



5 OPERATION

5.1 General information

For an overview of operational controls see “Main Components” on page 9.



















For basic operation of the machine such as preparing a coffee and other related information, refer to the user manual.

To simplify matters, the model Citiz with core unit C-range is used to exemplify throughout this chapter.

5.2 Status indication

5.2.1 Status indication of coffee machine

The two coffee buttons with green LED backlight show the status of the coffee machine according to the following table:



Machine status etc.	"Small cup" button	"Large cup" button	LED signal
Off			Both LED's off
Self test			Blinking 1 Hz, 0.5 s on, 0.5 s off
Error			Blinking fast (2 Hz, 0.25 s on/0.25 s off) 3 times every 2 seconds
Heat up			Blinking 1 Hz, 0.5 s on, 0.5 s off
Ready			Both LED's on
Brewing small cup			Blinking 1 Hz, 0.5 s on, 0.5 s off
Brewing big cup			Blinking 1 Hz, 0.5 s on, 0.5 s off
Rinse small cup			Blinking 1 Hz, 0.5 s on, 0.5 s off (same as brewing small cup)
Rinse big cup			Blinking 1 Hz, 0.5 s on, 0.5 s off (same as brewing big cup)



OPERATION




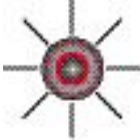

Machine status etc.	"Small cup" button	"Large cup" button	LED signal
Volume brewing small cup			Blinking 1 Hz, 0.5 s on, 0.5 s off (same as brewing small cup)
Volume brewing big cup			Blinking 1 Hz, 0.5 s on, 0.5 s off (same as brewing big cup)
Descaling ready			Blinking 2 Hz, 0.25 s on, 0.25 s off
Descaling pump on (descal)			Blinking 2 Hz, 0.25 s on, 0.25 s off (same as descaling ready mode)
Descaling pump off (descal)			Blinking 2 Hz, 0.25 s on, 0.25 s off (same as descaling ready mode)
Emptying / Evaporating			Blinking 2 Hz, 0.25 s on, 0.25 s off
Standby			Blinking 0.5 Hz, 1 s on, 1 s off alternately
Resetting			Blinking 2 Hz, 0.25 s on, 0.25 s off indication for 3 s
Power save			Blinking 0.2 Hz, 2.5 s on, 2.5 s off alternately
Overheat			Blinking 1 Hz, 0.5 s on, 0.5 s off (same as heat up)
Power save activation			Blinking 0.5 Hz, 1 s on, 1 s off alternately 5 times



Machine status etc.	"Small cup" button	"Large cup" button	LED signal
Power save deactivation (only for model Citiz & Co)			Blinking 0.5 Hz, 1 s on, 1 s off alternately 3 times

5.2.2 Status indication of milk frother AERO3

The operating button with red/blue backlight shows the status of the milk frother according to the following table:

Machine status etc.	Operating button	Light signal
Off		Backlight off
On - hot milk preparation		Red backlight on
On - cold milk froth preparation		Blue backlight on
Failure/malfunction (e.g. overheating because of burnt milk, too less or no milk)		Blinking red backlight (1 Hz, 0.5 s on, 0.5 s off)
Failure: milk frother has wrong mains voltage range		Fast blinking red backlight (2 Hz, 0.25 s on, 0.25 s off)

i To reset a red blinking backlight:

1. Remove milk frother from platform.
2. Remove cause of failure if possible.



5.3 Machine modes

5.3.1 Machine modes of Citiz coffee machines

This table helps to understand the operating modes of a Citiz coffee machine:

Machine mode	Enter mode	Actions	Exit mode
1 Heat up mode	Every time after switching on machine	Heats up thermoblock to ready temperature 90 °C within 60 s without overshooting target temperature	e.g. switching off machine
2 Self test mode	Every time after switching on machine	Tests: <ul style="list-style-type: none">• NTC short circuit• NTC connected• Thermoblock heating curve Error handling: Tracking of the last 5 errors by a ring buffer	e.g. switching off machine
3 Ready mode	<ul style="list-style-type: none">• After heat up and self test mode was ok• After brewing or volume brewing coffee• After reset mode• After leaving descaling mode	Keeps thermoblock temperature at 90 °C	e.g. switching off machine
4a Brewing mode 4b Volume brewing mode (programming cup size)	<ul style="list-style-type: none">• Press and release large or small coffee button (brewing mode)• Press and hold large or small coffee button for more than 3 s (programming mode)		<ul style="list-style-type: none">• Press and release large or small coffee button when machine was in brewing mode or automatic exit given by the flow meter• Release large or small coffee button when machine was in programming mode• Switching off machine
5 Descaling mode	<ul style="list-style-type: none">• Switch on machine, wait until ready• Press and hold both coffee buttons for at least 3 s	<ul style="list-style-type: none">• Regulate temperature to 65 °C (after pump was started)• Stop and start pump with any coffee button, no volume brewing in descaling mode	<ul style="list-style-type: none">• Press and hold both coffee buttons for at least 0.5 s Note: When machine is switched off during any descaling mode, then it goes to descaling mode ready state after next switch on.



Machine mode	Enter mode	Actions	Exit mode
6 Emptying mode (evaporating)	1) Switch off machine 2) Press and hold small coffee button 3) Switch on machine	1) Start pump 2) Stop pump after 10 s 3) Heat up thermoblock to 105 °C (100% power) 4) Switch off thermoblock 5) Go to standby mode	Switch off machine
7 Resetting mode	1) Switch off machine 2) Press and hold large coffee button 3) Switch on machine	<ul style="list-style-type: none"> Reset the programmed large and small coffee volumes to factory setting Indicate the resetting mode for 3 s Factory settings: <ul style="list-style-type: none"> small cup 40 ml large cup ... 110 ml 	proceeds with self test mode automatically
8 Power save mode	To enable power save mode: 1) Switch off machine 2) Press and hold both coffee buttons 3) Switch on machine 4) Coffee button LED's blink 5 times alternatively as confirmation After that automatically after 30 min of non use	<ul style="list-style-type: none"> Reduce thermoblock temperature Switch LED indication to power save mode (blinking alternately every 2 sec) 	Press any coffee button to activate ready mode To disable power save mode: 1) Switch off machine 2) Press and hold both coffee buttons 3) Switch on machine 4) Coffee button LED's blink 3 times alternatively as confirmation
9 Failure mode	Automatically by following failures: a) NTC short circuit b) NTC not connected c) Heat up too slow	Machine indicates failure with coffee button LED's as long as the failure is present	When failure is fixed
10 Standby mode	Automatically after emptying mode	<ul style="list-style-type: none"> Switch thermoblock off Switch LED indication to standby mode 	Switch off the machine

5.3.2 Machine modes of milk frother AERO3

Machine mode	Enter mode	Actions	Exit mode
1 Hot milk / milk froth preparation	Press start button briefly	Start button lights up red. Milk is heated and mixed.	Automatic switch-off after preparation
2 Cold milk froth preparation	Keep start button pressed for approx. 2 sec	Start button lights up blue. Milk is mixed only.	Automatic switch-off after preparation




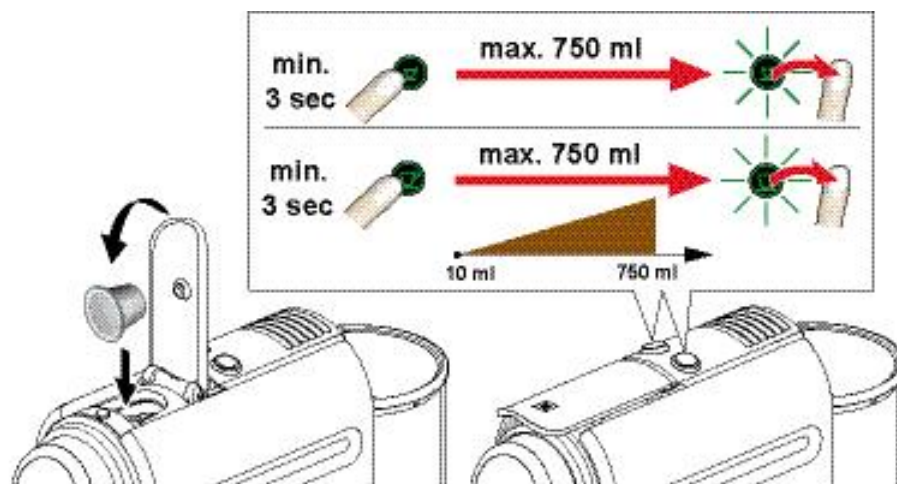
5.4 Program/reset fill up level

Each coffee button can be programmed with a coffee volume for an individual cup size. The procedure for programming/resetting is the same for both coffee buttons.

5.4.1 Programming the fill up level

Programmable volume range 10-750 ml

 Each new programming cycle starts with the min. volume (10 ml after 3 sec), regardless of a preprogrammed coffee volume.

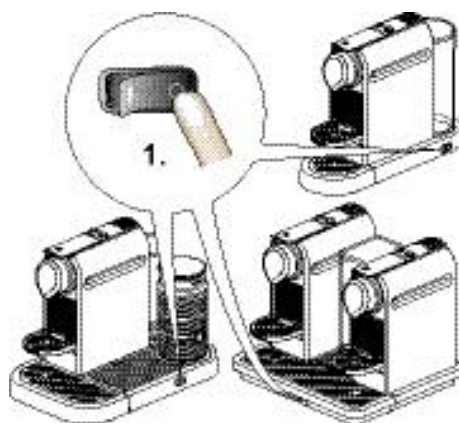


- 1) Prepare coffee as usual (see user manual), but keep the coffee button pressed for at least **3 seconds** in order to start programming mode.
- 2) Only release the button when the desired fill level is reached.

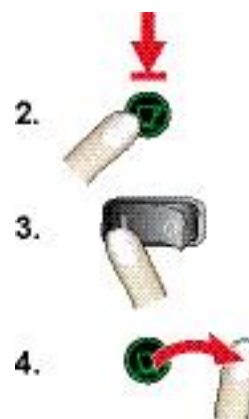
5.4.2 Resetting the fill up level

With the following procedure all programmed fill up levels will be set back to this factory settings:

Coffee button "small cup" 40 ml
Coffee button "large cup" 110 ml



- 1) Switch off the coffee machine.



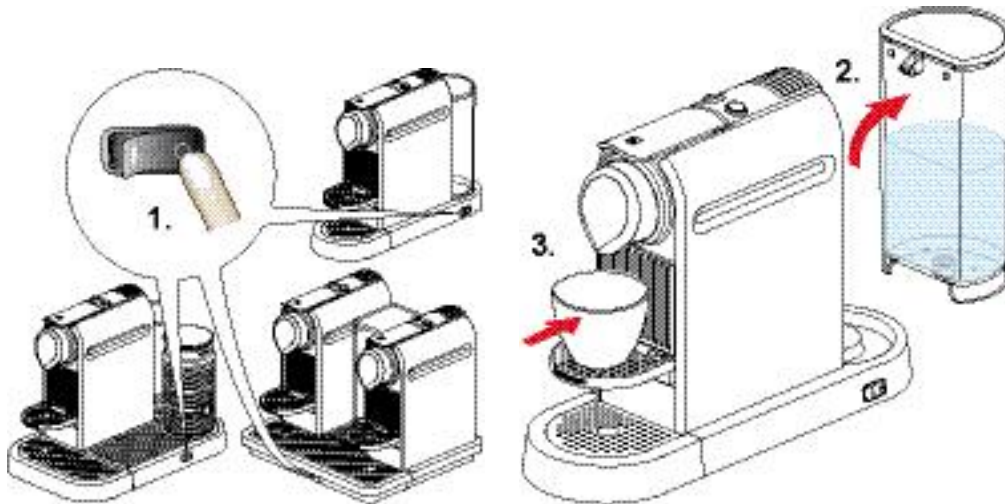
- 2) Press and hold the "large cup" button.
- 3) Switch on the coffee machine.
- 4) Release "large cup" button.



5.5 Empty water system

After every operation, some water remains in the coffee machine. Therefore the water system must be emptied

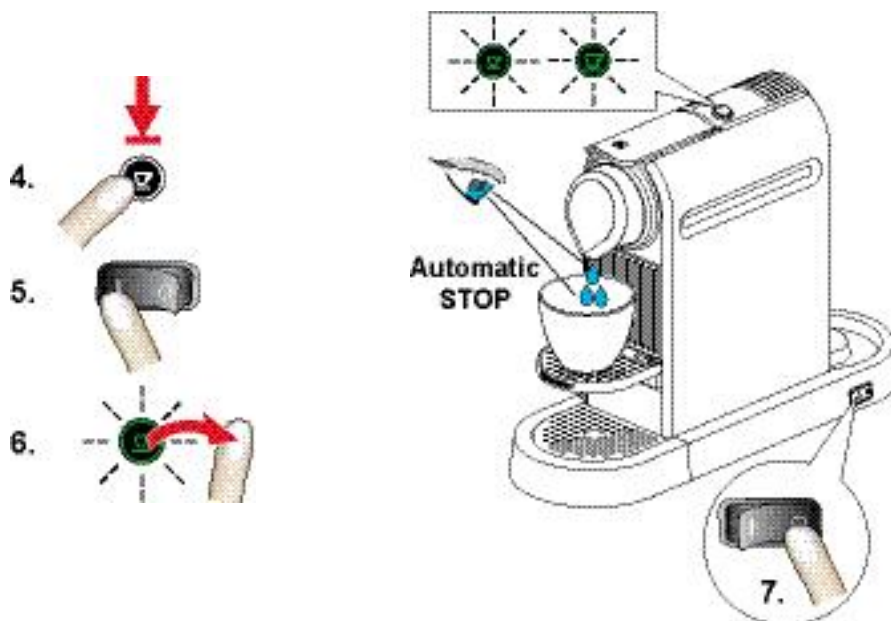
- if the coffee machine will not be used for a long time
- as antifreeze measure
- for repairs and shipment.



1) Switch off coffee machine.

2) Remove water tank.

3) Place a beaker under the coffee outlet.



- 4) Press and hold button "small cup".
- 5) Switch the coffee machine on again.
- 6) Release button "small cup".

- The pump starts to drain the water system and stops automatically.
 - The coffee buttons blink fast simultaneously.
- 7) After automatic stop, switch off the coffee machine.

i Model Citiz & Co:
Only one core unit
should be emptied at
the same time (danger of
mains supply overload).


i After this procedure,
the coffee machine
will not be ready for
approx. 10 min (until the
thermoblock cools to below
100 °C).

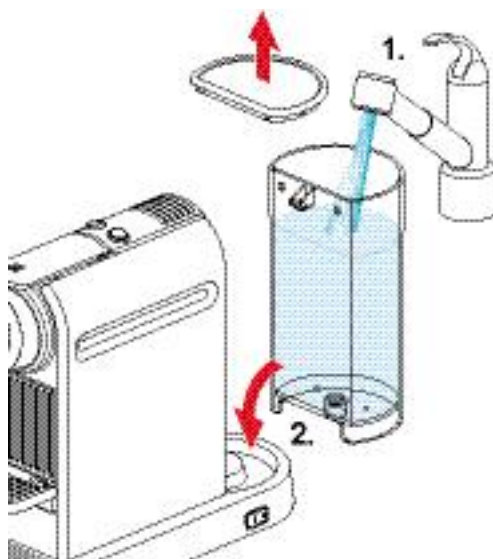


6 MAINTENANCE

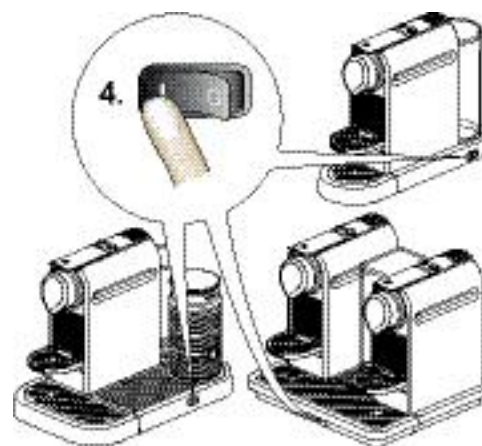
6.1 Daily maintenance and cleaning

6.1.1 Before first coffee or at the start of day

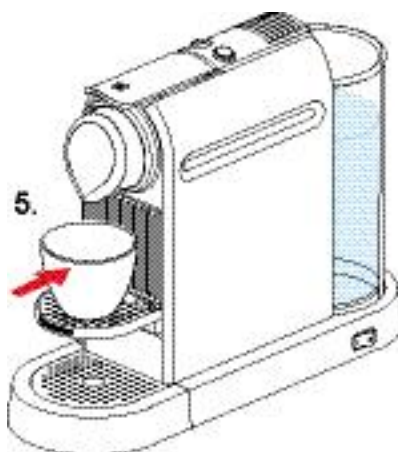
 The Citiz model is shown as example. Maintain and clean other models accordingly.



- 1) Fill water tank with fresh potable water.
- 2) Insert water tank.
- 3) For model Citiz & milk:
Attach whisk to milk frother. Place milk frother on base plate connector.



- 4) Switch machine on.



- After a longer period of non use:
- 5) Place a container under coffee outlet.



- 6) Rinse coffee machine by pressing button "large cup" about 6 times.

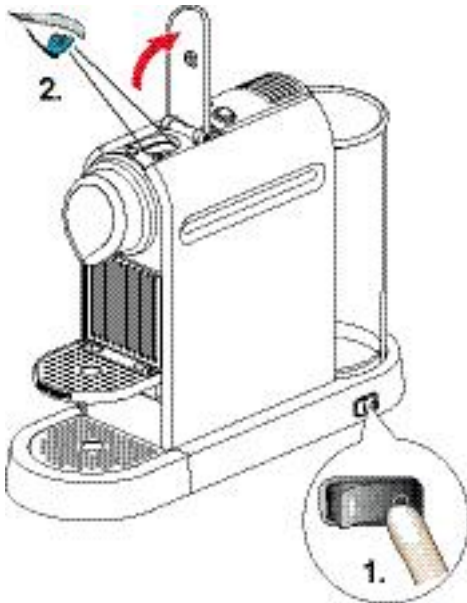


6.1.2 After last coffee or at the end of day

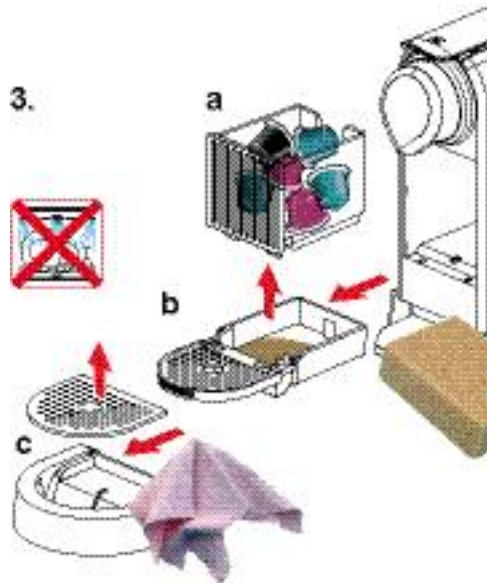


Risk of fatal electrical shock and fire!

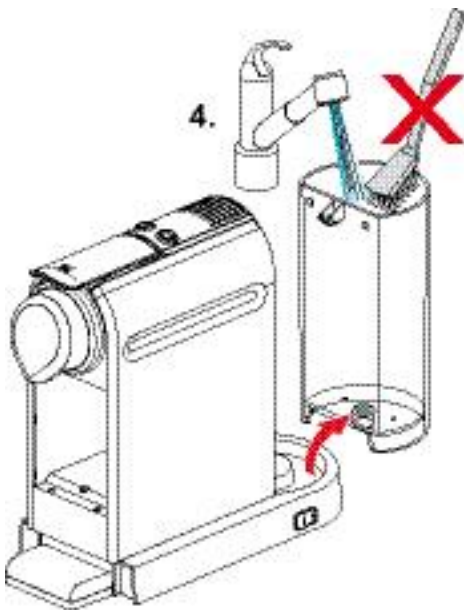
Never clean wet or immerse plug, cord or appliance in any fluid.
Unplug appliance and let it cool down to avoid burns.



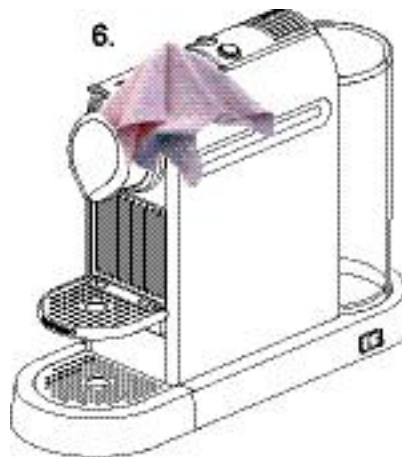
- 1) Switch machine off.
- 2) Check if capsule is ejected.



- 3) Empty and clean
 - capsule container (a)
 - waste water container with cup support (b)
 - drip tray with drip grid (c).



- 4) Empty, rinse and clean water tank.



- 5) Reassemble coffee machine.
- 6) Clean coffee machine with a damp cloth if necessary.

i Platform and drip tray surfaces are not abrasion-proof.

Never use brushes and/or cleaning agents that contain aggressive or chemical components resp. solvents.

Do not put any part in a dishwasher.

Use only a damp cloth or sponge and a mild cleaning agent if necessary

i Do not use a brush - the water tank can be scratched.



6.1.3 Milk frother of model Citiz & milk

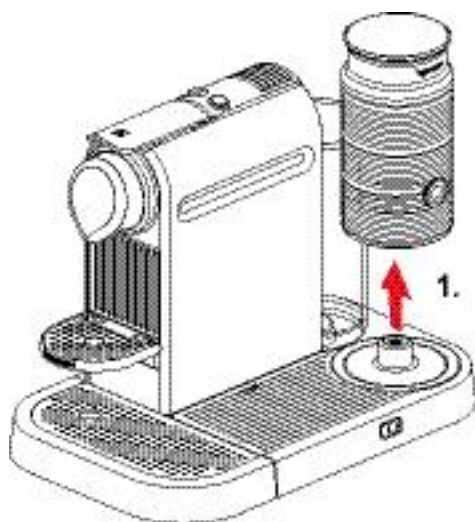
**Risk of damage!**

The inside of the jug is coated for easy cleaning.

Never use brushes and/or cleaning agents that contain abrasive or aggressive, chemical components resp. solvents.

Do not put any part in a dishwasher.


Use only a damp cloth and a mild cleaning agent if necessary.



1) Remove milk frother from platform.



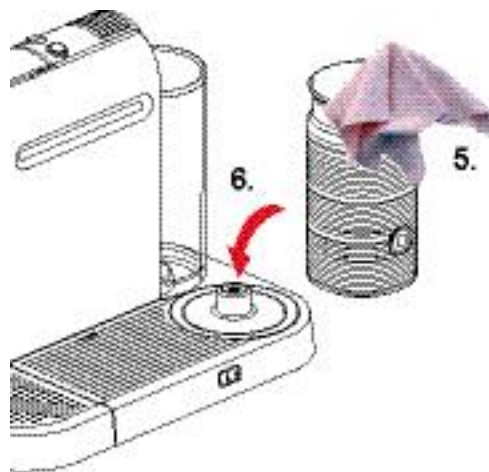
2) Remove lid and dismantle whisk.

 Keep connectors dry (on platform and at underside of milk frother).



3) Remove seal from lid.

4) Rinse and clean milk frother together with whisk or mixer, lid and seal.



5) Clean outside of milk frother with a damp cloth if necessary.

6) Reassemble milk frother.



6.2 Descaling



Only use *Nespresso* descaler or descaling kit - never use vinegar!
Descaler can damage casing and contact surfaces.
Immediately clean drops of descaling solution.

Water hardness:			Descal after:
fH	dH	CaCO ₃	
36	20	360 mg/l	300
18	10	180 mg/l	600
0	0	0 mg/l	1200



The descaling chart is based on a cup size of 40 ml.

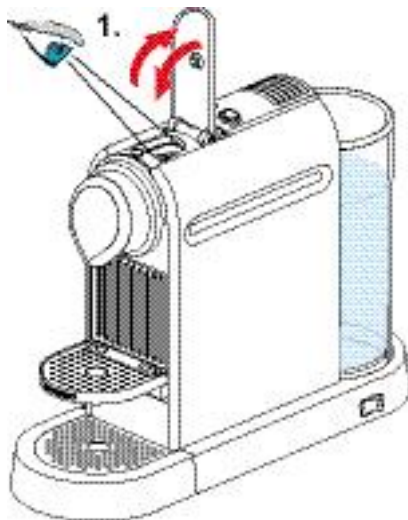
fH ... French grade

dH ... German grade

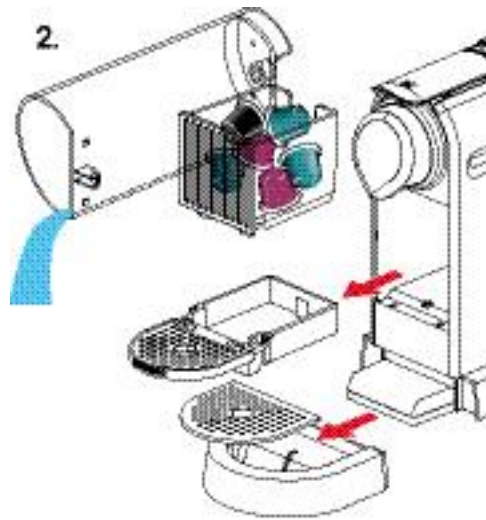
CaCO₃ ... Calcium carbonate

Use this chart to inform a customer when to descale the coffee machine depending on local water hardness and average coffee consumption. Double the estimated time interval for model Citiz & Co.

6.2.1 Descaling procedure for models Citiz and Citiz & milk



1) Eject capsule or check if capsule is removed.



2) Remove and empty capsule/waste water container, drip tray and water tank.



The Citiz model is shown as example.



Observe the safety instructions on the descaler package.

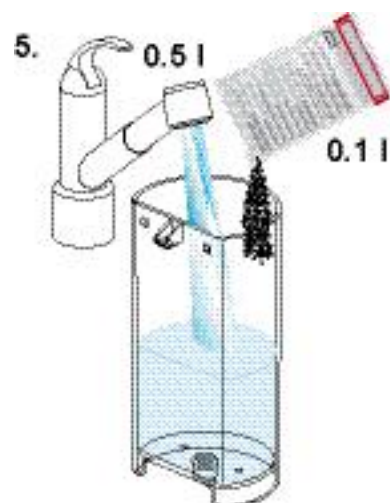


Use a container with a capacity of 1 l min.

MAINTENANCE



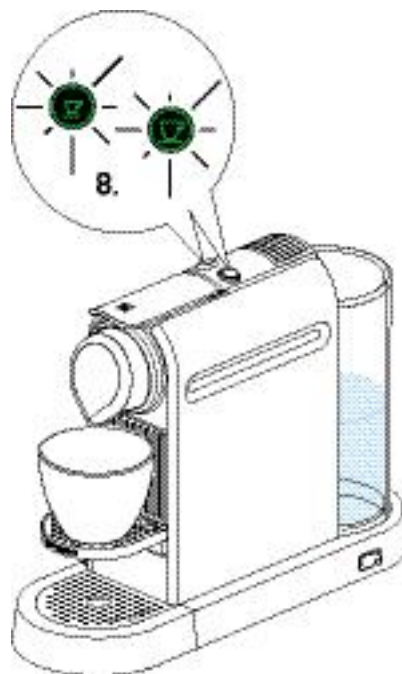
- 3) Reassemble coffee machine without water tank.
- 4) Place a container on the cup support.



- 5) Fill the water tank with 0.1 l decalcifier (1 bag) and 0.5 l water.
- 6) Insert water tank into the coffee machine.



- 7) Press both coffee buttons simultaneously for at least 3 sec.



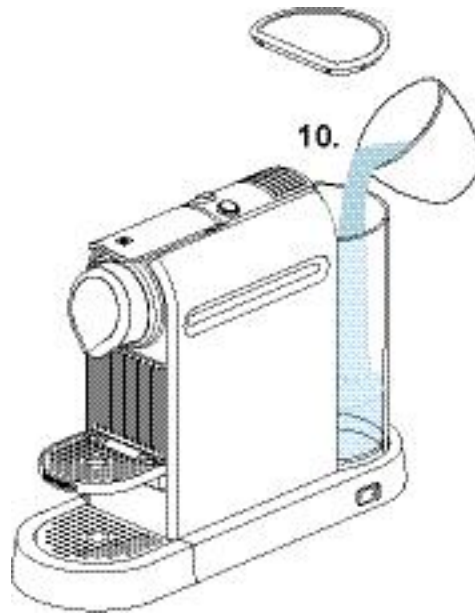
- 8) The machine is in descaling mode now (both buttons blinking fast).



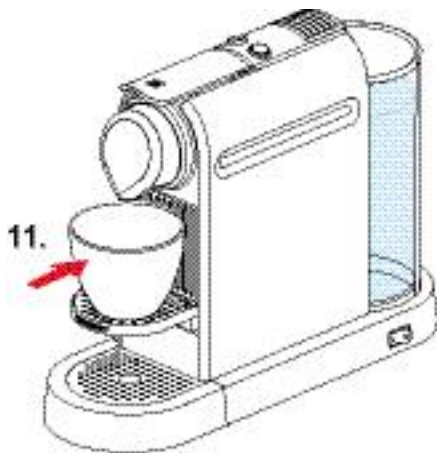
Danger!
Hot splashes of
descaling solution.
Do not open handle dur-
ing descaling process.



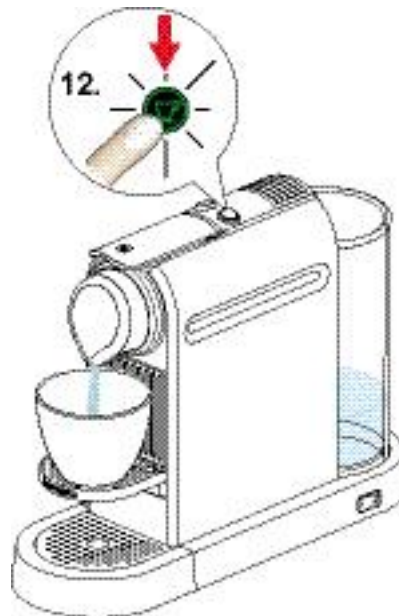
- 9) Press any button to start pump.
Let the entire solution in the tank run
through the system.



- 10) After water tank is empty, pour descal-
ing solution back into water tank.




- 11) Place empty container back on cup
support.

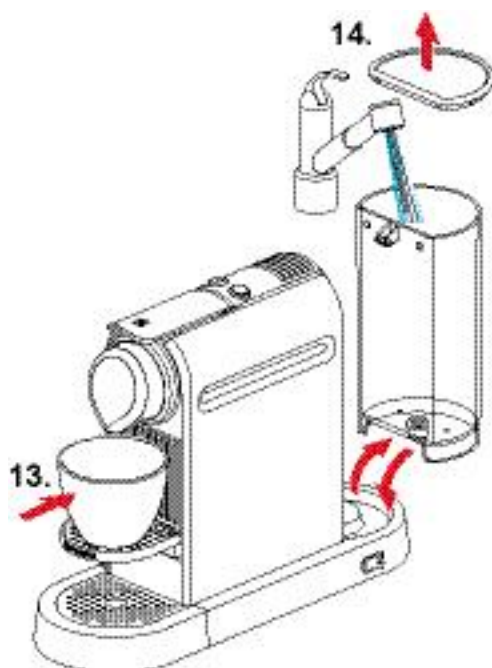


- 12) Descale again: press any button and
wait until water tank is empty.

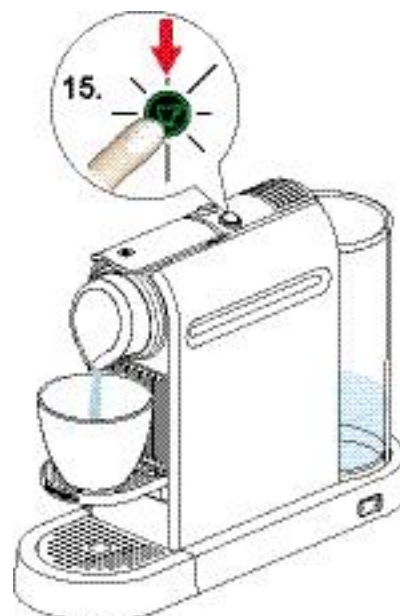


MAINTENANCE

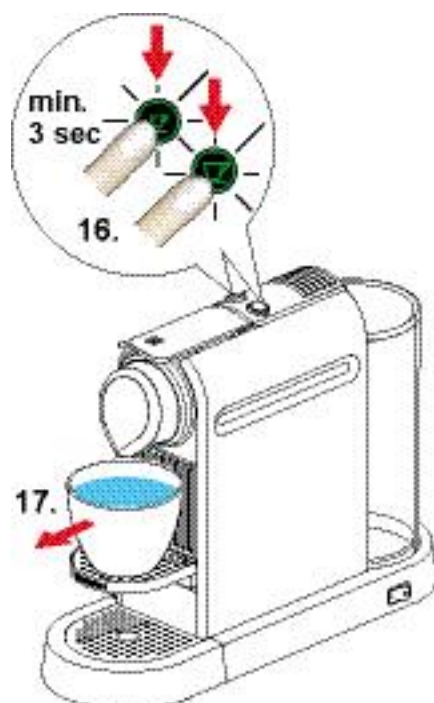
 **Danger of injury!**
Residual descaler
may be harmful.
Rinse thoroughly to
remove any residue.



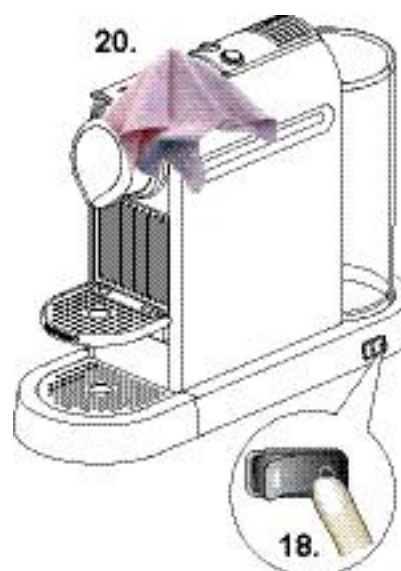
- 13) Empty container and put it back on cup support.
14) Rinse and clean water tank thoroughly and fill it with fresh potable water.



- 15) Rinse coffee machine by pressing any button and wait until water tank is empty.



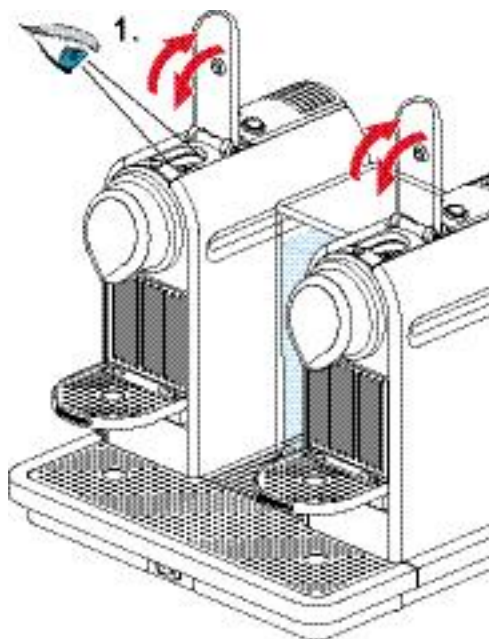
- 16) Press both coffee buttons simultaneously for at least 3 sec to end descaling mode.
17) Remove and empty container.



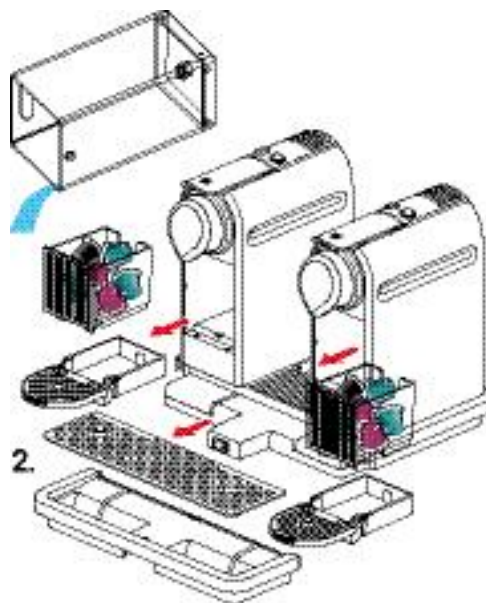
- 18) Switch off coffee machine.
19) Empty and clean capsule/waste water container and drip tray.
20) Clean coffee machine with a damp cloth if necessary.



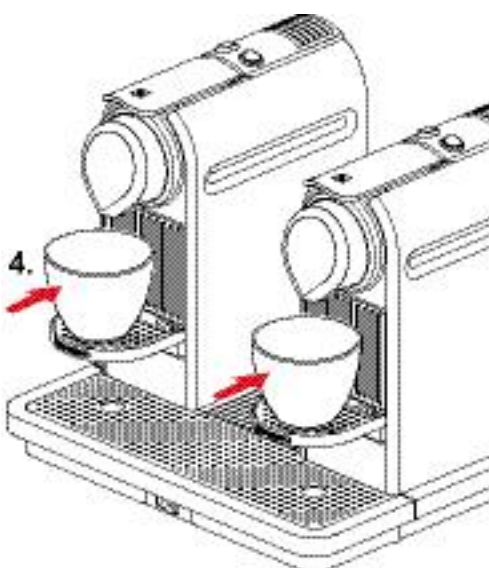
6.2.2 Descaling procedure for model Citiz & Co



1) Eject capsules or check if capsules are removed.

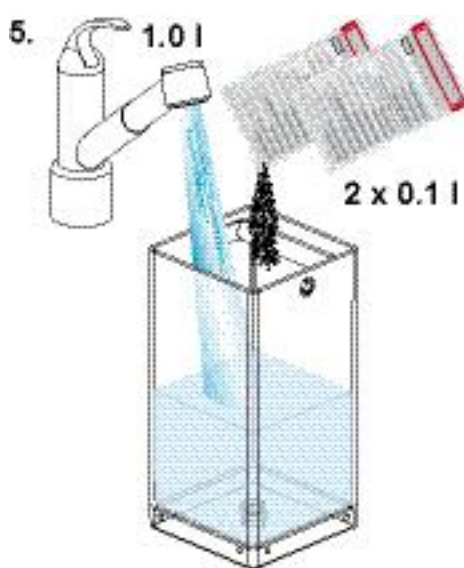


2) Remove and empty capsule/waste water containers, drip tray and water tank.



3) Reassemble coffee machine without water tank.

4) Place a container under each coffee outlet.

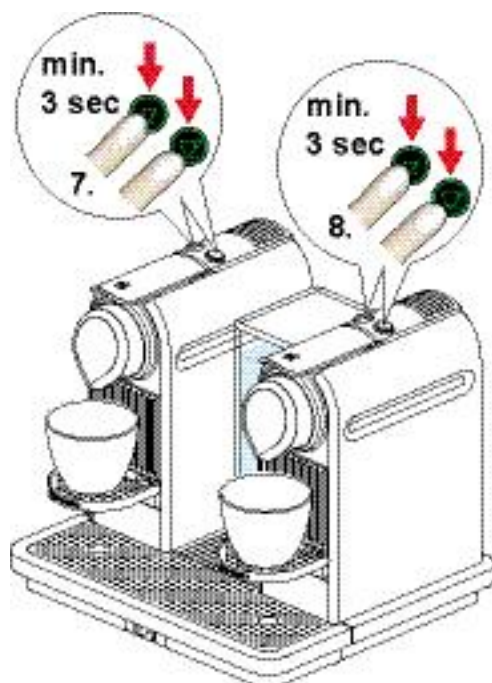


5) Fill the water tank with 0.2 l decalcifier (2 bags) and 1.0 l water.

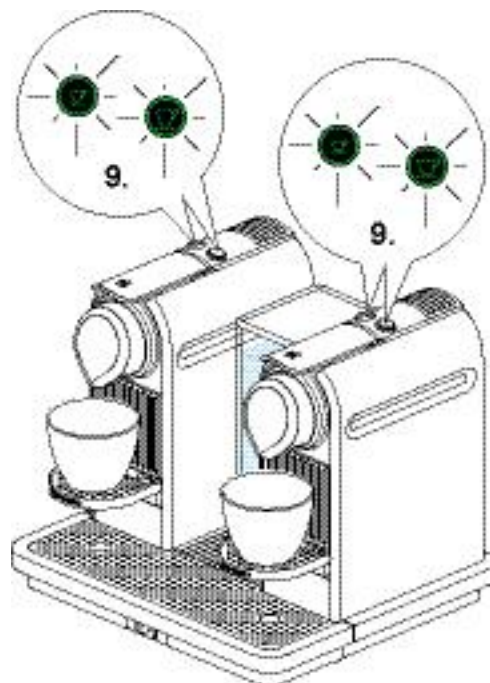
6) Insert water tank into the coffee machine.

Observe the safety instructions on the descaler package.


Use containers with a capacity of 1 l min.

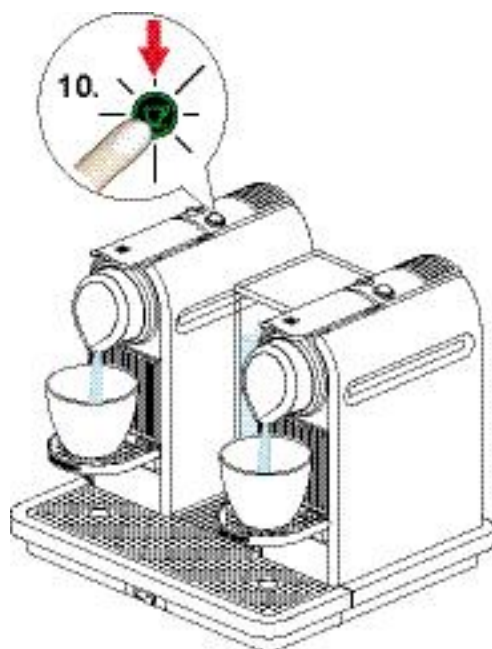


- 7) Press both coffee buttons simultaneously for at least 3 sec. on first core unit.
- 8) Repeat procedure with second core unit.

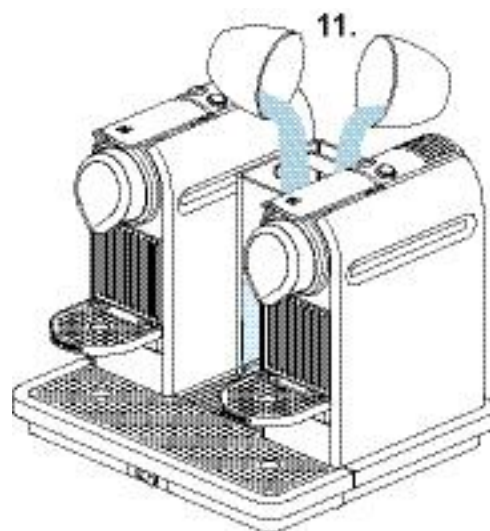


- 9) The machine is in descaling mode now (both coffee buttons blinking fast on core units).

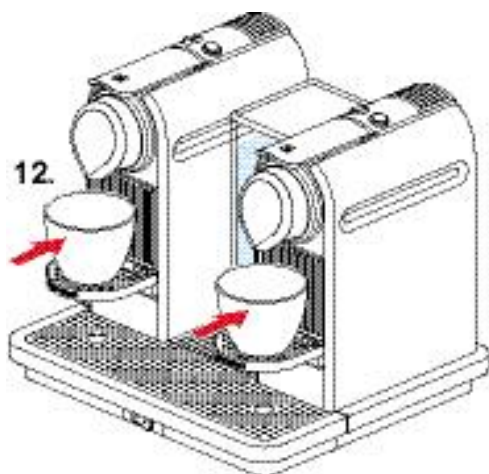
 **Danger of injury!**
Hot splashes of
descaling solution.
Do not open handles during
descaling process.



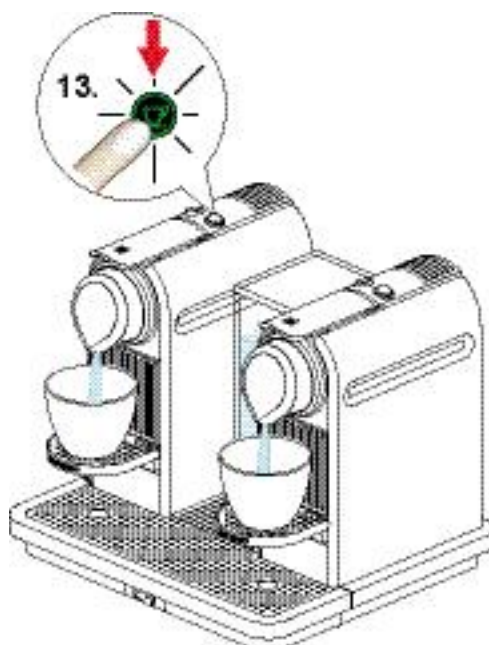
- 10) Press any button on a core unit to start pumps.
Let the entire solution in the tank run through the system.



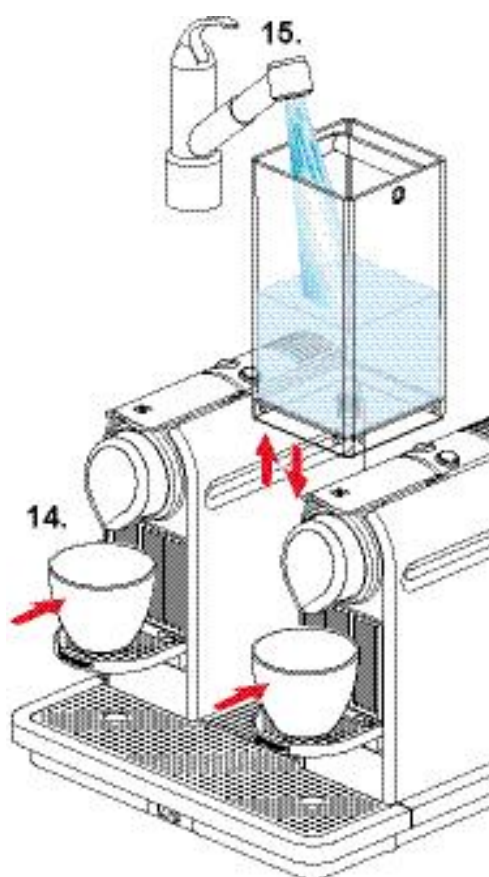
- 11) After water tank is empty, pour descaling solution from both containers back into water tank.



12) Place empty containers back on cup supports.

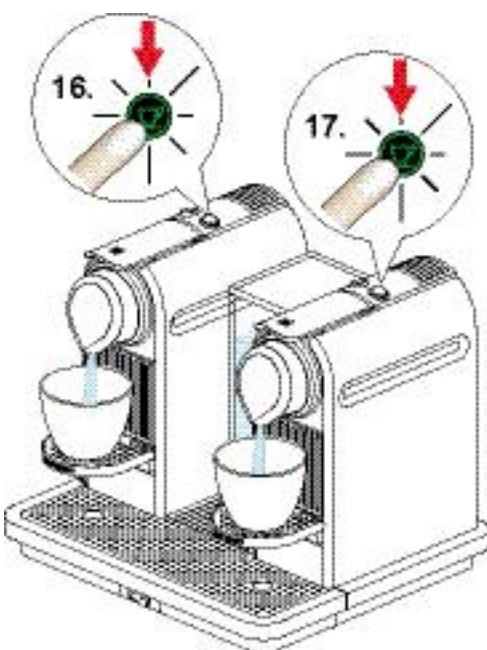


13) Descale again: press any button on a core unit and wait until water tank is empty.



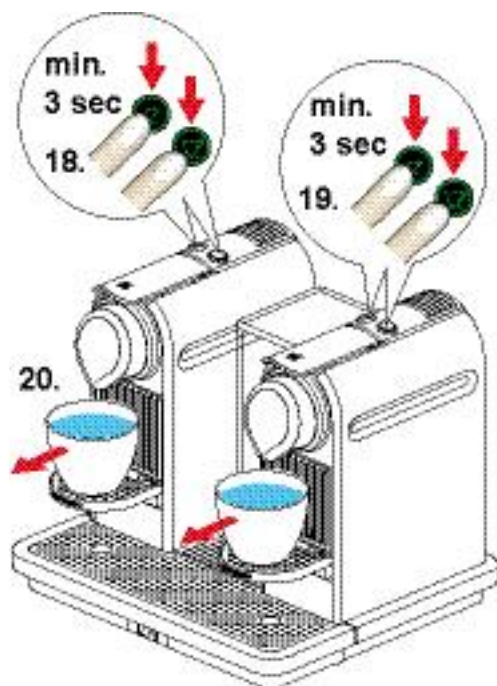
14) Empty containers and put them back on cup supports.

15) Rinse and clean water tank thoroughly and fill it with fresh potable water.

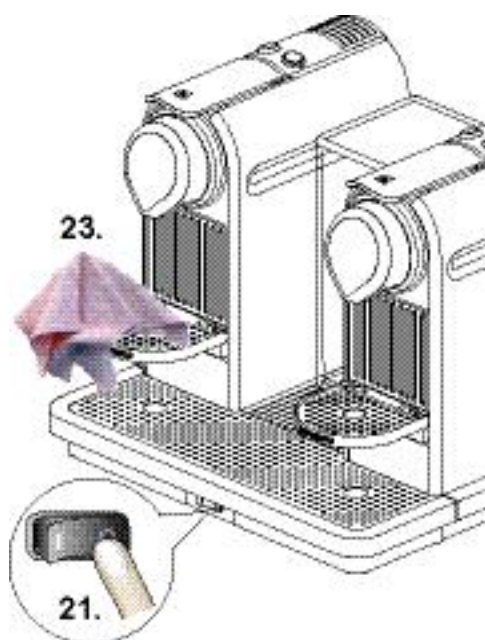


16) Rinse coffee machine by pressing any button on first core unit.

17) Repeat procedure on second core unit and wait until water tank is empty.



- 18) Press both coffee buttons simultaneously for at least 3 sec to end descaling mode.
- 19) Repeat procedure on second core unit to end descaling mode.
- 20) Remove and empty containers.



- 21) Switch off coffee machine.
- 22) Empty and clean capsule/waste water containers and drip tray.
- 23) Clean coffee machine with a damp cloth if necessary.