Installation

DeLaval milk sampler VMS

1 Installing the DeLaval milk sampler VMS

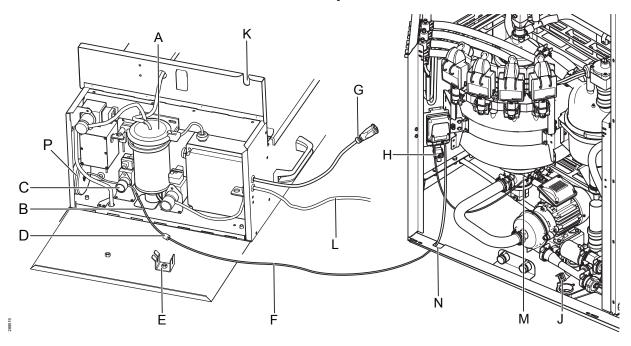


Fig. 1: Connecting the milk sampler VMS to a VMS V300 milking station. (Not to scale.)

Note! The tube connection (L) from the milk sampler/the milk container is not used when milk sampling from a VMS V300 milking station. Stow it away and keep it clean.

- **1.** Open the doors to the milk module.
- **2.** Place the milk sampler in front of the milking station, close to the milking module.

Note! The surface must be level.

- **3.** Open the front door of the milk sampler.
- If not yet installed, mount a tube bracket (E) (89494001) on one of the door handle screws.
- **5.** Route the cable (G) from the milk sampler through the cutout (N) in the milk module.
- 6. Connect the cable to the connector (H) in the milking module.



- 7. Disconnect the silicone tube (B) inside the milk sampler from the bottom of the milk container (A).
- 8. Remove the milk sample tube (F) from the drainage point (J) inside the milk module.
- **9.** Route the milk sample tube through the cutout (N) in the milk module.
- **10.**Connect the milk sample tube (F) to the silicone tube (B) with the tube fitting (D).
- **11.**Verify that the silicone tube passes through the pinch valve (C).

Note! If necessary, unwind some of the silicone tube from the reel (*P*).

- **12.**Secure the tube fitting (D) in the bracket (E) of the milk sampler door.
- **13.**Close the doors to the milking module.
- **14.**Route the milk sample tube through the cutout (K) of the milk sampler and carefully close the cover to the milk sampler.

Note! Do not squeeze the silicone tube.



2 Enabling the DeLaval milk sampler VMS in VMS Controller (VC)

Before the system recognizes the DeLaval milk sampler VMS, it must be enabled in VMS Controller (VC).

For detailed instructions about the VMS Controller (VC), refer to chapter "Start up → Configuring settings in VMS Controller" in the "DeLaval VMS[™] milking system V300" manual on MEMO+.

Device configuration	System controller	Cleaning programs
MS3 🔽	Device configuration	
eneral Alarms Camera Axis Milking Milk tran	sport Milk Sampling Cleaning Backflush Se	nsor Stall Debug Compare
lilk Sample Distributor	Herd Navigator	
Version 2 Installed Return milk	Version Volume[ml]	Installed
elaval Milk Sampler	Analysis Controller IP address	
/ersion Volume[ml]	192.168.168.140	
1 🔹 20 🔹 Installed	Sample Intake tube number	
low X Row Y Racks		
7 🔹 2 🔹 2 🔹		
itart X [mm] Start Y [mm] RackDiv 28 • 22 • 60 •	Online Cell Counter	
	Version Volume[ml]	
Div X [mm] Div Y [mm] 10 10		Installed
Sample tube deposit ordering	External Device	
= position of drain	Version	
321 123 00000 000000 00000 00000 <t< td=""><td>1 i Installed</td><td></td></t<>	1 i Installed	
ri Milk Sampler		
Version Volume[ml]		
1 🔹 20 🐳 🗌 Installed		
Number of samples		
90		

Fig. 2: The "Milk sampling" tab in the "Device configuration" tab.

- 1. In VMS Controller (VC), select the corresponding VMS V300 milking station.
- 2. Go to the "Milk sampling" tab.

"Milk Sample Distributor"

3. In "Version", select "2" for the single-sample outtake (SSO).



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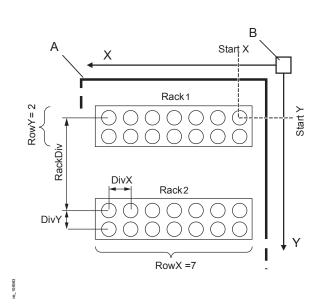


Fig. 3: Parameters/coordinates for the rack holder in the milk sampler.

- A: Rack holder
- B: Home position of the runner

- 4. Check "Installed" to enable the single-sample outtake (SSO).
- 5. Check "*Return milk*" to pump back the remaining milk in the sample tube to the receiver (after each sampling). If unchecked, the remaining milk in the tube is sent to the drain in the milk sampler.

Note! Local or national laws and/or regulatory demands may prohibit this practice.

Note! In EU countries, "Return milk" can be checked.

"DeLaval Milk sampler"

- 6. In "Version", select "1". (Other versions are currently not in use.)
- 7. In "Volume", set the amount of milk for one milk sample in [ml].

Note! This setting depends on the size of the sample cups, which differs between markets.

- 8. Check "Installed" to enable the DeLaval milk sampler VMS.
- **9.** Define the properties and distances of the rack holder.
- **10.**In *"Sample tube deposit order"*, define the order in which the sample bottles should be filled.
- 11.Click "Save changes".
 - ⇒ The milk sampler VMS is installed and configured.



Operation

Operation

DeLaval milk sampler VMS

1 Software configuration

1.1 System settings

Before the DeLaval milk sampler VMS can be used in a *"DeLaval VMS™ milking system V300"*, it must be enabled by a DeLaval technician.

1.2 Normal or continuous sampling mode

In normal sampling mode, the sampling procedure stops automatically when all racks are full.

In continuous mode, the sampling procedure continues until it is stopped by the operator. After the last vial has been filled (and all racks are full), the milk sampler starts over with the first vial (in the first rack).

Note! Each time a rack is full, the operator must replace it with an empty one, until the sampling procedure is stopped.

1.3 DelPro settings

Which cows and how often they are sampled depends on DelPro settings. Refer to the DelPro manual.



Operation



Fig. 4: The "DeLaval Milk Sampler" menu in the "Maintenance" tab on the GUI.

2 The milk sampling procedure

2.1 Starting a sampling procedure

Note! Milk sampling can be started both in "Auto" or "Manual" mode.

Note! To keep out dirt and dust, close the doors of the milking module and the milk sampler during sampling.

- 1. Go to the "Maintenance" tab and tap "DeLaval Milk Sampler".
- **2.** Tap "1" to select the first vial as the starting position for the sampler.

Note! The position of vial number 1 is defined when the milk sampler VMS is configured by a DeLaval service technician.

- 3. Tap "Start Normal" or "Start Continuous".
- 4. Tap "Close".
 - ⇒ If a cow is currently being milked, milk sampling begins with the next cow. Otherwise, milk sampling begins immediately.



Operation

2.2 Finishing a sampling procedure

Note! Milk sampling can be stopped at any time, both in "Auto" and "Manual" mode.

Note! Never disconnect and store the milk sampler VMS without running a system cleaning.

If the cable (G in Fig. 1) to the milk sampler is disconnected and reconnected again, milk sampling continues with the next sampling vial position.

- 1. Manually start a system cleaning and wait until it finishes.
 - If a cow is currently being milked, system cleaning starts after it has finished milking.
- **2.** Alternatively, wait until a scheduled system cleaning has finished.
- 3. On the GUI, go to the "Maintenance" tab and tap "DeLaval Milk Sampler".
- 4. Before a new milking starts, tap "Stop".
 - ⇒ Milk sampling is stopped.

Disconnecting the milk sampler

- Open the front door of the milk sampler VMS and disconnect the sample tube (F in Fig. 1) from the milk sampler.
- 6. Put the sample tube back to the drain position (J).
- 7. Disconnect the cable (G).
- 8. Clean the inside of the milk sampler.

