Milk sampler

Operation

About collecting milk samples

A sampling sequence normally takes 24 hours and should be stopped after performing a system cleaning. This way, the sampler will be cleaned after the sampling.

Before starting a system cleaning, putting the milking station into manual mode is recommended. This gives you the opportunity to disconnect the sampler before milking restarts. Consequently, milk residues in the milk sampler during storage or transportation will be avoided. When a system cleaning is inconvenient or impractical, see the section "Manual cleaning" in chapter "Milk sampler; Maintenance".

Reports about sampling sequences can be accessed in the VMSMgmt. Sampling reports are located in *System reports* > *VMS cow reports* > *Milk sampling*. For further information about reports, see the VMSMgmt instruction book.

Collecting milk samples

There are three main steps when collecting milk samples:

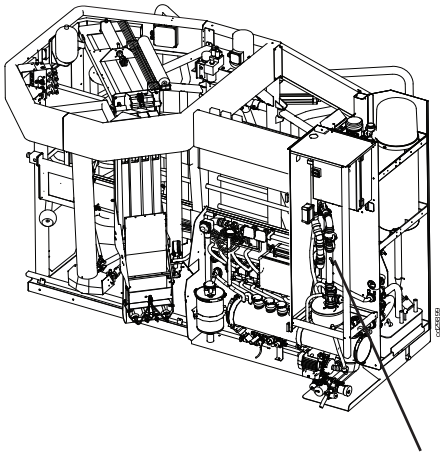
- Connecting the milk sampler
- Starting a sampling sequence
- Stopping a sampling sequence

Connecting the milk sampler

1. Stop the cow traffic through the milking station. Milking must not take place when steps 1 to 8 below are in progress.

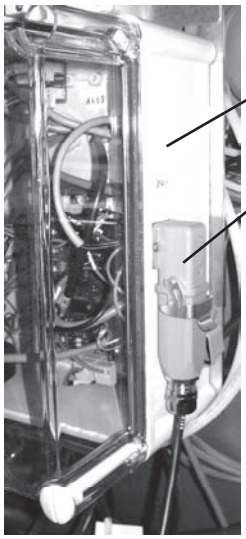
2. Place the milk sampler in front of the milking station on an even surface.

3

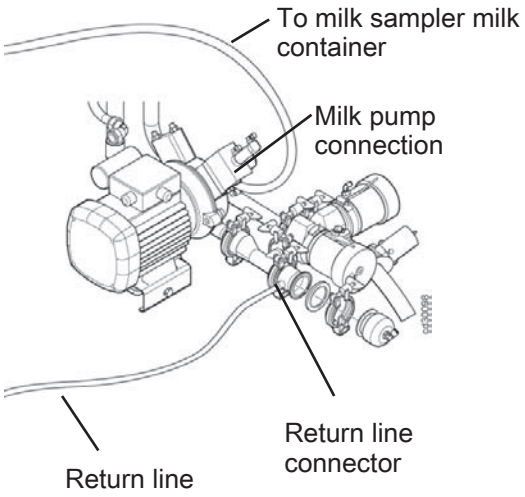


3. Shut off the vacuum to the receiver using the manual valve.

4. Attach the milk hose to the milk pump connection on the milk pump (see picture).



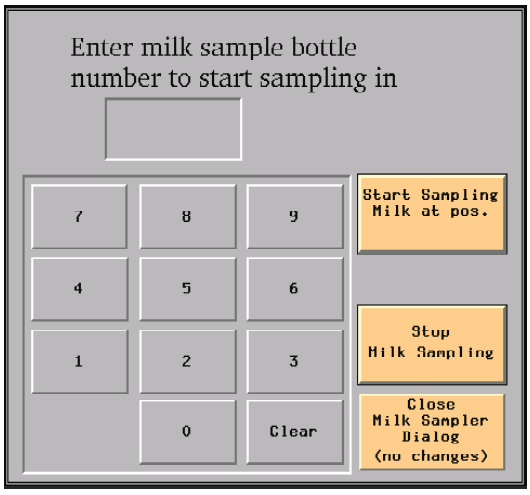
5. Connect the electrical cable to the ALCOM bus connector on the control box..



6. Remove the air-purge valve and mount the return line connector (see picture).

7. Connect the return line to the return line connection.

8. Turn on the vacuum to the receiver using the manual valve.



Milk sampler window

Starting a sampling sequence

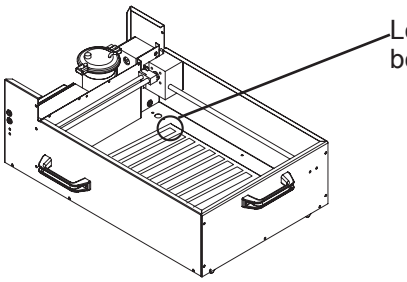
When the milk sampler has not been used more than three days it may need to be cleaned before being used again. That is why the sampling sequence is normally started just before a system cleaning.

Note: *Make sure to check the settings for milk sampling in VMSMgmt before starting a sampling sequence. For further information, see VMSMgmt instruction book.*

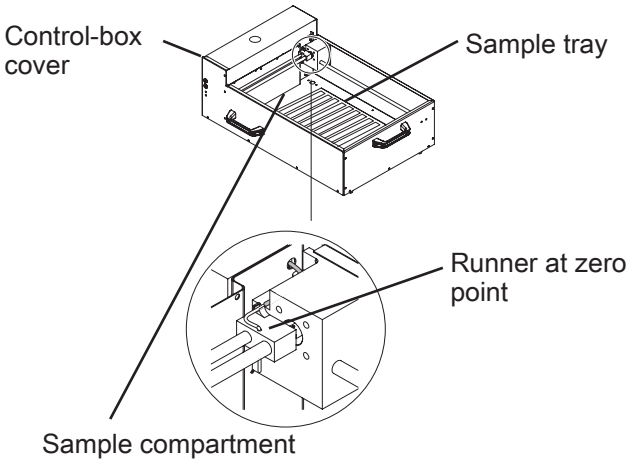
Sampling is performed by using the touch screen.

1. Press the *VMS* button in the top right corner to display the VMS menu.

2. Press the *Milk Sampler* button to display the Milk sampler window.



3. Select a sample bottle by typing the bottle's number on the Milk sampler window. Number one (1) is normally used as the first bottle. If, however, the sampling sequence will continue when all sample bottles has been filled, use the coming number after the last bottle number of the previous rack. In other words, if the sample tray has contained 130 bottles in the first place, you can continue the sampling



sequence by typing the bottle number “131”.

Use the *Clear* button if you type the wrong number.

4. Press the *Start Sampling Milk at pos* button to start the sampling.

Stopping a sampling sequence

A sampling sequence is stopped manually from the touch screen, after a system cleaning.

1. Put the milking station into manual mode and start a system cleaning. The runner then goes to the 0 (zero) point.

2. After the system cleaning, press the *Stop Milk Sampling* button on the Milk sampler window.

3. With the runner still in the 0 (zero) point position, disconnect the milk sampler from the milking station.

Note: *The sampler must be disconnected before milking restarts to avoid milk residues in the sampler during storage or transportation.*

4. Remove the sample tray and flush the sample compartment. To prevent water from damaging the electrical parts, close the control-box cover. Make sure that the runner is clean.

5. Check the silicone tubes for damage.

Milk sampler

Maintenance

About carrying out maintenance

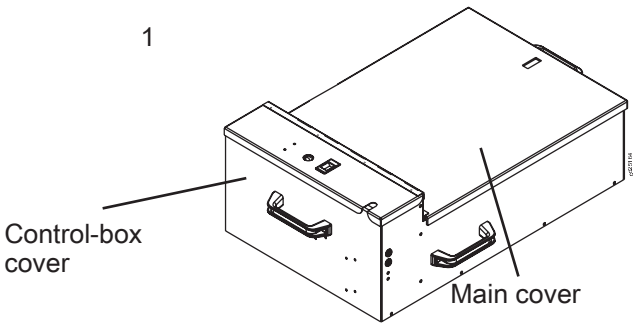
In normal circumstances, the milking station will carry out the cleaning process on the milk sampler during a system cleaning. Manual cleaning will only be performed when the milk sampler has not been cleaned by the VMS.

If any parts such as a silicone hose is been damaged or have deteriorated, additional maintenance will be needed.

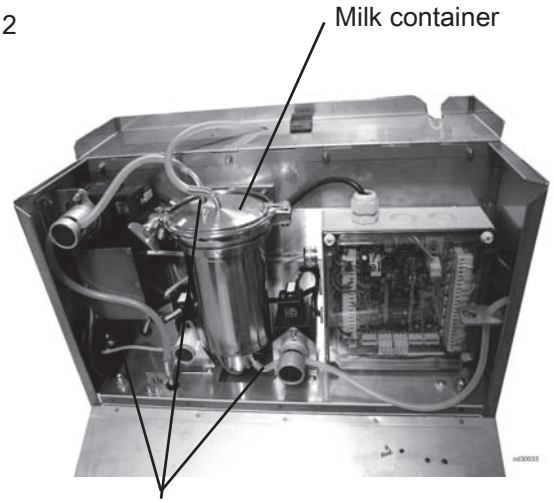
Manual cleaning

Tools: Syringe without needle.

1. Open the control-box cover and the main cover.



2



2. Disconnect all hoses from the milk container, then remove the container.

3. Use a syringe without a needle to clean the disconnected hoses. Fill the syringe with lukewarm water, press the tip of the syringe into one of the hoses and then inject the water through the hose. Repeat the same procedure for all hoses.

If there are any dirt or milk residues left in the hoses, remove the hoses and rinse them with lukewarm water, then wash them using a mild detergent, then rinse again with water to remove detergent.

If the milk sampler has not been cleaned for a long time, milk residues may be impossible to remove, in which case the tubes should be replaced. See the additional maintenance below.

5. First disassemble the container, then rinse it with lukewarm water and clean with appropriate detergents. Finally, rinse again with water to remove detergent.

6. Reconnect the hoses onto the container.

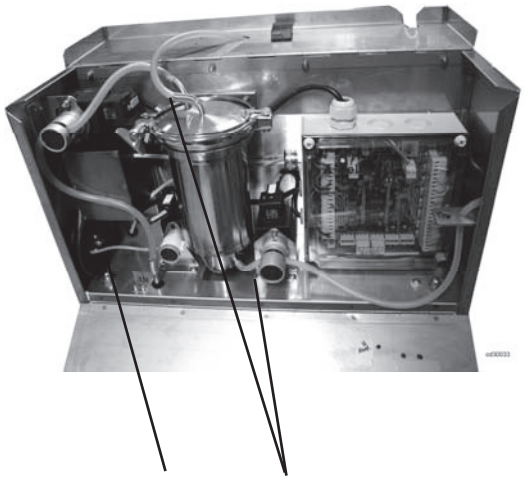
Note: *It is important not to shorten the hoses too much if they have been deteriorated.*

7. Reassemble the container. Note that the cylindrical cones must face each other and be properly inserted in the clip.

Additional maintenance

Changing hoses

The three hoses, as shown on the figure, must be changed if they have been deteriorated or can not be cleaned properly. Due to the tricky operation, only the hose changing on the tube wheel has been described.



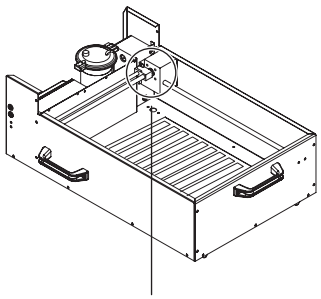
Silicone hose on the tube wheel

The other two hoses

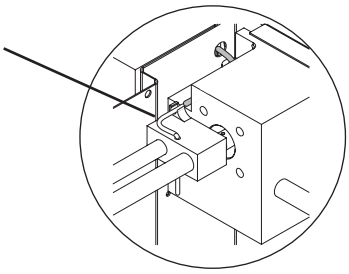
Changing the silicone hose on the tube wheel

1. Lift the sample tube that is inserted in the runner.

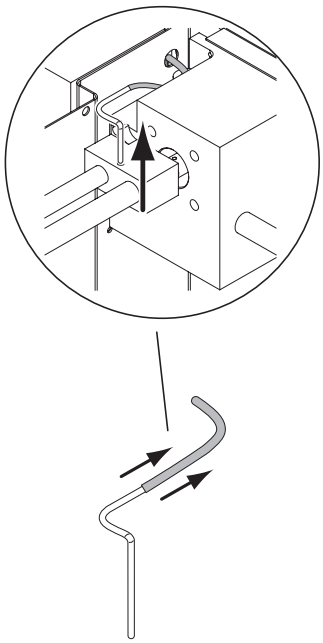
1



Sample tube

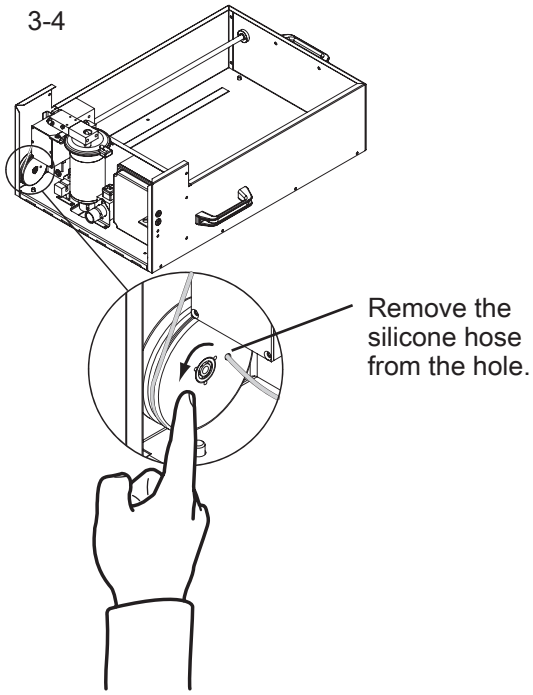


2



2. Remove the silicon hose from the sample tube and hold the silicone hose.

3-4



3. Slowly rewind the silicone hose onto the tube wheel using a finger.

4. Pull the silicone hose and remove it from the hole.

Note: *Keep finger on the tube wheel to prevent it revolving too fast. If you let the tube wheel rotate freely, the spring will be damaged and must then be replaced.*

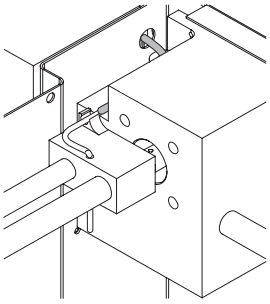
5. Return the wheel slowly to the start position.

6. To fit a new silicone hose onto the tube wheel, turn the tube wheel 8 times clockwise.

7. Push the silicone hose through the hole in the wheel.

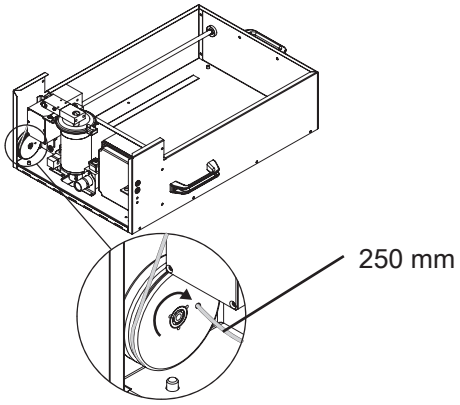
8. Allow the spring to rewind the silicone hose on to the wheel.

9



9. Reinsert the sample tube into the silicone hose.

10



10. Check that about 250 mm of the tube protrudes from the hole in the wheel.