CQUBE SERIES

MAINTENANCE MANUAL

MM_EN
Date: 131203

COFFEE QUEEN ORIGINAL

Some important information may appear in textboxes seen below

IMPORTANT!
INFO.

CAUTION!
INFO.

More INFO.

Note INFO.

Facts & weight

FACTS	CQube					
	SF12	SF03	SF20	SE12	SE20	SE20+ BARISTA
Drink options	1-12	1-12	1-5	1-12	1-5	1-12
Function for selecting jug	Yes					None
Grinder type	EK-7	None	2 x EK-7	EK-7	2 x EK-7	2 x EK-7
Number of bean hoppers	1	None	2	1	2	2
Number of ingredient canisters	2	3	None	2	None	1
Brewer type	Filter			Espresso		
Touch screen	Option					
Espresso pump type	None			Vibration pump		
Drip tray size	0.5L					
Milk waste size	None					1.1L
Ground container size	0.5 kg (40cups)					
Base cabinet	Option					
Tank volume	1.8L					
Espresso boiler	0.7L					
Power supply	220-230VAC/2200W 50-60Hz					
Water connection	1/2" external thread					
Built-in cold water unit	None					
Co_2 water unit	None					
Water punifictation filter	Option					

Model / Name	CQube					
	SF12	SF03	SF20	SE12	SE20	SE20+BARISTA
Weight	37kg	37kg	37kg	37kg	37kg	74kg
Base cabinet	25 kg	25 kg	25 kg	25 kg	25 kg	25 kg

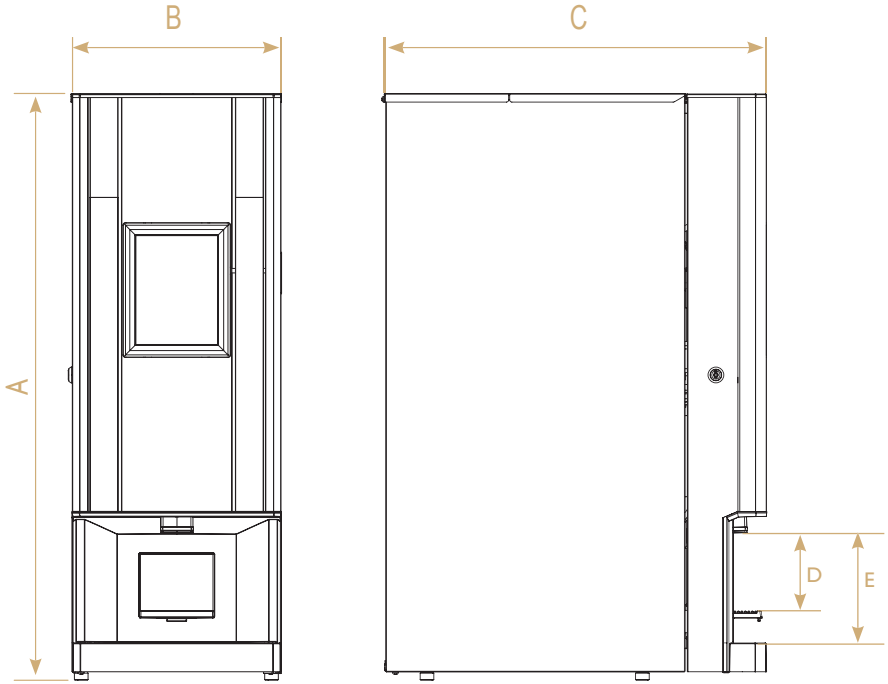
Facts & weight

FACTS	CQube				
	ME12	MF13	MF04	LF13	LF04
Drink options	1-12				
Function for selecting jug	Yes				
Grinder type	EK-21	EK-21	None	EK-21	None
Number of bean hoppers	1	1	None	1	None
Number of ingredient canisters	2	3	4	3	4
Brewer type	Espresso	Filter			
Touch screen					
Espresso pump type	Rotation Pump	None			
Drip tray size	1.8L				
Ground container size	2kg (160cups)				
Base cabinet	Option				
Tank volume	5L				
Power supply	220-230VAC/2200W 50-60Hz				
Water connection	1/2" external thread				
Built-in cold water unit	Option				
Co_2 water unit	Option				
Water punifictation filter	Option				

Model / Name	CQube				
	ME12	MF13	MF04	LF13	LF04
Weight	52kg	48kg	42kg	51kg	45kg
Cold water unit	12kg	12kg	12kg	12kg	12kg
Cold + co_2 water unit	16kg	16kg	16kg	16kg	16kg
Base cabinet	25 kg	25 kg	25 kg	25 kg	25 kg

Dimensions

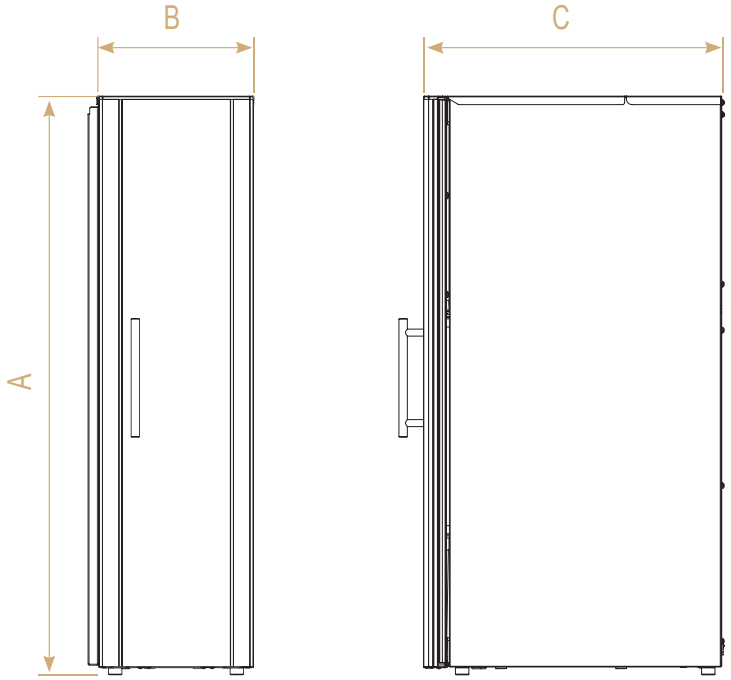
CQube SF12 SF03 SF20 and CQube SE12 & SE20



Model	A	B	C	D	E
CQube SF12	818mm	290mm	532mm	110mm	155mm
CQube SF03	818mm	290mm	532mm	110mm	155mm
CQube SF20	818mm	290mm	532mm	110mm	155mm
CQube SE12	818mm	290mm	532mm	110mm	155mm
CQube SE20	818mm	290mm	532mm	110mm	155mm

Dimensions

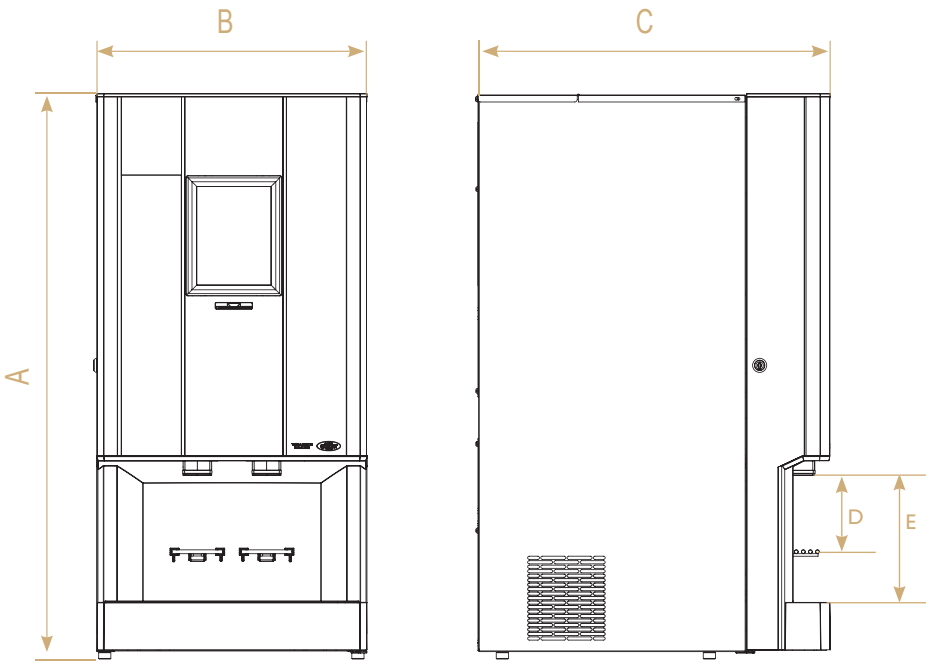
BARISTA



Model	A	B	C
BARISTA	818mm	235mm	456mm

Dimensions

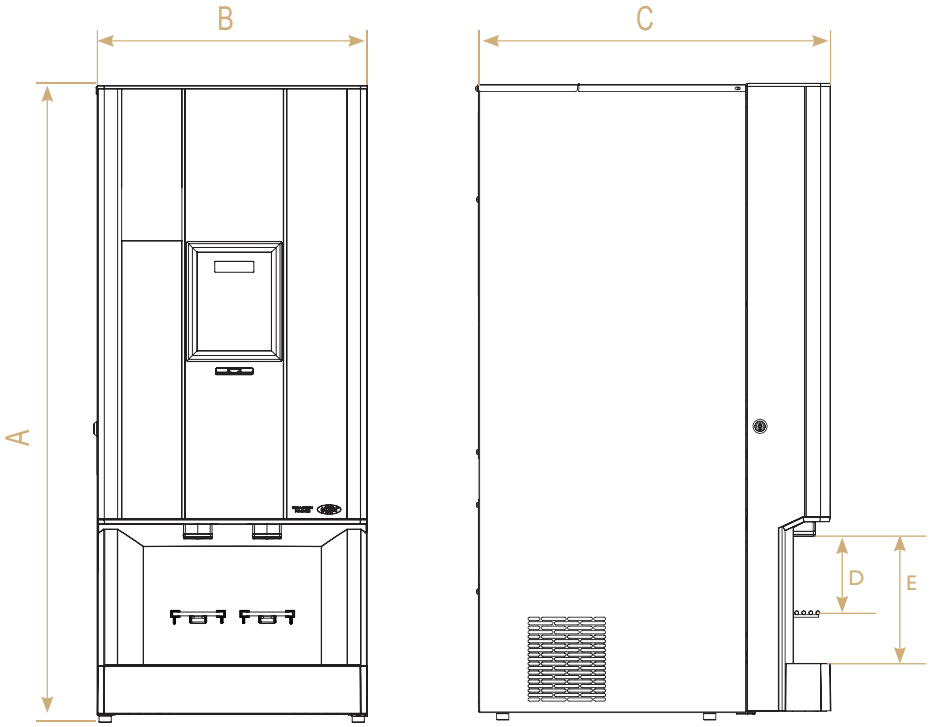
CQube MF13 & MF04 and CQube ME12



Model	A	B	C	D	E
CQube MF13	882mm	427mm	550mm	110mm	155mm
CQube MF04	882mm	427mm	550mm	110mm	155mm
CQube ME12	882mm	427mm	550mm	110mm	155mm

Dimensions

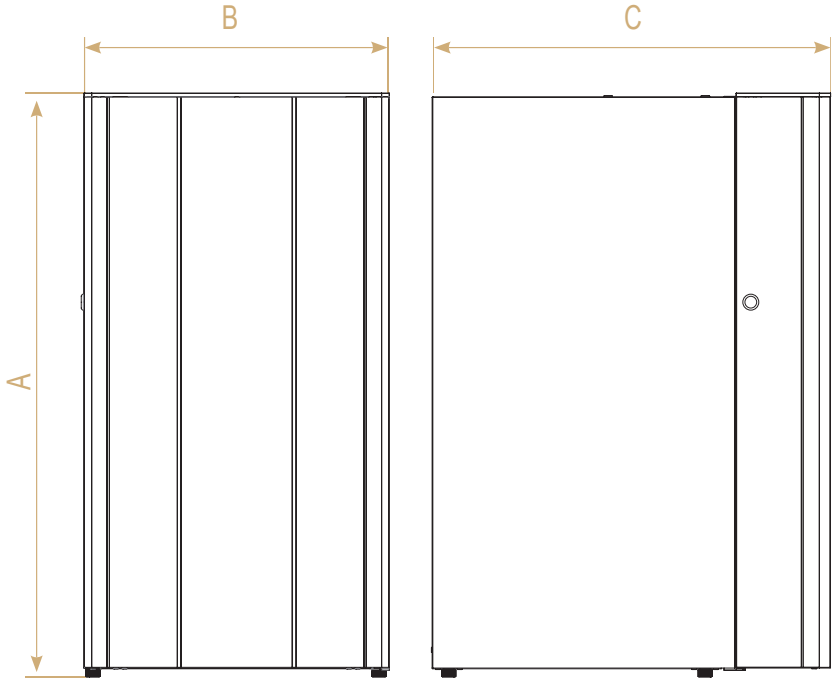
CQube LF13 & LF04



Model	A	B	C	D	E
CQube LF13	995mm	420mm	565mm	110mm	155mm
CQube LF04	995mm	420mm	565mm	110mm	155mm

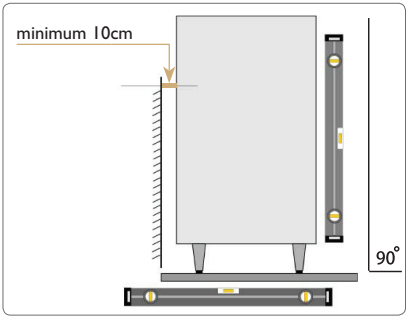
Dimensions

Cabinet for CQube M



Model	A	B	C
Base cabinet for CQube M	806mm	425mm	550mm

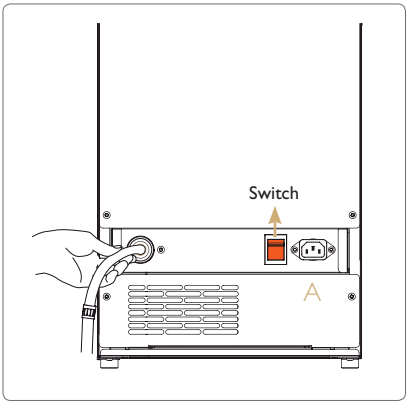
Positioning



- Place the machine on a flat horizontal surface that will support the weight of the machine.
- When assembled with a base cabinet: Fix the CQube machine together with the base cabinet with supplied M6 X 35 screws.

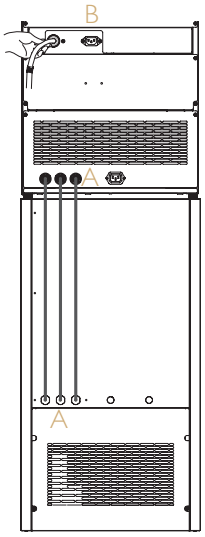
Note	Make sure air is able to circulate behind the machine (minimum 10cm).

Machine startup procedure for CQube SF SE



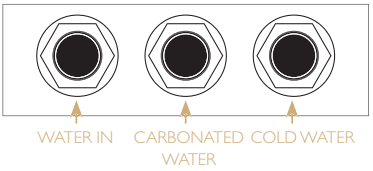
- Connect the water to the top cabinet on the machine.
- Connect the supplied water hose to the cold water connection using a ½" R-connection. When pushing the machine into position make sure there is no interference to the hose to ensure proper water flow.
- If the inlet hose is new, flush the system with water first to remove copper shavings. These can damage the inlet valve.
- The new tube set supplied with the appliance must be used. Old tubes may not be re-used. Connection to a closable valve is recommended.
- Min. water pressure; 2 bar (200kPa).
- Max. water pressure: 8 bar (800kPa).
- Open the water tap.
- Connect the mains cable to the machine (A) and insert the plug to a earthed wall socket.
- Switch on the power switch on the rear of the machine. See figure.
- The display indicates **Low Water Level Press Enter Key** Press the / ENTER button.
- The water tank will now automatically fill with 1.8 litres of water. The element will not be powered until the water reaches the level sensor.
- Set temperature is 96° Celsius.
- Once the water heating is complete "Low temp" text will disappear from the display. (The display text will start to rotate).

Start-up procedure for CQube MF LF



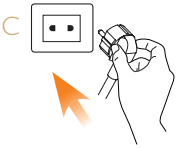
Note If the machine doesn't have any cold water cabinet only follow the steps in the colored section below.

- Connect the 8mm hoses 3 units. (A) parallel between the top and base cabinets, from left to right.

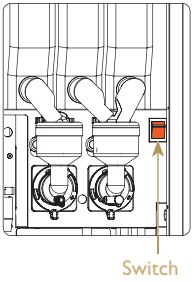


Note Do not connect the electrical cable from the cold water unit until the machine has heated up.

- Connect the carbon dioxide tube to the gas canister and open the tap, check that the factory set pressure is c. 3.5bar. May be adjusted +0.5 -1.0 bar. Put the gas canister tube in place inside the base cabinet.

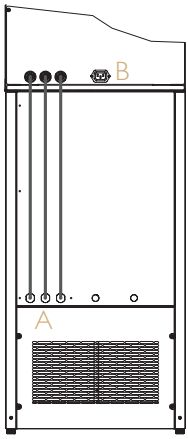


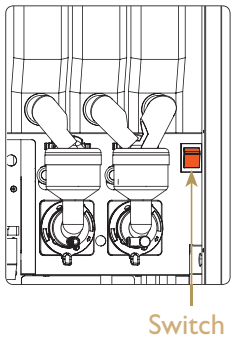
- Connect the mains cable to the machine (B) and insert the plug to a earthed wall socket (C).
- Connect the water to the top cabinet on the machine.
- Connect the supplied water hose to the cold water connection using a ½" R-connection. When pushing the machine into position make sure there is no interference to the hose to ensure proper water flow.
- If the inlet hose is new, flush the system with water first to remove copper shavings. These can damage the inlet valve.
- The new tube set supplied with the appliance must be used. Old tubes may not be re-used. Connection to a closable valve is recommended.
- Min. water pressure; 2 bar (200kPa).
- Max. water pressure: 8 bar (800kPa).
- Open the water tap.
- Open the door and turn on the power switch. See figure.



- Close the door
- The display indicates **Low Water Level Press Enter Key** Press the E / ENTER button.
- The water tank will now automatically fill with 5 litres of water. The element will not be powered until the water reaches the level sensor.
- Set temperature is 96° Celsius.
- Once the water heating is complete "Low temp" text will disappear from the display. (The display text will start to rotate between these two screens **FRESHBREWED FILTER COFFEE** and **SELECT PRODUCT**)

- Shut off the machine, continue on next page.



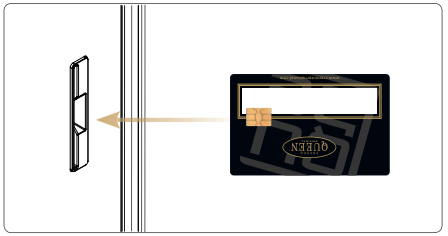


- Now connect the electricity cable which comes from the base cabinet into the electric socket at the machine (B).
- Switch on the machine again and wait until the text in the display starts to rotate.

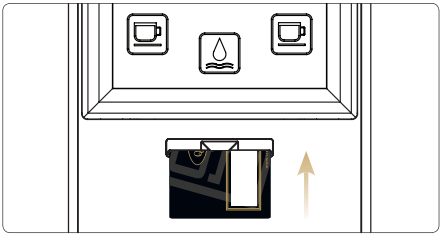
Note	The fresh-brew machine must be warm before any cold water can be dispensed.

- Take a glass and press the button for cold water until water is dispensed in a even flow and the pressure pump that is buzzing gives a different calmer sound (cold water compressor is relatively quite so it should not usually be heard very much)
- Now press the button for carbonated water so the water can mix with the carbon dioxide, keep the button pressed until you have a even flow of water.
- When you release the button the pump will fill up the cooling unit and then turn off. The machine is now ready for use.

- Technical service card Item number: 1602693.
- Is used for advanced cleaning and adjust machine settings.
- The technical service card is supplied by your dealer.
- For complete icons see programming manual.



- Insert the technical service card with the chip towards for SF or SE series as in the figure above.



- Insert the technical service card with the chip upwards for MF or LF series as in the figure above.

- For this detailed cleaning section you will encounter these screens and buttons on the displays.

Touch Display

Clean Machine

Press this button to enter cleaning mode on a touch display.

Membrane Switch

- To use the machine again remove the technical smart card and store it in a safe place.

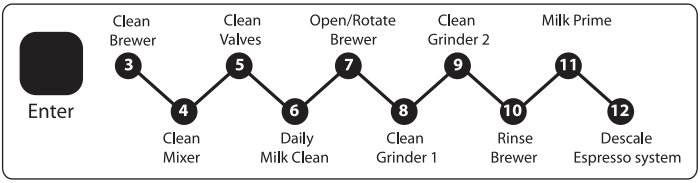
Detailed cleaning instructions

Clean brewer CQube SF MF LF

Cleaning of the brewing mechanism should be performed once a week.

Total cleaning time about 10 minutes. Filter cleaning agent is avalible from your dealer:
Product no.
1104161

IMPORTANT!
After cleaning of the brew mechanism is completed, dispense a cup of coffee and discard it to remove cleaning agent remains in the filter and brew chamber.



- Insert technical service card
- Step to **Clean Machine** Press Enter or press  Clean Machine
- **Cleaning Hot Key** appears on the display
- Open the machine door
- Put a container that holds at least 0.5 litres under the outlet for hot drinks.
- Press button (3) on the cleaning panel. (See fig.A)
- Display indicates: **Place jug Press ENTER to start**
- Put 25gr (one portion) of cleaning agent (See fig.B) in brewing mechanism.
- Press Enter on the cleaning panel to start the cleaning process.
- Display indicates: **Preparing Brewer Please Wait.**
- Display indicates: **Cleaning Brewer Time Left 300s** The machine counts down from 300 seconds.
- Display indicates: **Rinsing Brewer Cycles left 7**
- Display indicates: **Cleaning hot key** when the cleaning is complete.
- Close the door and remove technical service card to return to normal mode.

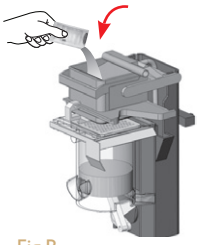


Fig.B

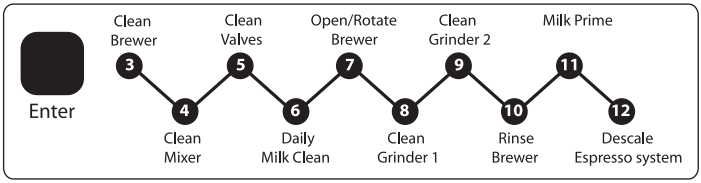
Note	When the cleaning agent has been added, the process must not be interrupted but be allowed to run its course.

Detailed cleaning instructions

Clean brewer CQube SE ME

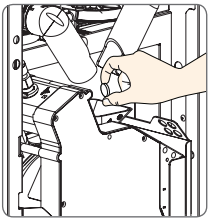
Total cleaning time about 5 minutes. Espresso cleaning tablets are avalible from your dealer: Product no. 1104171

IMPORTANT!
After cleaning of the brew mechanism is completed, dispense a cup of coffee and discard it to remove cleaning agent remains in the filter and brew chamber.



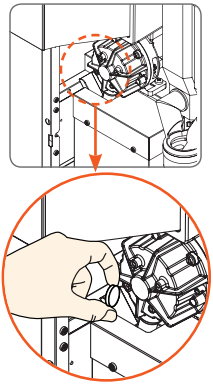
- Insert technical service card
- Step to **Clean Machine** Press Enter  or press 
  Clean Machine
- **Cleaning Hot Key** appears on the display
- Open the machine door
- Put a container that holds at least 1 litres under the outlet for hot drinks.
- Press button (3) on the cleaning panel. (See fig. A)
- Display indicates: **Place jug Press ENTER to start**
- Put a cleaning tablet in brewmechanism. (See fig. C and D)
- Press  on the cleaning panel to start the cleaning process.
  Enter
- Display indicates: **Preparing Brewer Please Wait.**
- Display indicates: **Cleaning Unit Time Left 60 seconds** The machine counts down from 60 seconds.
- Display indicates: **Rinsing Brewer Cycles left 3**
- Display indicates: **Cleaning hot key** when the cleaning is complete.
- Close the door and remove technical service card to return to normal mode.

Fig.C



Brewer for CQube SE

Fig.D



Brewer for CQube ME

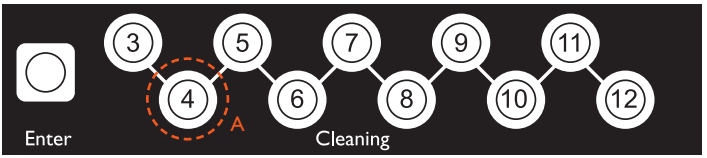
Note	When the cleaning tablet has been added, the process must not be interrupted but be allowed to run its course.

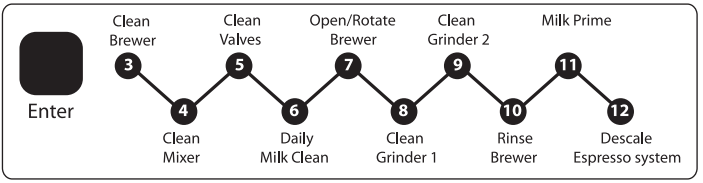
Detailed cleaning instructions

Clean mixer for CQube series

Cleaning means rinsing with water and rotating the whipper.

Cleaning of the mixing bowl should be performed once per day.





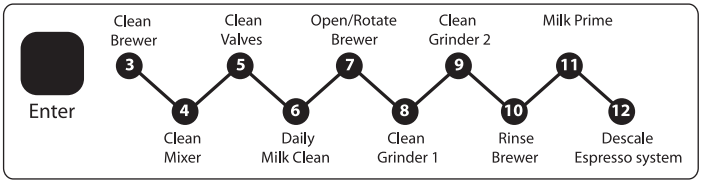
- Insert technical service card
- Step to **Clean Machine** Press Enter or press 
  Clean Machine
- **Cleaning Hot Key** appears on the display
- Open the machine door.
- Put a container that holds at least 0.5 litres under the outlet for hot drinks.
- Press button (4) on the cleaning panel. (See fig.A)
- The machine will now clean the mixing bowl for 5 seconds.
- Close the door and remove technical service card to return to normal mode.

Note	Repeat the cleaning procedures 2-3 times to get a better cleaning effect.

Detailed cleaning instructions

Clean valves for CQube series

Cleaning entails that the valves "knock" off any lime scale and other particles that may get stuck in the cylinders and flushing them with water.

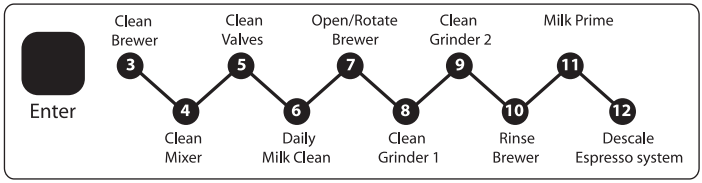


- Insert technical service card
- Step to **Clean Machine** Press Enter or press 
  Clean Machine
- **Cleaning Hot Key** appears on the display
- Open the machine door.
- Put a container that holds at least 0.5 litres under the outlet for hot drinks.
- Press button (5) on the cleaning panel. (See fig.A)
- The machine will now clean the dispenser valves for 5 seconds.
- Close the door and remove technical service card to return to normal mode.

Note	Repeat the cleaning procedures 2-3 times to get a better cleaning effect.

Detailed cleaning instructions

Daily milk clean for CQube SE BARISTA



This cleaning is also scheduled to run every night at 03:00

Milk system cleaning liquid are avalible from your dealer:
Part No.: 1104165

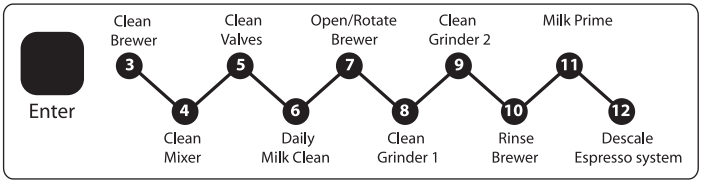
- Insert technical service card
- Step to **Clean Machine** Press Enter  or press  Clean Machine
- **Cleaning Hot Key** appears on the display
- Open the machine door
- Press button (6) on cleaning panel inside of the door (See fig.A)
- **Filling System..** this takes approx 10-15sec
- **Cleaning System Time Left: 60s** machine counts down from 60s
- **Air Drying System Time Left: 120s** Machine counts down from 120s
- When cleaning is completed display shows **Cleaning Hot Key**
- Close the door and remove technical service card to return to normal mode.

Note	Repeat the cleaning procedures 2-3 times to get a better cleaning effect.

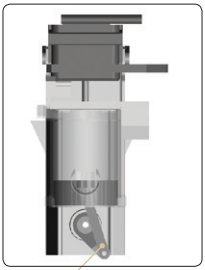
Detailed cleaning instructions

Open/rotate brewer for CQube series

This function can be used to position the espresso brewer so it's easier to remove and get access to the filter in bottom of brew cylinder for cleaning.



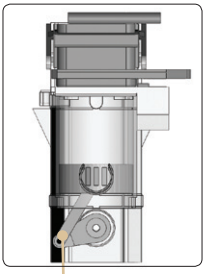
Open Position



5 o'clock position

fig.B

Home Position



8 o'clock position

fig.C

- Insert technical service card
- Step to **Clean Machine** Press Enter  or press  Clean Machine
- **Cleaning Hot Key** appears on the display
- Open the machine door.
- Press button (7) on the cleaning panel. (See fig.A)

  If machine has a freshbrew mechanism press only one time and the brewer will run automatically to open position. (see fig.B)
  If machine has espresso brewer this function is used as "Push and Hold". Brewer will rotate as long as you keep the button pressed.
- To close freshbrew mechanism press ENTER to make it return to home position. (see fig.C)
- Close the door and remove technical service card to return to normal mode.

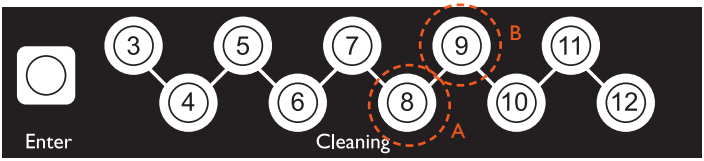
Note	If you don't rotate the espresso brewer in correct position before exiting the cleaning mode. First drink you make after this may not contain any beans in the chamber, depending on the brewer position. Second drink will be OK.

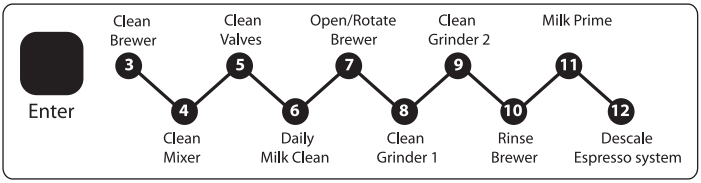
Detailed cleaning instructions

Clean grinder 1/2 for CQube series

Tips: Keep a cup under the grinder outlet during the cleaning process.

Cleaning with grindz cleaning tablets, Every month (Product No. E10010O1)





- Insert technical service card
- Step to **Clean Machine** Press Enter  or press  Clean Machine
- **Cleaning Hot Key** appears on the display
- Open the machine door.
- Remove the brewer from its position and close bean stop in bottom of the bean hopper.
- Start grinder by pressing button (8) (Grinder 1), this is a "Push and Hold" function, the grinder will run as long as the button is pressed. (See fig.A)
- Run grinder until no powder comes out of the grinder outlet, approx 10sec.
- Remove the bean hopper and pour out the remaining coffee beans.
- Reassemble bean hopper and fill with a cap GRINDZ cleaning tablets and re-open bean stop. (See fig.C)
- Start the grinder again by pressing button (8) approx 10sec.
- Run until no more cleaning powder come out of the grinder.
- Refill the bean hopper with fresh coffee beans.
- Reassemble the brewing mechanism.
- Close the door and remove technical service card to return to normal mode.
- Make one cup of brew coffee and throw it away.

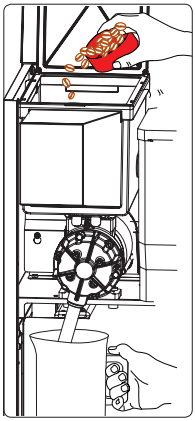
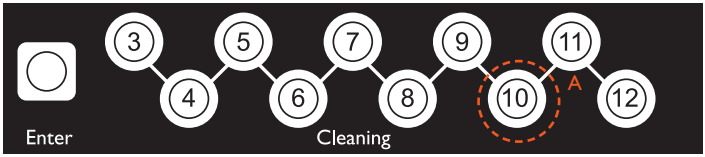


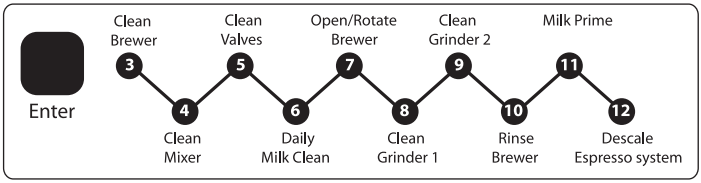
fig.C

Note	If machine have two grinders, follow same procedure but use button (9) instead (Grinder 2) (See fig. B) Grinder 1= left grinder Grinder 2= right grinder

Detailed cleaning instructions

Rinse brewer for CQube series





- Insert technical service card
- Step to **Clean Machine** Press Enter or press 
  Clean Machine
- **Cleaning Hot Key** appears on the display
- Open the machine door.
- Put a jug or container for at least 200ml at the brewer outlet.

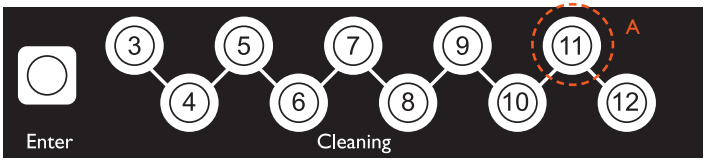
  If machine have a freshbrew mechanism it will dispense 150ml hot water into the brewer and then make one rotation until home position is reached.

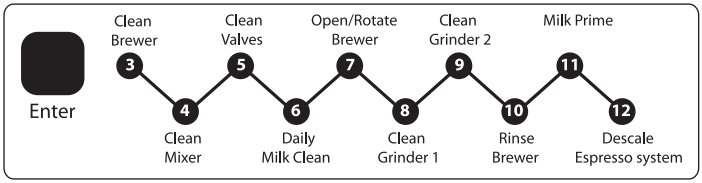
  If machine have an espresso brewer it will close the brewer and the rinse unit with 50ml hot water, then it will go back to home position.
- Press button (10) on the cleaning panel to start rinse. (See fig. A)
- When rinsing is complete you can repeat this process 2-3 times when **Cleaning Hot Key** is shown in display to get a better effect.
- Close the door and remove technical service card to return to normal mode.

Detailed cleaning instructions

Milk prime for CQube SE BARISTA

This cleaning should be preformed when changing milk bag or milk container.





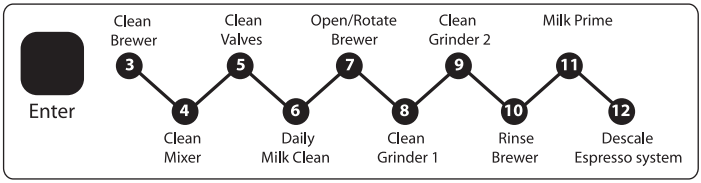
- Insert technical service card
- Step to **Clean Machine** Press Enter or press 
  Clean Machine
- **Cleaning Hot Key** appears on the display
- Open the machine door.
- Open cooler in Barista unit and make sure milk bag or milk container is empty.
- Press button (11) on the cleaning panel. (See fig. A)
  Milk Prime is now starting which will back flush the milk system with hot water to primarily clean the direction valve inside the cooler. The waste water from this cleaning will be flushed into milk bag or milk container.
  The cleaning process takes about 10sec.
- Repeat this process 2-3 times when **Cleaning Hot Key** is shown in display to get a better effect.
- When Milk Prime is completed, dispose of the Milk bag or clean milk container before refilling with new milk.
- Close the door and remove technical service card to return to normal mode.

Detailed cleaning instructions

Descale espresso for CQube ME SE

Total cleaning time about 15 minutes.

Descaling the espresso system should be performed once every six months.



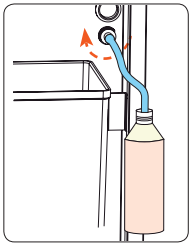


fig.B

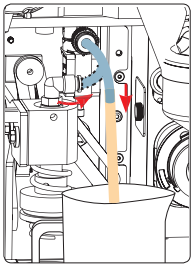
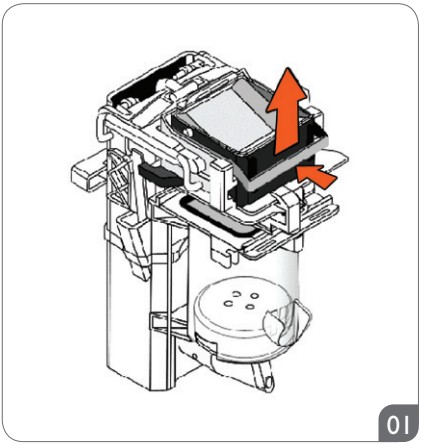


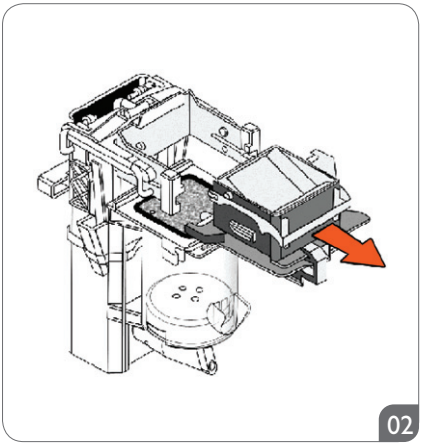
fig.C

- Insert technical service card
- Step to **Clean Machine** Press Enter or press  Clean Machine
- **Cleaning Hot Key** appears on the display
- Open the machine door.
- Connect the hose for descaling agent. Turn the hose fitting a quarter turn to lock.(see fig.B)
- Loosen the hose to the brewing mechanism and connect the silicone tube (see fig.C) 4x9x500mm. Item: 150494
- Press the button (12) (see fig.A), Display shows: **Place jug Press ENTER to start**
- Place the hose in a container that holds about 1 liter.
- Press Enter Display shows: **Preparing Unit Please Wait.** system is now filled with descaling agents. (Intermittently for 1 minute)
- Display indicates: **Cleaning Brewer Time Left 600s** The machine counts down from 600 seconds.
- Display indicates: **Rinsing Brewer Cycles left 5**
- Display indicates: **Cleaning hot key** when the cleaning is complete.
- Reassemble the hoses in the reverse order.
- Close the door and remove technical service card to return to normal mode.

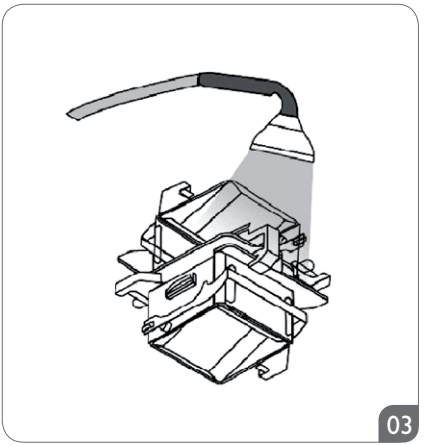
Disassemble the brewing chamber



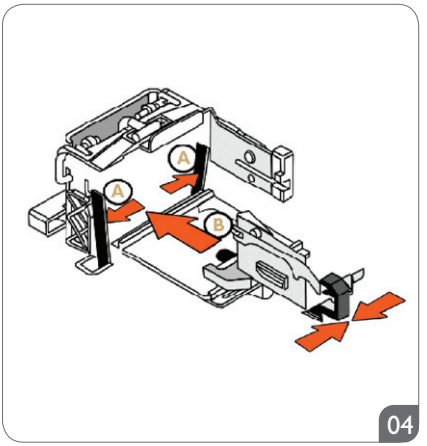
▲ **Disassemble the brewing chamber.** Press and lift up the handle on the brewing chamber.



▲ Once you have lifted the handle, pull the brewing chamber straight out.



▲ **Note:** Rinse the brewing chamber under running water to remove cleaning agent and coffee remains.



▲ **Reassemble the brewing chamber.**
Note: When the brewing chamber is reassembled, ensure that the rubber scraper (B) ends up between the rocker arms (A).

Disassemble and cleaning of coffee filter

- Loosen the outlet and insert the tool (A), through one of the holes in the front of the brewing mechanism all the way to the rear part of the cylinder wall (Figure 1), move the tool towards the rear section of the filter insert until the insert is ejected (Figure 2).

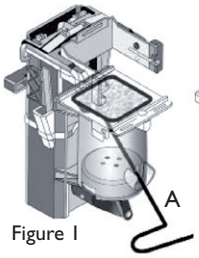


Figure 1

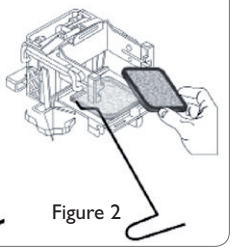
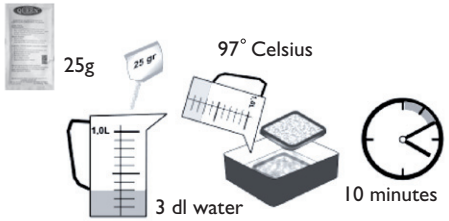


Figure 2



- Clean the filter insert with 25g cleaning agent dissolved in 3 dl water for max 10 minutes.
- Refit the filter. Close the door.
- Press the E / ENTER button and the brewing mechanism will return to default position.
- Remove user card.

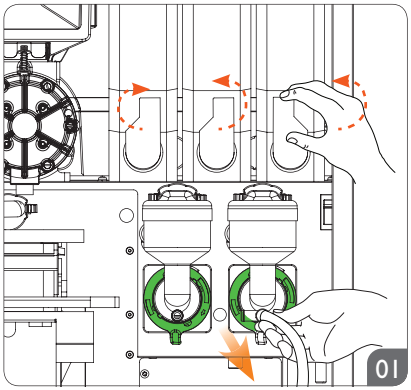
Note	Dispense a cup of coffee and discard it to remove cleaning agent remains in the filter. After having been in contact with the cleaning agent, the filter must be washed with detergent and be carefully rinsed under running water.

Is available from your dealer

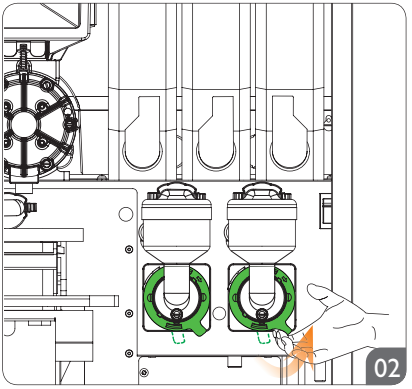
Cleaning agent: for brewing mechanism	Product No. 1104161
Filter: for brewing mechanism	Product No. 47200213
Tool: for disassembly of filter	Product No. 4720090

Weekly cleaning

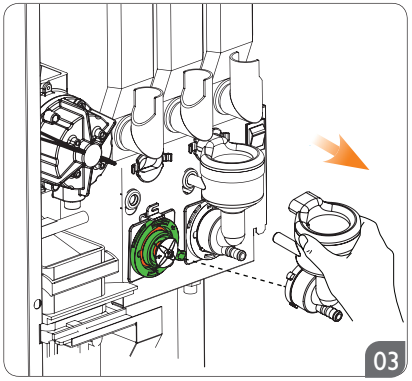
Disassemble mixing system



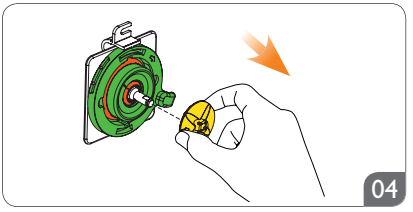
◀ Rotate the canister chutes so they point upwards and pull out the outlet hose.



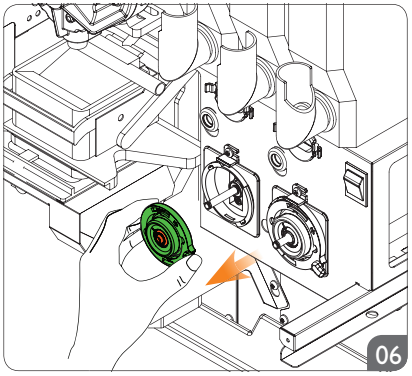
▲ Turn the mounting plate lever anticlockwise.



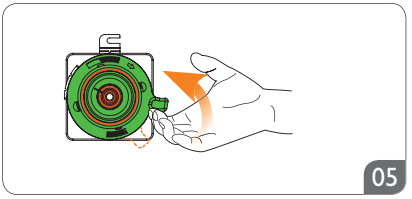
▲ Loosen the mixing bowl by pulling it straight out.



▲ Loosen the whipper by pulling it straight out.



▲ Pull the mounting plate straight out.

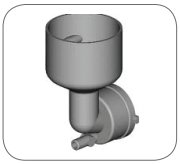


▲ Loosen the mounting plate. Turn the lever anticlockwise, until it stops.

Reassembling mixing system
See the next page

Weekly Cleaning

Wash these parts


Mixing Bowl


Condensation Trap

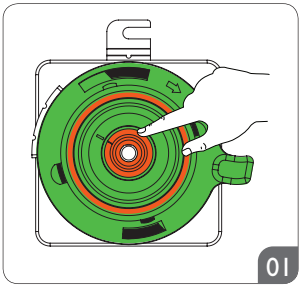

Mounting Plate

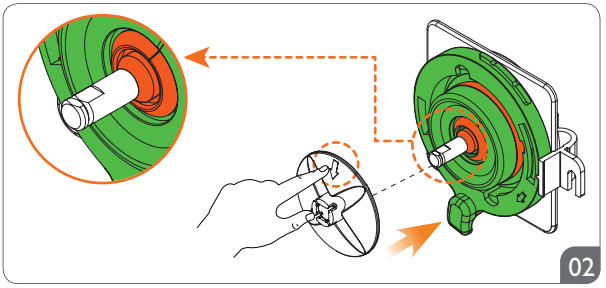

Whipper


Clean with a moist cloth and wipe dry.

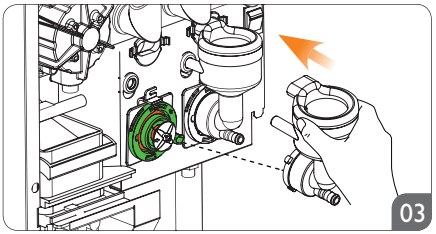
★ **All parts must be dry before reassembly.**

Reassemble mixing system



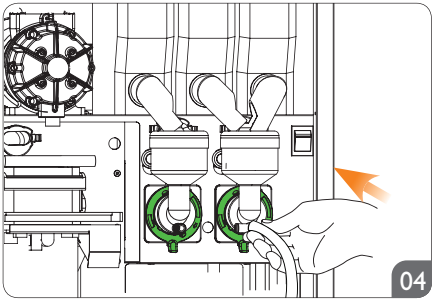


▲ Check all seals (red) before reassembly of parts.



▲ The flat side of the whipper shaft must correspond with the marked arrow on the whipper.
To fit the whipper push onto the shaft until a click sound can be heard. It is only possible to assemble the whipper in one way.

◀ Fix the mixing bowl and condensation trap. Push-fit the mixing bowl and fix with lever.



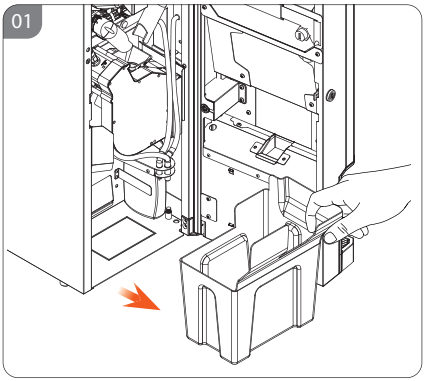
◀ Connect the outlet hose.

Note	Ensure that all water hoses have been connected and fitted.

Weekly Cleaning

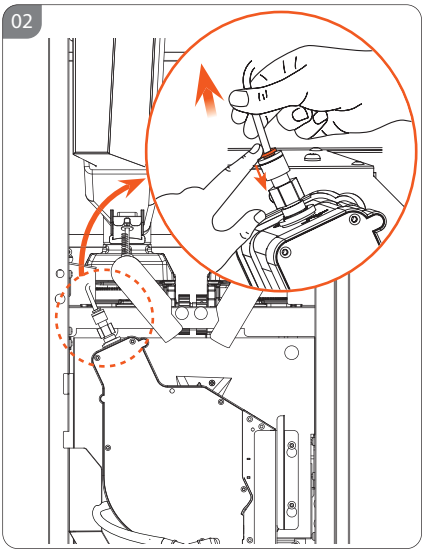
Disassemble the espresso group

01



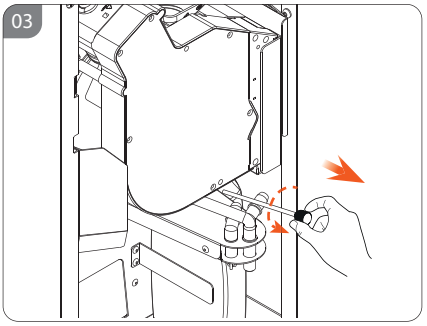
▲ Open the door and remove the waste bin.

02



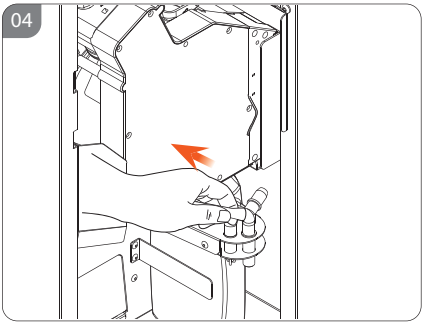
▲ Press down the safty ring on the connector simultaneously pull the teflon tube straight up.

03



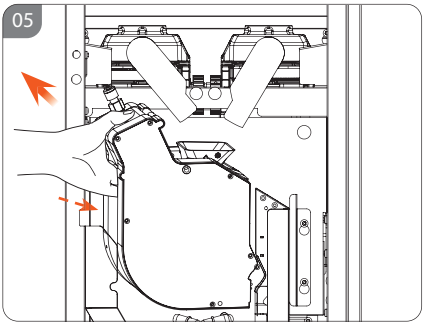
▲ Loosen the fixation screw at the bottom of the brewer.

04



▲ Loosen the brewer tube from the outlet by pulling it straight out.

05

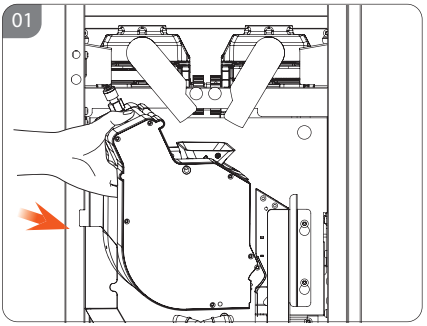


▲ Put your hand according to the picture, push up and forward at the same time until the brewer is detached at the back. then pull it straight out.

Weekly Cleaning

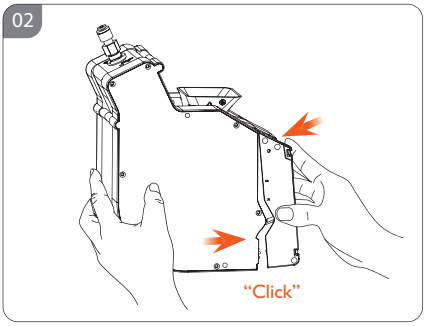
Reassemble the espresso group

01



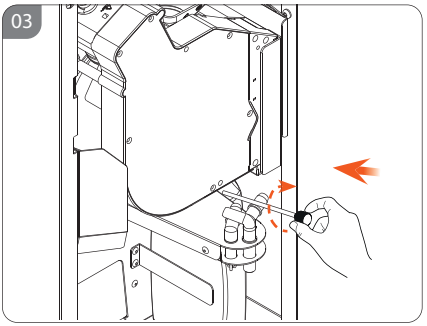
▲ Replace the brewer in front of the gearbox.

02



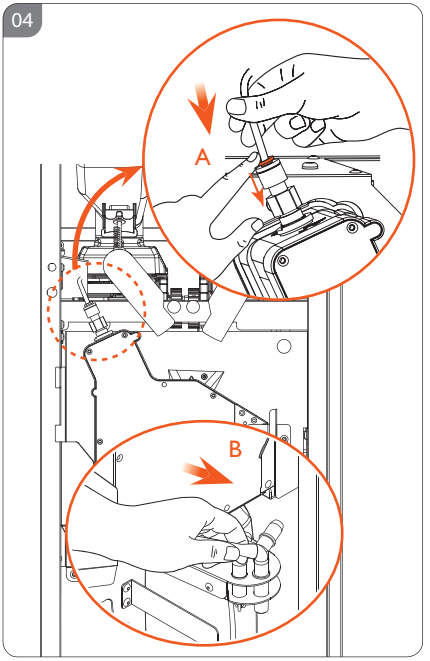
▲ Attach top part at the back of the brewer to the hooks on the gearbox. push in the bottom part untill a click is felt.

03



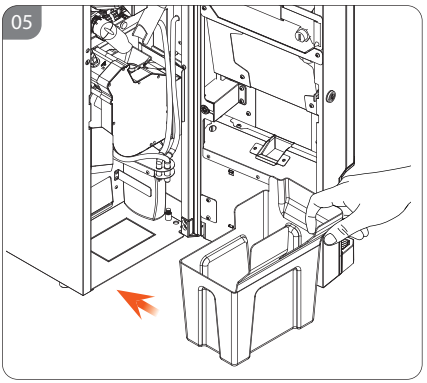
▲ Fasten the fixation screw.

04



▲ Reconnect inlet(A) and outlet(B) tubes.

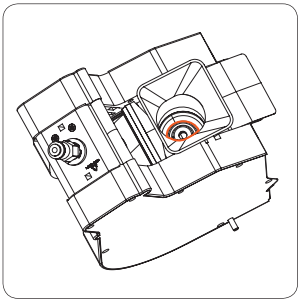
05

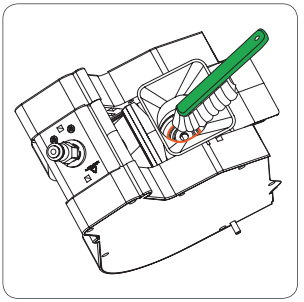


▲ Replace the waste bin, the brewer is ready to use.

Cleaning the espresso group

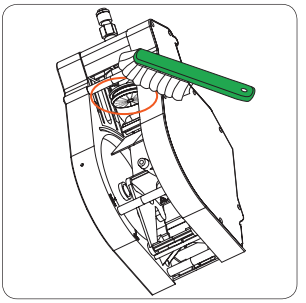
- First, dismount the espresso group from the machine as explained in this manual. Then proceed to clean it up with neutral detergents (avoid solvents that could damage paint or plastics). Disinfectant products as Chlorine-detergents are preferred.
- The producer declines all responsibilities due to the use of caustic/aggressive detergents.





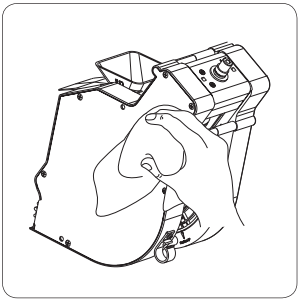
IMPORTANT!

Now, turn the group around, and proceed to clean the upper filter of the espresso chamber. (See the figure)

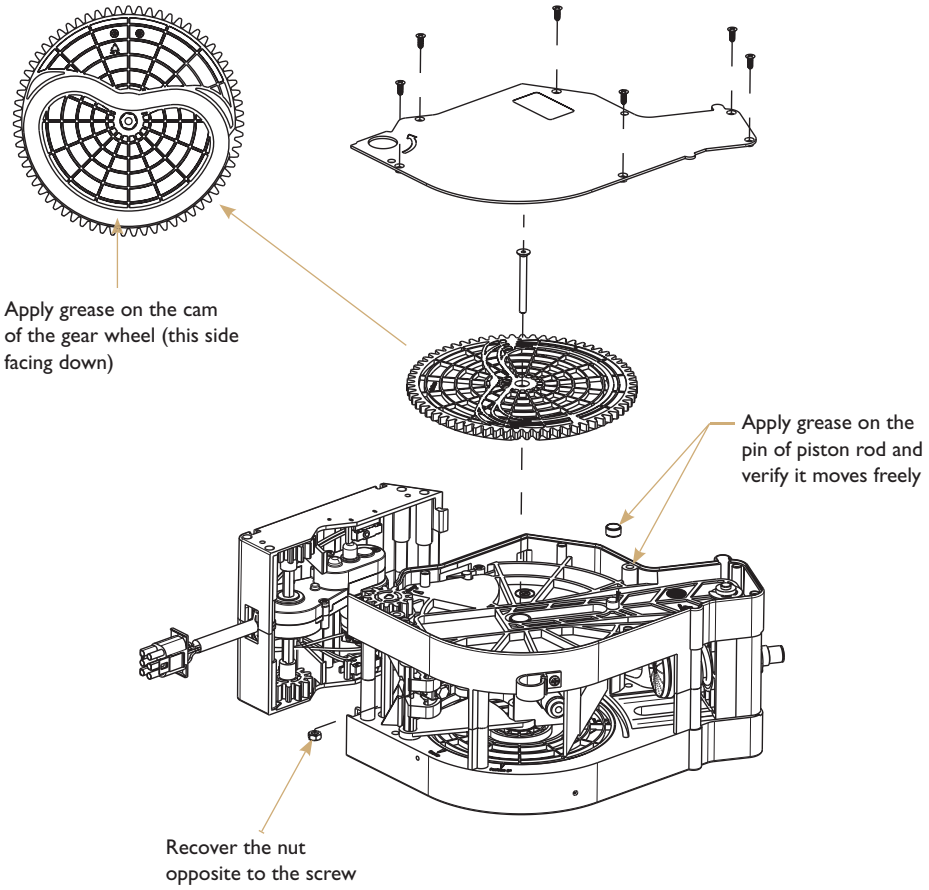


Note	Whenever the quality or speed of the outgoing espresso changes, proceed to clean thoroughly this filter, it will be very likely partially clogged with tiny coffee bean's powder. Cleaning this filter will solve the speed & quality issues.

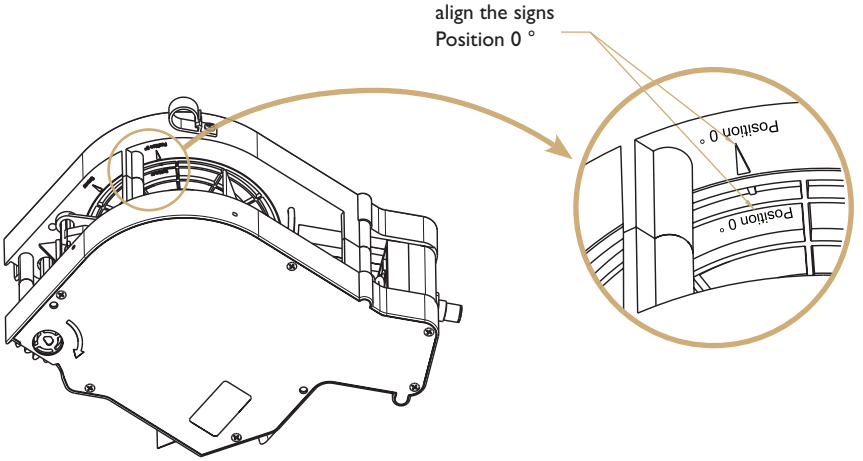
- After this, proceed to clean the remaining surfaces of the group.
- Once completed this cleaning, and after re-installing the espresso group back in place, we recommend to perform an auto-cleaning cycle (see the chapter in this manual).
- After the cleaning, proceed to dry up the mechanism. Invert and shake it to force as much water out as possible. Dry up all the surfaces, and pay special attention to dry up the superior cone of the group, as this is the one receiving the grinded coffee. In case this one was humid, this would cause the cone to clog with coffee powder.

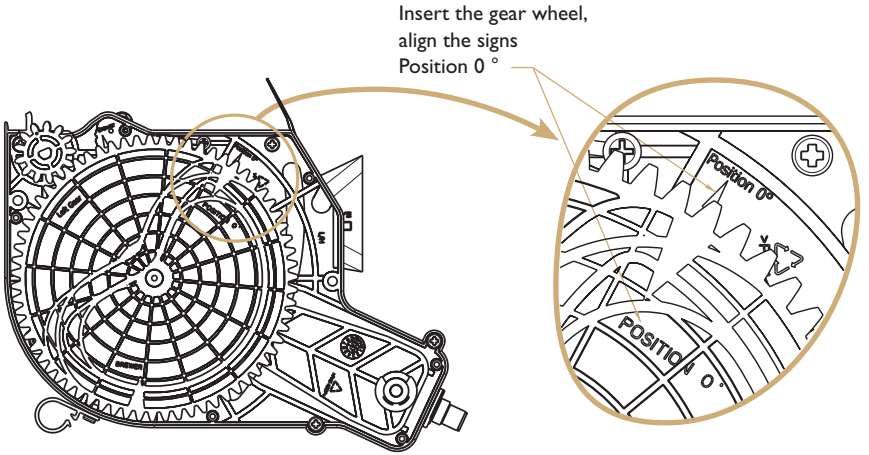


Applying grease to group



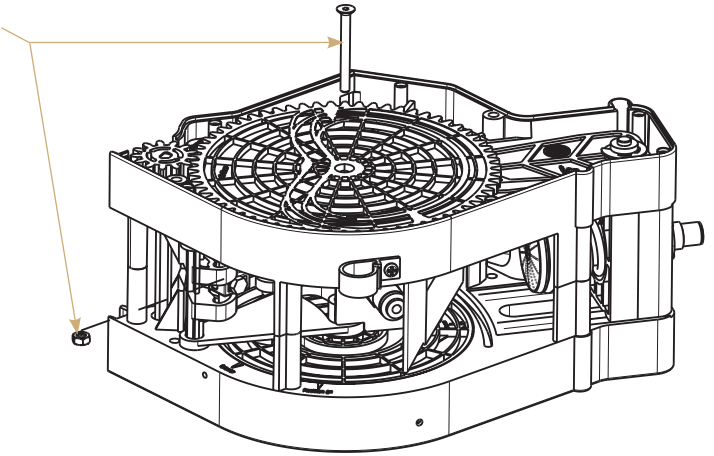
Applying grease to group



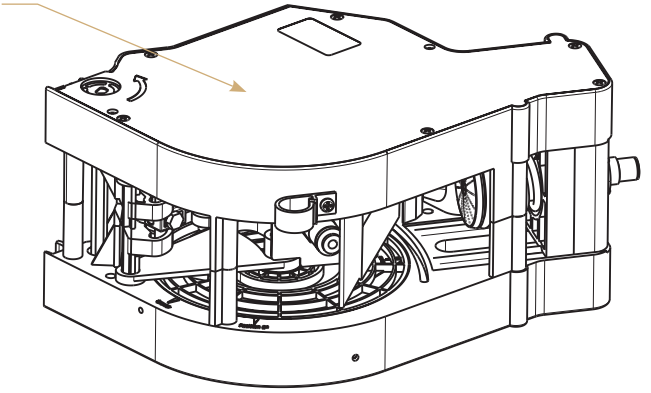


Applying grease to group

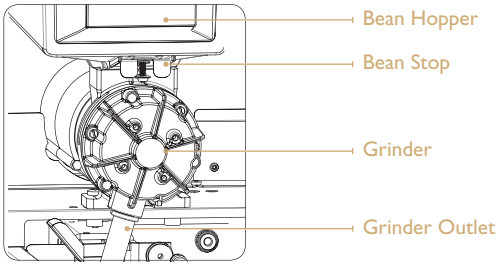
Insert the nut and tighten the screw



Before closing the cover and refitting the appropriate screws, check again the Position 0 ° as in the previous sheet



Grinder EK-21



Periodic maintenance

- Each month: clean silicon outlet, grinding house and grinding discs.
- Monthly cleaning of grinder using GRINDZ cleaning tablets (item no.E1001001).
- In case of blockage: cleaning, if necessary detaching of rotating carrier.

Safety

Please read and observe the following service instructions carefully. Non-observance can result in damage to the grinder as well as in healththreatening risks for the user.

All installations shall been done by an qualified personnel.

- Symbols

Safety Instruction:
In case of non-observance, extreme risk of accidents exists.

General Instruction:
In case of non-observance, the device can become damaged or optimum operation not be guaranteed.

- Safety instructions

The grinder is only allowed to be used to grind whole coffee beans. Ground coffee is never allowed to be filled into the input-shaft.

Do not carry out any modifications or changes on the grinder. In case for non-observance, the manufacturer shall be liable for resulting damain no case whatsoever.

Never put your fingers or objects into the rotating grinding mechanism inside the input-shaft.The grinder must not be operated when turning parts are accessible!

Make sure, that the power cannot be turned on when working on the built-in grinder!

In order to avoid damages, do not use power tools or cordless electric screwdrivers for any work on the grinder.

Grinder EK-21

Monthly maintenance

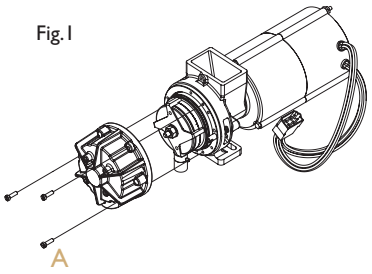
Approximately every month the grinder housing and spout should be inspected for coffee residues and obvious damages. In case of too much coffee residues around the spout, check if the silicone flapper inside the spout is in place.

Proceed as follows:

- Remove bean container. Remove all coffee residues from the spout and the grinder housing by grinding through all coffee beans and using a vacuum cleaner to remove all residues.
- Remove the three Allen screws (A) in the grinder housing lid.
- Carefully detach the grinding housing. Fig. 1

  Note its position for correct reassembly. Do not alter the adjustment of the grinding discs.
- Clean the inside of the grinder housing and the outside of the disc carrier with a soft brush. Check the correct position of the silicon flapper and the spout.
- When reassembling the grinder housing, again check for the correct position and do not alter the grind adjustment of the discs. Fasten the three Allen screws.

Fig. 1



Removing the rotating carrier

Each third year or after 50000 cups the grinding discs should be exchanged to guarantee constant grinding capacity and accurate dosing.

Proceed as follows:

- Remove the grinder casing and the rotating carrier. Loosen the left threaded nut by turning it clockwise (A) Fig. 2.
- Remove the worn-out grinding discs by detaching the slotted screws. (B)
- Clean the surfaces of the seats and the new discs. In case of coffee residues left between disc carrier and new disc, the discs will not run parallel and the grinding performance will deteriorate.
- Mount the new rotating grinding disc. NOTE! The grind adjustment has to be modified after changing the discs. See chapter 5 for new basic adjustment.

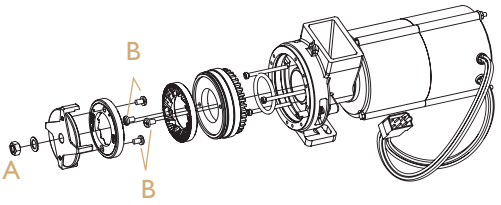


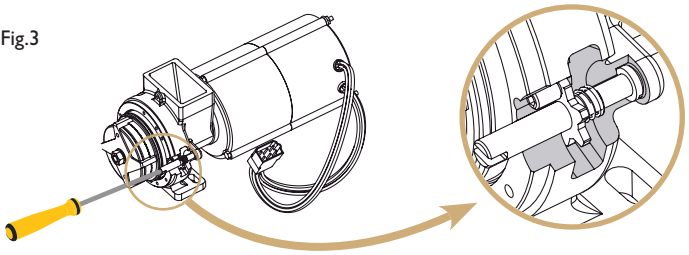
Fig. 2

Grinder EK-21

Basic adjustment of the grinding finess

- Loosen grinder housing.
- Press the adjustment screw while turning it clockwise until the milling blades touch. Check that they are touching by turning the container manually. The blades are touching when you hear a scratching sound.
- Press and turn the adjustment screw counterclockwise 20 notches for the basic setting (approx. 0.5 mm).
- Reassemble grinder house.

Fig.3



Exchange of the silicone flapper in the spout

If the silicon flapper is damaged or out of place it has to be replaced respectively refitted to the housing.
Proceed as follows:

- If possible: remove coffee residues (Close Bean Stop, Empty Grind, Vacuum Cleaner).
- Loosen the set screw at the front of the grinder housing. Fig.4.
  Exchange of the silicone flapper in the spout

Fig.4

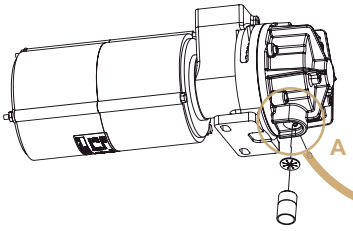
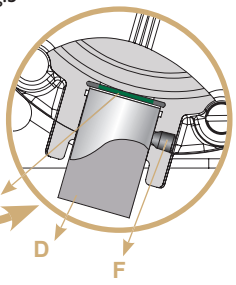


Fig.5

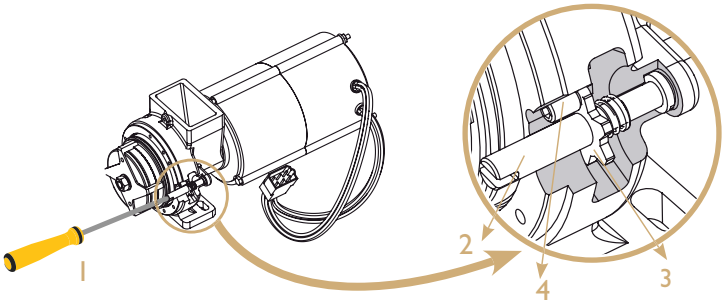


- Carefully pull out the spout. (D).Fig.5.
- Take out silicone flapper (E) which is placed in a groove inside the spout bore, put in the new silicone flapper
- Reassembling the spout (D) and silicone flapper (E) by bringing pressure on the spout tube to make sure that the silicone flapper (E) will be fixed correctly. See Fig.4.

Grinder EK-21

Correction of the adjustment

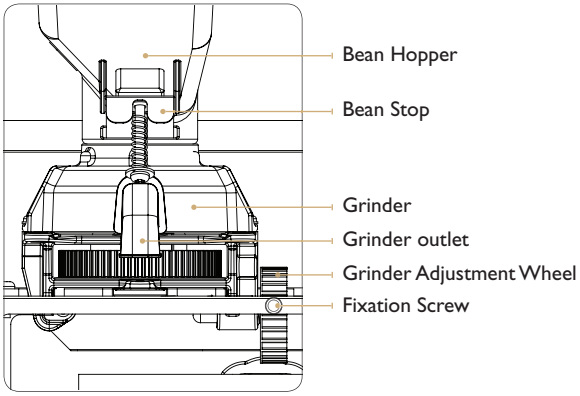
In case that the fineness of the ground coffee should be changed, the adjustment shaft is accessible through a bore from the front of the grinder housing.



1 = Screw driver
2 = Adjustment bolt
3 = Adjustment pinion
4 = Locking pin

- Press and simultaneously turn the adjustment bolt anticlockwise one or two notches for coarser coffee grounds
- Press and simultaneously turn the adjustment bolt clockwise one or two notches for finer coffee grounds.
- After performing the grind adjustment, run 2 -3 cups of coffee through the grinder in order to achieve the current settings.

Grinder EK-7



Periodic maintenance

- Each month: clean outlet, grinding house and grinding discs.
- Monthly cleaning of grinder using GRINDZ cleaning tablets (item no. E1001001).

Safety

Please read and observe the following service instructions carefully. Non-observance can result in damage to the grinder as well as in healththreatening risks for the user.
All installations shall been done by an qualified personnel.

- Symbols

Safety instruction:
In case of non-observance, extreme risk of accidents exists.

General instruction:
In case of non-observance, the device can become damaged or optimum operation not be guaranteed.

- Safety instructions

The grinder is only allowed to be used to grind whole coffee beans. Ground coffee is never allowed to be filled into the input-shaft.

Do not carry out any modifications or changes on the grinder. In case for non-observance, the manufacturer shall be liable for resulting damain no case whatsoever.

Never put your fingers or objects into the rotating grinding mechanism inside the input-shaft. The grinder must not be operated when turning parts are accessible!

Make sure, that the power cannot be turned on when working on the built-in grinder!

In order to avoid damages, do not use power tools or cordless electric screwdrivers for any work on the grinder.

Grinder EK-7

Monthly maintenance

Approximately every month the grinder housing and spout should be inspected for coffee residues and obvious damages.

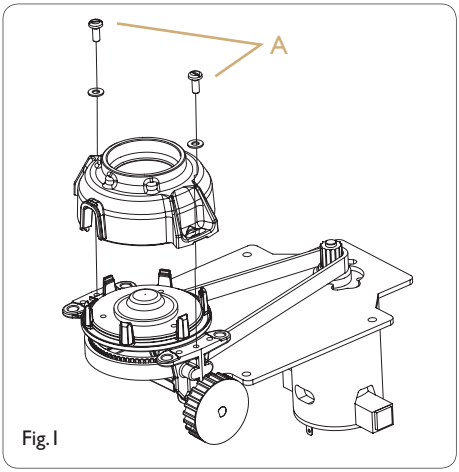


Fig.1

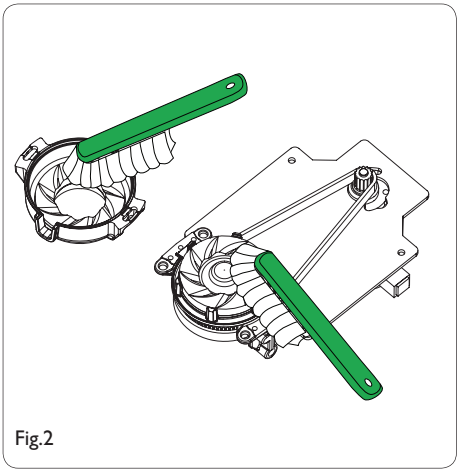


Fig.2

Proceed as follows:

- Remove bean container. Remove all coffee residues from the spout and the grinder housing by grinding through all coffee beans and using a vacuum cleaner to remove all residues.
- Remove the two Phillips screws (A, See fig.1) on the side of grinder housing lid.
- Carefully detach the grinding housing. Fig.1

  Note its position for correct reassembly. Do not alter the adjustment of the grinding discs.
- Clean the inside of the grinder housing with a soft brush. (See fig.2)
- When reassembling the grinder housing, again check for the correct position and do not alter the grind adjustment of the discs. Fasten the two Phillips screws.

Grinder EK-7

Basic adjustment of the grinding finess

- The grinder adjustment can be easily reached through the space between the bean hoppers, before adjusting loosen the fixation screw in front of the adjuster wheel to be able to rotate it.
- To adjust the coarseness for left grinder, rotate the adjuster wheel towards you for coarser grinding. For finer grinding rotate the wheel away from you.
- To adjust the coarseness for right grinder, rotate the adjuster wheel towards you for finer grinding. For coarser grinding rotate the wheel away from you.
- Take into consideration that after the adjuster is moved, the effect is not immediate, it takes about 1 coffee cycle for the new coffee grounds to reach the outlet and into the brewer. So to test the new adjustment, observe the second coffee after the change.
- The finer the grinding, the slower the coffee will come out, and longer time will be needed for the extraction of the espresso and vice versa.

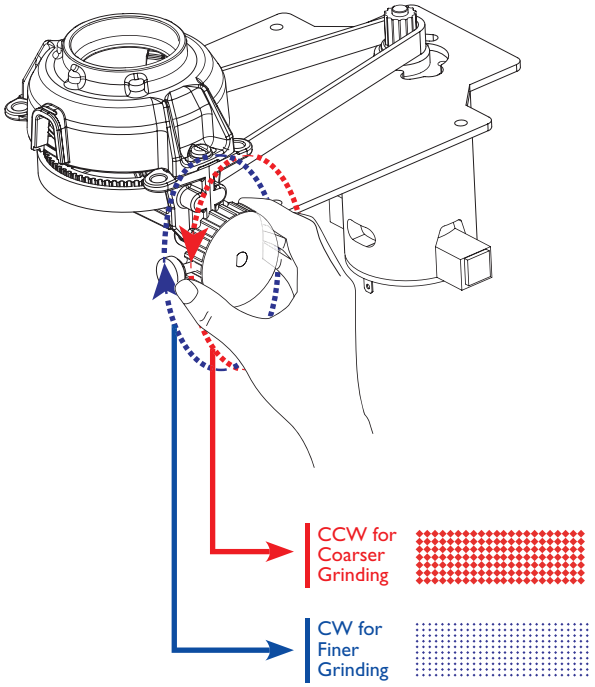


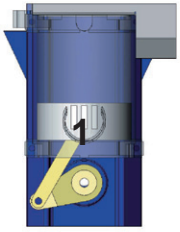
Fig.3

Filter mechanism

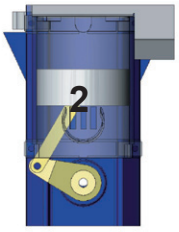
Brewing cycle settings

- **Aeration**
  - Sum of sections from position 1 to 3 = 100%
  - Adjustment in % (0-100%), applies to sections from position 2 to 3
  - Affects stirring in coffee bed > Taste: Acidity
- **Pre brew**
  - Pause at section between positions 1 and 3
  - Adjustment (0-25 sec) at step in 0.1 sec
  - Affects the amount of acid from stirring> Taste: Acidity
- **Extraction**
  - Pause between positions 2 and 4
  - Adjustment (0-25 sec) at step in 0.1 sec
  - Affects total contact time > Taste: Body
- **Press time**
  - Sum of sections from position 3 to 5 = 100%
  - Adjustment in % (0-100%), applies to sections from position 3 to 4
  - Affects the consistency of the grounds > Cleanliness
  - Affects the strain on plunger and cylinder > Operating reliability: Vacuum pressure in cylinder
- **Decompress time**
  - Pause between positions 3 and 5
  - Adjustment (0-25 sec) at step in 0.1 sec
  - Affects the consistency of the grounds > Cleanliness
  - Affects the strain on plunger and cylinder > Operating reliability: Vacuum pressure in cylinder
- **Empty time**
  - Pause between positions 5 and Home position
  - Adjustment (0-25 sec) at step in 0.1 sec
  - Affects the amount of finished coffee that comes out of the cylinder
  > Cleanliness / Operating reliability

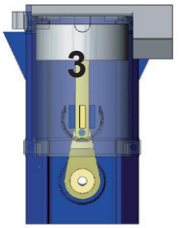
After Empty time the brewing continues until the micro switch is activated - Home position



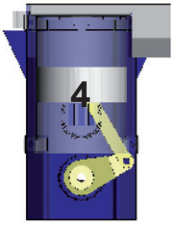
Home Position



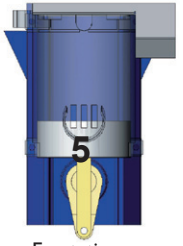
Pre brew



Extraction



Decompress



Emptytime

Filter mechanism

Remember

For fresh brew machines, the coffee should have the coarsenessautomatic grinding. Grinder settings for automatic grinding are: grinding blades together and set 11 steps back. The optimal total contact time between water and coffee for automatic grinding is 30 sec. The basic settings for coffee were defined in cooperation with ECBC in Oslo, to ensure quality in the cup.

Water amount	170 ml (before contact with coffee)
Coffee amount	11 g (requires above grinder settings)
Aeration	50%
Pre brew	4.1 sec
Extraction time	11.5 sec
Press time	50%
Decompress time	2.0 sec
Empty time	6.0 sec

Tips

To compensate for lower Aeration (higher %) Pre brew can be increased to a certain degree. Increased Pre brew time means that more water and coffee are added before the plunger reaches the top position. This produces a better blend.

Adjust Pre brew in steps of 0.1 - 0.2 sec at a time; this quickly provides results in terms of taste. Varies for different coffee types, however.

Increased Extraction time produces more body, but only to a certain degree. Too much time makes the coffee over-extracted, which produces a very bitter taste.

To little Extraction time means the coffee is under-extracted, leaving little aftertaste.

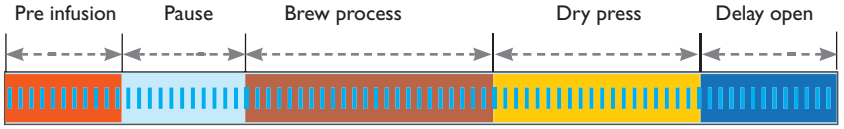
If you wish to cut down on the total brewing cycle time, you want the taste to undergo minimal change. If you shorten the Extraction time, you can compensate somewhat by either putting the grinder on a finer coarseness setting or increasing the coffee dose. You then have to test the coffee carefully, to make sure it is not too strong. When you have tasted several cups of coffee, it is very easy to misjudge the taste. For increased dose, the taste is very accurate when you swallow, but the aftertaste disappears and instead it is harsh on the throat.

If you increase the volume too much, the grounds can become soaked. To fix this, you must increase the Press time. This causes the plunger to lower more before the pause (position 3-4); the result is a higher vacuum effect in the cylinder and more finished coffee is sucked out through grounds. At the same time, you should increase the Decompress time, to allow the coffee to penetrate the filter before empty position is reached and the vacuum pressure in the cylinder is released. Remember to increase the Empty time so all the coffee can drain out of the cylinder.

Symptom - Cause - Solution

Symptom Cause	Cause	Solution
The water and coffee splash out of the brewing chamber during the aeration process.	- Hard water. A high surface tension makes it difficult for the coffee to absorb water. - Very fresh coffee often takes a little longer to absorb water	- Run the cleaning programme and replace the filter if necessary. - Lower the Aeration %. Test a cup. Increase the Pre brew to compensate if necessary.
The coffee either lacks or has too much character.	- The acidity setting is too low/high. - The coffee is too old.	- Run the cleaning programme and replace the filter if necessary. - Increase the Pre brew setting if the coffee lacks character/acidity. 0.1 - 0.2 sec makes a very big difference. - Lower the Pre brew setting for the opposite effect. - Empty the canister and grinder, clean and refill coffee.
The grounds are very soggy or almost watery when the brewer opens.	- The filter is clogged. - The water is hard. A high surface tension makes it difficult for the coffee to absorb water and for the water to pass through the filter. - Very fresh coffee often takes a little longer to absorb water - The coarseness setting is too fine. - Coffee dose is too high. - The volume setting is too high. - The brewing chamber may be cracked. - The cylinder may be cracked.	- Run the cleaning programme and replace the filter if necessary. - Increase the extraction time if necessary. - Increase the Press time and/or Decompress time if necessary. - Check grinder setting /clean. - Check the Strength setting. - Check the Volume setting. - Inspect the brewing chamber for cracks. - Inspect the cylinder for cracks.
The brewing mechanism sounds very strained.	- The filter is clogged - The coarseness setting is too fine. - The coffee dose is too high. - The brewing mechanism setting needs adjustment.	- Run the cleaning programme and replace the filter if necessary. - Check grinder setting /clean. - Check the Strength setting. - Remove the brewing mechanism, rotate, adjust according to the manual instructions.
The grounds scraper cannot remove all the grounds.	- The brewing mechanism setting needs adjustment. - The grounds scraper is damaged.	- Remove the brewing mechanism, rotate, adjust according to the manual instructions. - Replace the grounds scraper.
The grounds scraper is still on one side of the brewing chamber during the brewing cycle.	- The brewing chamber is incorrectly installed.	- Remove the brewing mechanism, rotate until it opens, pull out and insert the brewing chamber. Check that it follows the cycle.

Espresso brew process



Pre infusion

Pre infusion helps to fuse the coffee puck together more gently where there might be some weak spots due to inconsistent density, rendering a more even extraction.

A hard impact (no pre infuse) seems less effective because it slams the puck with water at 9 bar and then running the shot, leaving the chance of puck fissures and channeling of water might occur inside the chamber.

Adjustable between 0-25 seconds, standard is preset to 2.5 seconds.

The water in this step is not calculated into total volume that is set for a specific drink. So if you increase this setting you will get higher volume of your drink even though you haven't changed the volume setting for the drink.

Pause

This is setting is much connected with pre infusion, as it will help to even out the pressure created in the pre infusion for a more gentle fusing of the puck.

Adjustable between 0-25 seconds, standard is preset to 3.5 seconds.

Brew process

During this step the machine will produce preset volume for the selected drink with around 9 bar of water pressure. The machine has also reached correct working temperature for the water for extraction by now. There is a flow meter in the system that calculates number of pulses into volume (ml) to get the correct amount.

Dry press

This setting will allow the remaining water pressure in the system to gently decrease through the coffee puck. This leads to less waste water and not so violent pressure release in the brewer.

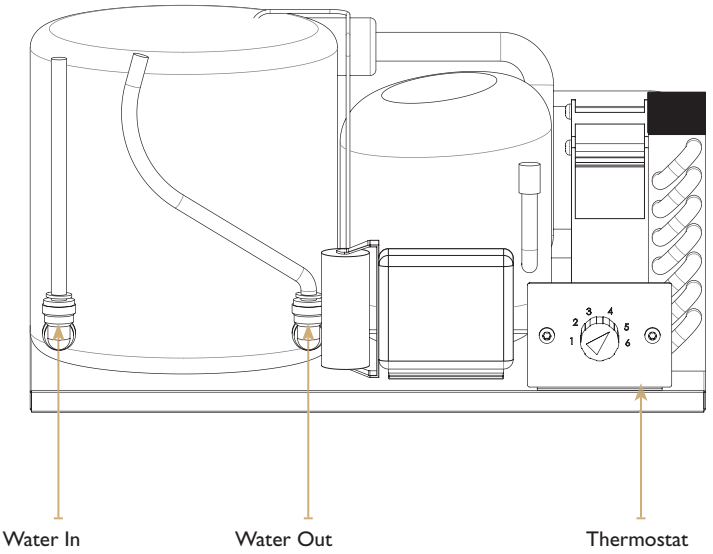
Adjustable between 0-25 seconds, standard is preset to 2 seconds.

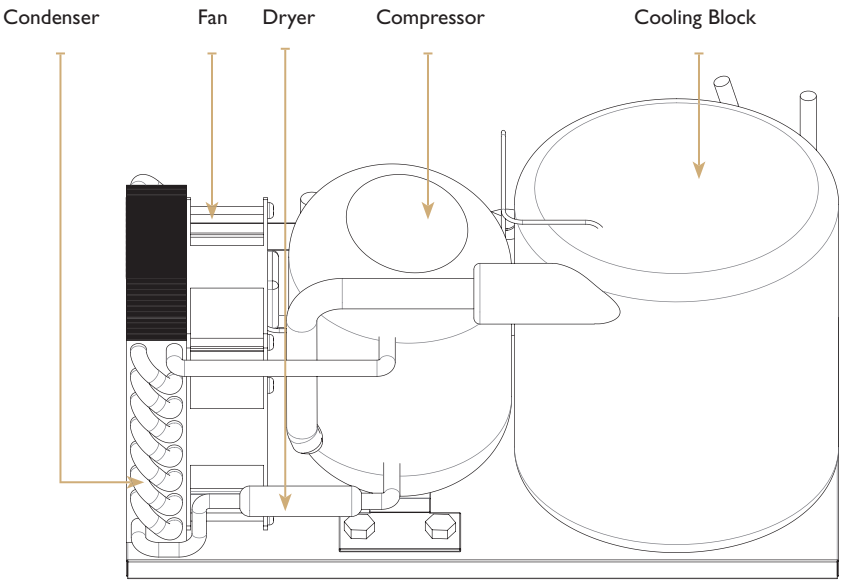
Delay open

During this step the water pressure is completely released and the excess water will go into the waste bin. The brewer will stand still with pressure from the piston to make the coffee puck more firm, this will increase the cleanliness of the brewer when the coffee puck is ejected from the brew chamber.

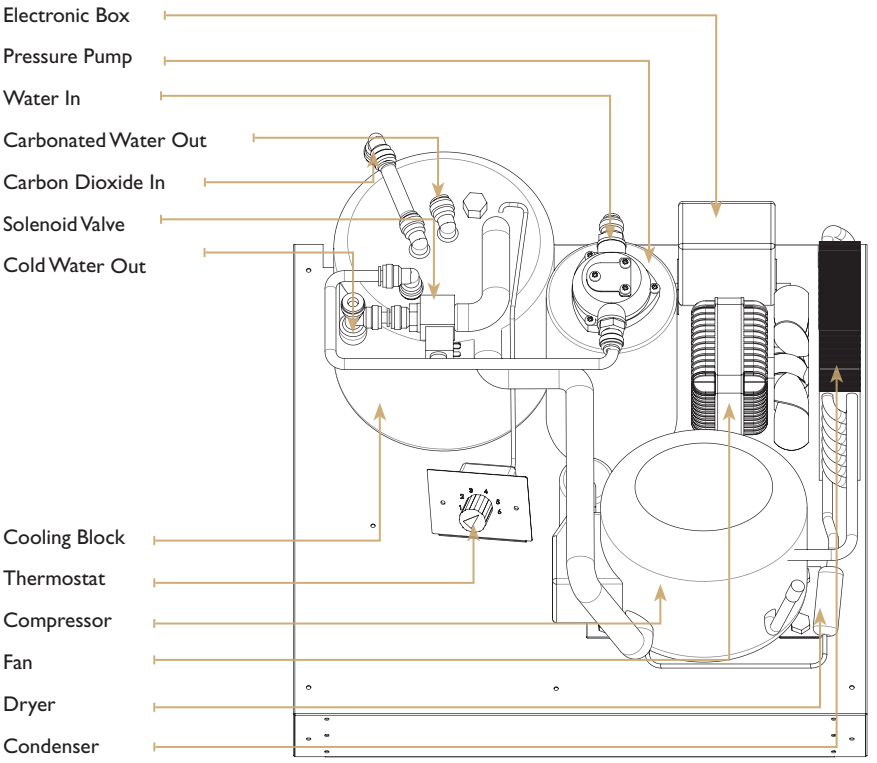
Adjustable between 0-25 seconds, standard is preset to 3 seconds.

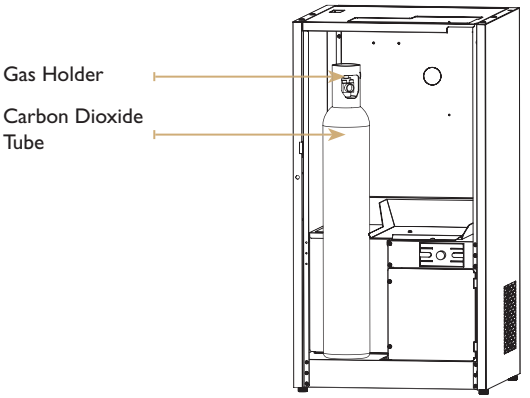
Cold water unit





Cold water + CO_2 unit

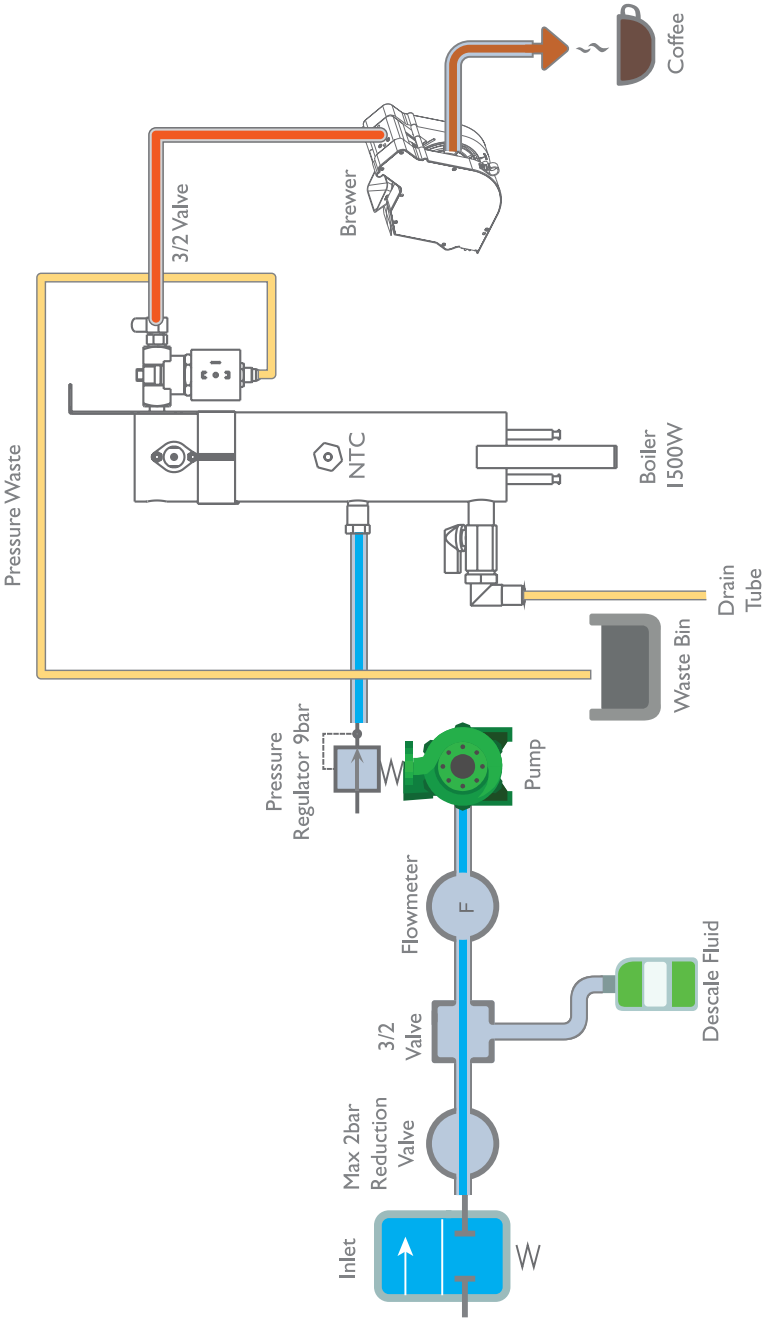




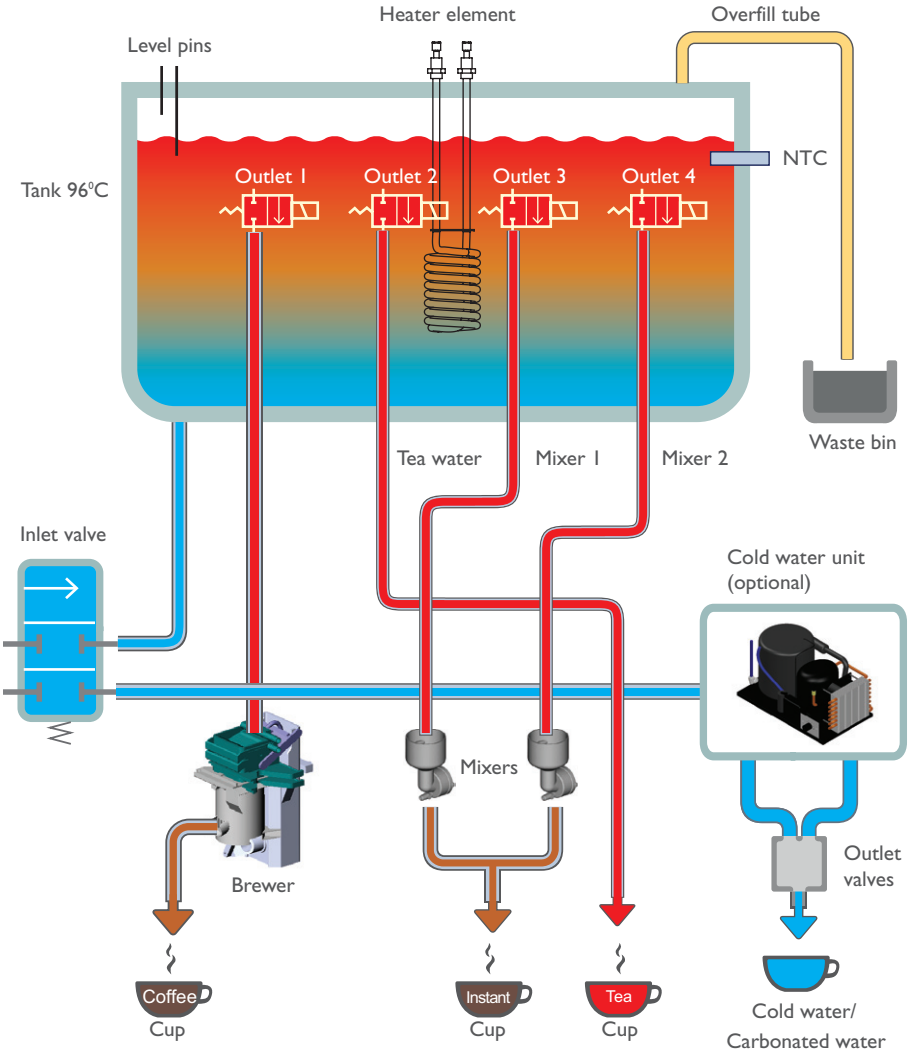
Overcurrent Group 1:1 = Filter brewer (0,95A limit) Espresso brewer (1,5A limit) Group 1:2 = Other components (Fan, Valves, Relays Etc..) (1,5A limit) Group 1:3 = Mixer 1 (3,5A limit) Group 1:5 = Mixer 2 (3,5A limit) Group 2:3 = Milk Mixer (3,5A limit) Group 2:5 = Milk pump (1,5A limit)	Message is shown if one of the software fuses have been trigged. Caused by a component using too much current (A). You can run each component in the "Hardware Test" menu and the message will show when you turn on the component that is using too much current.
ERROR: Water Supply	Message will show if the inlet valve has been open for more than 3 minutes and the machine still have not acquired correct water level. Action: Check that the water to the machine is turned on, Check the levelsensor, test function of the inlet valve in "Expert Settings"
ERROR: Tempsensor	Message will show if the NTC sensor is broken or is out of range of its resistance curve, also if cables have loosened from its connectors. Action: Replace NTC sensor, check cable connection on the NTC and PCB board.
ERROR: Levelpins	Message will show if the cables to the water level high & low have been connected to the wrong levelpin. Action: Swap cables to the levelsensor
ERROR: Check Heater	Message will show if the machine have not reached working temperature within 14 minutes from startup. Action: Check Overheating protection, cables to the element, solid state relay, signal from IO-board to solid state when you know the machine should heat, you can also force the element to run in "Expert Settings".
ERROR:Brewer C.Door Press E	Message will show when you interrupt a brewing cycle, eg. open the door when the machine is producing coffee. The machine needs to reach home-position before producing new drink. Action: Press E, check door sensor, brewmec sensor
Clean brewfilter	Message will show if the brewer motor uses more than 0,95A for filter brewer, 1.5A for espresso brewer. Action: Check brewfilter if clogged, brew chamber is mounted in wrong position, brewer motor is broken.

Peripheral Hardware Error	This message will appear if you have loaded a faulty recipe into the machine, the IO-Board is broken and does not get connection with the UcMerisc board. Usually this message appears if you eg. have loaded a standard recipe into a machine using pay system. Make sure you are using the right recipe and reload.
Memory Error: Reload Recipes	There is no recipe loaded on the UcMersic board. Transfer of the recipes have been interrupted and not completed in UcLoader. Memory on the UcMersic board is broken.
Fatal Error Contact Service	Multiple Overcurrent messages at the same time, or shortcut on the IO-Board, try to run components in "Hardware Test" and locate faulty components, replace the IO-Board if no one is found.
Smartcard Error: Unknown Card	The smartcard is not programmed, chip on the smartcard is damaged, card reader is broken or broken cable between card reader and UcMerisc board. Action: Insert and remove the card repeatedly, if the message is shown every time, try another card. If the error remains replace the card reader.
Smartcard Error Wrong Pincode	Chip on the smart card have been damaged, replace card.
Pay Error Type XXX	IO-Pay board is reporting error from the payment device, check coinchanger or cashflow device.

Water system espresso

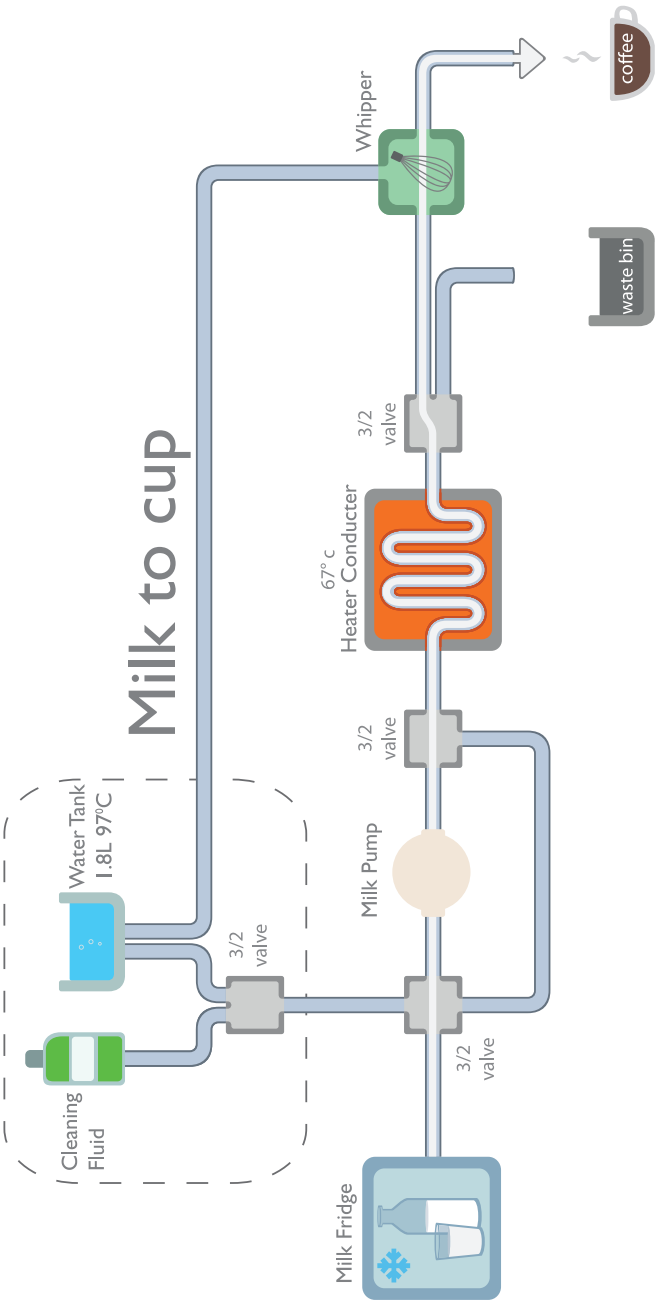


Water system CQube series



Note	Cold water unit is not a standard feature in the machine it's only an option.

Milk system


Milk to cup
Water Tank
1.8L 97°C
Cleaning
Fluid
3/2
valve
Milk Pump
3/2
valve
67° c
Heater Conducter
3/2
valve
Whipper
coffee
waste bin
3/2
valve
Milk Fridge

CQube SF

Main Components	Parts	Part No.	Months			
			3	6	9	12
Boiler						
Outlet Valve	Membrane	1501193		Check		Replace
	Sealing	1561010		Check		Replace
Levelsensor	Levelpins	1205302		Clean		Clean
	Sealing	1205301		Check		Replace
NTC	Sensor	711000		Check		Check
	Sealing	1605361		Check		Check
Brewing Unit						
Filtercoffee Brewer	Brewfilter	47200213	Clean	Clean	Clean	Replace
	Brewchamber	4720028		Check		Check
	Brewcylinder	4720017		Check		Check
	Coffeegrounds Scraper	4720027		Check		Check
Ingredients						
Grinder	Discs		Clean	Clean	Clean	Clean
Mixer	Mountingplate	1204781		Check		Replace
	Whipper	1204842		Check		Check
Ventilation						
Fan Mixer	Ventilationgtube			Clean		Clean
Fan Brewer	Ventilationgtube			Clean		Clean

CQube SE 12

Main Components	Parts	Part No.	Months			
			3	6	9	12
Tank						
Outlet Valve	Membrane	1501193		Check		Replace
	Sealing	1561010		Check		Replace
Levelsensor	Levelpin long	1205301		Clean		Clean
	Levelpin short	1205302		Clean		Clean
	Sealing	1605362		Check		Replace
NTC	Sensor	711000		Check		Check
	Sealing	1605361		Check		Check
Tank				Clean		Clean
ESP-Boiler						
Outlet valve coffee 3/2		1660050		Check		Check
NTC	Sensor	1660038		Check		Check
Brewing Unit						
Espresso Brewer	Brewer	1201621	Clean	Clean	Clean	Clean & apply grease
	O-ring upper piston	1201633		Clean		Replace
	Sieve upper piston	1201624		Clean		Replace
	Sieve lower piston	1201624		Clean		Replace
	O-ring lower piston	1201625		Clean		Replace
Ingredients						
Grinder	Disc set	1965005	Clean	Clean	Clean	Clean
Mixer	Mountingplate	1206702		Check		Replace
	Whipper	1204842		Check		Check
Ventilation						
Fan Mixer	Ventilation tube			Clean		Clean

CQube SE20 barista

Main Components	Parts	Part No.	Months			
			3	6	9	12
Tank						
Outlet Valve	Membrane	1501193		Check		Replace
	Sealing	1561010		Check		Replace
Levelsensor	Levelpin long	1205301		Clean		Clean
	Levelpin short	1205302		Clean		Clean
	Sealing	1605362		Check		Replace
NTC	Sensor	711000		Check		Check
	Sealing	1605361		Check		Check
Tank				Clean		Clean
ESP-Boiler						
Outlet valve coffee 3/2		1660050		Check		Check
NTC	Sensor	1660038		Check		Check
Brewing Unit						
Espresso Brewer	Brewer	1201621	Clean	Clean	Clean	Clean & apply grease
	O-ring upper piston	1201633		Clean		Replace
	Sieve upper piston	1201624		Clean		Replace
	Sieve lower piston	1201624		Clean		Replace
	O-ring lower piston	1201625		Clean		Replace
Ingredients						
Grinder	Disc set	1965005	Clean	Clean	Clean	Clean
Mixer	Mountingplate	1206702		Check		Replace
	Whipper	1204842		Check		Check
Milkmodule						
Valve 3/2 Fridge		1206295 x1		Clean		Replace
Valves 3/2		1206295 x3		Clean		Clean
Thermoblock		1601314 x2		Clean		Clean
Milk pump tube		1565024		Clean		Replace
Fridge milk tube		C35021015		Clean		Replace
Fridge unit						
Condensor & Fan						Clean

CQube MF LF

Main Components	Parts	Part No.	Months			
			3	6	9	12
Boiler						
Outlet Valve	Membrane	1501193		Check		Replace
	Sealing	1561010		Check		Replace
Levelsensor	Levelpins	1205302		Clean		Clean
	Sealing	1205301		Check		Replace
NTC	Sensor	711000		Check		Check
	Sealing	1605361		Check		Check
Brewing Unit						
Filtercoffee Brewer	Brewfilter	4740202	Clean	Clean	Clean	Replace
	Brewchamber	4720028		Check		Check
	Brewcylinder	4720017		Check		Check
	Coffeegrounds Scraper	4720027		Check		Check
Ingredients						
Grinder	Discs	83306715	Clean	Clean	Clean	Clean
Mixer	Mountingplate	1206702		Check		Replace
	Whipper	1206703		Check		Check
Ventilation						
Fan Mixer	Ventilationgtube	1505033		Clean		Clean
Fan Brewer	Ventilationgtube	1505034		Clean		Clean

CQube ME

Main Components	Parts	Part No.	Months			
			3	6	9	12
Boiler						
Outlet Valve	Membrane	1501193		Check		Replace
	Sealing	1561010		Check		Replace
Levelsensor	Levelpins	1205302, 1205301		Clean		Clean
	Sealing	1605362		Check		Replace
NTC	Sensor	711000		Check		Check
	Sealing	1605361		Check		Check
Thermoblock		1601314		Clean		Clean
Brewing Unit						
Espresso Brewer	O-ring upper piston	1206440		Clean		Replace
	O-ring lower piston	1206441		Clean		Replace
	Sieve upper piston			Clean		Replace
	Sieve lower piston			Clean		Replace
Ingredients						
Grinder	Discs	836715	Clean	Clean	Clean	Clean
Mixer	Mountingplate	1204781		Check		Replace
	Whipper	1204842		Check		Check
Ventilation						
Fan Mixer	Ventilationgtube	1505033		Clean		Clean

For the warranty to be valid the conditions for maintenance must have been followed according to our instructions, proper precaution has been made and warranty claim been issued without delay.

The affected equipment may not be used during awaiting service if there is any risk that the damage or defect would worsen.

The warranty will not cover consumption supplies such as glassware, normal maintenance such as cleaning of filters, contaminations in water, lime, incorrect voltages, pressure or adjustment of water amounts.

The warranty will not cover damages of defects caused by incorrect handling and operation of the appliance.

FOR SERVICE

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