NISSEI

RAPP soft serve machine manual

The complete guide to perfect soft serve.



Everything about your RAPP machine.

“translation of the original instructions”

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Preface

This manual informs users about the safe installation, operation and daily maintenance of the following types of the RAPP soft serve machines:

- Nissei R3438 Power Combi Pro.
- Nissei R3438 Power Pro.
- Nissei R3448 Giant Combi.
- Nissei R3448 Giant.
- Nissei R6888 Titan Duo Combi.
- Nissei R6888 Titan Duo.
- Nissei R9438 Power Combi TT.
- Nissei R9438 Power TT.



Please read this manual and the other documentation provided carefully before commissioning the RAPP soft serve machines. This is the only way to ensure optimum safety.



This manual describes different types of the RAPP soft serve machines. Therefore, images may not always fully correspond to the actual situation. However, all steps are carried out in the same way.

Symbols

The following symbols are used in this manual:



A reference to another chapter, section or document.



A point of attention or tip to make tasks or steps easier to perform.



Draws your attention to the danger of serious injury or damage to the machine if the instructions are not followed carefully.

Accessories

The following items are included with the machine:

- O-ring removal tool.
- Allen key (5 mm).
- Cleaning brush, narrow and wide.
- Tube of lubricant (Petrogel).
- Replacement set of O-rings.
- Set of fuses.

Only for machines with a milkshake function:

- Pasteurising cap.
- Phillips screwdriver (PH2).

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1 Introduction

1.1 Manufacturer

Win Equipment B.V.
De Kronkels 31
3752 LM Bunschoten
The Netherlands

Dealer mark

1.2 Warranty & liability

The dealer gives a 12-month warranty on expensive parts, non-wear parts, and repair costs on new machines. In accordance with the terms & conditions stated in the order confirmation.

The dealer cannot be held liable for unsafe situations, accidents and damage resulting from any of the following:

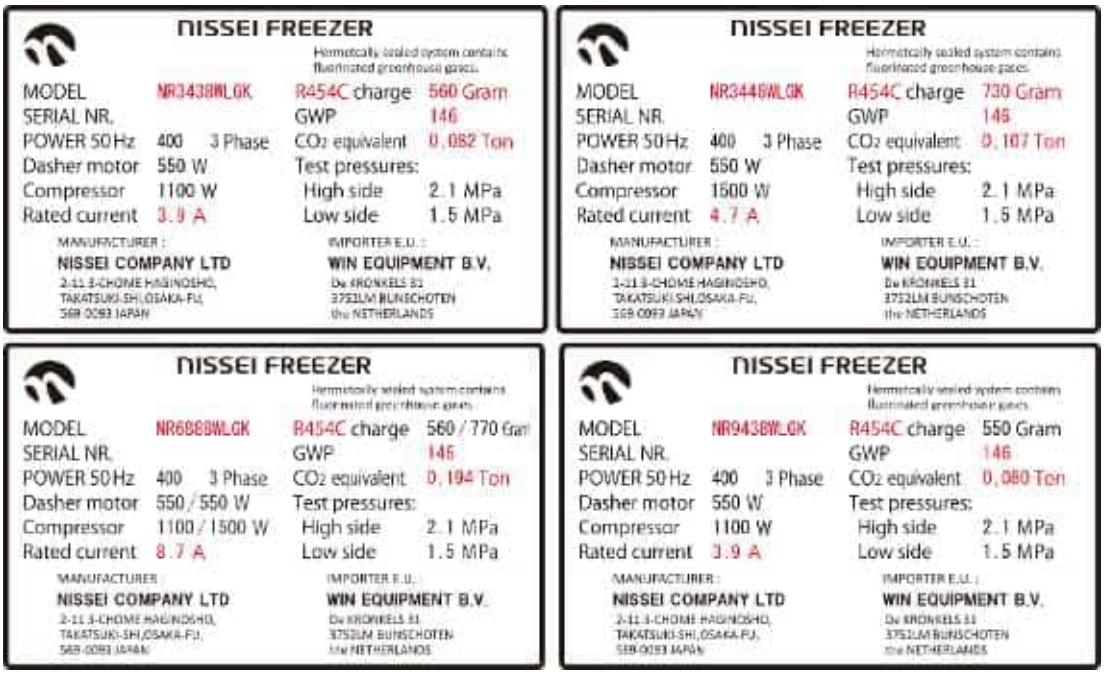
- Ignoring warnings or instructions stated on the machine or in these Manual.
- The machine being used for other applications or under other conditions than stated in these Manual.
- Any changes being made to the machine. This includes the use of other replacement parts.
- Insufficient maintenance.

The dealer cannot be held liable for consequential damage in the event of machine malfunctions, such as damage to products, interruptions of the business operations, any loss of production, etc.

1.3 Machine type plate

The type plate is attached to the back of the machine. The machine has an EC mark. This means that the machine meets the fundamental safety and health requirements of the European Union.

The type plates are shown below:



The machine contains fluorinated greenhouse gases in a hermetically sealed system with values stated in the label.

2 Safety

2.1 General safety instructions

The machine complies with the fundamental health and safety requirements laid down in the relevant European Community guidelines.

Improper or careless use can result in hazardous situations. This is why you should observe the following general safety instructions:

- Connect the machine in accordance with the fundamental health and safety requirements of the relevant European guidelines.
- Be careful with loose clothing and hair.
- Keep your hands away from danger zones.
- Never apply voltage to the machine when people are touching the machine.
- Before carrying out any maintenance work on the machine, unplug it from the mains.
- Defective safety provisions must be replaced before putting the machine into production.
- The machine must be maintained according to the regulations in Chapter 7 – 'Maintenance'.
- It is prohibited to make changes to the machine without the manufacturer's prior approval.
- The correct operation of the safety provision of the machine must be checked once a week.
- Never remove the plating from the machine. There are no parts that you can replace or adjust yourself.
- Do not remove or cover any labels on the machine.



The safety regulations stated in this document must be observed. Deviation from the regulations may cause unacceptable risks.

2.2 Pictograms overview

The following safety pictograms are affixed to the machine:

- Emergency stop button:
  - On the front of the machine, under the emergency stop button.



- Crushing hazard:
  - On the top of the machine, next to the mix tank.



- Do not spray with water:
  - On the back of the machine, near the ventilation slots.



- Electrical voltage:
  - Inside the enclosure.



2.3 Emergency stop button

In case of danger to people or the machine, the emergency stop button must be pressed immediately. The entire machine will stop immediately and the voltage of the moving parts will be switched off. The touchscreen will stay on and will display a message that the emergency stop button has been pressed.



In case of danger to people or the machine, use the emergency stop button immediately.

The operation of the emergency stop is described in §5.6 (page 32).

2.4 Operation and maintenance

Operation, maintenance and cleaning of the machine may only be carried out by trained personnel. The end user determines the grounds on which this authorisation is based.

2.5 Hygiene

Proper hygiene is very important, therefore, adhere to the following rules:

- **Clean** and **disinfect** the machine as minimum according to the guidelines of the ice cream preparation hygiene code, but at least once every 6 weeks.
- **Descale** the machine every 2nd to 4th cleaning depending on the level of soiling, but at least twice a year.
- **Use** of the recommended cleaning, disinfecting and descaling agents ensures an optimal result.
- **Use** prescribed lubricants only.

The use of cleaning, disinfecting and descaling agents other than those recommended, or failure to rinse the machine properly (at least twice with clean water) after cleaning, may result in irreparable damage (pitting corrosion) to the machine.

The prescribed agents can be ordered through the dealer.

The user always remains responsible for proper hygiene.

Proper hygiene ensures better ice cream and happy customers.

Ice cream preparation hygiene code

The Dutch hygiene code states the following guidelines for pasteurisation:

- Pasteurisation takes place after the mix is topped up.
- Always make sure the machine pasteurises at the end of the day. (Pasteurise at a low circulation rate at least every two days)
- Before starting the work, check whether the pasteurisation has been carried out correctly.
- Store pasteurised mix for a maximum of 72 hours.
- Store mix at a temperature of +7 °C or lower, preferably +4 °C or lower.

The dealer advises you to follow the above guidelines.

2.6 Storage

To prevent (frost) damage to the machine, the machine must always be stored at a temperature between +4 °C and +50 °C when not in use.

Prevent frost damage. If not in use, never store the machine at temperatures below +4 °C.

3 Installation

Read this chapter carefully before installing the machine. This is the only way to ensure optimum safety.

3.1 Introduction

The initial installation is done by the dealer. When moving the machine, contacting the dealer is recommended.

Installing the machine may only be done by qualified staff.

3.2 Installation room

- Do not install the machine outdoors.
- To avoid vibration and noise, position the machine on a firm, level surface.
- Keep 10 cm free at the back and 2 cm at the sides for ventilation.
- Do not place the machine in direct sunlight (including behind glass) or close to a heat source (e.g. a radiator or frying oven).
- Place the machine in a room with a temperature between +4 °C and +35 °C.

3.3 Electrical connection

- Connect the plug of the machine to a so-called power current connection (400 Volt, 3 x 16 A + N + PE).

Make sure that the machine is not positioned on the connection cable. This can lead to damage to the insulation and short circuits.

3.4 Cooling water connection

- Connect the supply hose to a so-called washing machine tap (water tap 3/4" with aeration). The water pressure must be at least 1.6 bar and no more than 3 bar.
- Connect the drain hose to a drain line.

Make sure that no water can get into the machine. If water gets on electrical parts, this can lead to damage and/or dangerous situations.

When positioning or moving the machine, make sure that the water supply and drainage hoses cannot buckle or otherwise become blocked.

When connecting the machine, observe the local connection requirements of the water supply company. The machine is equipped with a check valve. This check valve, along with the aerated water valve, provides backflow protection of water in the water system.

3.5 Adjusting the swivel castors

The swivel castors under the machine are adjustable in height.

Make sure that the machine does not fall over while adjusting the swivel castors.

1. **Disengage** the brake of the front swivel castors.
2. **Place** the machine in the desired location.
3. **Turn** all swivel castors in as far as possible.
4. Now **adjust** the swivel castors so that the machine leans slightly forward. (This will allow rinse and wash water to flow to the drain opening at the front of the machine.)

Do not turn the swivel castors more than 5 to 8 mm outwards.

5. **Engage** the brake on the front swivel castors.

After adjusting, make sure that the brake of the front two castors is engaged again.

4 Machine description

4.1 Machine overview



1. Mix tank.
2. Touchscreen.
3. Dispensing lever soft-serve ice cream.
4. Combi head/ice cream head*.
5. Shake motor*.
6. Cup holder and APM sensor*.
7. Syrup compartment**.
8. Dispensing pedal soft-serve ice cream.
9. USB connection.
10. Emergency stop button.
11. Ice cream twister.

*** Milkshakes can only be prepared with Combi models. These models are equipped with a combi head with shakemotor with which both soft-serve ice cream and milkshakes can be dispensed. All other models are equipped with an ice cream head, which can only be used to dispense soft-serve ice cream.**

**** Only with the Combi models. The R9438 Power Combi TT features a separate syrup compartment.**

Syrup compartment

For each of the four* milkshake flavours, the syrup compartment contains the following parts:

1. Syrup pump.
2. Syrup container with rotating lid.



*** The R6888 Titan Duo Combi can prepare five milkshake flavours.**

Mix tank

1. Water tap.
2. Mix pump.
3. Agitator.



The R6888 Titan Duo Combi and R6888 Titan Duo are equipped with two mix tanks. This makes it possible to prepare two different flavours of soft-serve ice cream.

Function and use

The function of the machine is:

- The commercial preparation of soft-serve ice cream and milk-shakes/huzzles* using the raw materials water, ice cream mix and flavoured syrups*.

The machine may not be used for preparing other products and/or with other raw materials.

*** Milkshakes/huzzles can only be prepared with the Combi models.**

A huzzle is a milkshake without water; a sorbet-like substance.

4.2 Touch panel

4.2.1 Home screen



Soft Ice

1. Run.
   - Press to put the machine in Run mode. The Run screen will also open.
2. Standby
   - Press to put the machine in StandBy mode.
3. Stop.
   - Press to stop the machine.
4. Dry-Fill.
   - Press to access the Dry-Fill option.

The R6888 Titan Duo Combi and R6888 Titan Duo can prepare two ice cream flavours. That is why the Soft Ice field is shown 2x. Both freezer cylinders can be operated independently of each other.

The active mode button is coloured dark blue (Run mode and Standby mode) or red (Stop mode).

Maintenance

5. Pasteurising.
- Press to open the pasteurisation screen.

6. Cleaning.
- Press to set the Cleaning mode. The Cleaning screen will also open.

Taskbar

7. Home.
- Press to open the home screen.

8. Active mode.
- This button shows the active mode. Press to open the corresponding screen.

9. Settings.
- Press to open the Settings screen.

10. Log.
- Press to open the Log screen.

11. Notifications.
- Press to open the Notifications screen.
- For an overview of all notifications and how to resolve them, see §6.2.
- When a V is shown, there are no active notifications.

The taskbar is always shown at the bottom of each screen and is used to navigate to the various screens.

4.2.2 Run screen



Soft Ice

1. Notifications field.
   - This field displays a notification if the ice cream mix level in the mix tank is too low (1a) or the temperature of the ice cream mix is too high (1b).
2. Ice cream pictogram.
   - An all-white pictogram indicates that the machine has started up and is ready or to tap soft-serve ice cream.
3. Twister.
   - Press and hold to rotate the ice cream twister.

The R6888 Titan Duo Combi and R6888 Titan Duo can prepare two ice cream flavours. That is why the Soft Ice field is shown 2x. The status of both freezer cylinders is shown separately.

Milkshake/huzzle*

4. Milkshake/huzzle selection.
   - The current selection is displayed in white text.
   - Press milkshake or huzzle to switch.
5. Flavour selection milkshake/huzzle.
   - Press the desired flavour to dispense a milkshake/huzzle.
   - If the APM function is switched off, the button must be held down to dispense a milkshake/huzzle.

The R6888 Titan Duo Combi can prepare five flavours of milkshakes/huzzles. That is why five flavour selection buttons are shown.

*** Milkshakes / huzzles can only be prepared with combi models, and this field is shown. For the other models, only the Soft Ice field is shown.**

4.2.3 Cleaning screen



Soft Ice

1. Water mix tank.
- Press to open the water tap.
- After 30 seconds, the water tap closes automatically. To close the water tap earlier, press the button again.

2. Dasher.
- Press to let the agitator rotate in the freezer cylinder.
- The agitator stops automatically after 30 seconds. To stop the agitator earlier, press the button again.

The R6888 Titan Duo Combi and R6888 Titan Duo can prepare two ice cream flavours. That is why the Soft Ice field is shown 2x. Both water taps and agitators can be operated independently.

Shake Piston*

3. Down (Home).
- Press to return the shake dispenser pin to its normal (closed) position after servicing.

4. Up to Dismantle.
- Press to move the shake dispenser pin to an extra high position so that it can be removed and replaced during maintenance.

5. Shake.
- Press to open or close shake dispenser pin.

Cleaning*

6. Syrup buttons.
- Press to run the syrup pump.
- After 30 seconds, the syrup pump stops automatically. To stop the syrup pump earlier, press the button again.

The R6888 Titan Duo Combi can prepare five flavours of milkshakes/huzzles. That is why five syrup buttons are shown.

*** Milkshakes can only be prepared with combi models and these fields are shown. For the other models, only the Soft Ice field is shown.**

4.2.4 Settings screen



In the settings screen, various soft-serve ice cream settings and milkshake/huzzle settings* can be changed:

- **Press** the white area.
  - A pop-up opens, in which the setting can be adjusted.
- **Adjust** the value.
- **Press** OK.
  - The value is stored.
  - Press cancel to not change the value and return to the screen.

Soft Ice

1. Dry-Fill Volume.
- Amount of water added to one bag of powder mix.

2. Overrun.
- Setting for the amount of air in the ice cream.

3. Viscosity.
- Setting the thickness of the soft ice cream.

The R6888 Titan Duo Combi and R6888 Titan Duo can prepare two ice cream flavours. That is why the Soft Ice field is shown 2x. From the left and right sides, the settings can be adjusted separately from each other.

The name Soft Ice above the field can also be changed in the above manner. In the case of a machine with two mix tanks, this makes it clear which mix is in which tank.

Milkshake/huzzle*

4. Milkshake/huzzle selection.
- The current selection is displayed in white text.
- Press milkshake or huzzle to switch.

5. Milkshake settings.
- Name.
- Adjusting the amount of syrup in the milkshake.
- Adjusting the amount of water in the milkshake.

6. Huzzle settings.
- Name.
- Adjusting the amount of syrup in the huzzle.

The R6888 Titan Duo Combi can prepare five flavours of milkshakes/huzzles. That is why five flavours are shown.

7. Auto Portion Milkshake on/off.
- Press to turn the APM function on (green) or off (red).
- When the APM function is enabled, a cup is automatically filled after a flavour button on the Run screen is pressed. If the APM sensor measures that the cup is full, dispensing stops automatically.

*** Milkshakes can only be prepared with combi models, and this field is shown. For the other models, only the Soft Ice field is shown.**

4.2.5 Pasteurisation screen



Soft Ice

1. Mix tank temperature.
- Shows the temperature of the ice cream mix in the mix tank.

2. Cylinder temperature.
- Shows the temperature of the soft-serve ice cream in the freezing cylinder.

The R6888 Titan Duo Combi and R6888 Titan Duo can prepare two ice cream flavours. That is why the Soft Ice field is shown 2x. The temperatures are shown for the left and right side.

Pasteurisation

3. Thermometer pictogram.
- Indicates that a pasteurisation cycle has started.

Schedule

4. Schedule settings.
- A time can be set for each day of an even week and an odd week when the machine will automatically pasteurise. To change the time of day:
  - **Press** the white area.
    - A pop-up opens, in which the setting can be adjusted.
  - **Adjust** the value.
  - **Press** OK.
    - The value is stored.
    - Press cancel to not change the value and return to the screen.
- The current day is framed in green.

5. Pasteurisation on/off.
- Press to turn the pasteurisation schedule on (green) or off (red).

6. Skip.
- Press to skip the next pasteurisation cycle. For example, if the machine is being cleaned the next day, or if there is insufficient ice cream mix in the mix tank and there is no ice cream mix available to refill.

The current day is indicated by a green border.

4.2.6 Log screen



Logs

1. Pasteurising.
- Press to display an overview with information (temperatures, times) of the pasteurisations performed.

2. Counters.*
- Press to display an overview with per-day information on the number of soft-serve ice creams, milkshakes and huzzles dispensed.

3. Adjustments.
- Press to display an overview with information (times and type of change) about all settings that have been adjusted.

4. Historical events.*
- Press to display an overview of all active and old notifications.

*** These logs are optional, and the corresponding button is only displayed if the log has been enabled by the dealer.**

Various

5. Language.
- Press to change the display language.

System settings

6. Nissei service.
- Press to open the service screens.

These screens are only accessible to employees of the dealer.

7. Date & time.
- Press to change date and time settings.

5 Operation

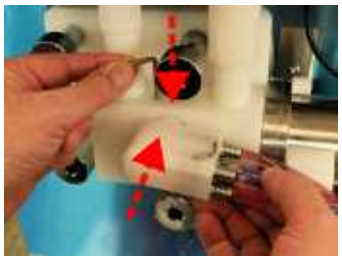
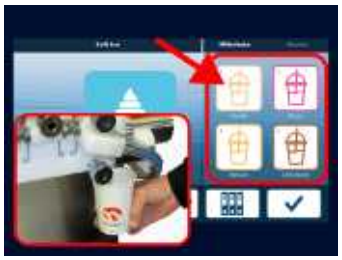
5.1 Start-up (beginning of work day)

Start by checking if the machine is in 'STANDBY'.

If this is not the case, measure the temperature of the mix in the mix tank.
- **If the temperature exceeds +7 °C, empty, clean and disinfect the machine (see §7.3, page 45).**
- **If the temperature is below +7 °C, pasteurise the machine before use.**

For a machine without a milkshake function, steps 2 to 9 and 12 can be skipped.

		
1. Check whether the machine is set to 'Standby'. - If not, measure the temperature of the mix in the mix tank. - If the temperature exceeds +7 °C, empty, clean and disinfect the machine (see §7.3, page 45). - If the temperature is below +7 °C, pasteurise the machine before use.	**2. Pull** up the locking pin. **3. Remove** the pasteurisation cap.	**4. Clean** the hole in the combi head. **5. Disinfect** the hole and the pasteurisation cap with alcohol spray 80%.

		
6. **Clean** the syrup head. **7.** **Disinfect** the syrup head with alcohol spray 80%.	**8.** **Place** the syrup cup in the combi head. **9.** **Push** the locking pin down.	**10.** **Press** 'Run'. - The agitator will now run for 5 minutes. After that, the machine will start cooling.
		
11. **Wait** until the ice cream pictogram is completely white.	**12.** **Dispense** one cup of milkshake, taste it and discard it.	**13.** **Dispense** one or two ice creams, taste them and discard them. - The machine is now ready for use.

Starting up the machine after cleaning is described in §7.3.16 (page 71).

5.2 Dispensing soft-serve ice cream

		
1. **Hold** a cone or ice cream cup under the ice cream dispensing opening.	**2.** **Press** the ice cream pedal all the way down/ **pull** the ice cream dispensing lever all the way down. - The ice cream is now dispensed.	**3.** **Let** the ice pedal come all the way up/**push** the ice cream dispensing lever all the way up.

Tips

Below are some tips for properly dispensing soft-serve ice cream:

- If no ice cream or milkshake has been dispensed for a few minutes, press the 'ice cream pictogram' in the 'Run' screen before starting to dispense ice cream.
- A good balance between air and ice cream mix in the cylinder will enhance the quality of the soft-serve ice cream.
- Dispense soft-serve ice cream with care and at a calm constant dispensing speed.
- Do not dispense large amounts of soft ice cream continuously.
- Give the machine the opportunity to restore the viscosity of the soft-serve ice cream in good time.

5.3 Twisting ice cream

		
1. **Slide** a spoon over the spoon holder.	2. **Hold** the cup with ice cream under the ice cream twister.	3. **Press** and hold the 'Twister' button. - The spoon will now start to rotate and the ice cream will be twisted.

Release the 'Twister' button to stop twisting.

5.4 Dispensing milkshake

		
1. **Hang** a cup in the cup holder.	2. **Press** the desired flavour. - The cup now automatically fills with milkshake.	

You can stop dispensing a milkshake by pressing one of the flavour buttons.

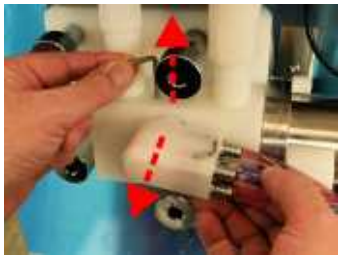
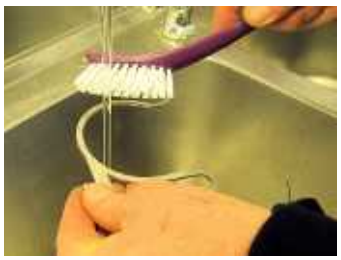
Tips

Below are some tips for dispensing a good milkshake:

- The syrup containers must be properly filled.
- Do not dispense milkshakes immediately one after the other. First put on the lid and straw and only then start dispensing the next milkshake.
- Take care when dispensing milkshakes!
- A good milkshake requires good ice cream.

5.5 Closing (end of work day)

For a machine without milkshake function, steps 1 to 10, 12 to 14 can be skipped.

		
1. Press Standby.	**2. Pull** up the locking pin. **3. Remove** the syrup head from the combi head.	**4. Clean** the syrup head with a clean cloth (preferably paper).
		
5. Disinfect the syrup head with alcohol spray 80%.	**6. Clean** the hole in the combi head **7. Disinfect** the hole and pasteurising cap with alcohol spray 80%.	**8. Place** the pasteurising cap in the combi head. **9. Push** the locking pin down.
		
10. Remove the cup holder.	**11. Clean** the combi/ice cream head and machine with a dishwashing brush and a clean cloth (preferably paper).	**12. Clean** the cup holder.

		
13. Disinfect the entire combi/ice cream head with alcohol spray 80%.	**14. Replace** on cup holder.	
		
If no automatic pasteurisation program has been set, pasteurisation must be started manually. Continue with steps 15 and 16.	**15. Press** Pasteurize.	**16. Press** OK. - The ice cream mix is now pasteurised, then the machine switches to 'Standby' mode.

The shake motor will get very hot during pasteurisation.

If the shake motor does not get hot, contact the dealer.

5.6 Emergency stop

In case of danger to people or the machine, the machine must be switched off immediately:

- **Press** the emergency stop button.
  - The entire machine will stop immediately and the voltage of the moving parts will be switched off. The touchscreen will stay on and will display a message that the emergency stop button has been pressed.



In case of danger to people or the machine, use the emergency stop button immediately.

Resetting

To reset the emergency stop:

- **Turn** the emergency stop button a quarter turn.
  - The machine can now be restarted.



First check why the emergency stop button was pressed. Fix the problem first before restarting the machine.

5.7 Switching on/off

The machine does not have an on/off button. To switch on the machine:

1. **Put** the plug in the socket.
2. **Reset** the emergency stop.

To completely switch off the machine:

1. **Press** the emergency stop.
2. **Remove** the plug from the socket.

Do not switch off the machine at the end of the day; put it in Pasteurisation mode or Stand By mode.

5.8 Dry fill

To fill or refill the machine with ice cream mix using ice cream powder:

1. **Remove** the lid from the mix tank.
2. **Press** the 'Dry-fill' button and select single or double.
   - A set amount of water now flows into the mix tank.
3. **Wait** until the agitator starts running faster.
4. **Add** the powder in a calm and controlled manner.
5. **Place** the lid back on the mix tank.
6. **Wait** a few minutes until the agitator has stopped turning.

Add the powder slowly to prevent lumps forming.

5.8.1 Starting up an empty machine with Dry fill

To start up an empty machine:

1. **Prepare** enough (at least 4 sachets) ice cream mix in a clean, disinfected bucket.
2. **Start** the machine with the prepared mix according to the instructions in §7.3.16 (page 71).

5.9 Changing settings

How settings such as air storage, viscosity and composition of the milkshake/huzzle can be changed is described in §4.2.4 (page 22).

6 Malfunctions

6.1 Introduction

You may be able to remedy some malfunctions yourself. Before contacting the dealer, try to resolve the malfunction yourself using the instructions in this manual.

6.2 Notifications on display

Error messages (E2 to E13 and M101 to M145) may appear on the control panel. The following sections describe how to resolve these malfunctions.

If the notification keeps coming back or is active, please contact the dealer.

6.2.1 E-notifications (E2 to E13)

	Problem	Solution
E2	There is a phase issue in the power supply of the refrigeration compressor (thermal protection is activated).	Check the 3 fuses of the group to which the machine is connected.
E3	The machine gets too hot.	Check that there is no kink in the water supply and/or drain hose. Check that the water tap is fully open.
E4	There is a phase issue in the power supply of the agitator motor (thermal protection is activated).	Check the 3 fuses of the group to which the machine is connected. If the error appears immediately after standby or pasteurisation, contact the dealer.
E5	The temperature in the mix tank does not rise or does not rise sufficiently during pasteurisation.	Check that the agitator in the mix tank is running and is not blocked. Check that the lid of the mix tank is correctly placed during the pasteurisation process. Check that the mix tank is not overfilled. It can be filled to a maximum of 5 cm below the edge. After performing all checks, reset the machine and set it to pasteurisation. Note: Check that the mix in the mix tank is not acidic. If the mix is acidic, the machine must be cleaned completely.

	Problem	Solution
E6	The temperature in the freezer cylinder is too high during pasteurisation.	Contact the dealer.
E7	The temperature in the mix tank is too high during pasteurisation.	Check that there is enough ice cream mix in the mix tank. Check that the agitator in the mix tank is running and is not blocked.
E9	The refrigeration compressor becomes too hot (thermal protection is activated).	Check that there is no kink in the water supply and drain hoses. Check that the water tap is fully open and/or that the water pressure is not too low. Check the fuses in the meter box.
E10	A tap pin is not completely closed during start-up of the machine.	Foot-operated machine: - Fully depress the foot pedal and let it rise again. - Check that the tap pin closes completely. Manually operated machine: - Push the dispensing lever all the way up. - Check that the tap pin closes completely.
E11	Measuring error temperature sensor H (freezer cylinder).	Contact the dealer.
E12	Measurement error temperature sensor F (freezing cylinder).	Contact the dealer.
E13	Measurement error temperature sensor G (mix tank).	Contact the dealer.

6.2.2 M notifications (M101 to M145)

	Problem	Solution
M101	Communication error.	Remove the plug from the socket. Wait 15 seconds and plug in again. The machine now restarts and communication is restored.
M102	The pressure in the air system is not achieved. There may be a leak in the air system.	Contact the dealer.
M103	The machine was restarted.	Automatic restarting of your machine occurs when the emergency stop is pressed or a power outage has occurred.
M104	There has been a power outage for more than 30 minutes.	Check that the ice cream mix is still usable if the power failure has not been rectified after 30 minutes.
M105	The emergency stop was pressed.	Pull out the emergency stop button so that the machine restarts.
	There is a phase failure in the electrical supply.	Check the 3 fuses of the group to which the machine is connected.
M111	Communication error.	Remove the plug from the socket. Wait 15 seconds and plug in again. The machine now restarts and communication is restored.
M112	Combi/ice cream head not properly mounted.	Reassemble the combi/ice cream head and restart the machine.
M113	LO: The air-ice cream mix in the freezer cylinder is unbalanced due to, for example, an air bubble.	Dispense several soft-serve ice creams to get rid of the imbalance in the freezing cylinder.
M121	The mix tank is empty. The mix pump has stopped.	Fill the mix tank with ice cream mix. If it is already filled, descale the level sensors the next time you clean the machine.
M122	The ice cream mix level in the mix tank is too low.	Top up the mix tank with ice cream mix to prevent the dispensing of ice cream from being blocked.

	Problem	Solution
M124	The temperature of the ice cream mix in the mix tank is too high.	Use ice cream mix from the refrigerator to top up. We recommend always keeping one box of ice cream mix refrigerated.
M125	No water supply while using the Dry-Fill function.	Check that the water tap is fully open. Check that there are no kinks in the supply hose, blocking the water supply.
M126	Not enough water while using the Dry-Fill function.	Check that the water tap is fully open and/or that the water pressure is not too low.
M127	Pasteurisation level too low.	Top up the mix tank with ice cream mix for a better pasteurisation process.
M131	Problem with the pressure sensor in the cylinder. The machine is in emergency mode without APM function.	Contact the dealer.
M132	Error in the mix pump motor.	Contact the dealer.
M134	The pressure in the freezer cylinder is too low.	Dispense an ice cream to activate the machine.
M135	Pressurisation of the freezer cylinder is taking too much pump time.	Clean the mix pump.
M136	Keeping the freezer cylinder pressurised is taking too much pump time.	Clean the mix pump.
M137	The pressure in the freezer cylinder is too high.	The ice cream mix contains insufficient air. The mix pump may not be taking along air. Increase the value of the air storage setting by one point.
M138	Error in the mix pump motor.	Contact the dealer.
M139	The temperature in the freezer cylinder is too high.	Wait for the temperature to go down. The current temperature is displayed in the screen. Check that it has dropped after 30 minutes.

	Problem	Solution
M140	Pasteurisation was not started due to insufficient pressure in the freezer cylinder.	Contact the dealer.
M141	Error in the shake pin motor.	Contact the dealer.
M142	Filling a cup with milkshake takes too long.	The soft-serve ice cream is too thick, increase the amount of water and/or syrup in the milkshake settings.
M143	The cup has been removed from the cup holder before the full milkshake has been dispensed.	Do not remove the cup until dispensing is complete.
M144	Error in the shake motor.	Contact the dealer.
M145	The shake pin is not at the correct height.	Calibrate the shake pin in the cleaning menu.

6.3 How can I get the best yield from the machine?

To get optimal yield out of your machine, a stably running machine with a constant air-ice cream mix balance is a necessity. If this air/mix balance is not constant, your ice cream will be soft or wet or your machine will make a rasping sound, you will experience a popping from the dispensing opening or the machine's display will indicate 'LO'. If one of these situations occurs, you should first check that the mix pump is still functioning properly before changing any of the machine's settings.

6.3.1 What should I do with a soft or wet and watery ice cream?

A soft or wet and watery ice cream is normally caused by too little air in the ice cream. In some cases, too high a temperature of the ice cream, above -5 °C can also make the ice cream soft or wet and watery. To make your ice cream drier and firmer, first measure the temperature of your ice cream.

- If it is warmer than -5 °C, you should increase the viscosity one step.
- If the temperature of the ice cream is colder than -5 °C, increase the value of the air storage setting by one step. The air/mix balance will then be restored and dispensing 20 to 25 ice creams will improve the quality of the ice cream.

If there is no improvement, contact the dealer.

6.3.2 What should I do in case of rasping, popping or if the machine displays LO?

Scraping, popping or LO in the display is almost always caused by too much air in the cylinder. This leads to free air bubbles in the cylinder that pop out of the ice cream machine when dispensing off an ice cream. You can solve this problem by reducing the air storage setting by one step.

Check that the dispensing speed is not too high.

The air-ice cream mix balance will then automatically improve and after dispensing 20 to 25 ice creams, the scraping, popping or LO in the display will be reduced or stop. If there is no improvement after dispensing 20 to 25 ice creams, contact the dealer.

6.4 Fault table

Problem	Cause	Solution
The machine is not responding and no lights are on.	The fuse(s) in the meter box is (are) faulty.	Replace the fuse(s) in the meter box.
Rasping and popping	Too much air in the cylinder.	Refer to §6.3.2(page 39).
The ice cream is too soft	Not enough air in the ice cream.	Refer to §6.3.1(page 39).
Ice cream is leaking behind the combi/ ice cream head.	The head nuts are too loose.	Tighten the head nuts (see §7.3.12, page 60).
	The combi-ice cream head parts are not mounted correctly/the head ring is worn.	Remove the combi/ ice cream head and check the head ring for wear. Replace if necessary. Then re-assemble the combi/ ice cream head and restart the machine.
The machine did not go into 'Standby' after pasteurisation.	The agitator in the mix tank is not working	Check that agitator is running. If not, contact the dealer.
	The machine is in 'Stop'. There was a power failure which shut down the whole machine.	Check that the ice cream mix in the mix tank is still <7 °C.
A milkshake is not mixed.	The black plug is incorrectly mounted.	Check the plug and then feel at the motor housing to see if the motor is running. If not, contact the dealer.
	The shake motor fuse is broken	Contact the dealer.
The syrup pumps are not running	Fuse broken, wire breakage or other defect	Contact the dealer.
Dirt is dripping from the hole at the bottom of the shake motor.	The seal in the shake motor is worn out	Stop dispensing milkshakes and contact the dealer immediately.

If dirt is dripping from the shake motor, stop dispensing milkshakes and contact the dealer as soon as possible. Continuing to dispense milkshakes can irreparably damage the shake motor!

7 Maintenance

7.1 Safety instructions

- **Clean** and **disinfect** the machine as minimum according to the guidelines of the ice cream preparation hygiene code. However, at least once every six weeks.
- **Descale** the machine every second to fourth cleaning depending on the level of soiling, but at least twice a year.
- **Use** only the recommended cleaning, disinfecting and descaling agents ensures for optimal results.



Only trained personnel may carry out maintenance work.



Regular maintenance ensures good ice cream quality and a well-functioning machine.



Tap water contains lime, to a greater or lesser extent. Some of the moving parts in our machine are prone to scale build-up. That is why we advise you to take preventive measures in the form of a water softener. This can also be beneficial for all kinds of other machines in your catering location that use tap water, because limescale is prevented. The dealer can have a water filter placed on the prescribed washing machine tap. This filters the water for dirt and binds the limescale, which benefits the service life of the parts that come into contact with tap water. For more information, please contact the dealer.

7.2 General instructions

The machine must be cleaned and disinfected at least once every six weeks. The time required for this is two to two and a half hours. The following paragraphs give some general instructions for properly carrying out the cleaning and disinfection of the machine.

7.2.1 Required

You will need the following items when cleaning the machine:

- Buckets & brushes.
- Tea towel or kitchen paper.
- Cleaning agent (recommended: Nissei Cip Clean).
- Disinfectant (recommended: Nissei Algides).
- O-ring removal tool.
- Alcohol spray 80%.
- Lubricant (Petrogel).

The amount of Petrogel on the saucer is sufficient to lubricate all parts of the machine.



Every 2nd to 4th cleaning, depending on the level of soiling:

- Descaling agent (recommended: Nissei Descaler).

Only for machines with a milkshake function:

- Phillips screwdriver (PH2).

The use of cleaning, disinfecting and descaling agents other than those recommended, or failure to rinse the machine properly (at least twice with clean water) after cleaning, may result in irreparable damage (pitting corrosion) to the machine.

The prescribed agents can be ordered through the dealer.

7.2.2 Preventive maintenance

Preventive maintenance can be carried out by the user while cleaning the machine. We recommend that you replace the wear parts every year:

- All rubbers and O-rings of ice cream/combi head and mix pump.
- The scraper blades of the agitator and the mix pump gears.

Always replace all O-rings at the same time.

Replacement parts can be ordered through the dealer.

O-rings can only be ordered as a complete set. For the article number, see Appendix 3 Spare parts.

7.2.3 Cleaning and disinfecting

It is recommended to use the following cleaning and disinfecting agents:

- Nissei Cip Clean (cleaning agent).
- Nissei Algides (disinfectant).

The following applies to the cleaning and disinfection of all parts:

- **Rinse off** as much of the ice cream mix as possible with cold water.
- **Continue cleaning** with brush and cleaning solution and leave the parts to soak in the cleaning solution for 5 minutes.
- **Rinse** thoroughly with lukewarm water twice.

Failure to rinse the machine properly may result in irreparable damage (pitting corrosion) to the machine.

- **Soak** the parts in the disinfection solution for 5 minutes.
- **Rinse** thoroughly with cold water twice.

Thoroughly clean and disinfect hands with alcohol spray 80% before touching disinfected parts.

- **Dry** the parts as well as possible with a clean cloth (preferably paper).
- **Place** the parts on a clean tea towel or piece of paper.

Cleaning solution

- **Prepare** a solution of 100 ml of Nissei Cip Clean and 10 litres of warm water in a clean bucket.

Refresh the cleaning solution regularly during cleaning.

Disinfection solution

- **Prepare** a solution of 40 ml of Nissei Algides and 10 litres of cold water in a clean bucket.

Refresh the disinfection solution regularly during disinfection.

7.2.4 Descaling

The machine, the agitator cylinder and all cleaned stainless steel parts of the mix pump must be descaled regularly. It is recommended to use the following descaling agent:

- Nissei Descaler (descaler).

Descale the machine, the agitator cylinder and all cleaned stainless steel parts of the mix pump every 2nd to 4th cleaning depending on the level of soiling. However, do this at least twice a year.

Descaling solution

- **Prepare** a solution of 1000 ml of Nissei Descaler and 10 litres of warm water in a clean bucket.

7.3 (Dis)assembly, cleaning and disinfection of the machine

Before starting, read the general instructions for cleaning and disinfecting.

7.3.1 Method

The (dis)assembly, cleaning and disinfection of the machine is an intensive job. For an effective working method, the following order is recommended:

1. Defrost, dispense empty and depressurise the freezer cylinder.
2. Remove mix pump and agitator mix tank.
3. Emptying mix tank.
4. Clean mix tank and freezer cylinder.
5. Descaling machine.
6. Removing combi/ice cream head.
7. (Dis)assembly, cleaning and disinfection of combi/ice cream head.
8. (Dis)assembly shake motor*.
9. (Dis)assembly, cleaning and disinfection of agitator freezer cylinder and cream seal.
10. Mounting the combi/ice cream head.
11. Disinfecting the machine.
12. Cleaning and rinsing syrup head and hoses*.
13. (Dis)assembly, cleaning and disinfection of mix pump.
14. Starting the machine.

For optimal hygiene, it is recommended to start the machine with a new ice cream mix, so do not use old ice cream mix.

*** For machines without a milkshake function, steps 8 and 12 can be skipped.**

7.3.2 Defrosting, emptying and depressurising the freezer cylinder

Discard the old ice cream mix; do not reuse it!

For the R6888 Titan Duo Combi and R6888 Titan Duo, defrost, empty and depressurise both the left and right freezer cylinders.

		
1. Press 'Pasteurize'.	**2. Press** 'OK'.	**3. Wait** 10 minutes for the machine to warm up.
		
4. Press 'Stop'.	**5. Wait** a few minutes until the machine has stopped.	**6. Draw** the ice cream mix from the cylinder. - Please note, there is still pressure in the cylinder. The ice cream mix will squirt forcefully out of the combi/ice cream head. - Keep dispensing until there is no more pressure behind the ice cream mix. - Discard old ice cream mix!

7.3.3 Removing mix pump and agitator mix tank

Make sure the pressure is off the cylinder is before removing the mix pump from the mix tank.

For the R6888 Titan Duo Combi and R6888 Titan Duo, remove both the left and right mix pump and agitator.

		
1. **Remove** the agitator cover.	**2.** **Remove** the agitator.	**3.** **Press** the plug down.
		
4. **Rotate** the pressure pipe a quarter turn.	**5.** **Slide** the pressure pipe upwards into the connector.	**6.** **Remove** the locking pin.
		
7. **Remove** the mix pump.	**8.** **Remove** the plug.	

7.3.4 Emptying mix tank

Discard the old ice cream mix; do not reuse it!

For the R6888 Titan Duo Combi and R6888 Titan Duo, empty both left and right mix tank.

		
1. **Press** 'Clean'.	2. **Press** 'Dasher'.	3. **Draw** all the ice cream mix from the machine. - Discard old ice cream mix!

7.3.5 Clean mix tank and freezer cylinder

For the R6888 Titan Duo Combi and R6888 Titan Duo, clean both the left and right mix tank and freezer cylinder.

		
1. **Fill** the mix tank completely with cold water.	2. **Press** 'Dasher'.	3. **Clean** the mix tank.
		
4. **Draw** all the water from the machine.	5. **Fill** the mix tank completely with cleaning solution.	6. **Clean the mix tank.**

		
7. Press 'Dasher'.	**8. Wait** five minutes.	**9. Draw** all of the cleaning solution from the machine.
		
10. Fill the mix tank completely with clean lukewarm water.	**11. Press** 'Dasher'.	**12. Draw** all the water from the machine.
		
13. Repeat steps 10 through 12. ⚠ **Caution: Failure to rinse the machine properly may result in irreparable damage (pitting corrosion) to the machine.**	**14. Remove** the rubber foot pedal. **15. Clean** the foot pedal under the tap with a dishwashing brush. **16. Replace** the rubber foot pedal.	

7.3.6 Descaling machine

Descale the machine every 2nd to 4th cleaning depending on the level of soiling. However, do this at least twice a year.

Place the cleaned stainless steel parts of the mix pump (disassembled) loose in the mix tank so that they are also descaled.

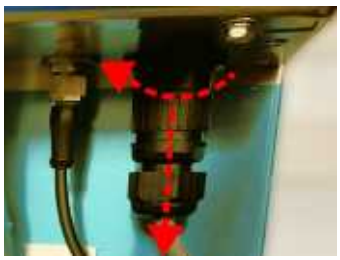
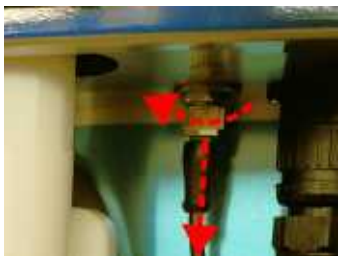
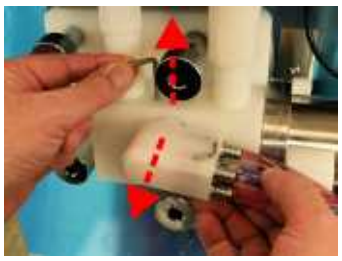
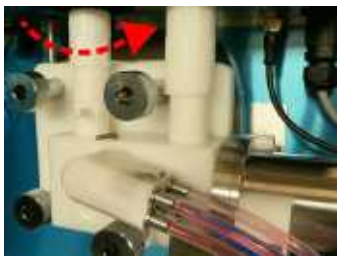
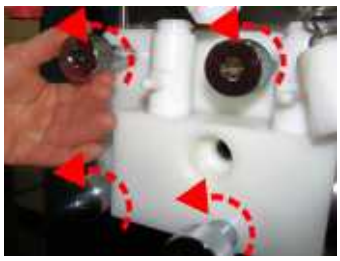
For the R6888 Titan Duo Combi and R6888 Titan Duo, descale both the left and right sides.

		
1. **Fill** the mix tank completely with descaling solution.	2. **Wait** at least 10 minutes.	3. **Draw** all descaling solution from the machine.
		
4. **Fill** the mix tank completely with cold water.	5. **Draw** all the water from the machine.	6. **Repeat** steps 4 and 5. **Caution: Failure to rinse the machine properly may result in irreparable damage (pitting corrosion) to the machine.**

7.3.7 Removing combi head / ice cream head

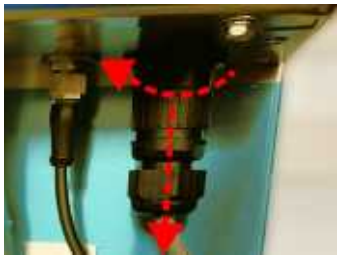
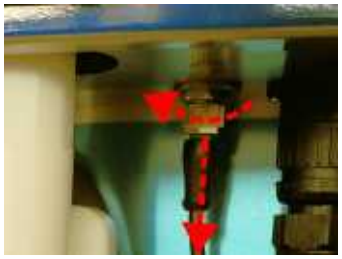
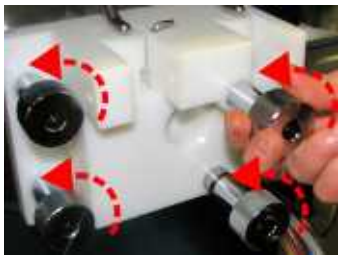
7.3.7.1 Foot-operated

For a machine without a milkshake function, steps 1 through 7 can be skipped.

		
1. **Unscrew** the shake motor plug. **2.** **Pull** the plug straight down to release.	**3.** **Disconnect** the plug from the APM. **4.** **Pull** the plug straight down to release.	**5.** **Loosen** the nut on the shake pin.
		
6. **Press** 'Up to Dismantle'. - The shake pin is now placed in an extra high position.	**7.** **Remove** the syrup head from the combi head.	**8.** **Loosen** the nut on the ice cream tap pin(s). - Depress the dispensing pedal to create more room to loosen the nut.
		
9. **Loosen** the bolts.	**10.** **Remove** the combi/ice cream head from the machine.	

7.3.7.2 Manual

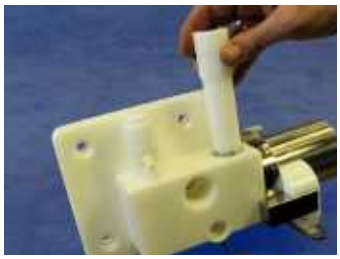
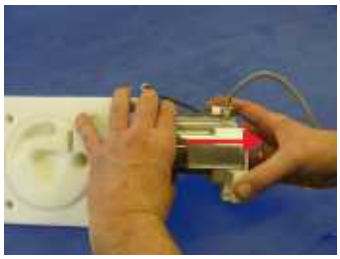
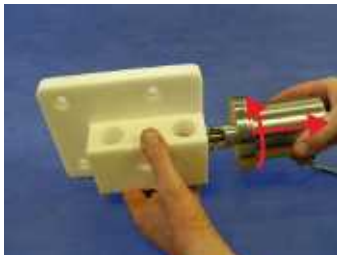
For a machine without a milkshake function, steps 1 through 7 can be skipped.

		
1. Unscrew the shake motor plug. **2. Pull** the plug straight down to release.	**3. Disconnect** the plug from the APM. **4. Pull** the plug straight down to release.	**5. Loosen** the nut on the shake pin.
		
6. Press 'Up to Dismantle'. - The shake pin is now placed in an extra high position.	**7. Remove the** syrup head from the combi head.	**8. Remove** the locking pin from the dispensing lever(s).
		
9. Remove the dispensing lever(s).	**10. Loosen** the bolts.	**11. Remove** the combi/ice cream head from the machine.

7.3.8 (Dis)assembly, cleaning and disinfection of the combi head

(Dis)assembly, cleaning and disinfection of an ice cream head (machines without milkshake function) is described in §7.3.10 (page 57).

Do not immerse the APM in water, but clean it with a brush and (damp) cloth. Otherwise, it will be severely damaged!

		
1. **Remove** the tap pins from the combi head.	**2.** **Loosen** the Allen bolts.	**3.** **Remove** the APM from the shake motor.
		
4. **Pull** the shake motor off the combi head with a rotating motion.	**5.** **Remove** the head ring from the back of the combi head.	**6.** **Push** the check valve backwards out of the combi head.
		
7. **Remove** all O-rings from the tap pins. - The upper O-ring may also be orange in colour.	**8.** **Remove** the valve hose from the check valve.	**9.** **Remove** both O-rings from the check valve.





10. Clean and **disinfect** all parts.
- Refer to §7.2.3(page 43) for more information.

Caution: Failure to rinse the machine properly after cleaning and disinfection may result in irreparable damage (pitting corrosion) to the machine.

11. Dry them carefully with a clean cloth and **place** them on a clean (paper) cloth.

12. Mount the valve hose on the check valve
- Do **not** grease it!



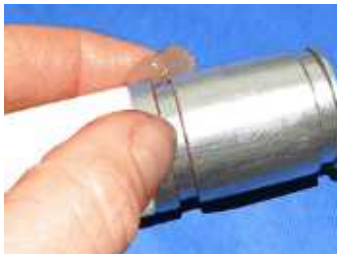




13. Mount the two O-rings on the check valve.
- Do **not** grease it!

14. Place the check valve in the combi head.

15. Grease the O-rings for the tap pins.





16. Grease the grooves for the O-rings.

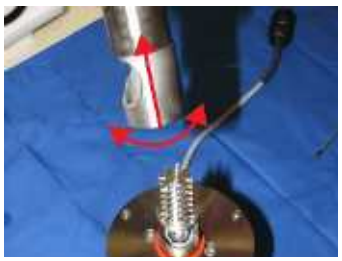
17. Mount the two O-rings on the tap pins.
- **Take** care to follow the correct assembly sequence.

7.3.9 (Dis)assembly, cleaning and disinfecting shake motor

The shake motor must not be submerged in water, otherwise it will be severely damaged! Clean with a brush and (damp) cloth.



1. Remove the locking screw.



2. Pull the brush housing off of the shake motor, carefully.



3. Remove the O-rings from the brush housing.
- The upper O-ring may also be orange in colour.



4. Remove the O-ring from the shake motor.



5. Clean and **disinfect** all parts.
- Refer to §7.2.3(page 43) for more information.

Caution: Failure to rinse the machine properly after cleaning and disinfection may result in irreparable damage (pitting corrosion) to the machine.

6. Dry them carefully with a clean cloth and **place** them on a clean (paper) cloth.



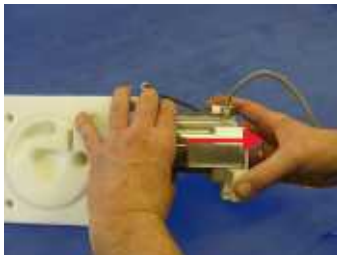
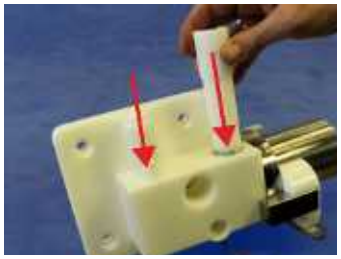
7. Grease the O-rings.



8. Mount the O-rings on the brush housing.



9. Mount the O-ring on the shake motor.

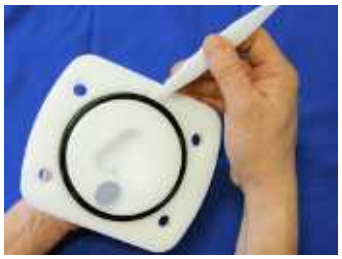
		
10. Mount the brush housing on the shake motor, carefully.	**11. Apply** the locking screw.	**12. Mount** the shake motor in the combi head with a rotating movement.
		
13. Place the APM on the shake motor.	**14. Tighten** the Allen bolts.	**15. Insert** the tap pin(s) into the combination head. - The shake pin (see photo) should be placed in the rightmost position.

7.3.10 (Dis)assembly, cleaning and disinfection of the ice cream head

For a machine with milkshake function, this section can be skipped.



1. Remove the tap pins from the ice cream head.



2. Remove the head ring at the back of the ice cream head.



3. Remove all O-rings from the tap pins.



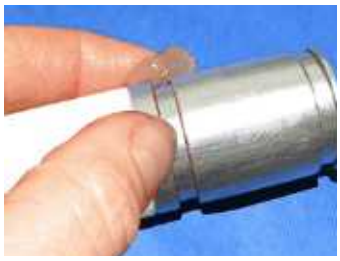
4. Clean and **disinfect** all parts.
- Refer to §7.2.3 (page 43) for more information.

Caution: Failure to rinse the machine properly after cleaning and disinfection may result in irreparable damage (pitting corrosion) to the machine.

5. Dry them carefully with a clean cloth and **place** them on a clean (paper) cloth.



6. Grease the O-rings for the tap pins.

		
7. **Grease** the grooves for the O-rings.	**8.** **Mount** the two O-rings on the tap pins. - **Take** care to follow the correct assembly sequence.	**9.** **Place** the tap pin(s) in the ice cream head.

7.3.11 (Dis)assembly cleaning and disinfection of the freezer cylinder agitator

For the R6888 Titan Duo Combi and R6888 Titan Duo, clean and disinfect both agitators.

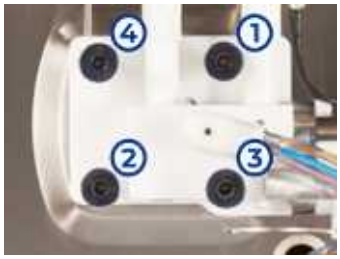
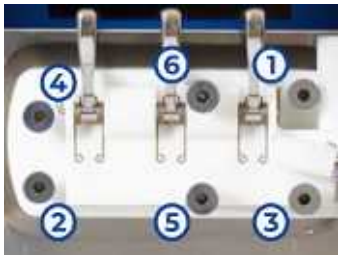
		
1. **Remove** the agitator from the freezer cylinder. - (**Make sure** the scraper blades do not fall on the floor.)	**2.** **Remove** the cream seal from the drive shaft at the back of the freezer cylinder	**3.** **Clean** the freezer cylinder and the front of the machine.

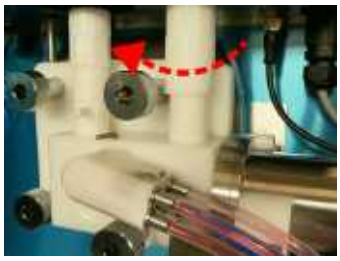
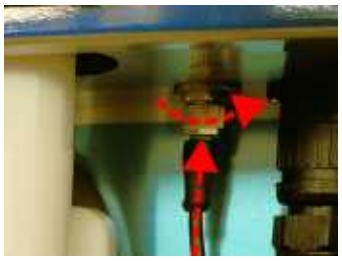
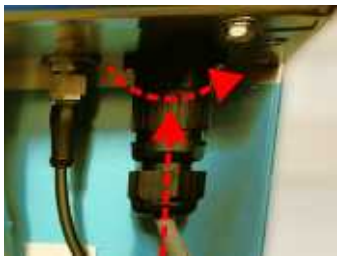
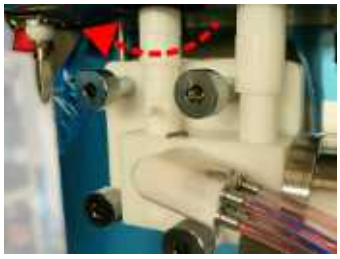
		
4. **Disassemble** the agitator.	**5.** **Clean** and **disinfect** all parts. - Refer to §7.2.3 (page 43) for more information. ⚠ **Caution: Failure to rinse the machine properly after cleaning and disinfection may result in irreparable damage (pitting corrosion) to the machine.** **6.** **Dry** them carefully with a clean cloth and **place** them on a clean (paper) cloth.	
		
7. **Grease** the cream seal.	**8.** **Mount** the cream seal on the drive shaft.	**9.** **Assemble** the agitator.
		
10. **Place** the agitator in the freezer cylinder.		

7.3.12 Combi/ice cream head assembly

7.3.12.1 Foot-operated (machine with dispensing pedal)

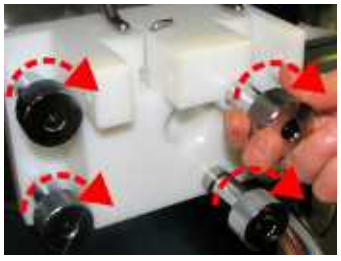
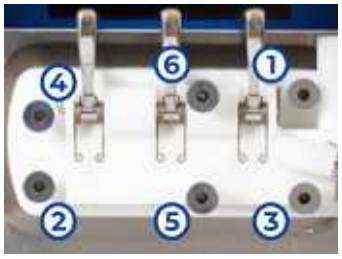
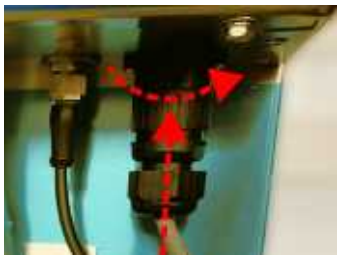
For a machine without a milkshake function, steps 5 through 10 can be skipped.

<table>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Attach the head ring to the back of the combi/ice cream head.
- Do not grease it!</td>
<td>2. Place the combi/ice cream head on the machine.
- Push up the head protection pin and press the head firmly against the cylinder.</td>
<td>3. Tighten all bolts loosely.
- Do not fully tighten the bolts yet.</td>
</tr>
<tr>
<td>
</td>
<td>
</td>
<td></td>
</tr>
<tr>
<td colspan="2">4. Tighten the bolts firmly by hand.
- Please note! Tighten the bolts according to the numbering in the figure.</td>
<td>5. Press 'Down (Home)'.
- The shake pin is now put back in its normal position.</td>
</tr>
</table>

		
6. **Tighten** the nut of the shaking pin.	**7.** **Place** the plug of the APM. **8.** **Tighten** the plug.	**9.** **Place** the shake motor plug. **10.** **Tighten** the plug.
		
11. **Tighten** the nut of the ice cream dispensing pin(s). - Depress the dispensing pedal to create more room to tighten the nut.		

7.3.12.2 Manual (machine with dispensing levers)

For a machine without a milkshake function, steps 5 through 10 can be skipped.

<table>
<tr><td></td><td></td><td></td></tr>
<tr><td>1. Attach the head ring to the back of the combi/ice cream head.
- Do not grease it!</td><td>2. Place the combi/ice cream head on the machine.
- Push up the head protection pin and press the head firmly against the cylinder.</td><td>3. Tighten all bolts loosely.
- Do not fully tighten the bolts yet.</td></tr>
<tr><td></td><td></td><td></td></tr>
<tr><td colspan="2">4. Tighten the bolts firmly by hand.
- Please note! Tighten the bolts according to the numbering in the figure.</td><td>5. Press 'Down (Home)'.
- The shake pin is now put back in its normal position.</td></tr>
<tr><td></td><td></td><td></td></tr>
<tr><td>6. Tighten the nut of the shaking pin.</td><td>7. Place the plug of the APM.
8. Tighten the plug.</td><td>9. Place the shake motor plug.
10. Tighten the plug.</td></tr>
</table>

		
11. Place the dispensing lever(s).	**12. Place** the locking pin of the dispensing lever(s).	

7.3.13 Disinfecting the machine

For the R6888 Titan Duo Combi and R6888 Titan Duo disinfect both the left and right sides.

		
1. Fill the mix tank completely with disinfection solution.	**2. Wait** at least 5 minutes.	**3. Draw** all disinfection solution from the machine.
		
4. Fill the mix tank completely with cold water.	**5. Draw** all the water from the machine.	**6. Repeat** steps 4 and 5. **Caution: Failure to rinse the machine properly after cleaning and disinfection may result in irreparable damage (pitting corrosion) to the machine.**

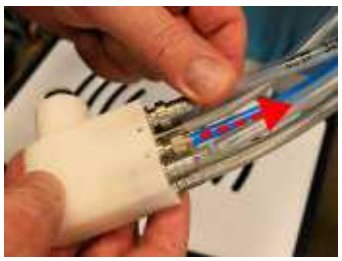
7.3.14 Cleaning and rinsing the syrup head and hoses

These operations must be carried out once every three months (once every two cleanings). Skip steps 1 through 22 if no cleaning is required.

For a machine without a milkshake function, this section can be skipped.



1. Pull the two locking pins out of the syrup head.



2. Pull off the syrup hoses and water hose.



3. Remove the O-ring from the syrup block.



4. Clean and **disinfect** all parts.
- Refer to §7.2.3 (page 43) for more information.

Caution: Failure to rinse the machine properly after cleaning and disinfection may result in irreparable damage (pitting corrosion) to the machine.

5. Dry them carefully with a clean cloth and **place** them on a clean cloth.
- Preferably use a paper towel.



6. Place the O-ring on the syrup block. Do **not** grease it!



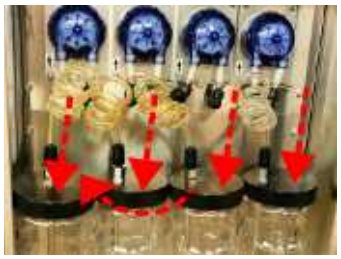
7. Hang the syrup hoses in an empty bucket.

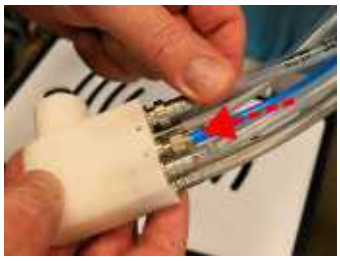
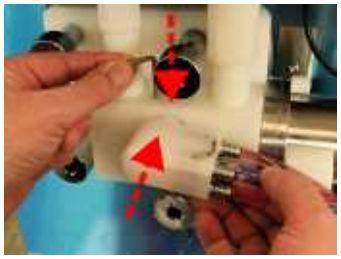


8. Unscrew all tank caps of the syrup containers.



9. Hang all the tubes of the tank caps in a bucket of hot water.

		
10. Press 'flavour 1'. - The pipe is now automatically cleaned for 30 seconds.	**11.** Repeat step 10 for the remaining flavours.	**12. Repeat** steps 9 through 11 twice with cleaning solution.
		
13. Wait at least 5 minutes.	**14. Repeat** steps 9 through 11 with cold water.	**15. Remove** the syrup hoses from the bucket.
		
16. Press 'flavour 1'. - Wait until no more water comes out of the hose and then press flavour 1. again.	**17. Repeat** step 16 for the remaining flavours.	**18. Screw** the tank caps onto the syrup containers.

		
19. Push the syrup hoses and water hose into the syrup head. The water hose goes in the middle.	**20. Push** the two locking pins into the syrup head.	**21. Press** 'flavour 1'. - Wait for syrup to come out of the syrup head and then press flavour 1. again.
		
22. Repeat step 21 for the remaining flavours.	**23. Disinfect** the syrup head with alcohol spray 80%.	**24. Place** the syrup cup in the combi head. **25. Place** the locking pin.

7.3.15 (Dis)assembly, cleaning and disinfection of the mix pump

For the R6888 Titan Duo Combi and R6888 Titan Duo, clean and disinfect both mix pumps.

		
1. Remove the pressure pipe.	**2. Remove** the connector. - Rotate the connector a quarter turn and pull it out of the cover.	**3. Remove** the mix intake tube.
		
4. Remove the air intake tube.	**5. Loosen** both nuts.	**6. Remove** the pump housing cover.
		
7. Remove the gears from the pump housing.	**8. Remove** the O-rings from the pump housing.	**9. Remove** the O-rings from the pressure pipe.



10. Remove the O-ring from the connector.



11. Unscrew the valve from the plug.



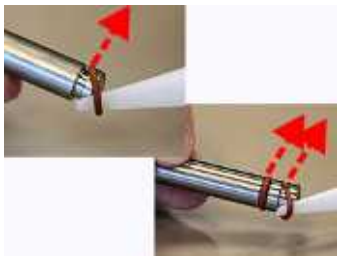
12. Remove the valve hose from the non-return valve.



13. Remove the O-ring from the non-return valve.



14. Remove the O-ring from the plug.



15. Remove the O-rings from the air suction pipe and the mix suction pipe.



16. Clean and **disinfect** all parts.
- Refer to §7.2.3 (page 43) for more information.

⚠ **Caution: Failure to rinse the machine properly after cleaning and disinfection may result in irreparable damage (pitting corrosion) to the machine.**

17. Dry them carefully with a clean cloth and **place** them on a clean (paper) cloth.



18. Fit the valve hose onto the non-return valve.
- Do **not** grease it!

		
19. Grease all O-rings with Petrogel.	**20. Fit** the O-ring onto the non-return valve.	**21. Fit** the O-ring onto the plug.
		
22. Screw the non-return valve into the plug.	**23. Fit** both O-rings of the pump housing.	**24. Mount** both gears in the pump housing.
		
25. Mount the cover on the pump housing.	**26. Tighten** both nuts.	**27. Mount** the O-rings of the air suction pipe and mix suction pipe.
		
28. Mount the mix suction tube.	**29. Mount** the air suction pipe.	**30. Fit** the O-rings of the pressure pipe.

		
31. Fit the O-ring of the connector.	**32. Fit** the pressure pipe into the connector.	**33. Fit** the connector. - Push the connector straight into the cover and rotate the connector a quarter turn.

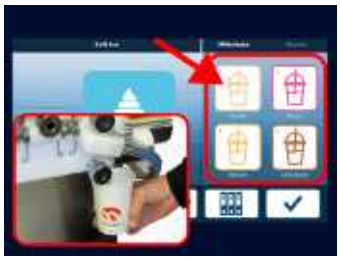
Please note, do not place the mix pump back into the mix tank yet. This should only be done at startup.

7.3.16 Machine start-up

For optimal hygiene, the machine must be started with fresh ice cream mix. Do not use old ice cream mix!

For the R6888 Titan Duo Combi and R6888 Titan Duo start both the left and right sides.

		
1. Place the agitator in the mix tank.	**2. Place** the agitator cover.	**3. Fill** the mix tank with ice cream mix. - Type R3448 and R6888 (right mix tank) with 1.7 litres. - Type R3438, R6888 (left mix tank) and R9438 with 1.2 litres.
		
4. Place the mix pump. - Push the mix pump straight forward and snap it in place with a counterclockwise movement.	**5. Insert** the connector. - Push the connector straight down into the mix tank.	**6. Attach** the connector to the mix pump. - Push the coupling into the mix pump and snap it in place with a clockwise rotation.

		
7. **Fill** the mix tank with ice cream mix.	**8.** **Press** 'Run'. - The agitator will now run for 5 minutes. After that, the machine will start cooling.	**9.** **Wait** until the ice cream pictogram is completely white.
		
10. **Dispense** one cup of milkshake, taste it and discard it.	**11.** **Dispense** one or two ice creams, taste them and discard them. - The machine is now ready for use.	

8 Transport and storage

Check that all connections have been disconnected before moving the machine.

8.1 Transport

The following rules must be observed during transport:

- Always transport the machine in an upright position.
- Use suitable lifting equipment.

Never lift the machine by hand.

If necessary, have the transport carried out by a specialised company with suitable lifting and transport equipment.

8.2 Storage

The following rules should be observed during storage:

- Start by cleaning the entire machine.
- Store the ice cream head, combi head, and/or mix pump disassembled.
- The storage space must be dry with a relative humidity of 45-75%.
- The ambient temperature should be between +4 °C and +50 °C.
- The storage space must be dust-free. If not, the machine and the parts must be covered with plastic foil.

9 Disposing of the machine

9.1 Environmental aspects

Please observe the following:



When discarding the machine, it must be returned to a certified collection point for electrical equipment, in accordance with the applicable regulations.

The machine will then be disassembled and recycled in an environmentally responsible manner.



Take the cooling gases present in the machine into consideration.

A1 Technical specifications

	Combi	IJs	Combi	IJs	Combi	IJs	Combi	IJs
	3438		3448		6888		9438	
Height	1600 mm						920 mm	
Width	460 mm				540 mm		460 mm	
Depth	840 mm		840 mm (875 mm including pedal		840 mm		760 mm	
Weight	± 195 kg				± 250 kg		± 135 kg	
Electrical	400 V 3 x 16 A + N + PE							
Power consumption	3,0 kWh/y				4,5 kWh/y		3,0 kWh/y	
Water pressure	min. 1,6 bar / max. 3 bar							
Cooling water (at average use)	± 45 m^3/y				2x ± 45 m^3/j		± 40 m^3/y	
Ambient temperature (use)	+4 °C tot +35 °C							
Ambient temperature (storage)	+4 °C tot +50 °C							
Dispensing capacity	± 55 l/h		± 75 l/h		right: ± 75 l/h left: ± 55 l/h		± 55 l/h	
Cylinder capacity	2,5 l		3,4 l		right: 3,5 l left: 2,5 l		2,5 l	
Mix tank capacity	20 l				2x 20 l		20 l	
Soft ice flavours	1				2 + mix		1	
Milkshake flavours	4	0	4	0	5	0	4	0

A2 EC declaration

EC declaration of conformity
of the machinery
Directive 2006/42/EC, Appendix II, under 1.A
'translation of the original declaration'

Manufacturer,

Win Equipment B.V.
De Kronkels 31
3752 LM Bunschoten
the Netherlands

hereby declares that the following machine:

Name:	Nissei soft serve machine
Type:	Nissei R3438 Power Combi Pro
	Nissei R3438 Power Pro
	Nissei R3448 Giant Combi
	Nissei R3448 Giant
	Nissei R6888 Titan Duo Combi
	Nissei R6888 Titan Duo
	Nissei R9438 Power Combi TT
	Nissei R9438 Power TT

is in conformance with the following EC directive:
- the Machinery directive 2006/42/EC

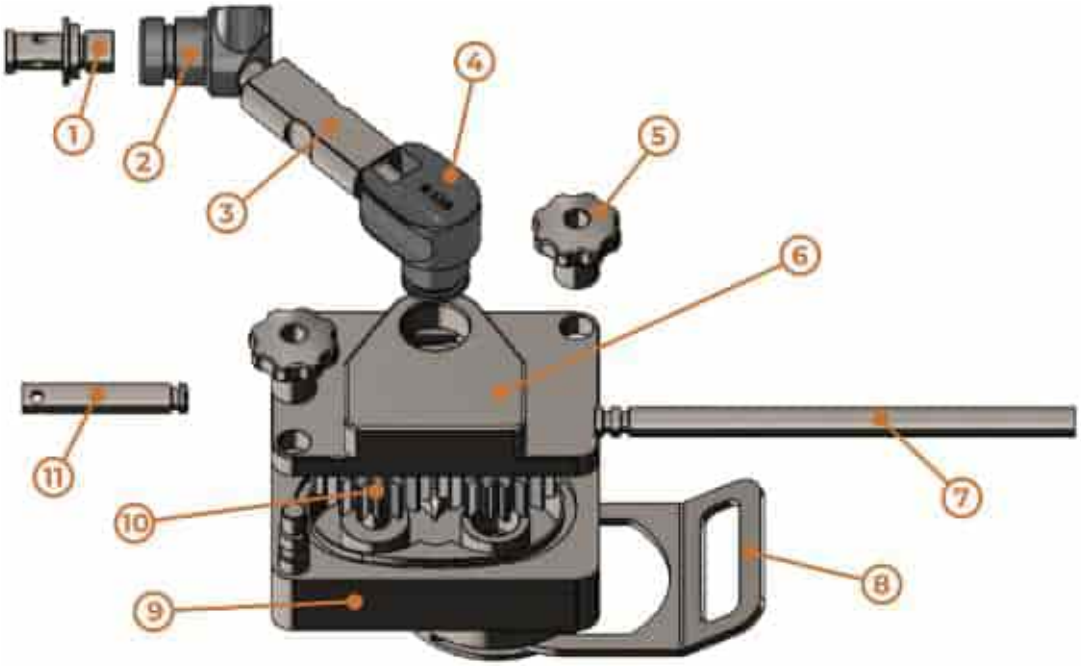
and the following harmonized standards:
- NEN-EN-ISO 12100
- NEN-EN-IEC 60204-1

Bunschoten, August 12th, 2026

Name:	H. ten Brink
Function:	Business Unit Manager

A3 Spare parts

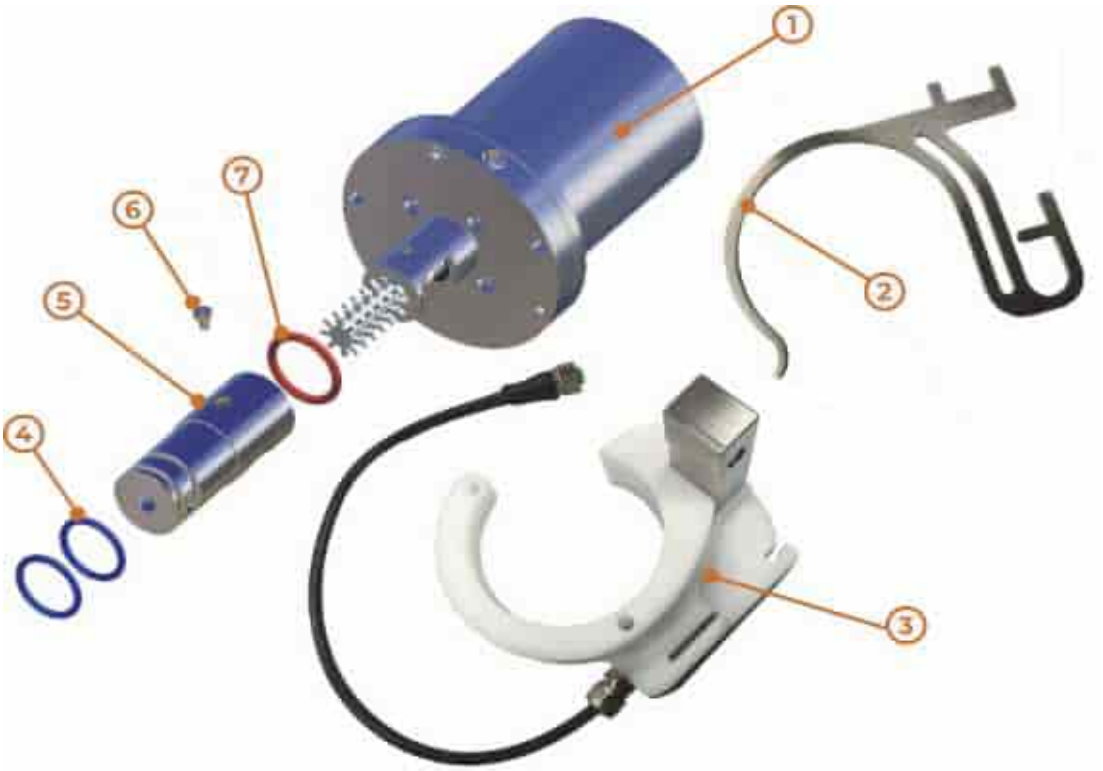
A3.1 Mix pump (all models)



		3438	3448	6888	9438	
No.	**Part**	**Quantity**				**Art. no.**
1	Non-return valve	1	1	1	1	420360
2	Plug - S	1	1		1	420270
	Plug - L			1		420300
	Plug - R			1		420330
3	Pressure pipe - S	1	1		1	420280-RVS
	Pressure pipe - L			1		420310-RVS
	Pressure pipe - R			1		420340-RVS
4	Connector - L-95	1		1	1	420320
	Connector - R-110		1	1		420290
5	Nut	2	2	2	2	420170

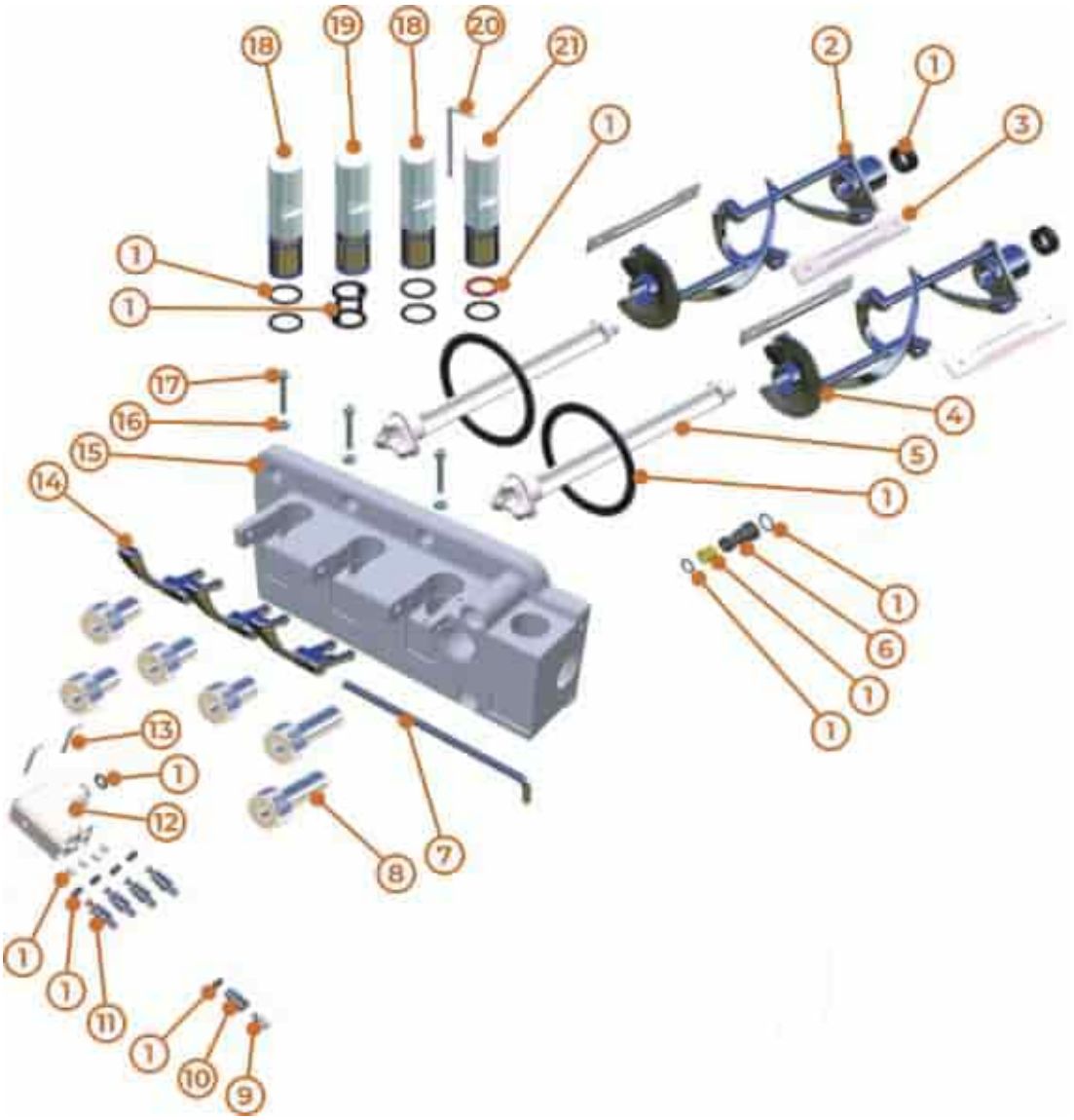
		3438	3448	6888	9438	
No.	**Part**	**Quantity**				**Art. no.**
6	Cover	1	1	1	1	420150
7	Air intake tube	1	1	1	1	420190
8	Locking clip	1	1	1	1	420130
9	Housing	1	1	1	1	420145
10	Gear	2	2	2	2	220311
11	Mix intake tube 1.7 mm	1	1	1	1	420182
	Mix intake tube 2.0 mm	1	1	1	1	420180
	O-ring set	1	1	1	1	291520

A3.2 Shake motor (only combi-models)



No.	Part	Quantity	Art no
1	Shake motor	1	31010
2	Cup holder	1	31034
3	APM sensor	1	34007
4	O-ring 24 x 3,5 (blue)	1	35025
5	Brush housing	1	31002
6	Allen bolt (flat head) M4 x 6	1	028246
7	O-ring 26,58 x 3,53 (orange)	1	35001

A3.3 Combi-/icehead & beater (all models), syrup block (only combi-models)



		Combi	Ice	Combi	Ice	Combi	Ice	
		3448		6888		9438		
No.	Part	Quantity						Art no
1	O-ring set						1	33104
						1		33105
		1						33106
			1					33113
				1				33215
					1			33220
2	Cylinder beater 95 mm			1	1	1	1	30053
3	Scraper blade	2	2	4	4	2	2	30091
4	Cylinder beater 110 mm	1	1	1	1			350303
5	Centre bar	1	1	2	2	1	1	30117
6	Non-return valve	1		1		1		30068
7	Dispensing handle locking pin					1	1	31022
				1	1			31024
8	Head bolt stainless steel	4	4	6	6	4	4	138044
9	Coupling M6-6mm	1		1		1		31591
10	Water valve	1		1		1		31590
11	Syrup valve	4		5		4		31592
12	Syrup block			1				240490
		1				1		31640-TOUCH
13	Syrup hose locking pin	2		2		2		0830019
14	Dispensing lever			3	3	1	1	31027

		Combi	Ice	Combi	Ice	Combi	Ice	
		3448		6888		9438		
No.	**Part**	**Quantity**						**Art no**
15	Combi-/icehead	1						0730001
			1		1			0730015
						1		0730200
				1				230540
					1			230630
							1	30104
16	Nut stainless steel M6			3	3	1	1	04096
17	Allen bolt stainless steel M6x40			3	3	1	1	009446
18	Piston ice			2	2			230850
						1	1	230855
		1	1					30018
19	Piston centre			1	1			230870
20	Syrup block locking pin	1						0800046
				1		1		0800048
21	Piston milkshake APM	1		1		1		230329