)**.
6. Wipe the bean hoppers and cover dry with a clean cloth.
7. Put the bean containers back into the machine.
8. Lock the bean hoppers with the central locking mechanism.
9. Fill the bean hoppers and put on the covers, close the closing device for the cover if present.
   ✓ The bean hoppers are clean.

### 8.8.13 Cleaning lower beverage outlet part

CAUTION

**Risk of scalding!**

Automatic rinsing guides hot water out of the beverage outlet.

- ▶ If cleaning is carried out without the display-guided cleaning program: Switch the machine off before removing the drip grid for cleaning.
- ▶ If cleaning is carried out without the display-guided cleaning program: Switch the machine off before cleaning the drip tray.

If you carry out this cleaning step outside of the display-guided cleaning program:

▶ Tap on the **Service menu** button.
   ✓ The Service menu opens.


Figure: **Switch-off** button

1. Tap on the **Switch-off** button.
   ✓ The machine is in Standby mode.

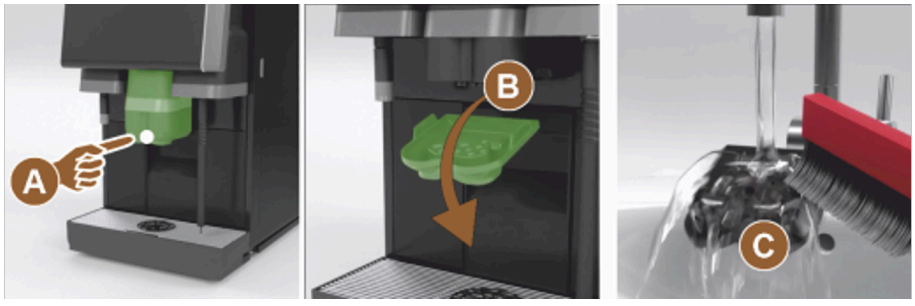



Figure: Beverage outlet bottom cover removal

1. Remove the cover of the beverage outlet at the front **(A)** by releasing it (push and pull downwards).
2. Clean the beverage outlet **(B)** with a brush and water.
3. Clean the lower beverage outlet **(C)** under running water and a brush.
4. Mount the cover to the beverage outlet by inserting it into the rear and clipping it into place at the front.
   ✓ The lower part of the beverage outlet is cleaned.

**These steps only apply to cleaning outside of the display-guided cleaning program:**

1. Unlock the user panel and slide it upwards.
2. Switch the machine on.
3. Close the user panel by lifting it slightly until it disengages and pressing it down until it engages.

## 8.8.14 Cleaning powder container (optional)

The powder system can be equipped with a standard powder container for one powder or with a Twin powder container for two powders.

The design of the powder containers differs. The assembly and disassembly steps differ slightly.

**Cleaning interval: As needed**

Preparation

1. Switch the machine off.
   See 7.10 "Switching off"
2. Unlock the powder container using the central locking mechanism behind the user panel.
3. Lift the powder container out of the machine.
4. Remove the cover by opening the closing device, if present.
5. Remove any remaining powder.
6. Dismantle the powder container according to the following instructions.

NOTE

**Damage to the powder container**

Powder containers can be scratched by abrasive cleaners.
▶ Do not use abrasive cleaners when cleaning.

**Cleaning powder container**

1. Rinse the powder container and individual parts of the dosing mechanism thoroughly under running water.
2. Allow all parts to dry thoroughly before reassembling.

### 8.8.14.1 Dismantling standard powder container

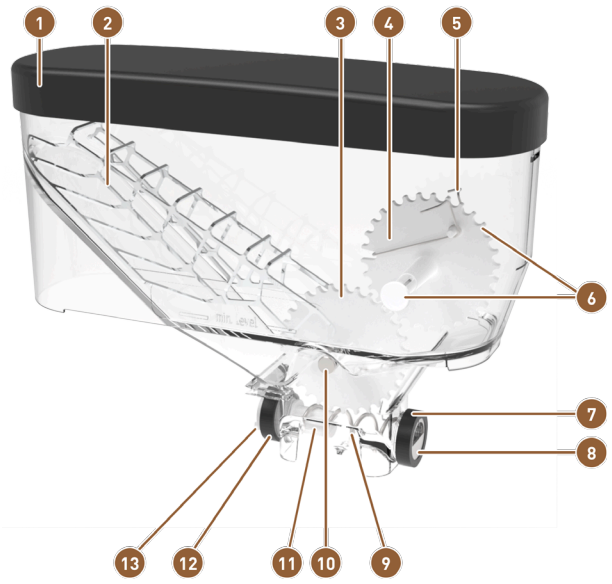



Figure: Parts of the standard powder container (2 kg)

1. Cover
2. Powder scoop
3. Lower toothed wheel
4. Upper toothed wheel
5. Powder loosening unit
6. Locking for upper toothed wheel (rear axis not visible)
7. Cap nut for outlet orifice
8. Outlet orifice
9. Dosing screw
10. Axis for lower toothed wheel
11. Dosing screw holder
12. Cap nut for drive
13. Driver for drive

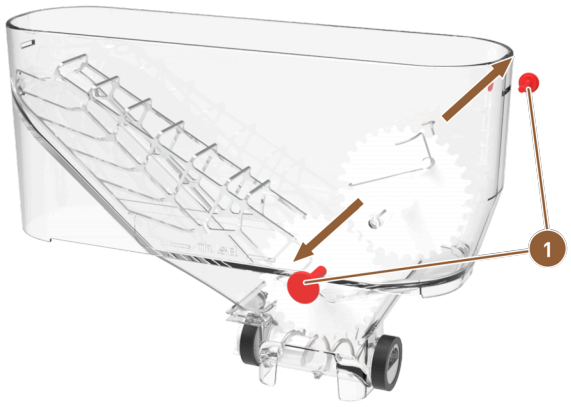



Figure: Standard powder container: Removing locking pin

1. Locking pin for upper toothed wheel

1. Pull out the two locking pins **(1)** on the right and left for the upper toothed wheel.
   ✓ The toothed wheel with the spring for loosening powder is free.


Figure: Standard powder container: Removing powder loosening unit

1 Upper toothed wheel for loosening powder
2 Spring for loosening powder

2. Lift the toothed wheel **(1)** out of the powder container with the powder loosening spring **(2)**.
3. Pull the eyelets of the spring apart slightly and remove the spring from the bracket on the toothed wheel.
   ✓ Toothed wheel and spring are separated.

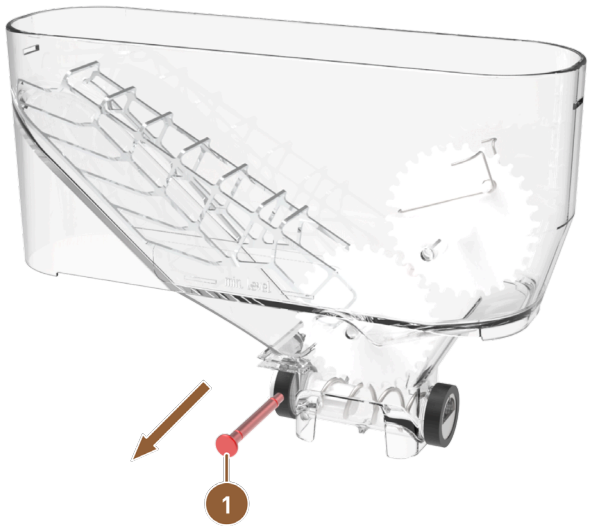



Figure: Standard powder container: Removing lower axis

1 Axis for lower toothed wheel

4. Press the axle **(1)** for the lower toothed wheel out of the powder container.
   ✓ The lower toothed wheel with the powder scoop is free.

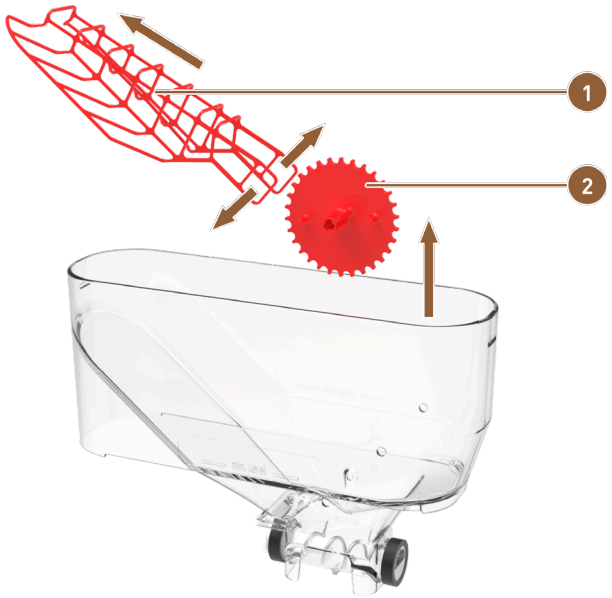



Figure: Standard powder container: Removing powder scoop

1 Powder scoop

2 Lower toothed wheel for powder scoop

5. Lift the toothed wheel **(2)** out of the powder container with the powder scoop **(1)**.
6. Pull the eyelets of the powder scoop apart slightly and remove the powder scoop from the axle bearing of the toothed wheel.
   ✓ Toothed wheel and powder scoop are separate.

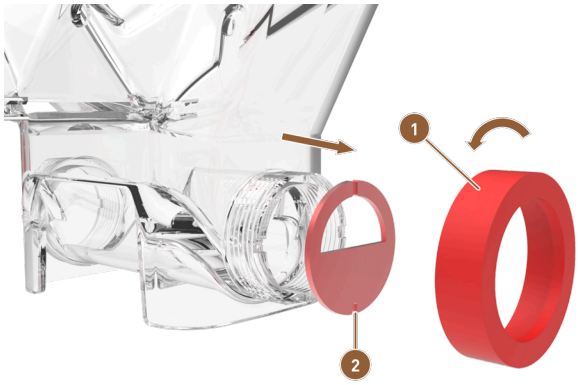



Figure: Standard powder container: Removing dosing elements

1 Cap nut for outlet orifice

2 Outlet orifice

7. Loosen the cap nut (**1**) by turning it counterclockwise and then pull it off.
8. Remove the outlet orifice **(2)** from the powder container.
   ✓ The dosing elements are removed.

**NOTE** When reassembling, make sure that the dosing plate is correctly aligned and seated correctly in the lugs on the dispensing side.

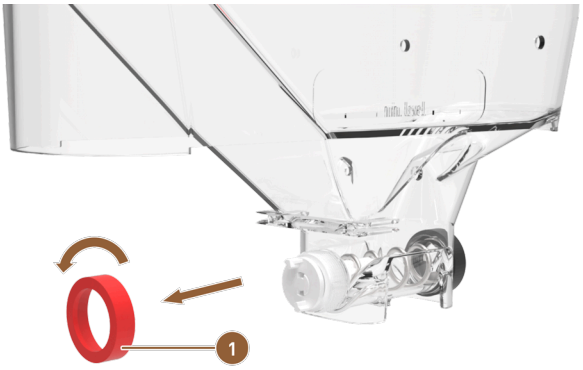



Figure: Standard powder container: Removing cap nut on feed side

1 Cap nut on feed side

9. Loosen the cap nut (**1**) by turning it counterclockwise and then pull it off.
   ✓ The feed unit can be removed.


Figure: Standard powder container: Removing feed unit

1 Feed unit with dosing screw and drive

10. Pull the feed unit **(1)** out of the powder container.
    ✓ The powder container housing is empty.

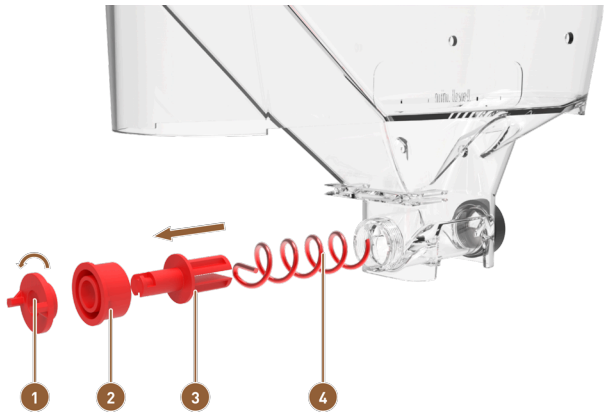



Figure: Standard powder container: Dismantling feed unit

1 Driver
2 Drive flange
3 Screw holder
4 Dosing screw

11. Turn the driver **(1)** 90° to the left and pull it off the drive flange **(2)**.
12. Pull the drive flange **(2)** off the screw holder **(3)**.
13. Pull the dosing screw **(4)** off the screw holder **(3)**.
    ✓ The entire powder container is disassembled and can be cleaned.

8.8.14.2 Dismantling Twin powder container

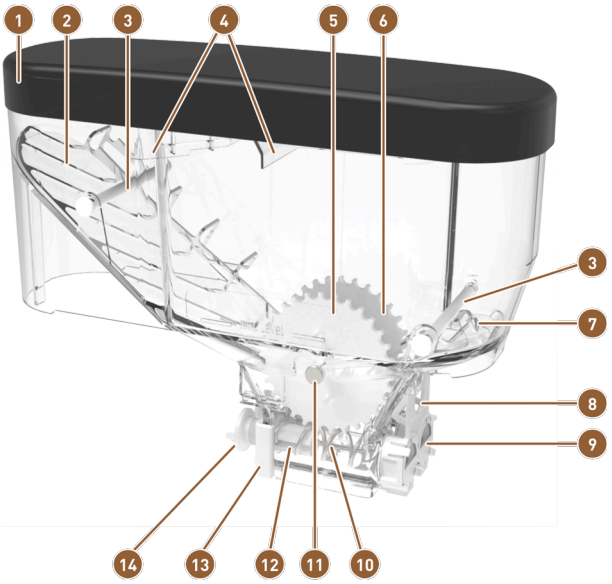



Figure: Parts of the Twin powder container (2x 1 kg)

1. Cover
2. Powder scoop
3. Crossbar or bolt
4. Power filling aid
5. Toothed wheel for powder 1
6. Toothed wheel for powder 2
7. Powder loosening unit
8. Restrictor for Twin powder container
9. Powder container outlet orifice
10. Twin dosing screw
11. Toothed wheel axis
12. Dosing screw holder
13. Drive holder for dosing screws
14. Driver for drive

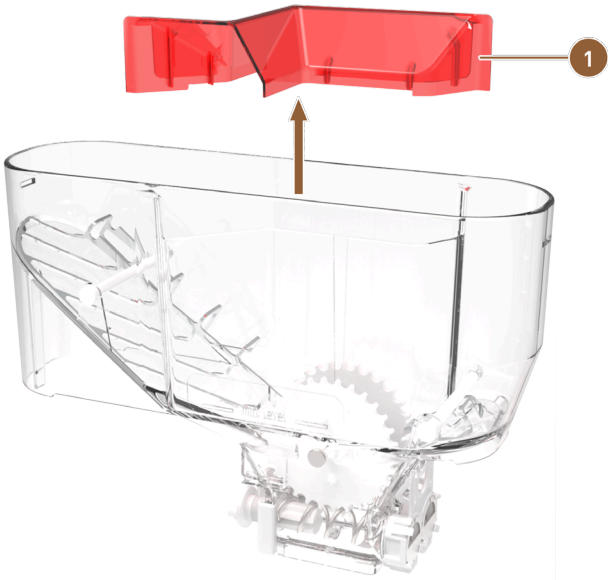



Figure: Twin powder container

1 Filling aid for separating powder

1. Remove the filling aid **(1)** upwards from the powder container.

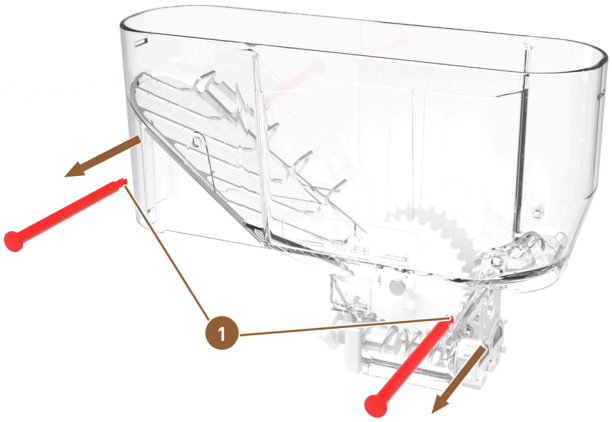



Figure: Twin powder container: Removing crossbars

1 Crossbars with locking lugs

2. Press the locking lugs of the crossbars **(1)** together and push both crossbars out of the powder container.
   ✓ The powder scoops are accessible.

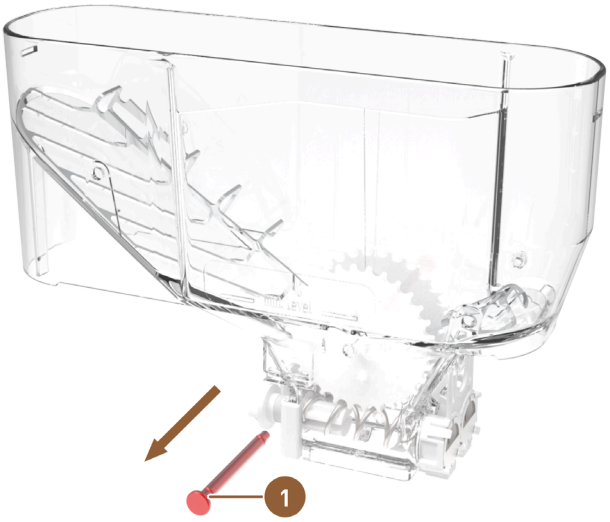



Figure: Twin powder container: Removing toothed wheel axis

1 Axis for both toothed wheels

3. Press the common axle **(1)** for both toothed wheels out of the powder container.
   ✓ The lower gear wheels with the powder scoops are free.

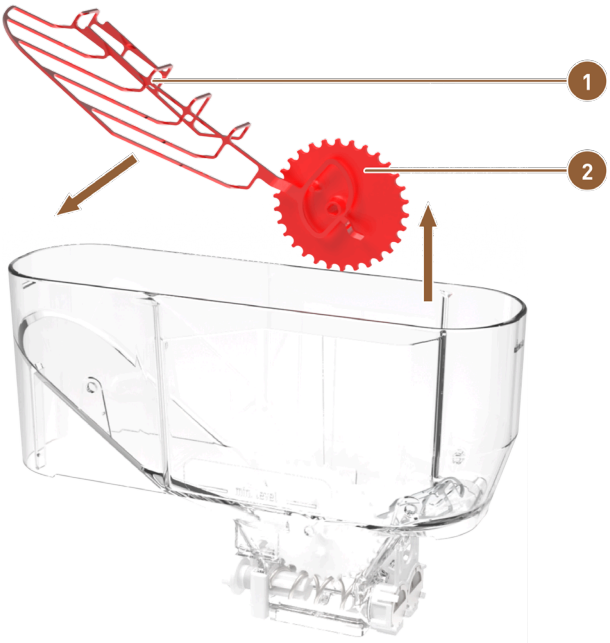



Figure: Twin powder container: Removing powder scoop

1 Powder scoop

2 Right toothed wheel for powder scoop

4. Lift the right toothed wheel **(2)** out of the powder container with the powder scoop **(1)**.
5. Remove the powder scoop from the axle of the toothed wheel.
   ✓ Toothed wheel and powder scoop are separate.


Figure: Twin powder container: Removing powder loosening unit

1 Left toothed wheel for loosening powder
2 Metal grid for loosening powder

6. Lift the left toothed wheel **(1)** out of the powder container with the short metal grid for loosening powder **(2)**.
7. Remove the metal grid for loosening power from the axle of the toothed wheel.
   ✓ Toothed wheel and metal grid are separated.

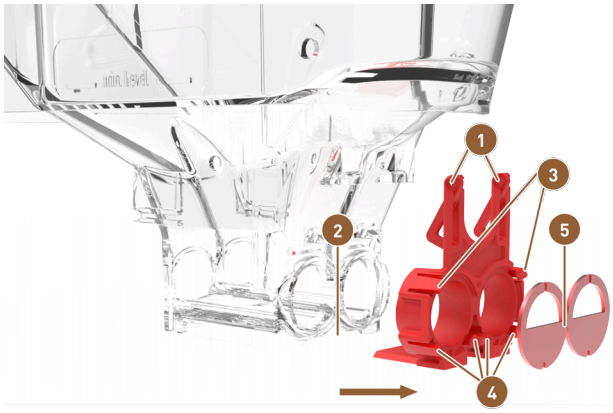



Figure: Twin powder container: Removing dosing elements

1 Restrictor with eyelets
2 Guide groove on powder container
3 Upper locking lugs for outlet orifice
4 Lower locking lugs for outlet orifice
5 Outlet orifice

8. Press the eyelets of the dosing unit **(1)** apart and pull them off the powder container.
9. Pull the dosing unit horizontally out of the guide groove **(2)** on the powder container.
   ✓ The entire dosing unit is detached from the powder container.
10. Press the upper locking lugs **(3)** away from the outlet orifice **(5)**.
11. Press the lower locking lugs **(4)** away from the outlet orifice and remove the outlet orifice.
    ✓ The dosing unit is separated from the powder hopper and disassembled.

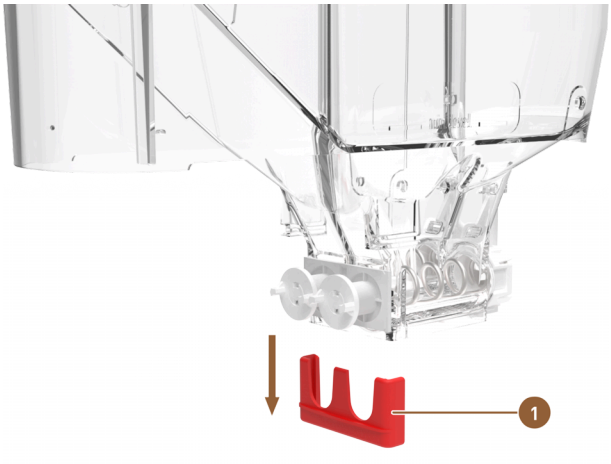



Figure: Twin powder container: Removing drive holder

1 Bracket for the feed unit

12. Press the bracket for the feed unit **(1)** downwards from the powder container.
13. The feed unit can be removed.


Figure: Twin powder container: Removing feed unit

1 Feed unit with dosing screws and drives

14. Pull the feed unit **(1)** out of the powder container.
    ✓ The powder container housing is empty.

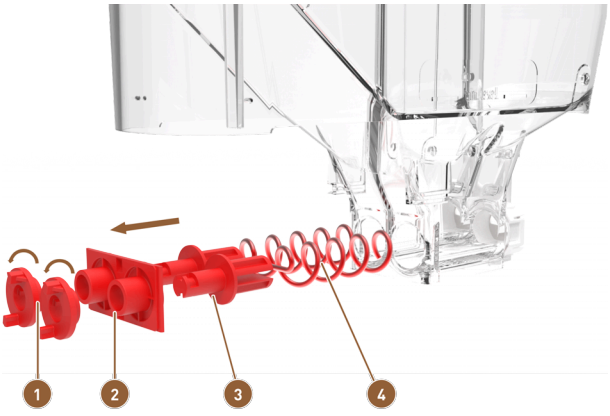



Figure: Twin powder container: Dismantling feed unit

1 Driver
2 Drive flange
3 Dosing screw holder
4 Dosing screw

15. Turn both drivers **(1)** 90° to the left and pull them off the drive flange **(2)**.
16. Pull the drive flange **(2)** off the dosing screw holders **(3)**.
17. Pull the dosing screws **(4)** off the dosing screw holders **(3)**.
    ✓ The entire powder container is disassembled and can be cleaned.

8.8.14.3 Assembling powder hopper

1. Reassemble the powder hopper in reverse order.
2. Put the powder container in the machine.
3. Replace the cover and close the closing device, if present.
4. Lock the powder container using the central locking mechanism behind the user panel.
    ✓ The powder container is cleaned and reinserted into the machine.

## 8.8.15 Cleaning outer surfaces

NOTE

**Damage to the machine surface!**

The machine surface can be scratched by abrasive cleaners.
▶ Do not use abrasive cleaners when cleaning.

▶ Tap on the **Service menu** button.
    ✓ The Service menu opens.


Figure: **Switch-off** button

1. Tap on the **Switch-off** button.
    ✓ The machine is in Standby mode.
2. Wipe the outer surfaces of the machine and the accessories with a clean, damp cloth.
3. Unlock the user panel and slide it upwards until it engages.
4. Switch the machine back on using the switch-on button.
5. Slightly lift the user panel and slide it back downwards until it engages.
    ✓ The machine is switched on and ready for use.

See 8.8.7 "Cleaning touch screen"

# 9 Maintenance

Maintenance is divided into the following categories:

- **Maintenance work**: The operator must not carry out maintenance work on his/her own. If maintenance work is pending, the service partner must be informed, who will then carry out the maintenance work.
- **Descaling with mains water supply**: Descaling can be carried out independently by the operator. The ProCare unit is used for descaling.

## 9.1 Maintenance work

The machine requires regular maintenance. The time of maintenance depends on various factors, but mostly on the utilization of the machine and the service life of the safety valves.

As soon as the time for maintenance is reached, the machine indicates this on the display. The machine can continue to operate normally.

### 9.1.1 Maintenance intervals

NOTE

**Property damage due to maintenance intervals not upheld!**

Postponed maintenance can lead to premature wear.
▶ Have pending maintenance work carried out by service partners as soon as possible.

The maintenance intervals are defined in the separate maintenance regulations.

| Safety-relevant components | 24 months | 48 months | 72 months |
|---|---|---|---|
| Hot water boiler | Check (only replace if needed) | (Replace) | Check (only replace if needed) |
| Steam boiler | Check (only replace if needed) | (Replace) | Check (only replace if needed) |
| Safety valve 12 bar | (Replace) | (Replace) | (Replace) |
| Safety valve 5 bar | (Replace) | (Replace) | (Replace) |

**Prerequisites for maintenance:**

1. If maintenance is due, contact the service partner.
2. Carry out all descaling intervals according to the instructions displayed by the machine.
3. Carry out descaling one day before maintenance work.

See 9.2 "Descaling"

### 9.1.2 Performing maintenance and resetting counter

The **maintenance interval** function is PIN-protected (caretaker, machine operator, service technician).

▶ Tap on the **Service menu** button.
✓ The Service menu opens.

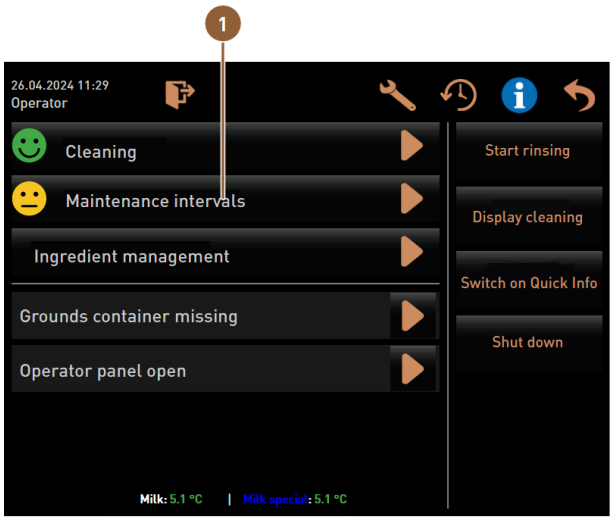



Figure: Call up of maintenance intervals

The **Maintenance intervals (1)** button shows the maintenance status of the machine with a smiley.

- Green smiley: The machine does not have to undergo maintenance.
- Yellow smiley: The machine has to undergo maintenance soon.
- Red smiley: The machine has to undergo maintenance.

1. Tap on the **Maintenance intervals** button in the Service menu.
   ✓ The **Maintenance intervals** screen opens.

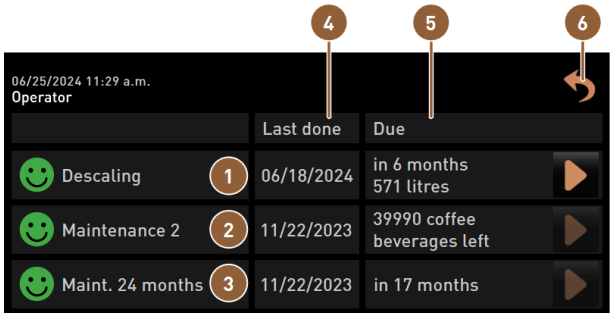



Figure: **Maintenance intervals** screen

| | | | |
|---|---|---|---|
| 1 | Descaling | 4 | Last maintenance performed |
| 2 | Maintenance 2 by service technician | 5 | Maintenance due |
| 3 | 24-month maintenance by service technician | 6 | **Back** button |

The ▶ button is used to start the pending **descaling (1)** process.

The ▶ button displays a query for **maintenance 2 (2)** and **24-month maintenance (3)**. The machine must undergo maintenance by a service partner in accordance with the separate maintenance regulations. Once maintenance has been completed, the query can be confirmed. The counter is reset.

In the **Last (4)** column, the date on which the corresponding maintenance work was last carried out is displayed.

The **Due (5)** column shows the time after how many months, beverages or liters the next maintenance work has to be carried out.

The **Back (6)** button takes you back to the Service menu.

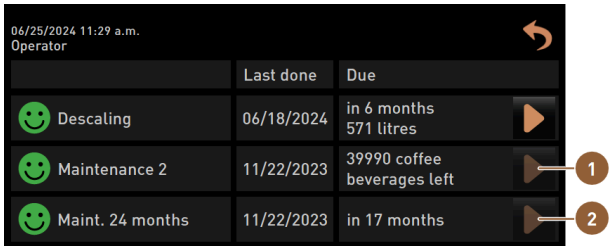



Figure: Confirming maintenance

**Performing and confirming maintenance**

2. Have the pending maintenance work carried out by a service technician.
3. Then tap on the displayed maintenance task **(1)** or **(2)** to confirm it.
   ✓ The dialog for the corresponding maintenance tasks opens.

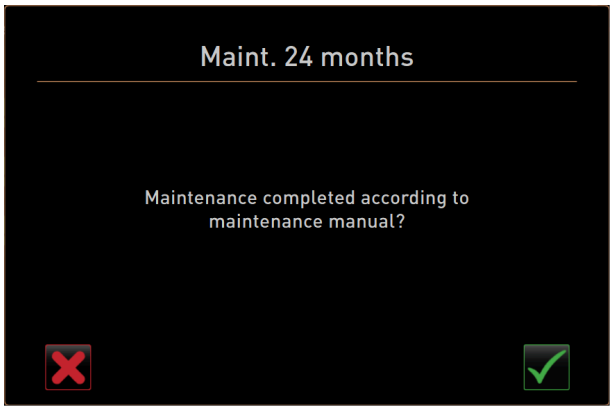



Figure: Confirmation dialog for completed maintenance work (example)

4. Make sure that maintenance has been carried out and completed in accordance with the maintenance concept and maintenance checklist.
5. Confirm the query with ☑.
   ✓ The maintenance work is displayed as completed on the **Maintenance intervals** screen (green smiley).
   ✓ The date in the **Last** column changes to the current date.
   ✓ The date in the **Due** column updates based on the set intervals.

## 9.1.3 Replacing external water filter (optional)

The external water filter must be replaced by an authorized service partner/service technician once the programmed number of liters has been reached.

The **Supplementary Instructions for Water Quality** contain information on recording water values and the use of filter techniques. The supplementary instructions can be requested from Schaerer AG or downloaded directly from the website (http://www.schaerer.com/member) from the Media Pool.

## 9.2 Descaling

WARNING

**Risk of acid burns!**

Acid escapes during the descaling process. Risk of skin irritation and severe eye irritation

- ▶ Do not touch the descaling product with bare hands and read the enclosed safety data sheet.
- ▶ Do not remove the decalcification cartridge during the descaling process. Wait for the instruction on the display.

CAUTION

**Risk of scalding due to hot water!**

Hot water escapes from the hot water outlet and beverage outlet during descaling. This creates a risk of scalding.

- ▶ Move the beverage outlet to the lowest dispensing position.
- ▶ Do not reach under the hot water outlet during the descaling process.

CAUTION

**Risk of scalding from hot steam!**

The steam wand emits hot steam during cleaning and descaling. There is a risk of scalding.

- ▶ Direct the outlet of the steam wand into the drip tray.
- ▶ Do not reach under the steam wand during the cleaning and descaling process.

**Duration of descaling**

A descaling process takes at least **85 minutes**. The machine is not ready for use during this time.

- ▶ Inform others in good time that the machine will not be ready for use.

**Canceled descaling**

The machine can only be ready for operation if the descaling process has been completed correctly.

A descaling process that has not been fully and correctly completed must be repeated.

**Preparation: Checking waste water outlet**

NOTE

**Danger of flooding!**

A clogged waste water outlet will cause the drip tray to overflow.

- ▶ Before descaling, check that the waste water outlet is flowing freely.

The following utensils are required to check the waste water outlet:

- 1 l water
- Clock with second hand

1. Remove the drip grid from the drip tray.
2. Fill 1 l of water into the drip tray and check the timer at the same time.
   - ✓ If the waste water outlet is clear, 1 l of water will drain completely within 30 s.

If 1 l of water does not flow out in the required time of 30 s, the waste water outlet is blocked. Descaling must not be carried out. The waste water outlet must first be repaired by a service technician.

### 9.2.1 Decalcifying with ProCare

NOTE

**ProCare cleaning system**

Detailed information on this topic can be found in the **ProCare** operating instructions.

# 10 Programming

## 10.1 Navigation elements

▶ Tap on the **Service menu** ⚙ button.
✓ The Service menu opens.

**User interfaces**

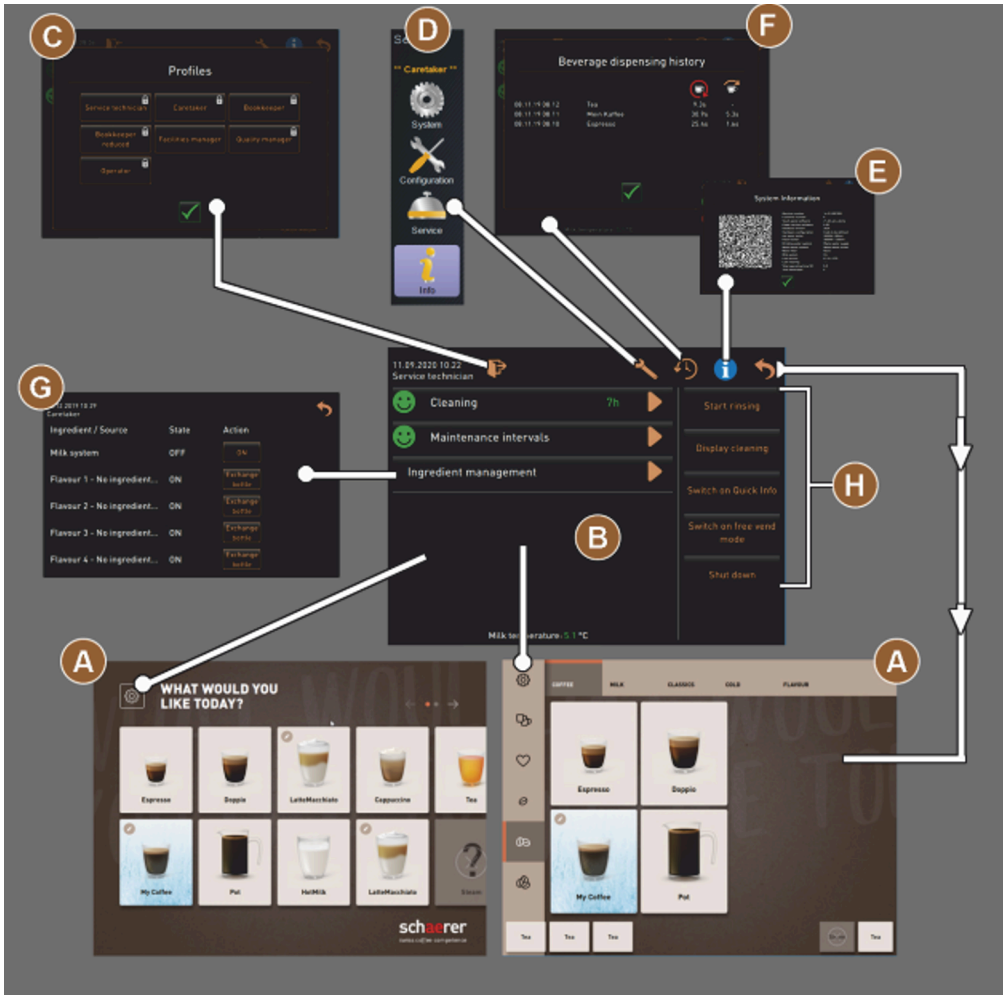



Figure: User interface navigation

- A Beverage selection user interface (GUI)
- B Navigation elements in the Service menu
- C Selection of activated profiles
- D Machine configuration settings
- E System information
- F Beverage dispensing history

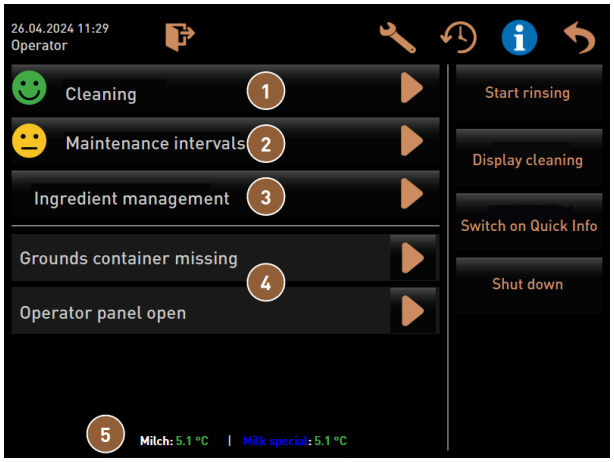
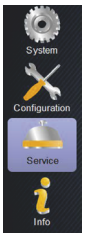
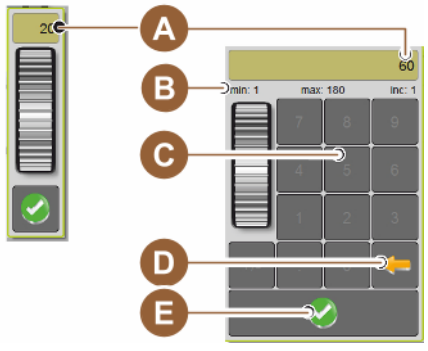



Figure: Service menu with maintenance and error status

1. Status and start of cleaning
2. Status and start of maintenance (descaling)
3. Status and on/off of ingredient manager
4. Pending error messages
5. Current milk temperature

| Icon | Name | Description |
|---|---|---|
|  | Entry into Service menu | The **Service menu** button on the user interface opens the **Service menu** screen.<br>See 7.8 "Service menu" |
|  | Back to beverage selection user interface | The **Back** button takes you back to the user interface with the beverage selection. |
|  | System information | The **Info** button opens the system information window. |
|  | Process of beverage dispensing | The **Beverage dispensing history** button shows all beverages that have been dispensed.<br>The following information is displayed for each beverage:<br>• Beverage dispensing time<br>• Beverage run-down time |
|  | Main menu settings | The **Settings** button in the **Service menu** at the top right opens the window with the machine configuration parameters. |
|  | Log in user profile | The **Log-in** button opens the dialog for selecting the available profiles. The profiles have different access rights.<br>▶ Tap on **Log-in**.<br>✓ The dialog for selecting a profile opens.<br>▶ Select a profile and enter a PIN if configured.<br>✓ The Service menu appears again.<br>✓ The **Log-in** button changes to **Log-out**.<br><br>If a profile with corresponding authorizations is logged in, the **Settings** button is visible. |

| Icon | Name | Description |
|---|---|---|
|  | Log out<br>user profile | The **Log-out** button closes the currently logged in profile.<br>The **Settings** button is no longer available. |
|  | Machine configuration settings | The machine configurations are divided into the following settings:<br>• System<br>• Configuration<br>• Service<br>• Info<br><br>The parameters displayed depend on the authorizations of the selected profile.<br>All settings and configuration options are listed in the Service technician profile.<br>▶ Tap on the button for a setting, e.g. **System**.<br>✓ The currently active setting, e.g. **System**, is highlighted in color.<br>✓ The available settings are listed on the right-hand side of the screen. |
|  | Restart | The **Restart** button activates a restart of the coffee machine.<br>A restart is required after changing the machine configurations. |
|  | Configuration | The Configuration button opens the configuration window for:<br>• Ingredient sources<br>• Beverage<br>• Beverage step for specific settings |
|  | Activation/Confirmation | The **Activate/Confirm** button confirms the selection, e.g. of an assigned coffee type or a temperature setting. |
|  | Cancel/Delete | The **Cancel/Delete** button has the following functions:<br>• Reset counters<br>• Cancel beverage dispensing<br>• Close window/page |
|  | Confirmed instruction action | The **Confirm** button can be used to confirm performed instructions for action. |
|  | Next | The **Next** button opens a selection list or takes you to the next program step. |
|  | Back | The **Back** button takes you back to the previous window/page. |
|  | Save | The **Save** button saves the parameter settings made. |
|  | Copy | The **Copy** button copies an already configured beverage as a basis for additional beverage configurations. |

| Icon | Name | Description |
|---|---|---|
|  | Add | The **Add** button adds beverages or beverage steps.<br>The beverages are taken from the list of available beverages. The additional beverage is automatically added to the list of configured beverages. |
|  | Beverage step configuration | The **Beverage step configuration** button takes you to the settings for the beverage configuration with the individual beverage steps. |
|  | Open/close structure tree | **(+)** expands the structure tree in the statistics.<br>**(-)** reduces the structure tree in the statistics. |
|  | Input field | A name for a beverage designation, beverage group, ingredient or for the menu cards can be entered in the **input field** using the keyboard that appears.<br>Tapping the input field opens the keyboard input. |
|  | Keyboard | Keyboard for entering text or numbers in the input field |
|  | Parameter value | The **Parameter value** input field records the value of a parameter.<br>**Variant: Setting with setting dial**<br>1. Tap on the parameter value.<br>✓ The setting dial opens.<br>2. Set the desired value by turning the setting dial up or down.<br>3. Confirm the set value with ✓.<br>**Variant: Setting with keyboard**<br>1. Tap in the field of the currently set setting **(A)**.<br>✓ The keyboard input opens.<br>✓ The min. and max. values of the possible settings are displayed **(B)**.<br>2. Delete the current setting with button **(D)**.<br>✓ The numeric keypad becomes active.<br>3. Enter the new value using the keyboard **(C)**.<br>4. Confirm the value with the **(E)** button.<br>  <br>Figure: Entering a parameter value using the keypad |
|  | On/Off function | The **On/Off** switch activates or deactivates a function.<br>Lit up green = On<br>Matt gray = Off |

| Icon | Name | Description |
|---|---|---|
|  | Down arrow/Up arrow for value setting | The date and time values are set using the **down arrow** or **up arrow** buttons.<br>1. Tap on the value to be set.<br>✓ The value is highlighted.<br>2. Change the highlighted value with the **arrow down/up** button.<br>✓ The time or date is set.<br>3. Tap on the **Save** button.<br>✓ The settings are saved. |

## 10.2 USB interface

A software update, data storage or data exchange is carried out on the machine via a USB stick. The USB port is located behind the user panel.

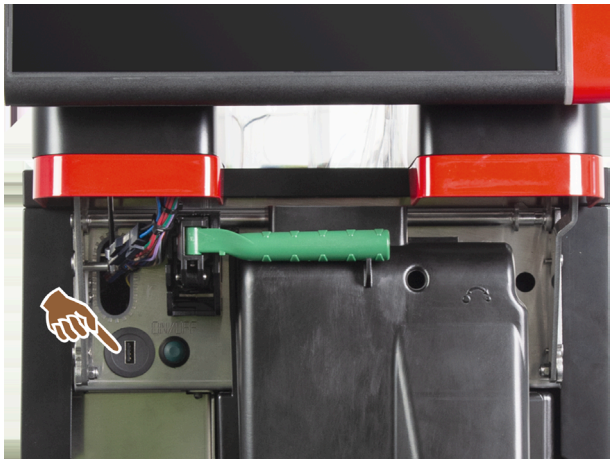


Figure: Position of the USB interface

▶ Unlock the user panel and slide it upwards until it automatically engages.
✓ The USB port is located to the left of the On/Off button.

See 7.1.6 "Opening and closing user panel".

## 10.3 Profiles and authorizations

Profiles are used to manage different activities with the machine and the authorizations required for them.

### 10.3.1 Caretaker profile

The caretaker is the first point of contact in the event of technical faults. He/She has basic technical knowledge and is regularly involved with the machine.

Except for the service technician, the caretaker has access to the most service functions.

Functions in the Service menu

In the **Caretaker** profile, the following functions are available for direct selection in the Service menu:

- Start rinsing
- Touch screen cleaning
- Switch quick info on/off
- Switch off
- Cleaning
- Maintenance intervals
- Ingredient management

Settings

The following settings can be changed in the **Caretaker** profile:

- System
- Configuration
- Service
- Info

## 10.3.2 Bookkeeper profile

The bookkeeper and bookkeeper reduced have limited service functions.

Functions in the Service menu

The following functions are available for direct selection in the **Bookkeeper** profile:

- Start rinsing
- Touch screen cleaning
- Switch quick info on/off
- Activate free vending if with payment system (bookkeeper)
- Switch off
- Start maintenance (descaling)
- Ingredient management

Settings

The following settings can be changed in the **Bookkeeper** profile:

- Configuration
- Info

See 7.8.4.3 "Access to the Profiles dialog"

### 10.3.3 Chef de service profile

The chef de service is a department or restaurant manager and his/her area of responsibility also includes administrative activities.

The chef de service has access to some of the machine statistics in order to obtain an overview of the type and quantity of beverages dispensed.

The chef de service has limited access to the service functions. He/She has more statistics available to him/her than the quality manager and the machine operator.

Functions in the Service menu

In the **Chef de service** profile, the following functions are available for direct selection in the Service menu:

- Start rinsing
- Touch screen cleaning
- Switch quick info on/off
- Switch off
- Maintenance intervals
- Ingredient management

Settings

The following settings can be changed in the **Chef de service** profile:

- Configuration
- Info

### 10.3.4 Quality manager profile

The quality manager is responsible for the quality of the beverages from the machine. To ensure quality, it is particularly important to check the cleaning times.

The quality manager has limited access to the service functions. The quality manager has access to more statistics than the machine operator.

Functions in the Service menu

In the **Quality manager** profile, the following functions are available for direct selection in the Service menu:

- Start rinsing
- Touch screen cleaning
- Switch quick info on/off
- Switch off
- Maintenance intervals
- Ingredient management

Settings

The following settings can be changed in the **Quality manager** profile:

- Configuration
- Info

### 10.3.5 Machine operator profile

The machine operator is the normal operator of the machine and therefore only a few service functions are available to him/her. Apart from setting the language, he/she can view the machine version in order to pass on the information to a service technician if errors occur.

Functions in the Service menu

In the **Machine operator** profile, the following functions are available for direct selection in the Service menu:

- Start rinsing
- Touch screen cleaning
- Switch quick info on/off
- Switch off
- Cleaning
- Maintenance intervals
- Ingredient management

Settings

The following settings can be changed in the **Machine operator** profile:

- Configuration
- Info

## 10.4 Machine configuration

### 10.4.1 “System” settings

You can make the following settings on the **System** setting screen:

- **Grinder/Brewing unit** system setting
- **Milk system** system setting
- **Flavour Point** system setting (option)

▶ Tap on the **System** . button.

✓ The **System** setting screen opens.

**Grinder/Brewing unit system setting**

The **Grinder/Brewing unit** setting opens the following menu points for system settings and displays:

- Grounds container: Capacity
- Grounds container: Time for emptying [s]

- Grounds container: Current counter
- Center grinder calibration value (10 s) [g]
- Right grinder calibration value (10 s) [g] (option)
- Left grinder calibration value (10 s) [g] (option)

Authorized profiles

- Service technician
- Caretaker


Figure: Screen with settings for grinder/brewing unit

**Grounds container: Capacity**

With this setting, the number of cycles (coffee cakes) until the **Empty grounds container** message appears is defined.

| Setting range | Standard |
|---|---|
| *0 – 150* coffee cakes | *60* coffee cakes |

1. Standard: Set the value to *60* coffee cakes. Do not exceed this value.
   ✓ The coffee machine blocks the dispensing of coffee beverages after *65* brewing cycles (*+ 5*) until the grounds container has been emptied.
2. With grounds disposal (option): Set the value to *0* coffee cakes.
   ✓ The number of cycles (coffee cakes) is ignored.

**Grounds container: Time for emptying [s]**

This setting defines the period of time until the current grounds container counter is reset to *0* after emptying.

| Setting range | Standard |
|---|---|
| *0 – 30 s* | *5 s* |

1. Set the value to *5 s*.
2. Empty the grounds container when the corresponding instruction is shown in the display. If the grounds container is only pulled out briefly and then pushed back in again immediately, the counter is retained and is not reset.
3. Do not reinsert the emptied grounds container for at least *5 s*.
   ✓ The **Current grounds container counter** is reset to *0*.

**Grounds container: Current counter**

The display provides information on the brewing cycles executed since the last time the grounds container was emptied. If the preset value for the capacity of the grounds container is reached, the instruction for emptying the grounds container appears.

This menu item is purely a display in the **Caretaker** profile. Settings are not possible.

**Center grinder calibration value (10 s) [g]**

The calibration value in grams is recorded with this setting for the center grinder during grinder calibration.

Service technicians can change the value.

| Setting range | Standard |
|---|---|
| *1.0 – 50.0 g* | In line with the calibration performed |

1. Start calibration in the **Service** – **Grinder service** setting.
2. Execute calibration using the assistant.
3. Enter the calculated value in this input field (only in the **Service technician** profile).
   ✓ Grinder calibration for the center grinder is complete.
   ✓ The grind quantity output corresponds to the grind quantity set in the coffee recipe.

**NOTE** The calibration value in grams displayed in this parameter can be changed by service technicians for general adjustment of the coffee beverages from the center grinder without having performed grinder calibration. Adjusting the calibration value affects all coffee recipes that have been assigned to the center grinder.

**Right grinder calibration value (10 s) [g] (option)**

The process is the same as for the center grinder.

**Left grinder calibration value (10 s) [g] (option)**

The process is the same as for the center grinder.

**Milk system setting**

The **Milk system** setting opens the following menu points for system settings and displays:

- Milk container
- Milk 1 hose length squeeze valve -> cooling cell [cm]
- Milk 2 hose length squeeze valve -> cooling cell [cm]
- Monitoring of milk fill level

Authorized profiles

- Service technician
- Caretaker

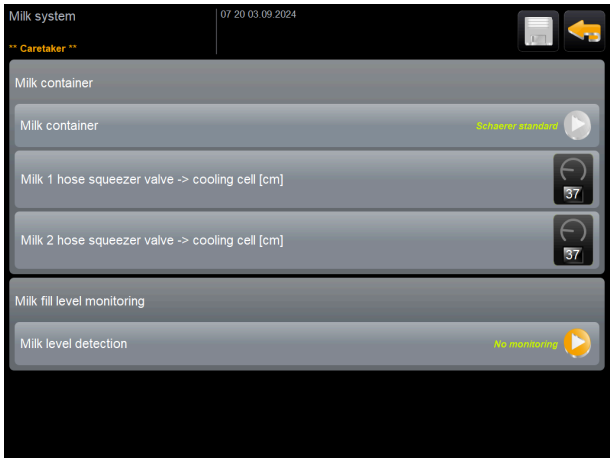



Figure: Screen with settings for milk system

### Milk container

This setting is used to record the milk hose length up to the milk container. The setting refers to the effective milk hose length with or without riser pipe in the milk container.

Service technicians can change the value.

| Setting range | Standard |
|---|---|
| **Custom** or **Schaerer standard** (only to be set by service technicians) | **Schaerer standard** |

#### User-defined

1. Select the **Custom** option (only in the **Service technician** profile).
   ✓ The milk hose length is not recorded automatically.
2. Measure the exact milk hose length from the milk container to the squeeze valve in the machine and record the value calculated for **Milk 1 hose length from squeeze valve -> cooling cell [cm]**.

#### Schaerer standard

▶ Select the **Schaerer standard** option (only in the **Service technician** profile).
   ✓ The milk hose length is automatically detected.
   ✓ The standard setting of *37 cm* in the following parameter does not require any additional adaptation.

See below the description for the **Milk 1 hose length from squeeze valve -> cooling cell [cm]** parameter.

### Milk 1 hose length squeeze valve -> cooling cell [cm]

This setting is used to record the milk hose dimension from the squeeze valve to the cooling cell for the external milk hose.

Service technicians can change the value.

| Setting range | Standard |
|---|---|
| *0 – 200 cm* (only to be set by service technicians) | *37 cm* (with the **Schaerer standard** option) |

If the **Custom** option is selected in the previous **Milk container** parameter, the exact milk hose length can be entered in the **Service technician** profile.

#### For service technicians

1. Measure the milk hose length from squeeze valve in the machine up to the milk container in the cooling device.

2. Record the calculated value for the **Milk 1 hose length from squeeze valve -> cooling cell [cm]** parameter.
   ✓ The system now knows the milk hose length.
   ✓ The correct milk quantity is periodically exchanged for the **rinsing interval of external milk hose**.

With the standard equipment of the **left side cooling unit**, the **Schaerer standard** option is selected in the **Milk container** parameter. This setting corresponds to the correct milk hose length of *37 cm*.

The following milk systems require the **Custom** option:

- Cooling unit left of the coffee machine
- Cooling unit with Twin Milk
- Under-counter cooling unit
- Under-machine cooling unit
- All optional accessories, e.g. Cup & Cool and Centre Milk

**Milk 2 hose length squeeze valve -> cooling cell [cm]**

This setting is used to record the milk hose dimension from the squeeze valve to the cooling cell for the second milk hose for the **Twin Milk**.

Service technicians can change the value.

| Setting range | Standard |
|---|---|
| *0 – 200 cm* (only to be set by service technicians) | *37 cm* (with the **Schaerer standard** option) |

The process corresponds to that for the **Milk 1 hose length from squeeze valve -> cooling cell [cm]**.

**Monitoring of milk fill level**

This setting defines the fill level monitoring behavior for the milk container.

| Setting range | Standard |
|---|---|
| No monitoring<br>Warning<br>Blocking beverage dispensing | No monitoring |

**No monitoring** option

- Milk monitoring is configured, but is not used.

**Warning** option

- If a low milk level is detected, a message appears on the display. The dispensing of additional milk beverages is possible.

**Disable beverage dispensing** option

- If a low milk level is detected, a message appears on the display. The dispensing of milk beverages is blocked.

**Flavour Point system setting (option)**

The **Flavour Point** setting opens the following menu points for system settings and displays:

- Syrup level monitoring

Authorized profiles

- Service technician
- Caretaker

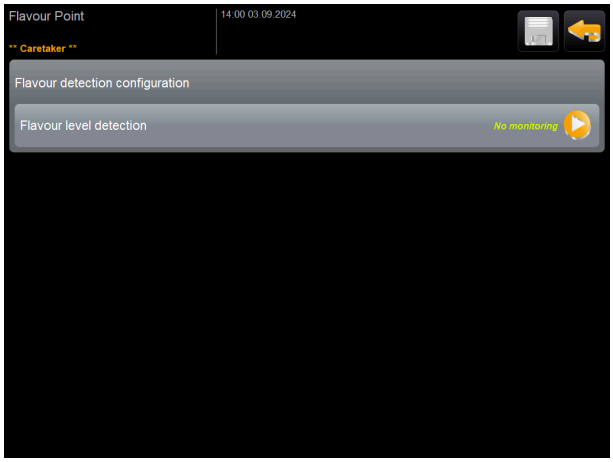



Figure: Screen with settings for Flavour Point

**Flavour point fill level monitoring**

This setting defines the fill level monitoring behavior for Flavour Point syrup bottles.

| Setting range | Standard |
|---|---|
| No monitoring<br>Warning<br>Blocking beverage dispensing | No monitoring |

**No monitoring** option

- Syrup monitoring is configured, but is not used.

**Warning** option

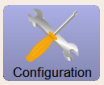
- If a low fill level is detected in the syrup bottle, a message appears on the display. It is possible to dispense additional flavored beverages.

**Disable beverage dispensing** option

- If the fill level in the syrup bottle is low, a message appears on the display. The dispensing of flavored beverages is blocked.

## 10.4.2 “Configuration” settings

Authorized profiles: Caretaker, chef de service, bookkeeper, bookkeeper reduced, machine operator and quality manager




**Setting > Configuration – General**

Main language


Figure: Display language

Changes the display language.

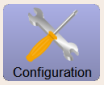
Setting range: All stored languages

Standard: Free selection

1. Open the language setting with the ▶ button.
   ✓ The selection menu appears.
2. Select the desired language.
   ✓ All display messages and parameter designations appear in the activated language.

See 10.4.5 "Saving changes and loading them into the machine".

Authorized profiles: Caretaker




**Setting > Configuration – Time/Date/Timer operation**

Date

Time

Time zone



Shows information about the preset time zone with date and time.

Setting range: No setting possible

Default: Country-specific/User-specific

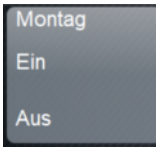
The time zone is selected during the commissioning program. When the time zone is set, the time and date are automatically adopted from the selected zone.

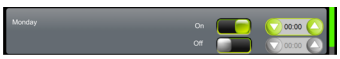
Available time zones:

- Asia
- Africa
- Australia
- Europe
- North America
- South American

Each time zone contains further subdivisions, e.g. *Central European Time (CET/MEZ)*.

Monday on/off until Sunday on/off




Shows information about the automatic switch-on/switch-off times.

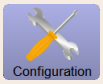
Setting range: Day/Switch-on time/Switch-off time/Time

Standard: User-specific

1. Activate the switch-on time for the desired day of the week using the switch.
   ✓ The settings for the time become active.
2. Set the time using the . buttons, e.g. 07:00 (07:00 a.m.).
3. Activate the switch-off time for the desired day of the week using the switch.
   ✓ The settings for the time become active.
4. Set the time using the buttons, e.g. 22:30 (10:30 p.m).

The system automatically switches to the corresponding time format (24 h or 12 h AM/PM) depending on the selected time zone.

Authorized profiles: Bookkeeper, chef de service




**Setting > Configuration – Beverage price adjustment by the bookkeeper (standard operating mode)**


Figure: Beverages in menu card

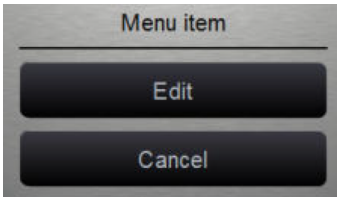



Figure: Menu item


Figure: Beverage price menu item

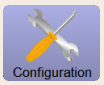
**Setting of beverage price with or without payment system**

Prerequisite: The **Configuration – Operating mode – Menu card** setting contains the **Standard** setting.

1. Open the Service menu.
2. Log in with the **Bookkeeper** or **Service technician** profile.
3. Open the setting with .
4. Select the **Configuration – Menu card** setting.
   ✓ The **Standard** menu card opens.
5. Select the desired beverage.
   ✓ The **Menu item** context menu opens.
6. Tap on the **Edit** button.
   ✓ The **Menu card entry** screen opens.
   ✓ The individual beverage sizes are listed separately according to the beverage configuration.
7. Tap on the **Edit** button for the desired beverage size.
8. Enter the required beverage price in the **(0)**, **(1)**, **(2)** price lists and/or **(3)** in the entry field.

See below under **Price setting using the setting dial**.

Authorized profiles: Bookkeeper, chef de service




**Setting > Configuration – Beverage price adjustment by the bookkeeper (custom operating mode)**


Figure: Beverages in menu card

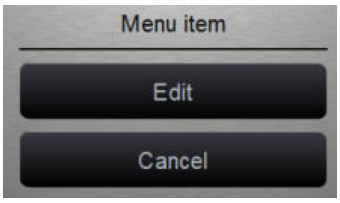



Figure: Menu item


Figure: Beverage price menu item

**Setting of beverage price with or without payment system**

Prerequisite: The **Configuration – Operating mode – Menu card** setting contains the **Custom** setting.

1. Open the Service menu.
2. Log in with the **Bookkeeper** or **Service technician** profile.
3. Open the setting with .
4. Select the **Configuration – Menu card** setting.
   ✓ The **Custom** menu card opens.
5. Open the desired menu card from the list.
   ✓ The menu card opens.
6. Tap on the **Edit** button.
   ✓ The **Menu card entry** screen opens.
   ✓ The individual beverage sizes are listed separately according to the beverage configuration.
7. Tap on the **Edit** button for the desired beverage size.
   ✓ The **Edit menu card entry** screen opens.
8. Enter the required beverage price in the **(0)**, **(1)**, **(2)** price lists and/or **(3)** in the entry field.


Figure: Beverage price input field with setting dial

**Price setting via the setting dial**

1. Tap on the input field.
   ✓ The dialog with the setting dial opens.
2. Enter the required value using the setting dial or the keyboard.
3. Save the setting with and navigate back to the menu card or user interface with .
   ✓ The beverage is now displayed in the user interface with the set price.
   ✓ The beverage price changes if the cup or mug size is changed during beverage selection.

During beverage selection, the beverage price is always updated according to the options selected afterwards.

Beverage selection can be canceled at any time before payment with the **[X]** button. If the beverage has already been paid for, it is no longer possible to cancel the order.

## 10.4.3 “Service” settings

You can make the following settings on the **Service** setting screen:

- **Grinder service** setting
- **Back up database** service setting

- **Reset descaling counter** service setting
- **Reset descaling** service setting
- **Reset cleaning** service setting

▶ Tap on the **Service** . button.
✓ The **Service** setting screen opens.

### Grinder service setting (manual grinding level adjustment)

The **Grinder service** setting (for manual grinding level adjustment) starts the following display-guided service functions on the grinder after confirmation:

- Change grinding disks
- Grinder adjustment
- Grinder calibration

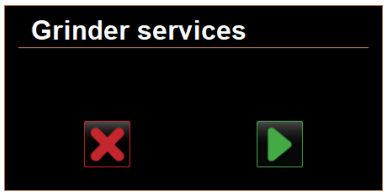



Figure: Starting grinder service

**Prerequisite:** The machine is equipped with manual grinder adjustment.

1. Tap on the **Service –> Grinder service** setting.
   ✓ The confirmation dialog opens.
2. Confirm with .
   ✓ The service functions for the grinder are available.
3. Open the tab for the desired grinder (left, right, center).


Figure: Screen for grinder service

### Changing grinding disks

WARNING

**Cutting injury!**

Risk of injury due to rotating grinding disks in the grinder.
▶ Never reach into the bean hopper when the coffee machine is switched on.

To replace the grinding disks, the following steps are required:

1. Tap on the **Change grinding disks** button.
   ✓ The instruction prompting you to replace the grinding disk appears.
2. Switch off the machine and disconnect it from the power supply.
3. Remove the manual grinding level adjustment and install new grinding disks.
4. Close the empty grinder by hand until resistance can be felt (grinding disk against grinding disk).
5. Open the grinder 45° counterclockwise.
6. Reassemble the manual grinding level adjustment.
7. Switch the machine back on and navigate to the **Grinder service** screen.
8. Confirm the **Change grinding disks** installation steps with the ▶ button.
   ✓ The preparation steps for **Preparation for grind level adjustment** appear.

**Grinder adjustment**

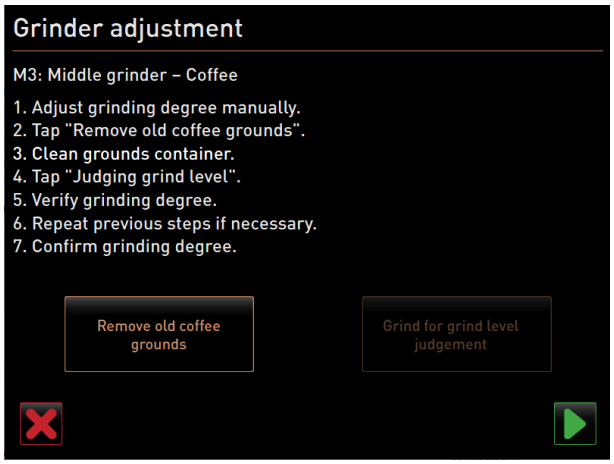



Figure: Grinder adjustment: Removing old ground coffee

**Steps:** Grinder adjustment

1. Continue the settings steps after **Grinding disk replacement** or tap directly on the **Grinder adjustment** button.
   ✓ The preparation steps for **Preparation for grind level adjustment** appear.
2. Empty and clean the grounds container and reinsert it.
3. Confirm that the grounds container is inserted with the ▶ button.
4. Set the grinding level manually.
5. Tap on the **Remove old ground coffee** button.
   ✓ The old ground coffee is removed.

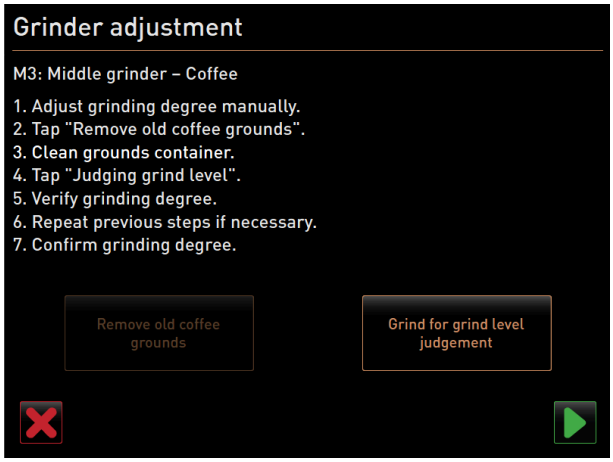



Figure: Grinder adjustment: Grinding for grinding level assessment

✓ The **Grind for grind level evaluation** button becomes active.

6. Clean the grounds container again.
7. Tap on the **Grind for grind level evaluation** button.
   ✓ A grind is performed.
8. Check the grinding level and repeat the steps for setting the grinding level if necessary or confirm the set grinding level with the ▶ button.
   ✓ Preparation for calibrating the grinder appears.

### Grinder calibration

**Prerequisite:** Calibration is required in the following cases:

- The machine is new.
- The operating time has been more than a year.
- The grinding level has changed.
- The grinder is opened.
- The grinding disks have been changed.
- The type of coffee has been changed.

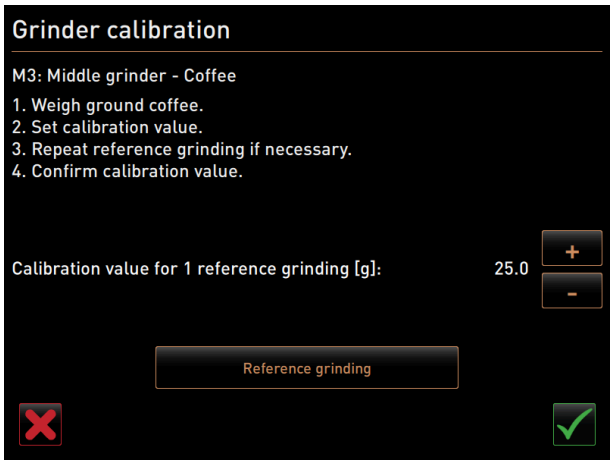



Figure: Grinder calibration

**Steps:** Grinder calibration

1. Continue the settings steps after **Grinder adjustment** or tap directly on the **Grinder calibration** button.
   ✓ The preparation steps for calibration are displayed.
2. Empty and clean the grounds container and reinsert it.

3. Confirm that the grounds container is inserted with the button.
   ✓ Reference grinding starts.
4. If needed, start additional reference grinding with the **Reference grinding** button.
5. If several reference grinding operations are performed, always weigh the entire resulting quantity of ground coffee and enter the amount as a reference value.
   ✓ The machine automatically detects all triggered grinds and calculates the correct grind quantity itself.
6. Weigh the ground coffee of the reference grind.
7. Set the calibration value (determined weight of ground coffee) using the **Plus** or **Minus** button.
8. Confirm calibration of the grinder with the button.
   ✓ The **Grinder service** screen opens.
   ✓ The set grinder is ready for use.

### Grinder service setting (automatic grinding level adjustment)

The **Grinder service** setting (for manual grinding level adjustment) starts the following display-guided service functions on the grinder after confirmation:

- Change grinding disks
- Grinder adjustment
- Grinder initialization
- Grinder calibration

The grinder services for automatic grinder adjustment also require grinder initialization as well as grinder adaptation via the grind level motors.

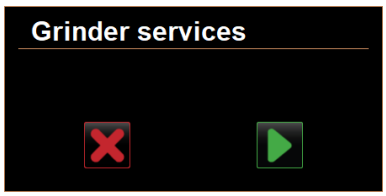



Figure: Starting grinder service

**Prerequisite:** The machine is equipped with automatic grinder adjustment.

1. Tap on the **Service –> Grinder service** setting.
   ✓ The confirmation dialog opens.
2. Confirm with .
   ✓ The service functions for the grinder are available.
3. Open the tab for the desired grinder (left, right, center).

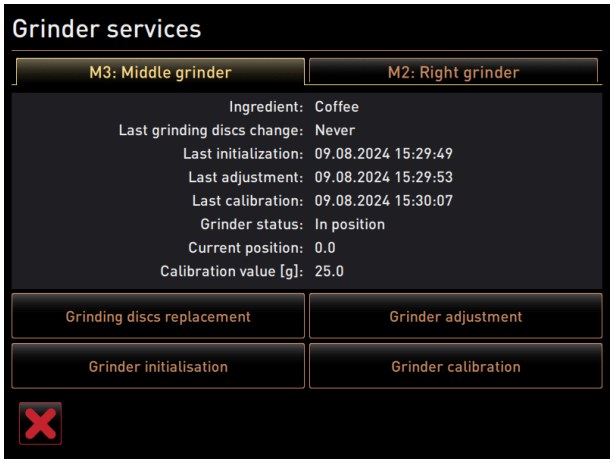



Figure: Screen for grinder service

### Changing grinding disks

WARNING

**Cutting injury!**

Risk of injury due to rotating grinding disks in the grinder.
▶ Never reach into the bean hopper when the coffee machine is switched on.

To replace the grinding disks, the following steps are required:

1. Tap on the **Change grinding disks** button.
   ✓ The instruction prompting you to replace the grinding disk appears.
2. Switch off the machine and disconnect it from the power supply.
3. Remove the grinder level motor and install new grinding disks.
4. Close the empty grinder by hand until resistance can be felt (grinding disk against grinding disk).
5. Open the grinder 45° counterclockwise.
6. Reassemble the grinding level motor.
7. Switch the machine back on and navigate to the **Grinder service** screen.
8. Confirm the **Change grinding disks** and **Grinder initialization** installation steps with the button.
   ✓ The preparation steps for **Preparation for grind level adjustment** appear.

### Grinder adjustment

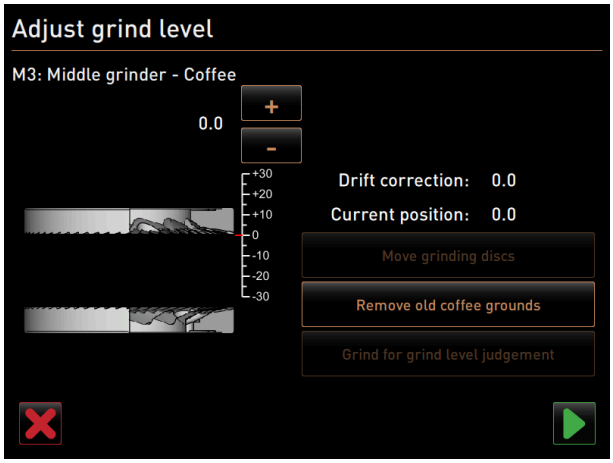



Figure: Grinder adjustment: Removing old ground coffee

**Steps:** Grinder adjustment

1. Continue the settings steps after **Grinding disk replacement** or tap directly on the **Grinder adjustment** button.
   ✓ The preparation steps for **Preparation for grind level adjustment** appear.
2. Empty and clean the grounds container and reinsert it.
3. Confirm that the grounds container is inserted with the button.
4. Tap on the **Remove old ground coffee** button.
   ✓ The old ground coffee is removed.

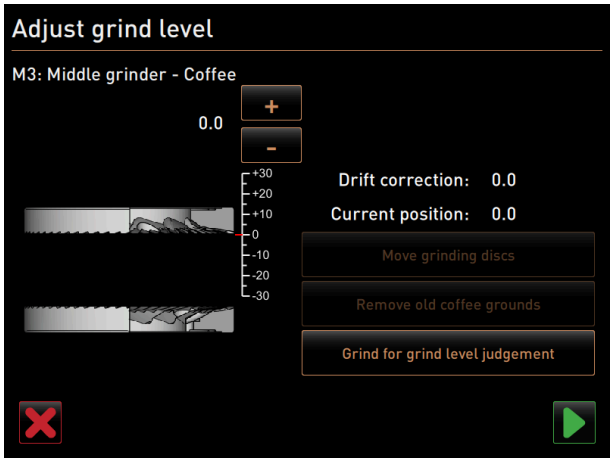



Figure: Grinder adjustment: Grinding for grinding level assessment

✓ The **Grind for grind level evaluation** button becomes active.

5. Clean the grounds container again.
6. Tap on the **Grind for grind level evaluation** button.
   ✓ A grind is performed.

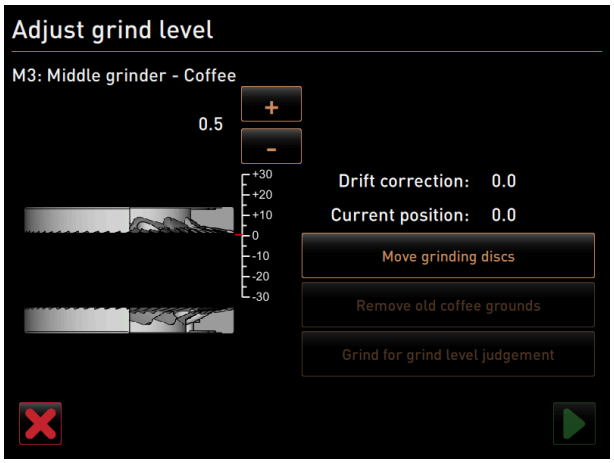



Figure: Grinder adjustment: Move grinding disks

7. Adjust the grinding level result with the **Plus** = coarser or **Minus** = finer button.
8. Make grinding level adjustments in small steps *±1*.
9. Use the **Move grinding disks** button to set the blade to the previously set position.
10. Check the grinding level and repeat the steps for setting the grinding level if necessary or confirm the set grinding level with the ▶ button.
    ✓ Preparation for calibrating the grinder appears.

### Grinder calibration

**Prerequisite:** Calibration is required in the following cases:

- The machine is new.
- The operating time has been more than a year.
- The grinding level has changed.
- The grinder is opened.
- The grinding disks have been changed.
- The type of coffee has been changed.

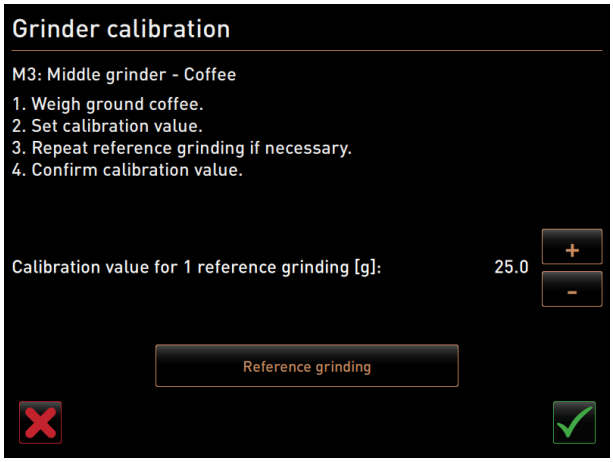



Figure: Grinder calibration

**Steps:** Grinder calibration

1. Continue the settings steps after **Grinder adjustment** or tap directly on the **Grinder calibration** button.
   ✓ The preparation steps for calibration are displayed.
2. Empty and clean the grounds container and reinsert it.
3. Confirm that the grounds container is inserted with the ▶ button.
   ✓ Reference grinding starts.
4. If needed, start additional reference grinding with the **Reference grinding** button.
5. If several reference grinding operations are performed, always weigh the entire resulting quantity of ground coffee and enter the amount as a reference value.
   ✓ The machine automatically detects all triggered grinds and calculates the correct grind quantity itself.
6. Weigh the ground coffee of the reference grind.
7. Set the calibration value (determined weight of ground coffee) using the **Plus** or **Minus** button.
8. Confirm calibration of the grinder with the ✓ button.
   ✓ The **Grinder service** screen opens.
   ✓ The set grinder is ready for use.

### Grinder initialization

**Prerequisite:** The grinder must be initialized in the following cases:

- After a malfunction
- After the grinding disks have been replaced, the automatic grind level adjustment must be initialized.

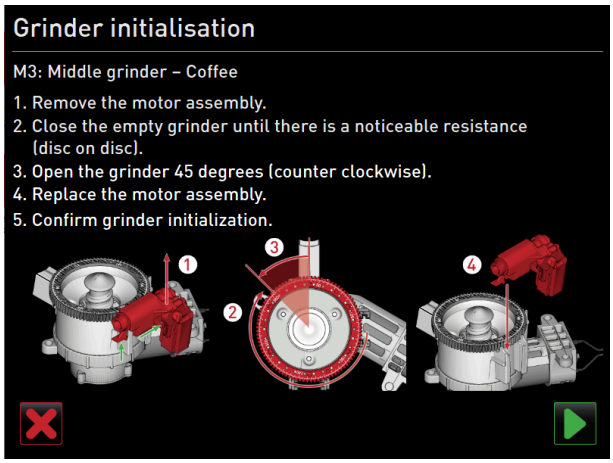



Figure: Initializing grinder

**Steps:** Grinder initialization

1. Follow the displayed instructions.
2. Remove the grinder level motor and install new grinding disks.
3. Close the empty grinder by hand until resistance can be felt (grinding disk against grinding disk).
4. Open the grinder 45° counterclockwise.
5. Reassemble the grinding level motor.
6. Confirm the **Grinder initialization** installation steps with the ▶ button.

### Backing up database

NOTE

**Property damage due to data loss**

The touch screen contains an SD memory card for storing the machine data.

- ▶ Back up the database on a USB data carrier before carrying out an update.
- ▶ Back up the database on a USB data carrier before replacing the touch screen.
- ▶ Insert the previously used SD memory card into the new touch screen. This ensures it is ready for use immediately.

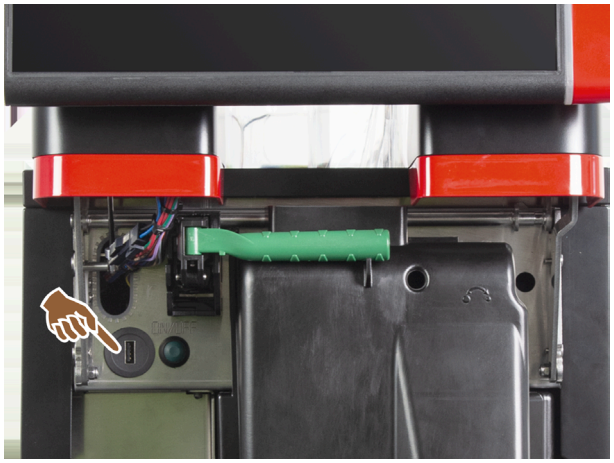


Figure: Position of the USB interface

**Steps:** Backing up database

1. Lift the user panel.
2. Insert the USB data carrier into the USB interface.
3. Tap on the **Service -> Back up database** setting.
   - ✓ The machine database is saved to the USB stick.
   - ✓ The saved database version is compatible with the installed machine software version.
4. Remove the USB data carrier when the **Data backup complete** message appears on the display.
5. Close the user panel.

The database is saved on the USB data carrier under
*Schaerer/SCA3/backup/database/sca3db.db3_<yyyymmdd_hhmmss>*
.

The database is automatically saved periodically every 5 minutes to the SD memory card inserted in the touch screen. It is also saved directly in the system at the same time.

With a **downgrade**, the database version saved on the USB data carrier is again compatible with the older machine software.

The following data is stored on the USB data carrier:

- Machine number
- Beverage recipes
- Hardware configuration
- All counter levels

### Resetting decalcifying counter

NOTE

**Property damage due to skipped descaling processes!**

Failure to perform descaling can lead to damage and faults.

▶ Carry out descaling operations which are not performed automatically because the counter has been reset as soon as possible and start them manually.

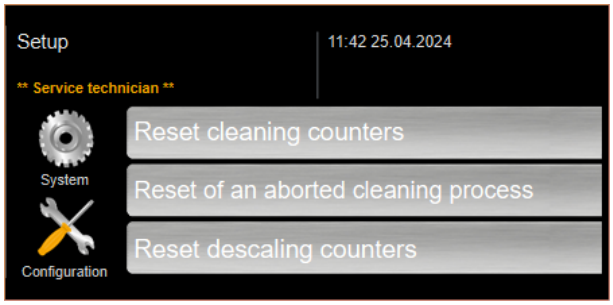



Figure: Buttons for resetting

The parameter deactivates a pending descaling process.

1. Tap on the **Service -> Reset descaling counter** setting.
2. Confirm that the process with the ✅ button.
   - ✓ The descaling counter is reset and any pending descaling process is deleted.
   - ✓ The next automatic descaling process takes place according to the configuration in the **System – Maintenance** setting.

### Resetting descaling/cleaning

A cleaning or descaling program can be interrupted using the ❌ button. A power failure also leads to interruption of any cleaning or descaling operation that is in progress.

After a canceled cleaning or descaling process, the status of the machine remains in **cleaning** or **descaling** mode. In order to leave the mode, it is necessary to reset the cleaning or descaling flag.

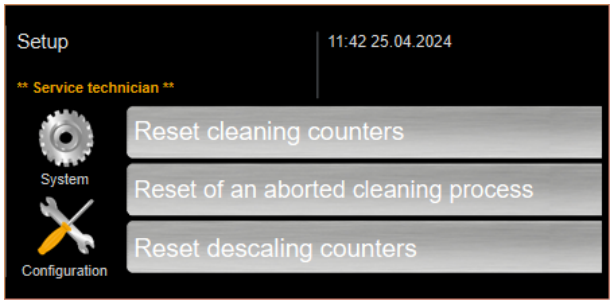



Figure: Buttons for resetting

Delete cleaning or descaling flag. An interrupted cleaning or descaling process is reset.

1. Tap on the **Service -> Resetting descaling / cleaning** setting.
2. Confirm that the process with the ✅ button.
   - ✓ The cleaning and descaling flag is reset and any pending descaling process is deleted.

✓ The next automatic cleaning or descaling process will only take place according to the configuration in the **System – Cleaning** and **System – Maintenance** settings.

3. It is absolutely essential to restart cleaning or descaling right away.

## 10.4.4 "Info" settings

This information must be passed on to the service technician when reporting an error.

| Info | **Setting > Info – Show versions** |
|---|---|
| Authorized profiles: | Caretaker<br>Chef de service, quality manager<br>Machine operator<br>Bookkeeper<br>Bookkeeper reduced |
| Function: | Shows information about the installed versions of the machine software. |
| Setting range: | No setting possible |
| Standard: | – |

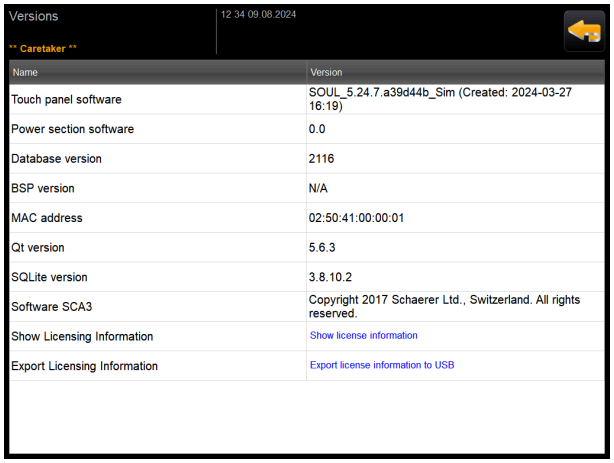



Figure: Versions

The following information can be read off:

- Touch panel software version
- Power unit software version
- Database version
- BSP accounting system version
- Mac address version
- Qt version (source code)
- Qt license version
- SQLite version
- Copyright software SCS

| | |
|---|---|
| Info | **Setting > Info – Machine counter** |
| Authorized profiles: | Caretaker<br>Chef de service |
| Function: | Shows an overview of beverage counters according to the ingredient they contain. |
| Setting range: | No setting possible |
| Standard: | – |

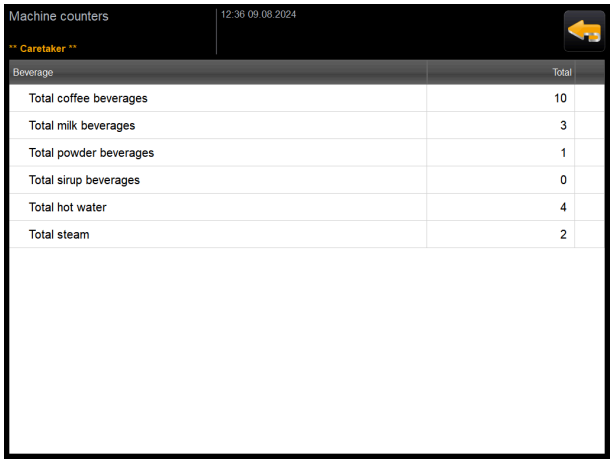



Figure: Machine counter

Example of ingredients with a chociatto beverage:

- 1. Ingredient = coffee
- 2. Ingredient = fresh milk or topping
- 3. Ingredient = choco

The following information can be read off:

- Total coffee beverage
- Total milk beverage
- Total powder beverage
- Total hot water
- Total steam dispensing processes

All beverages added to the menu cards are listed.

| | |
|---|---|
| Info | **Setting > Info – Beverage statistics** |
| Authorized profiles: | Caretaker<br>Chef de service<br>Bookkeeper<br>Bookkeeper reduced |
| Function: | Shows information about the dispensed beverages. |

| Info | **Setting > Info – Beverage statistics** |
|---|---|
| Setting range: | Resetting the counter levels (individual or total) |
| Standard: | User-defined |

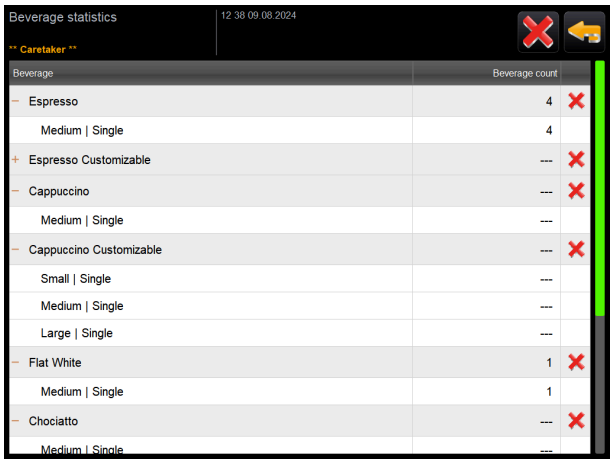



Figure: Beverage counter

Resetting individual counters

▶ Tap on the ✕ button for the corresponding beverage in the right column.
✓ The beverage counter for the selected beverage is set to zero.

Resetting all counters

▶ Tap on the large ✕ button at the top of the screen.
✓ All listed beverage counters are reset to zero.

| Info | **Setting > Info – Cleaning statistics** |
|---|---|
| Authorized profiles: | Caretaker<br>Chef de service<br>Quality manager |
| Function: | Shows information about performed cleaning work. |
| Setting range: | No setting possible |
| Standard: | – |

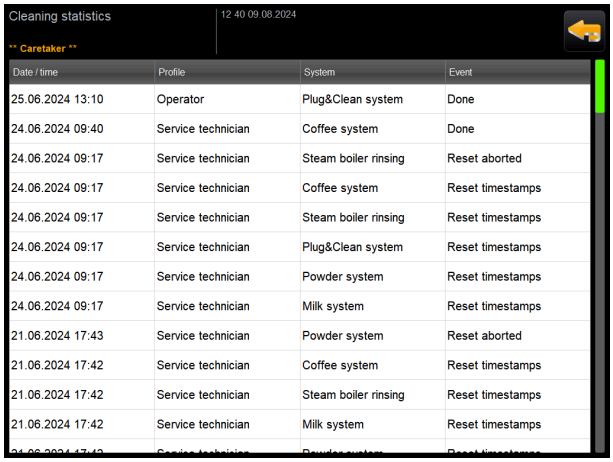



Figure: Cleaning statistics

The following information can be read off:

- Date and time
- Profile
- System
- Event

Performed, canceled and reset cleanings are displayed in the **Event** column.


**Setting > Info – Maintenance statistics**

| | |
|---|---|
| Authorized profiles: | Caretaker |
| Function: | Shows information about performed maintenance (descaling). |
| Setting range: | No setting possible |
| Standard: | – |

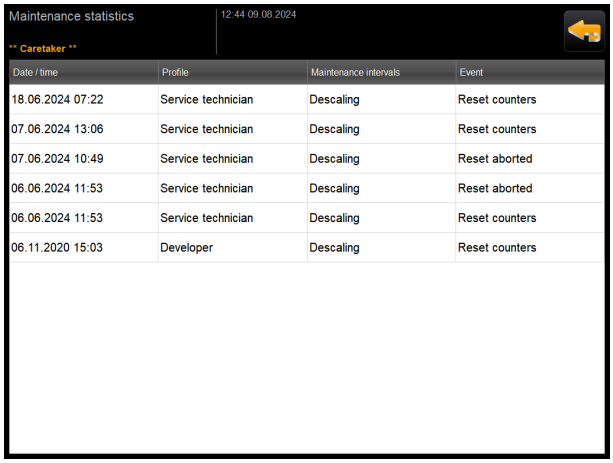



Figure: Maintenance statistics

The following information is listed:

- Date and time
- Profile

- System
- Event

Performed, canceled and reset descaling processes are displayed in the **Event** column.

|  | **Setting > Info – Beverage dispensing statistics** |
|---|---|
| Authorized profiles: | Caretaker<br>Chef de service<br>Bookkeeper<br>Bookkeeper reduced |
| Function: | Shows information on all beverage dispensed with the contained beverage data. |
| Setting range: | The  button deletes all counter levels. |
| Standard: | – |

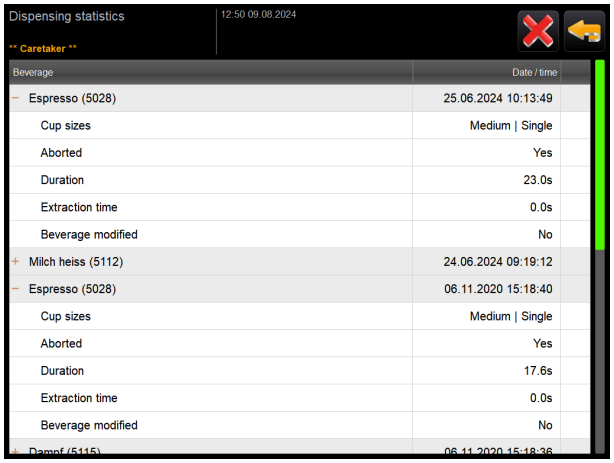



Figure: Beverage dispensing statistics

The following information can be read for each type of beverage:

- Cup sizes
- Canceled dispensing processes
- Output time
- Extraction time
- Beverage adjusted

In the **Date/Time** column, the date on which the beverage was dispensed is entered, including the time. The values, such the cup size, for the various beverage options dispensed are also listed.

|  | **Setting > Info – Water hardness statistics** |
|---|---|
| Authorized profiles: | Caretaker |
| Function: | Shows information about the water hardness settings made to date. |

| | |
|---|---|
| Info | **Setting > Info – Water hardness statistics** |
| Setting range: | No setting possible |
| Standard: | – |

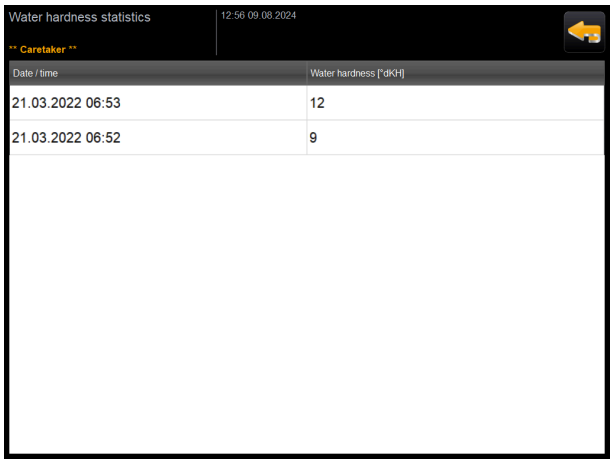



Figure: Water hardness statistics

The following information can be read off:

- Date and time
- Water hardness

Each adjustment to the water hardness is listed in a new entry.

| | |
|---|---|
| Info | **Settings > Info – Machine accounting statistics** |
| Authorized profiles: | Caretaker<br>Bookkeeper<br>Bookkeeper reduced |
| Function: | Provides information on the number of beverages dispensed with or without a sale and the total of these beverage prices. |
| Setting range: | Since the last reset/since initialization |
| Standard: | – |

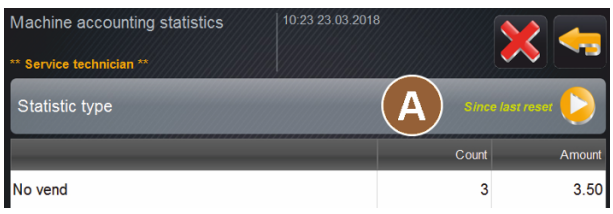



Figure: Machine accounting statistics

### Since the last reset

The **Since the last reset** statistic can be deleted. This makes it possible to run counters for a certain period of time.

1. Open the **(A)** selection list with the button.
2. Select the **Since the last reset** statistic.
3. Tap on .
   ✓ An instruction for confirmation appears.
4. Confirm with .
   ✓ The **Since the last reset** statistic is deleted.

### Since initialization

The statistics with the **Since initialization** setting cannot be deleted. **Initialization** means **since commissioning**.

| Info | **Settings > Info – Beverage accounting statistics** |
|---|---|
| Authorized profiles: | Caretaker<br>Bookkeeper<br>Bookkeeper reduced |
| Function: | Provides information about all dispensed beverages, their configuration, the number of beverages and their price.<br>Depending on the default setting, the user statistics show the entries **Since the last reset** or as complete statistics **Since initialization** (commissioning). |
| Setting range: | Since the last reset/since initialization |
| Standard: | – |

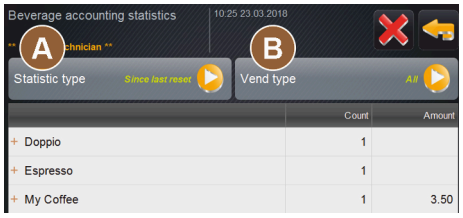



Figure: Beverage accounting statistics

The following sales types are available:

- All
- No sale (all beverage without payment are listed.)

### Since the last reset

The **Since the last reset** statistic can be deleted. This makes it possible to run counters for a certain period of time.

1. Open the **(A)** selection list with the button.
2. Select the desired statistic and the sales type.
3. Select the **Since the last reset** statistic.
   ✓ The selected statistic with sales type appears.
4. Tap on .
   ✓ An instruction for confirmation appears.

5. Confirm with  .
   ✓ The **Since the last reset** statistic is deleted.

**Since initialization**

The statistics with the **Since initialization** setting cannot be deleted. **Initialization** means **since commissioning**.

### 10.4.5 Saving changes and loading them into the machine

To save and load changes to the settings:

1. Save the selection with  .
2. Exit the parameter and the setting with  .
3. Load the changes to the setting/parameter into the machine with  .
   ✓ The machine restarts.

# 11 Troubleshooting

A distinction can be made between the following error messages:

- Display via the functional lighting
- Messages in the display

## 11.1 Meaning of the functional lighting

The machine is equipped with functional lighting as standard. In addition to messages on the display, error messages are indicated by illuminated LED color strips on the machine.

The different colors have the following meanings:

- **White**: The machine is ready for use.
- **Orange**: Immediate action is required (e.g. refilling, cleaning).
- **Red**: Machine error (e.g. milk empty, grinding mechanism blocked, water flow error)

## 11.2 Messages in the display

A distinction can be made between the following messages on the display:

- Simple error message
- Specific error message
- Error message in the Service menu

**Simple error message**

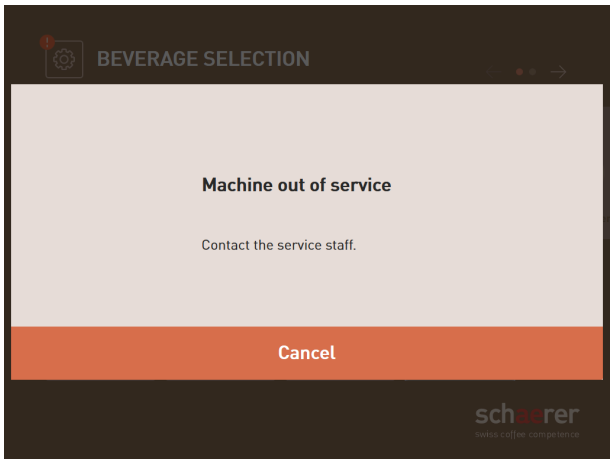



Figure: Simple error message

Prerequisite:

- **Simple error message** is activated in the user interface for **Display notification mode**.

✓ In the event of an error message, the machine remains out of operation until the service staff acknowledge the message.

✓ The **Inform service staff** instruction appears.

✓ The error message cannot be acknowledged.

▶ Inform the service staffs.

### Specific error message

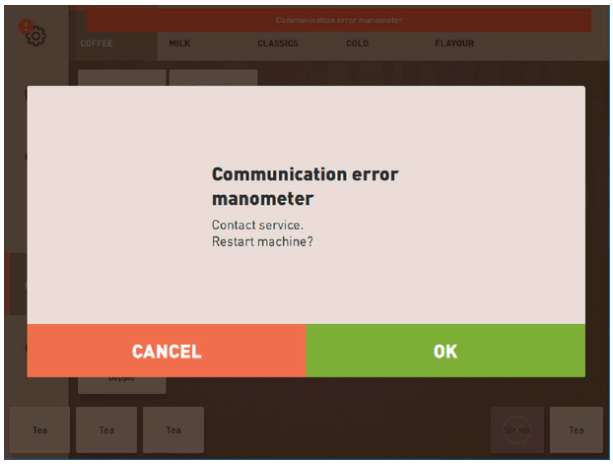



Figure: Specific error message

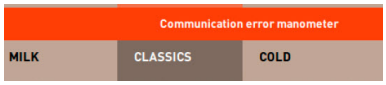



Figure: Specific error message

Prerequisite: **Specific error message** is activated in the user interface for **Display notification mode**.

- ✓ In the event of an error message, the machine is briefly out of operation.
- ✓ **Restart** or **Inform service technician** instruction appears.
- ✓ Error messages can be partially acknowledged.

1. Depending on the type of error, carry out one of the following actions:
2. a) Follow the instruction for action and acknowledge the error message.
3. b) Tap **OK** for a restart.
   - ✓ The pending error is acknowledged or the machine restarts.
   - ✓ The machine is ready for use again.
4. If the error message cannot be acknowledged, inform the service technician.

### Error message in the Service menu

In addition to the error messages in the user interface, the error messages are displayed in the Service menu.

**Service menu** button

The **Service menu** is opened with the Service menu button.

Figure: **Service menu** button with messages

In the user interface, the **Service menu** button provides information about pending information or error messages:

- **Without color code**: No messages are pending in the Service menu.
- **Orange**: Information is available in the Service menu.
- **Red**: Error messages or instructions for action are pending in the Service menu.

**Service menu** screen

1. Tap on the **Service menu** button.

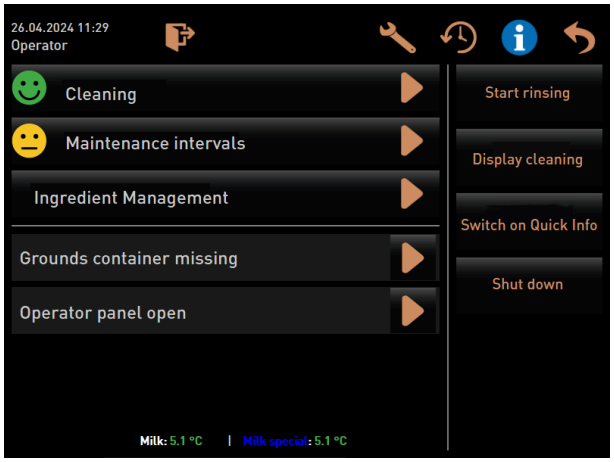



Figure: **Service menu** screen with error message

✓ The Service menu opens and all pending error messages are listed.

2. Open the error message with the ▶ button.
3. Carry out the displayed instruction for action and acknowledge any errors with **OK**.
4. If the error message cannot be acknowledged, inform the service technician.

## 11.3 Faults with display messages

In the case of faults with a display message, a distinction is made between the following categories:

- Fault
- Error
- Instruction
- Note

### 11.3.1 “Fault” display message

The following display messages are highlighted in red in the control system.

| Display message | Cause | Remedy |
|---|---|---|
| Milk empty | The milk level in the milk container is empty or too low. | 1. Fill the milk container immediately.<br>2. Remove the container for fresh milk.<br>3. Clean the container thoroughly.<br>4. Fill the container with fresh pre-cooled milk ±5°C (41 °F) and put it back into the machine. |
| Flavour Point (syrup system) 1 – 4 empty | The syrup level in bottles 1 – 4 is empty or too low. | 1. Start the **Flavor 1 – 4** process in the Service menu.<br>2. Carry out the steps shown on the display.<br>3. Remove and clean the hose.<br>4. Reconnect the hose and activate the syrup pump with the **Start pump** button. |

| Display message | Cause | Remedy |
|---|---|---|
| Grounds container full | The grounds container contains approx. 60 – 70 coffee cakes. | 1. Empty the grounds container.<br>2. Rinse out the grounds container and wipe it dry.<br>3. Reinsert the grounds container. |
| Insert grounds container | The grounds container is missing. | ▶ Correctly insert the grounds container into the machine. |
| | The grounds container has not been fully inserted into the machine. | ▶ Correctly insert the grounds container into the machine. |
| Fill external drinking water tank (optional) | The fill level of the external drinking water tank (optional) is too low. | 1. Remove the fill level sensor from the drinking water tank.<br>2. Rinse out the drinking water tank with clean water and fill it.<br>3. Reinsert the fill level sensor. |
| Empty waste water tank (optional) | The fill level of the external waste water tank has been reached. | 1. Remove the fill level sensor from the waste water tank.<br>2. Remove the waste water tank.<br>3. Rinse out the waste water tank.<br>4. Reinsert the fill level sensor. |
| Center grinder (standard), right grinder (optional) overloaded or blocked | An excessively high current value (> 8 A) was measured over a defined period of time. The machine tries to restart grinding five times, then the **Left or right grinder overloaded** message appears. If a beverage is requested again in this state and the problems persist, the message changes to **Grinder center or right / blocked**. Beverage dispensing is blocked. | 1. Switch the machine off.<br>2. Check the grinder for blockages and remove any foreign objects.<br>3. Restart the machine.<br>4. If the error is displayed again, the fault persists: Contact your service partner. |
| Fill with beans (center grinder empty) | The center bean hopper is empty. | ▶ Refill beans. |
| Fill with beans (right grinder empty) | The right bean hopper is empty. | ▶ Refill beans. |
| Fill ground coffee into manual inlet | No ground coffee was poured into the manual inlet. | 1. Open the cover of the manual inlet in the center bean hopper.<br>2. Fill with ground coffee.<br>3. Close the cover of the manual inlet. |
| Fill choco or milk powder into 1st container (1st powder container empty) | The first powder container is empty. | ▶ Fill the first powder container. |
| Fill choco or milk powder into 2nd container (2nd powder container empty) | The second powder container is empty. | ▶ Fill the second powder container. |

| Display message | Cause | Remedy |
|---|---|---|
| Tea hot water boiler or coffee overtemperature | The water supply is interrupted. | ▶ Check the level of the external/internal drinking water tank (optional) and the condition of the mains water supply. |
| | The machine is overheated. | ▶ Disconnect the machine from the power supply and let it cool down. |
| | The SSR is defective. | ▶ If the fault persists, contact your service partner. |
| | The excess temperature switch has triggered. | |
| Steam boiler excess temperature | The water supply is interrupted. | ▶ Check the level of the external/internal drinking water tank (optional) and the condition of the mains water supply. |
| | The steam system is clogged. | ▶ Check and clean the beverage outlet and the steam system. |
| | The machine is overheated. | ▶ Disconnect the machine from the power supply and let it cool down. |
| | The SSR is defective. | ▶ Contact your service partner. |
| | The excess temperature switch has triggered. | |
| Hot water temperature too low, steam boiler temperature too low | The heating phase is still running. | ▶ Wait until the machine has heated up. |
| | There is an error when heating up. | 1. Disconnect the machine from the power supply.<br>2. Reconnect and switch on. |
| HW boiler heating time-out, steam boiler heating time-out | Although the heating is switched on, the set temperature was not reached within 5 min. | ▶ If the fault persists, contact your service partner. |
| Hot water boiler NTC short-circuited, steam boiler NTC short-circuited | The main board does not detect any resistance. A maximum temperature sensor (approx. 150 °C or 302 °F) is measured. Beverage dispensing is blocked. | ▶ If the fault persists, contact your service partner. |
| Hot water boiler NTC interrupted, steam boiler NTC interrupted | The temperature sensor is interrupted. A minimum temperature sensor is measured. | ▶ If the fault persists, contact your service partner. |
| Brewing unit overcurrent | Overcurrent was detected on the motor of the brewing unit. | ▶ If the fault persists, contact your service partner. |
| Brewing unit closed current | Even if the brewing unit is not in operation, it must be able to draw a minimum current. If this is not the case, there is a fault. This may be caused by the brewing unit, the power board or the wiring. | 1. Check the brewing unit for blockages.<br>2. If the fault persists, contact your service partner. |

| Display message | Cause | Remedy |
|---|---|---|
| Insert decalcification cartridge | The descaling product required for the descaling process is missing. | 1. Insert the decalcification cartridge.<br>2. Remove the cartridge after descaling and when an instruction appears on the display. |
| Brewing unit time-out | The brewing unit does not have a home position switch. The position of the brewing cylinder is detected by measuring the current value. The following peak values are detected: Upper and lower position.<br>The following time-out is defined: If no current peak is detected within 10 s of the brewing unit being moved, **Brewing unit time-out** is displayed. | ▶ If the fault persists, contact your service partner. |
| Water flow error | During dispensing of a coffee product, the flow meter performs less than the defined number of minimum revolutions. A blockage or partial blockage somewhere in the entire water system is likely. | 1. Check the level of the drinking water tank and the condition of the mains water supply.<br>2. Check the internal or external drinking water tank. (Saturation of the filter reduces the water flow.)<br>3. Check whether the upper piston is blocked or partially blocked.<br>4. Check the grinding level.<br>If the grinder setting is too fine, this can inhibit or completely block the water flow.<br>5. If the fault persists, contact your service partner. |
| Steam supply error | The level sensor detects a low level in the steam boiler. An attempt is made to fill the boiler. However, no water was detected by the level probe within 60 s. The filling process is canceled. The dispensing of beverages that require steam is blocked. | ▶ If the fault persists, contact your service partner. |
| Modbus processing error BP | Communication error between power unit and touch screen | ▶ If the fault persists, contact your service partner. |
| Modbus processing error MV | Communication error between manometer and touch screen | ▶ If the fault persists, contact your service partner. |
| Modbus processing error MR | Communication error between cooling unit and touch screen | 1. Check the wiring of the cooling unit and machine.<br>2. If the fault persists, contact your service partner. |
| Payment system error | Communication error between payment system and touch screen | 1. Restart the machine.<br>2. If the fault persists, contact your service partner. |

| Display message | Cause | Remedy |
|---|---|---|
| Machine out of operation | Setting in Self-service mode if no beverages can be dispensed for various reasons. | 1. Set the **Configuration – Timer operation** parameter setting accordingly.<br>2. Check products such as coffee beans, milk, choco powder or milk powder.<br>3. Check the temperature sensor of the cooling unit.<br>4. Carry out the pending cleaning or descaling process.<br>5. If the fault persists, contact your service partner. |
| Communication errors (various) | Communication error between software and various modules such as the HCU power unit, Flavour Point, brewing unit, manometer, etc. | 1. Restart the machine.<br>2. If the fault persists, contact your service partner. |

### 11.3.2 "Error" display message

The following display messages are stored in yellow in the control system.

| Display message | Cause | Remedy |
|---|---|---|
| Brewing unit rotary encoder error | The brewing unit motor encoder was not detected during machine initialization. | 1. Restart the machine.<br>2. Contact your service partner if the error persists. |
| Error in automatic grinding level correction for center, left or right | The motor of the automatic grinding level adjustment function is running incorrectly. | 1. Cancel the grinding level adjustment.<br>2. Restart the machine.<br>3. Contact your service partner if the error persists. |
| Machine configuration error | There is a discrepancy between the software and the machine hardware. | 1. Restart the hardware detection.<br>2. Restart the machine.<br>3. Contact your service partner if the error persists. |
| Steam wand temperature sensor interruption | The steam wand temperature sensor is not closed. | 1. Restart the machine.<br>2. Contact your service partner if the error persists. |
| Steam wand temperature sensor short circuit | The steam wand temperature sensor is defective. | 1. Restart the machine.<br>2. Contact your service partner if the error persists. |
| Reset descaling/cleaning | Cleaning/Descaling was interrupted/not fully completed. | 1. Carry out cleaning/descaling in the Service menu.<br>2. Acknowledge cleaning/descaling in the Service menu. |

| Display message | Cause | Remedy |
|---|---|---|
| Milk empty soon | The fill level in the milk container is too low. | 1. Remove the milk container.<br>2. Clean the milk container thoroughly.<br>3. Fill the milk container with fresh pre-cooled milk (3 – 5°C or 37.4 – 41 °F) and put it back into the machine. |
| Grounds container almost full | The grounds container will soon contain approx. 60 – 70 coffee cakes. | ▶ Empty the grounds container when convenient. |
| Close user panel | The user panel is open or has not been fully closed. | ▶ Press the user panel down until it clicks into place. |
| External drinking water tank soon empty (optional) | The fill level of the external drinking water tank (option) is too low. | ▶ Empty the drinking water when convenient. |

### 11.3.3 "Instruction" display message

The following display messages are stored in white in the control system.

| Display message | Cause | Remedy |
|---|---|---|
| Insert grounds container | The grounds container is missing or has not been fully inserted into the machine. | ▶ Correctly insert the grounds container into the machine. |
| Close user panel | The user panel is open or has not been fully closed. | ▶ Press the user panel down until it clicks into place. |
| Fill external drinking water tank (optional) | The fill level of the external drinking water tank is too low. | 1. Remove the fill level monitor from the external drinking water tank.<br>2. Rinse out the external drinking water tank with clean water and fill it.<br>3. Reinsert the fill level monitor. |
| Empty waste water tank (optional) | The fill level of the external waste water tank has been reached. | 1. Remove the fill level monitor from the external waste water tank.<br>2. Rinse out the external waste water tank with clean water and fill it.<br>3. Reinsert the fill level monitor. |
| Fill with beans (center grinder empty) | The center bean hopper is empty. | ▶ Fill the bean hopper. |
| Fill with beans (right grinder empty) | The right bean hopper is empty. | ▶ Fill the bean hopper. |
| Fill ground coffee into manual inlet | No ground coffee was poured into the manual inlet. | 1. Open the manual inlet in the center bean hopper.<br>2. Fill with ground coffee.<br>3. Close the manual inlet. |
| Fill choco or milk powder into 1st container (1st powder container empty) | The 1st powder container is empty. | ▶ Refill the first powder container. |

### 11.3.4 “Note” display message

The following display messages are stored in blue in the control system.

| Display message | Cause | Remedy |
|---|---|---|
| Caution: A blocked waste water outlet can cause flooding. | There are coffee ground residues in the waste water. | ▶ Check the waste water outlet and the drip tray for blockages and clean them. |
| Wait until the payment system is fully initialized. | Initialization is in progress. | ▶ Wait until initialization of the payment system is complete. |
| Wait for telemetry connection or contact the service department. | The **Coffee Link** display is pending. | 1. Restart the telemetry system.<br>2. If the fault persists, contact your service partner. |

| Fault | Cause | Remedy |
|---|---|---|
| The display is dark. | The machine is not connected to the power supply. | 1. Connect the machine to the power supply.<br>2. If the fault persists, contact your service partner. |
| | The machine is not switched on. | 1. Switch the machine on.<br>2. If the fault persists, contact your service partner. |
| There are no beverages with milk available. | The milk container is empty. | 1. Refill the milk container.<br>2. If the fault persists, contact your service partner. |
| | The milk system is clogged. | 1. Clean daily.<br>2. If the fault persists, contact your service partner. |
| | The milk system is incorrectly deactivated. | 1. Check the cable connection from the machine control cable to the cooling unit.<br>2. Activate the milk system.<br>3. If the fault persists, contact your service partner. |

| Fault | Cause | Remedy |
|---|---|---|
| There are no beverages with milk foam available. | The milk container is empty. | 1. Refill the milk container.<br>2. If the fault persists, contact your service partner. |
| | The milk system is clogged. | 1. Clean daily.<br>2. If the fault persists, contact your service partner. |
| | The milk system is incorrectly deactivated. | 1. Check the cable connection from the machine control cable to the cooling unit.<br>2. Activate the milk system.<br>3. Clean daily.<br>4. If the fault persists, contact your service partner. |
| There are no beverages with syrup (Flavour Point) available. | The syrup bottle is empty. | 1. Fill the syrup bottle.<br>2. If the fault persists, contact your service partner. |
| | The Flavour Point system is clogged. | 1. Clean daily.<br>2. If the fault persists, contact your service partner. |
| | The Flavour Point system is incorrectly deactivated. | 1. Check the cable connection from the machine control cable to the Flavour Point.<br>2. Clean daily.<br>3. If the fault persists, contact your service partner. |

# 12 Disassembly

After the period of use

After the machine has reached the end of its service life:

1. Disassemble the machine.
2. Dispose of the machine in an environmentally-friendly manner.

# 13 Disposal

The machine must be disposed of properly in accordance with local and legal regulations.

▶ Contact your service partner for this purpose.

If no return or disposal agreement has been made, disassembled components must be recycled.

1. Scrap the metal.
2. Recycle the plastic elements.
3. Dispose of the remaining components sorted according to material properties.
4. Dispose of operating materials and cleaning products in line with local regulations and the respective manufacturer instructions.