

## DeLaval voluntary milking system VMS



Freedom to choose



## The most advanced robotic arm

A hydraulic robot arm helps set DeLaval VMS apart from other automatic milking systems. Its unique design allows more cows to be milked. This fast yet gentle arm is flexible enough to attach teats at 45° angles. You can milk even more cows by taking advantage of the various attachment strategies. This exclusive hydraulically powered robotic arm provides extended reliability and reduces service requirements when compared to pneumatic systems.

The high performance teat visualisation system has an optical camera coupled with dual lasers to help ensure fast and accurate teat localisation for quicker and more dependable attachment rates. DeLaval VMS truly sees the teats.

To further enhance your comfort and save time, Auto-Teach gives DeLaval VMS the ability to automatically find the teats without you having to programme manually.

## The most advanced robotic arm

- More cows compatible with robotic milking
- Hydraulic power means low service requirements
- Optical camera and two lasers 'see' the teats
- Fast and gentle with nothing under the cow during milking
- Auto-Teach finds the teat automatically
- Manual attachment is possible









# No compromise in milking hygiene

The teat preparation process is recognized as one of DeLaval VMS' most attractive feature. Each teat is individually cleaned with warm water and air, stimulated, pre-milked and dried before milking. Only a few seconds are needed for optimum teat sanitation which results in high milk quality and better milking capacity. The teat preparation cup has its own separate line so no dirty pre-milk ever makes contact with the main milk line.

Several features are fully automated to save you time and keep the system running around the clock in the most hygienic condition. It starts with the integrated splashguard automatically backing-up behind the animal to divert manure and urine away from the stall and milking area. Programmable automatic floor cleaning allows your cows to stand on a clean surface at all times. All the cups are rinsed inside and out between each cow. The cups then face down so they can drain and stay free of debris that could otherwise fall inside. DeLaval VMS almost instantly detects any fall-offs and initiates retraction then rinsing of the teat cup before re-attaching it. There's even automatic teat disinfection after milking, with the possibility to select various operational modes.

## Gain better control over your milking hygiene with DeLaval VMS

- Dedicated teat preparation cup
- Teats are clean and dry before milking
- Integrated splashguard
- Automatic floor cleaning
- All cups rinsed up-side down between cows
- Teat cup rinsed before re-attachment
- Selectable spray patterns





## You have full control



- A touch screen gives you easy control during milking. You have real-time access to all the monitoring information you need such as cow ID, quarter flow rate, volume and cleaning status of the milking process. You can pilot the DeLaval online cell counter OCC during milking to view the SCC right from the touch screen.
- DeLaval VMS features true quarter milking with four optical milk meters monitoring milk yields, flow rates, time, conductivity and blood levels.
- The system's integrated cleaning unit reduces cleaning time by 40 percent, which increases milking capacity. The entire cleaning process is controlled by the system and reported in the management software to give you optimal hygiene control.
- The fast and gentle hydraulic multi-purpose robotic arm takes care of preparing the teats before milking (including optional pre-spray), attaches the teat cups, re-attaches if needed, aligns the milk tube and sprays the teats after milking.

## Value adding options for your DeLaval VMS



#### Automatic milk sampler The automatic milk sampler offers

advanced functions like individual cow sampling or accumulated sampling. The sampler is conveniently cleaned when DeLaval VMS performs a full system cleaning.



#### Milk separation

Now you can automatically have colostrum milk, contaminated milk or bad milk with blood or a high SCC sent to one of four different locations. The milk separation unit can be positioned in the most appropriate area for improving your working conditions.





### DeLaval online cell counter OCC

This is the first true automatic somatic cell counter available for voluntary milking systems. Gain access to an unequalled level of knowledge and control over your herd by proactively monitoring the SCC level of every cow at every milking.



#### Flow controlled cooling

The tank is in direct bus-communication with DeLaval VMS to adjust refrigeration based on the quantity of milk delivered, regardless of time and flow rate variations. This is a patented, cost efficient solution specially adapted to automatic milking conditions.



Value adding options for your DeLaval VMS



#### **Direct drive vacuum pump** This highly cost efficient pump saves up to 60 percent of your energy

up to 60 percent of your energy consumption because its speed is controlled by DeLaval VMS to meet system-specific demands.



## **DeLaval smart selection gate SSG**

Gain full control over your cow traffic while reducing time spent fetching cows. DeLaval SSG helps you get more milkings per cow per day and more regular milking intervals, with higher feed intake and reduced labour input.

## Designed without compromise

- 5 The extreme duty stall provides perfect harmony between design and engineering. The robot arm, gates and robot frame are electropolished to give the station its unique, award-winning look and allow for easy cleaning. The rest of the station is made of either brushed or painted stainless steel. We minimize the use of plastics to maximize the value of your investment over time.
- The station has an open design, offering you easy access to the cow and the possibility to attach manually. The stall has a stainless steel built-in floor and is bigger than previous versions to accommodate the growing size of cows. For your cow's safety and comfort, there is no bulky equipment under the cow during milking and she rests on a slip resistant rubber mat.
  - Pre-mounted support modules provide a cleaner, faster and more dependable installation. The hydraulic power unit is mounted above the arm to maximize efficiency and reduce the length of the lines. The station power box is also integrated to facilitate installation.
  - The stainless steel manger is ergonomic and self draining so it is easy to keep clean. Feed is sprinkle fed during milking to keep the cow quiet. You can even program to stop the feed dispensing before the end of milking so the cow can quickly leave the station.





#### A broad liner range Several quality liner designs are available to fit your cow's teat in the most efficient way. This helps ensur

most efficient way. This helps ensure the best milking treatment and the shortest unit on-time while maximizing your DeLaval VMS milking capacity.



#### **Remote control**

The remote control software allows you to monitor and control your DeLaval VMS without physically being at the station. Now you can connect from anywhere within your own network or even wirelessly for more independence, less disturbance and better control.



# DeLaval VMS management software

DeLaval VMS management software is a powerful assistant that helps you make the best decisions at the right times. This complete, integrated software gives you control over your cows, milking, cooling, feeding systems and so much more. The Cow Monitoring tool is your main control panel. It easily and guickly identifies cows needing your attention based on deviations in milking interval, conductivity, blood and milk yield. The software can also help you manage cow traffic in the most efficient way. To save you even more time and further optimize milking interval settings, milking permissions can automatically be adjusted based on each cow's days in milk. Customized reports can automatically be printed so they are available in time for your inspection routines. When connected to DeLaval online cell counter OCC, the software provides you with a report and alarms for the SCC of all your cows. The health status of your cows is no longer a secret.



## DeLaval VMS technical specifications

- VMS size: L 335 x W 255 x H 228 cm
- Weight: 950 kg
- VMS room size incl. inlet and outlet: L 450 x W 400 x H 275 cm
- Food quality 25 mm stainless steel milk lines
- VMS feed station: 1 feed standard. 2nd feed optional
- Built-in control touch screen
- Standard with Atlas Copco SF-4 scroll compressor
- Standard, pre-installed, heavy duty and low service hydraulic pump
- . Low pressure hydraulic system for safety and longer service life
- Standard pre-installed power box with overload protection
- Standard with pre-installed cleaning unit

- Standard with PC. printer. flat screen. UPS
- Software environment: Linux and Windows
- Cow traffic programs: free, guided, semi-free, pre-selection, feed first
- DeLaval VMS server can be connected to a local area or wireless network
- Alarm signals sent via SMS or voice alert messages (optional siren or flashing alarm)
- Authorized DeLaval technicians can remotely monitor and control the system via internet



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