COLOQUICK

USER MANUAL



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UM-T0006.2-USE

EN

WELCOME

Congratulations on your new ColoQuick

For the sake of safety and optimal use of the product, please read this manual thoroughly before using the product for the first time.

The philosophy behind ColoQuick is, that through minor procedural changes in how you handle colostrum for calf feeding, you can ensure that all your calves get as many antibodies as possible. This is essential for rearing a good production animal.

It is adviced to focus on:

- Testing and sorting the colostrum so you always use the best quality
- Feeding the calf as fast as possible after birth - the sooner the better
- Maintaining a high level of hygiene when handling the colostrum: Hoses, tube feeders, etc., must be cleaned thoroughly after use.

Using ColoQuick, you provide the calves with more antibodies and thus better immunity than with any other method. While being easy to use, ColoQuick will boost calf health and future production parameters in your herd.

We would love to hear from you if you have comments, praise, critique or suggestions for improvement. Our aim is for ColoQuick to be the ultimate product for handling colostrum.

Enjoy your ColoQuick system.

Yours sincerely,

ColoQuick



Brian Pedersen, CEO
info@coloquick.com

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Note that the illustrations are for information purposes only.
They do not necessarily reflect the exact specifications and details of the model in question.

We reserve the right to make changes without prior notice.

STARTUP - Parts list



1x thawing unit

See assembly instructions (separate sheet) for further information.



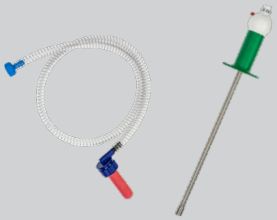
1x filling station

See assembly instructions (separate sheet) for further information.



10x cartridges
10x writing plates
5x locks for cartridges

See assembly instructions (separate sheet) for further information.



1x teat + esophageal tube feeder
1x hose + hose connector

See assembly instructions (separate sheet) for further information.



1x analog optical refractometer



1x carrier set



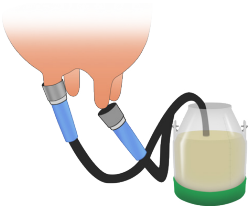
35x colostrum bags

STARTUP - Filling the freezer

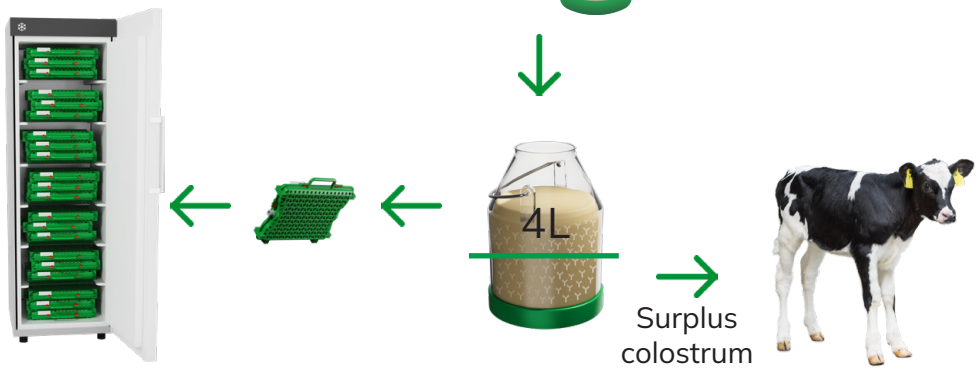
Start by filling the freezer with colostrum without considering colostrum quality.

Do not use the thawing unit until you have collected a sufficient supply of colostrum in the freezer.

1. After milking, pour 4 liters of colostrum into a colostrum bag.



2. Feed the surplus colostrum to the calf.



We recommend storing the colostrum in a freezer where the cartridges can be placed in an orderly and clear manner for easy access.

- We recommend using one or more freezers, so the capacity corresponds to the size of the herd.
- We recommend a temperature of -14 °C / 6 °F (lower temperatures require longer thawing times).
- The cartridges **must** be lying flat during freezing.
- Sort the cartridges according to quality, with the best quality placed on the top shelf in the freezer.

Minimum number of cartridges in the freezer:
< 100 cows: 6 cartridges
200 cows: 10 cartridges
500 cows: 15 cartridges
> 1000 cows: 20 cartridges

1. Milking

Milk the cow as soon as possible after calving.



- The hygiene must be optimal.
- Always use disposable gloves.
- The cow has not been milked for several weeks; therefore, udders and teats must be cleaned thoroughly.
- Premilking must be extra thorough.



- The milking bucket and milking equipment must be handled according to the same hygienic procedures as bulk tank milk.
- The newly milked colostrum must not be exposed to fecal contamination.
- Freeze the colostrum after milking as quickly as possible.

2. Quality measurement

Although you are to save the colostrum regardless of quality, it is important to note the quality for future reference.



- Use only completely hygienic colostrum, free from visible changes.
- Place a couple of colostrum drops on the optical refractometer's glass plate.
- Close the glass plate.



- Read the BRIX value by pointing the refractometer towards a light source.

See further information about use of the refractometer, including calibration, in the refractometer's user manual.

The BRIX value estimates the level of antibodies in colostrum.

A higher BRIX value equals a higher concentration of antibodies.

3. Pour the colostrum in a colostrum bag

Use the filling station to pour a measured amount of colostrum into a colostrum bag.



- Open a cartridge.
- Place a colostrum bag in the cartridge by pressing the two perforations at the bottom of the bag down over the two "spikes."
- Fix the colostrum bag's collar firmly in the groove in the cartridge.
- Close the cartridge.

See the cartridge's instructions for use (separate sheet) for further information regarding how to use the cartridge.





- Place the cartridge with the colostrum bag in the filling station.
- Use the stopper to ensure the colostrum does not run into the colostrum bag during measuring.
- Note the liter markings on the filling station: We recommend giving the calves as much colostrum as possible. Calves of large breeds should be fed 4 liters.
- Pour the colostrum into the filling station.
- Remove the stopper so the colostrum runs into the colostrum bag.

Gently press the cartridge together to remove any excess air from the colostrum bag before turning the lid back on and placing it in the freezer.

4. Place the cartridge in the freezer

Take the cartridge out of the filling station after filling the colostrum bag with colostrum and screwing the lid back on.



- Note the cow's number, date and BRIX value on one of the accompanying white writing plates.
- Place the writing plate on the cartridge.
- There is room for several writing plates.



- Place the cartridge in the freezer.
- The colostrum cartridges **must be lying flat** during freezing.
- Sort the colostrum cartridges according to quality, with the best quality placed on the top shelf in the freezer.

Place the freezer where it is easy to access, with respect to the daily procedures.

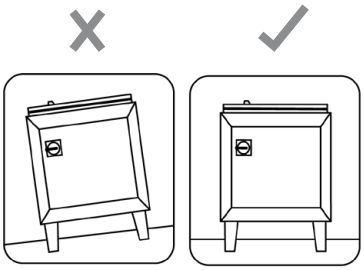
The colostrum may be stored for up to one year in the freezer.

PREPARATION - Set up the ColoQuick Thaw unit



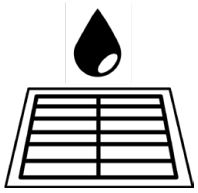
Installation

- The machine weighs 35 kg / 77 lbs and must be handled with care.
- Unpack the machine and remove all wrapping prior to startup.
- Electrical and plumbing installations may only be installed by an authorized technician.



Placement

- The machine must be placed in a frost-free room
- The room temperature must not exceed 40 °C / 104 °F.
- The machine **must** be placed on a firm, level surface.



Connection, water

- Fill water with a maximum temperature of 40 °C / 104 °F up to the overflow level.



Connection, electricity

(May only be performed by an authorized electrician)

- Make sure that the electrical data on the type plate corresponds to the power supply.
- Always use a correct and legally installed main connection.
- Check that the machine is grounded.
- Do not use power strips or extension cords.
  There is a risk of fire.



Starting up the ColoQuick Thaw unit

- Make sure the electrical connection is correct and water has been poured into the water bath, up to the overflow level (max. 40 °C / 104 °F).
- Turn on the ColoQuick Thaw unit by turning the red main power switch on the front from OFF to ON. The machine should always be on.
- The machine will now heat up the water. The heating time depends on the starting temperature of the water.

Note: **Never** turn on the machine without water in the water bath!

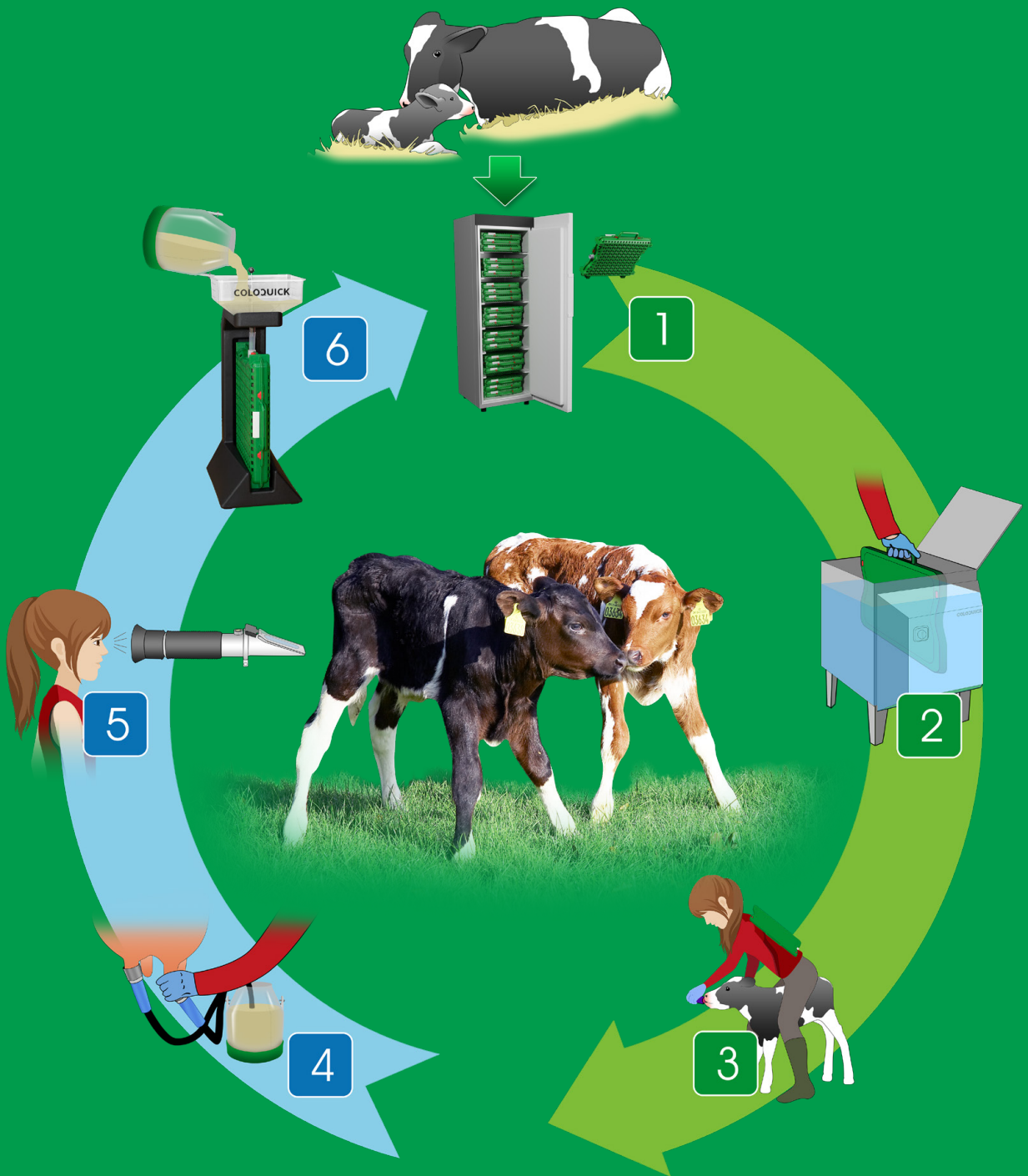


Illustration

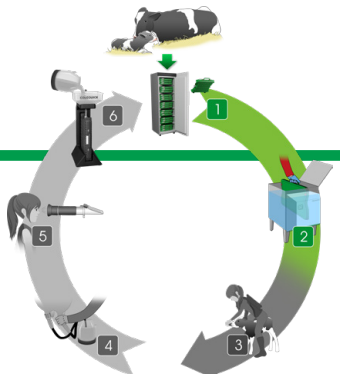
1. Lid switch.
2. Menu and settings buttons
3. Display showing the current water temperature, set temperature and time, icons, warnings and use information.
4. “START/OK” button.
5. Main switch.

Note: The feeding temperature must be as close to the body temperature of the calf as possible—never above.

OPERATION - The ColoQuick Method



OPERATION - A calf is born





- Make sure the calf's airways are free.
- Take a portion of colostrum from the freezer.
- For heifers, take colostrum from the top shelf (highest quality).



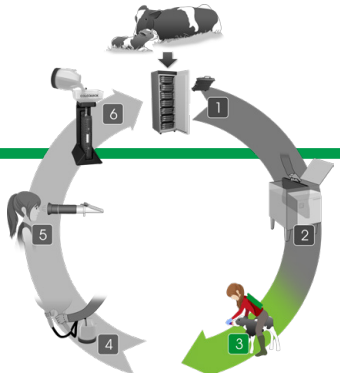
- Place the cartridge with the colostrum bag in the warm water bath.
  See the cartridge instructions for use (separate sheet).
- The water must cover the colostrum bag when the cartridge is in a horizontal position.
- Start the program and wait for the light and audio signal, after approx. 20 minutes, which indicates the program is finished
  (see page 20).

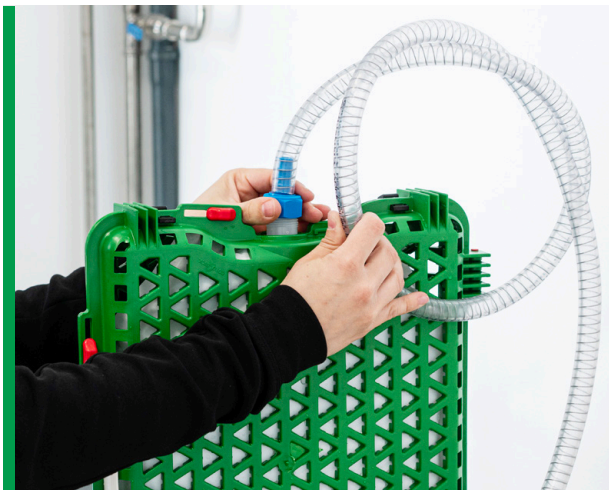


While the colostrum is heating:

- Dry the calf if necessary.
- Disinfect the calf's navel.
- Ear-tag if necessary.

OPERATION - Feeding





- Before use, rinse the milk hose and teat/tube feeder using cold water.
- Remove the cartridge from the thawing unit and place it upright with the colostrum bag's lid facing up.
- Unscrew and remove the lid from the colostrum bag.
- Make sure the colostrum has the desired temperature.
- Screw on the milk hose for teat/tube feeder onto the colostrum bag.
- Mount a carrier set on to the cartridge.
- Remember to complete your colostrum journal.



Feeding with a teat

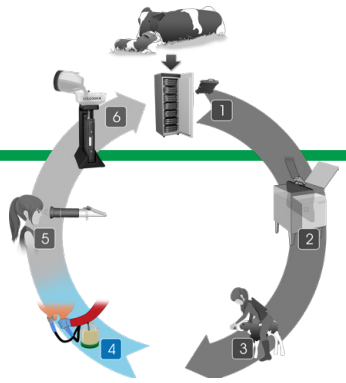
- Avoid interruptions and distractions when the calf has begun suckling.
- Hold the teat so the calf's throat is outstretched.
- Remember to clean the teat, hose, etc., after use (see "Cleaning and Hygiene").



Feeding with a tube feeder

- The calf must be standing.
- Place the tube feeder over the tongue until the sucking reflex is stimulated, and push the tube feeder slowly down into the esophagus.
- You should be able to feel the tip of the tube feeder on the **left side** of the calf's neck. Do not start the flow of colostrum until the tube feeder is in place.
- Block the flow before removing the tube feeder.

OPERATION - Milking





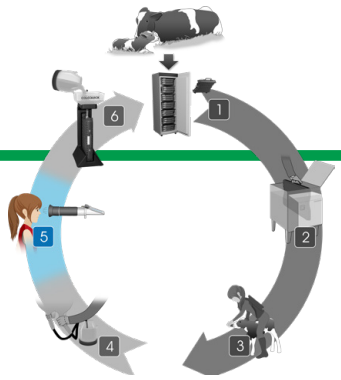
Milk the cow as soon as possible after calving

- The hygiene must be optimal.
- Always use disposable gloves.
- The cow has not been milked for several weeks; therefore, udders and teats must be cleaned thoroughly.
- Premilking must be extra thorough.



- The milking bucket and milking equipment must be handled according to the same hygienic procedures as bulk tank milk.
- The newly milked colostrum must not be exposed to fecal contamination.
- Freeze the colostrum as quickly as possible.

OPERATION - Quality measurement



If you have fewer than the minimum number of cartridges *(see page 5)*, save the colostrum after a quality test, regardless of the quality.

If you have more than the minimum number of cartridges, replace the lowest quality colostrum with the highest quality, unless you have enough storage capacity to keep both.



- Use only completely hygienic colostrum that is free of visible changes.
- Place a couple of drops of colostrum on the optical refractometer's glass plate.
- Close the glass plate.



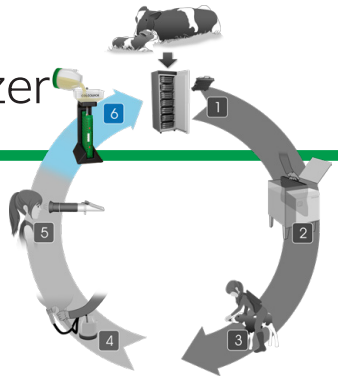
- Read the BRIX value by pointing the refractometer towards a light source.

See further information about use of the refractometer, including calibration, in the refractometer's user manual.

The BRIX value estimates the antibody level of colostrum.

A higher BRIX value equals a higher concentration of antibodies.

OPERATION - Place the cartridge in the freezer



Use the filling station to pour a measured amount of colostrum into a colostrum bag.



- Open a cartridge.
- Place a colostrum bag in the cartridge by pressing the two perforations at the bottom of the bag down over the two "spikes."
- Fix the colostrum bag's collar firmly in the groove in the cartridge.
- Close the cartridge.

See the cartridge's instructions for use (separate sheet) for further information regarding how to use the cartridge.

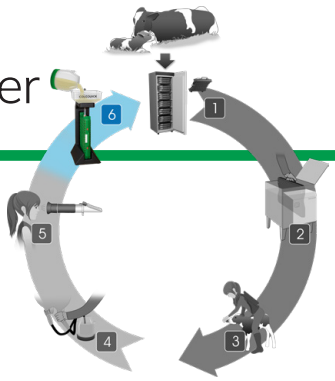


- Place the cartridge with the colostrum bag in the filling station.
- Use the stopper to ensure the colostrum does not run into the colostrum bag during measuring.
- Note the liter markings on the filling station: We recommend giving the calves as much colostrum as possible. Calves of large breeds should be fed 4 liters.
- Pour the colostrum into the filling station.
- Remove the stopper so the colostrum runs into the colostrum bag.



Gently press the cartridge together to remove any excess air from the colostrum bag before turning the lid back on and placing it in the freezer.

OPERATION - Place the cartridge in the freezer



Take the cartridge out of the filling station, after filling the colostrum bag with colostrum, and screwing the lid back on.



- Note the cow's number, date and BRIX value on one of the accompanying white writing plates.
- Place the writing plate on the cartridge.
- There is room for several writing plates.



- Place the cartridge in the freezer.
- The colostrum cartridges **must** be lying flat during freezing.
- Sort the colostrum cartridges according to quality, with the best quality placed on the top shelf in the freezer.

Remember to fill out your colostrum journal.

OPERATION - Cleaning and hygiene









Filling station

- Clean the filling station after use.
- First rinse with cold water.
- Next wash with warm water (min. 50 °C / 122 °F) and cleaning agent or wash in dishwasher (max. 65 °C / 149 °F).
- Rinse with clean water.
- Replace the silicone hose as needed.

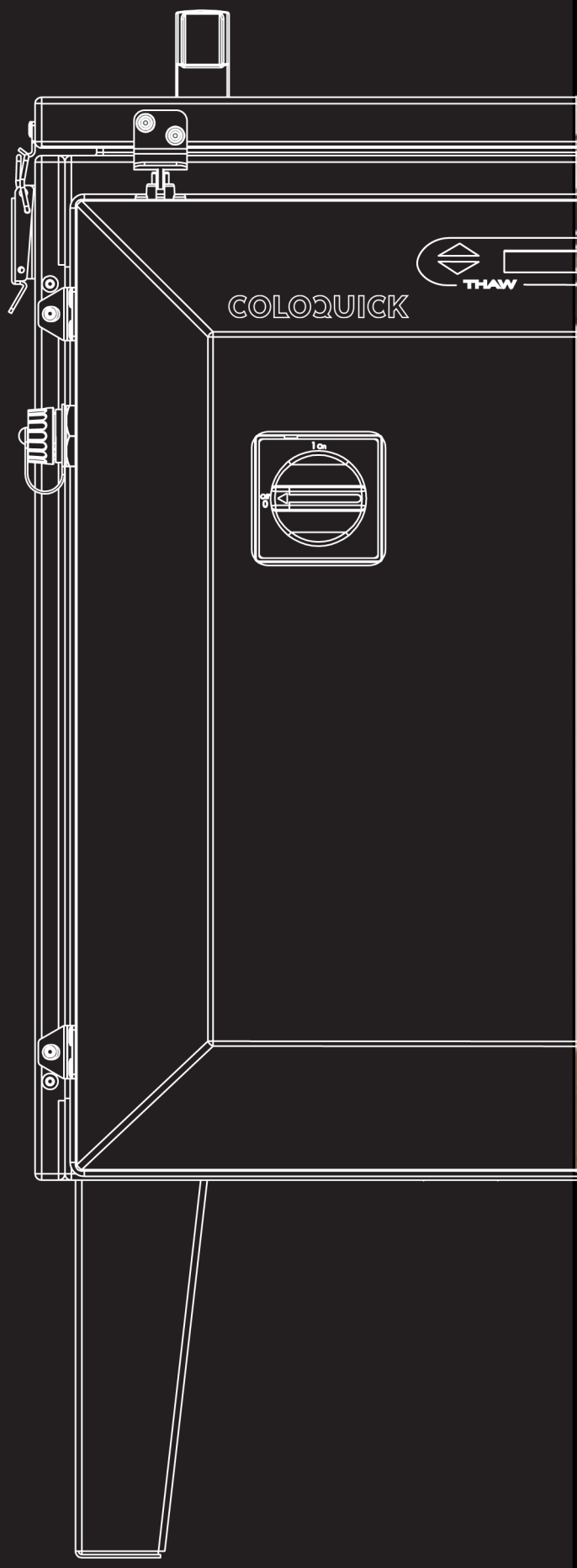
Tube feeder/teat and hose

- Clean the tube feeder/teat and hose immediately after use.
- Rinse the tube feeder/teat and hose thoroughly with cold water.
- Wash the tube feeder/teat and hose with warm water (50° C / 122 °F) and cleaning agent.
- Rinse the tube feeder/teat and hose thoroughly with warm water, preferably 80° C / 176° F.
- Empty any water from the tube feeder/teat and hose.
- The tube feeder/teat and hose, etc., may be placed in the freezer to avoid bacterial growth.
- Replace the silicone hose in the tube feeder as needed.
- Replace the hose between the bag and tube feeder/teat as needed.

Thawing unit

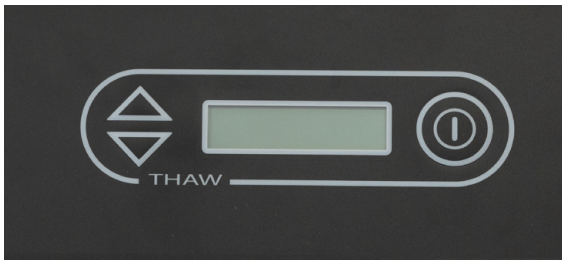
- Clean the unit as needed.
- **Switch off the machine by turning the main power switch to OFF, and unplug the unit.**
- Empty all water from the water bath and rinse.
- Wash with warm water (min. 50 °C / 122 °F) and cleaning agent that is free of abrasives or bleaching agents. Flush out the cleaning water.
- Fill with clean water (max. 40 °C / 104 °F) up to overflow level and turn back on.

TECHNICAL INFORMATION





TECHNICAL INFORMATION - Operation indicators



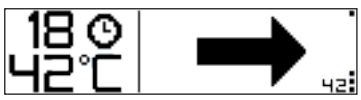
Control panel.



Used to navigate menues and settings.



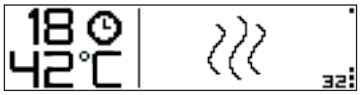
Used as START and OK button.



Indications on heating, start and operating screen: The number in the bottom right corner shows the current water temperature.

The three dots in the bottom right corner indicates that all three phases of the heating element is active.

The one dot in the upper right corner will be shown every time the cartridges has made a rotation.



The thawing unit is used to thaw the frozen colostrum within 20 minutes.

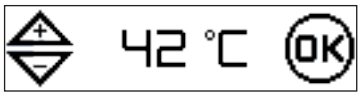
For an optimal thawing process, the water must have a temperature of 40-42 °C / 104-107 °F. A “heating” icon will be shown on the display until the water has the desired temperature.



The preset time and temperature are shown to the left in the display. When the water has heated to the desired temperature, the display will show an arrow instead of the heating icon. This indicates that the program can be started with the desired settings.

Quick settings



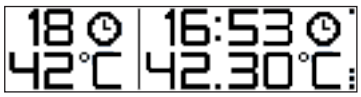


When the machine is heating or ready to start, the up and down arrows can be used to change the time and temperature. Press up to change time and down to change temperature. The arrows is also used as up and down arrows to change the time or temperature within the settings.

If the START/OK button are not used, the setting will be canceled and the start screen will be shown after 5 seconds idle time.

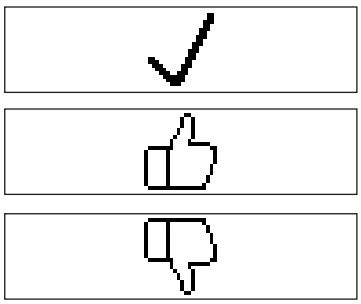
When the program has ended, the settings will go back to the standard settings.

Quick Start



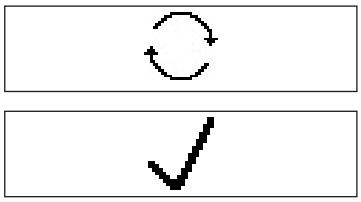
When the arrow is shown on the display and the temperature and time are set, press START/OK, and the thawing program will begin without further actions needed.

The selected time and temperature are displayed on the left and the current time/temperature are shown on the right. The indicators of heating element and rotation is still visable.



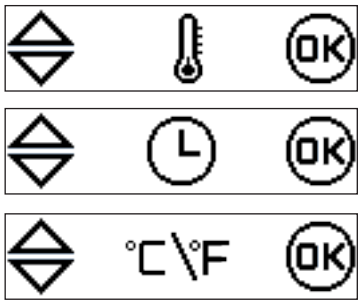
When the program is finished, the “program complete” icon is shown on the display and the machine emits a noise. If the lid is opened within 10 minutes, a icon will appear on the display.

After 10 minutes, a icon will be shown instead, to indicate the colostrum has been heated for a longer time than planned.



The Thawing program can be stopped at any time by pressing the “START/OK” button. If the program is stopped before the time is up, first the motor will find the correct position and then the display will show the “interuption completed” icon.

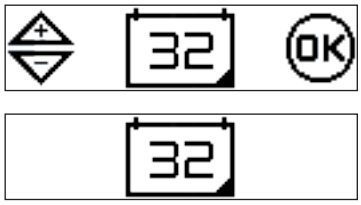
Standard settings



Press down both arrow buttons to access the standard settings (standard temperature, time and unit).

Use the arrows and “START/OK” button to navigate the settings menu and choices.

Delayed heat up mode



Press and hold down the “START/OK” button to enter “delayed heat up” settings.

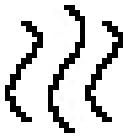
Use arrows to choose the amount of days where the thaw unit is not expected to be used. When “START/OK” is pressed, the machine goes into “delayed heat up” mode.

To start it before the time is up, press “START/OK” button twice and the delayed heat up program will be cancelled, and the water will start heating.

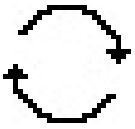
OBS: Make sure the water bath is always filled with water before turning the machine on.

In case of any failure, strange sounds or leakage please contact ColoQuick service personnel for assistance.

TECHNICAL INFORMATION - Icon guide



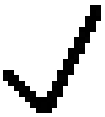
Heating, please wait



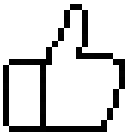
Finding rest point



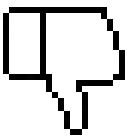
Power saving after 30 minutes



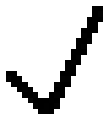
Action complete



Program ended < 10 minutes ago



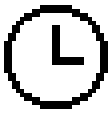
Program ended > 10 minutes ago



Program complete



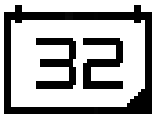
Temperature settings



Time settings

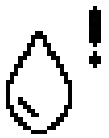
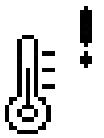


Unit settings



Delayed heat up

TECHNICAL INFORMATION - Error symbols

ICON	ISSUE	SOLUTION
	The lid is open.	1. Make sure the lid is closed with the hinges. 2. If the lid is closed, contact educated ColoQuick service staff for assistance.
	There is no water in the water bath. There is not enough water in the water bath.	1. Fill the water bath with water up to the overflow level. 2. Disconnect from power source and start over. 3. Contact educated ColoQuick Service staff for assistance.
	The cartridge holder is not rotating.	1. Make sure the cartridge holder is not blocked by any object. 2. Make sure the cartridge is placed correctly in the cartridge holder. 3. Contact educated ColoQuick Service staff for assistance.
	Temperature sensor error.	1. Check that all cables are intact. 2. Contact educated ColoQuick Service staff for assistance.
	The indicator placed in the upper right corner is not shown during thawing.	1. Make sure the cartridge holder is not blocked. 2. Contact educated ColoQuick Service staff for assistance.
	One or more of the three indicators in the lower right corner is not showing. OBS: Each dot indicates a phase. All phases may not be turned on when the machine is heated.	1. Check the phases are plugged in correctly. 2. Check all cables is intact. 3. Contact educated ColoQuick Service staff for assistance.

TECHNICAL INFORMATION - Troubleshooting

PROBLEM	CAUSE	SOLUTION	COMMENT
The water bath is not heating / cannot maintain the temperature.	The heating element is broken. The heat fuse is broken or disconnected. Error in the supply of voltage.	Replace the heating element. Change or connect the heat fuse. Contact educated, authorized ColoQuick staff.	Always turn off the machine and pull out the power plug before opening the service door.
The cartridges are not rotating.	Bolt between the gear motor and clutch is broken. Lid switch is broken.	Replace the bolt (M4x40). Remember to hold the cartridge holder horizontally when mounting the new bolt. Contact educated ColoQuick service staff.	Always turn off the machine and pull out the power plug before opening the service door.
Heats only periodically and/or the gear motor runs only periodically.	Loose or damaged cables. Temperature sensor error.	Make sure all cables are plugged in to the controller. Replace broken and damaged cables. Contact educated ColoQuick service staff.	Always turn off the machine and pull out the power plug before opening the service door.
No light in the display.	Display is broken. Loose or damaged cables. Error in the supply of voltage.	Make sure all cables are plugged in to the controller. Replace broken and damaged cables. Replace broken display. Contact educated ColoQuick service staff.	Always turn off the machine and pull out the power plug before opening the service door.

TECHNICAL INFORMATION - Service information

Thawing time for a cartridge with colostrum in the ColoQuick thawing unit is normally about 20 min. This applies to a standard portion of 4 liters of colostrum with a quality of 50 grams of antibodies/liter (BRIX ~22%) that has been frozen to -14 °C / 7 °F.

The following factors can affect the thawing time:

- The amount of colostrum in the colostrum bag.
- Filling: Squeeze excess air out of the colostrum bag before screwing the lid back on.
- Freezing must take place in a horizontal position to achieve an equal distribution of colostrum in the colostrum bag.
- Unequal distribution may also make it difficult to place the cartridge in the water bath.
- The lower the freezer temperature, the longer the thawing time.
- The cartridge must be completely submerged in water when standing horizontally in the water bath.
- Thawing two cartridges at the same time in the water bath will prolong the thawing time.
- The water should have the desired end temperature when placing the cartridge in the water bath (40-42°C / 104-108 °F).
- The cartridge should rotate during thawing in the water bath.
- The higher quality of colostrum, the longer thawing time.

Generally:

- Do not let the cartridges stay in the machine for prolonged periods, as this can negatively impact the quality of the colostrum.
- The longer the colostrum is stored without being frozen, the greater bacterial growth will be. Rapid cooling and thawing is essential.
- The silicone hose on the filling station and the silicone hose in the tube feeder should be replaced regularly to ensure good hygiene.
- Optimal quality of the colostrum requires that all steps in handling colostrum, from milking to feeding, is executed with maximum regard to hygiene.

TECHNICAL INFORMATION - General information

About safety

Read this user manual thoroughly before installation and use.

- For your own sake and your surroundings.
- For correct operation and use of the equipment.

Always keep the user manual together with or near the machine, and keep it with you if you move, or give it to someone else.

The manufacturer can not be held responsible if the machine is installed incorrectly and thereby causes any damage or injury.

Safety for children and vulnerable persons

- People in this category may only use the machine following thorough instruction or under the supervision of a trained individual.
- Do not let children play with the machine.
- Keep all packaging out of reach for children. There is a risk of suffocation or injury.
- Do not let children or pets near the machine while the lid is open.

General safety

- The machine's specifications should not be changed. This can result in injury or damage to the machine.
- Do not use flammable products or items that have been dampened with flammable products in, near it or on the machine. There is a risk of explosion or fire.

Maintenance and cleaning

- Turn off the machine and pull the plug from the wall outlet.
- Do not spray water directly on the machine.

Installation

- The machine is heavy (35 kg / 77 lb) and difficult to handle. Be careful when moving it.
- The machine should be transported on a pallet. The machine's size corresponds to a ½ euro pallet.
- Never install and connect a damaged machine.
- Remove all wrapping prior to startup.
- Electrical and plumbing installations must only be installed by an authorized technician.
- Do not place or use the machine in any location where the temperature may fall below 5 °C / 41 °F or rise above 40 °C / 104 °F.
- When installing the machine, it **must** be placed on a firm, level surface.

Connection and electricity

- **Never** turn on the machine without water in the water bath.
- Make sure the machine is grounded.
- Make sure the electrical data on the type plate corresponds to the power supply.
- Always use a correct and legally installed mains connection.
- Do not use power strips or extension cords. There is a risk of fire.
- Do not replace the electrical cord. Instead, contact the service center.
- Be careful not to damage the main plug and cable.
- Wait until the main connection installation is complete to plug in the unit. Make sure the plug can be accessed after installation.
- Avoid unplugging the machine by pulling the cord. Always hold the plug when pulling.

Disposing of the machine

1. Pull the plug out of the socket.
2. Cut the cord in two and dispose of it.

Environmental consideration / packaging material

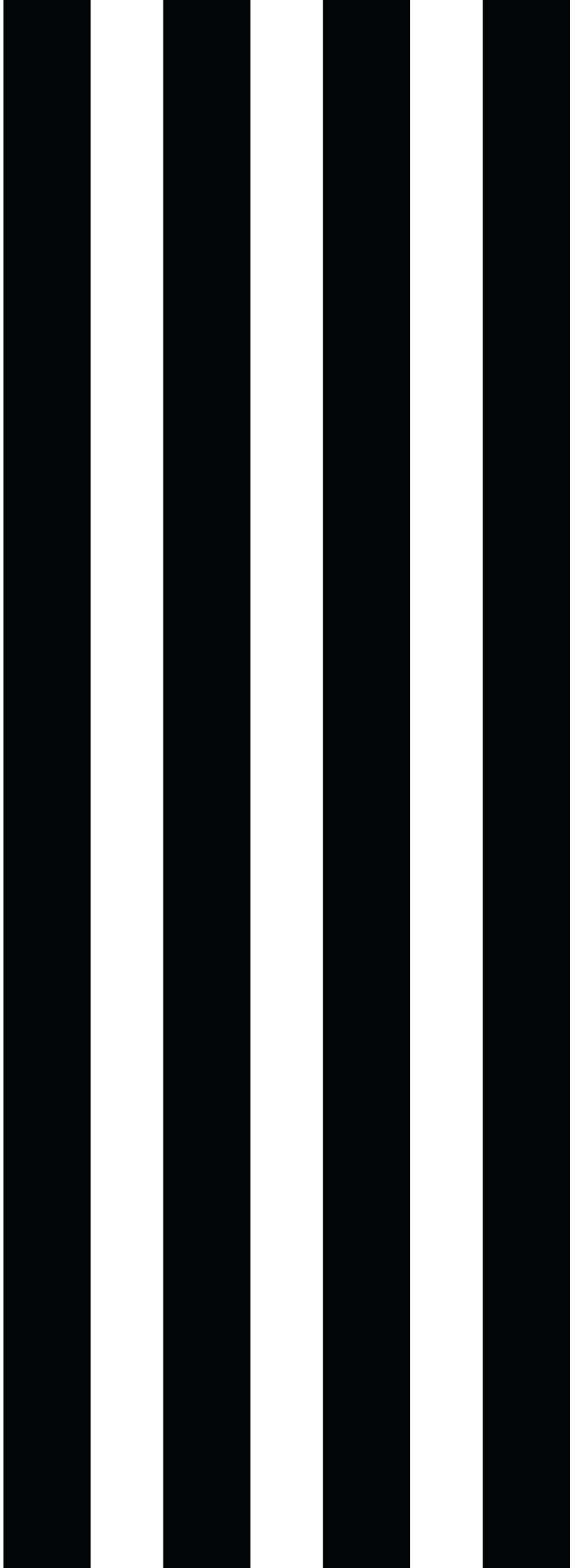
- Dispose of packaging material in the appropriate containers for recycling.
- **All parts can be recycled!**



WARNING
This unit should not be used if the lid to the electrical installations is open.

If you have questions,
please contact us at:

ColoQuick
T +45 97 53 73 33
info@coloquick.com



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