DeLaval VMS™
Voluntary Milking System
A Higher Level of Automatic Milking
As demand for more high quality milk continues to rise, so do the demands put on dairy producers.

At DeLaval we believe the best way to manage this is with automatic milking. It removes the manual task of milking from your operations, thus freeing up time to focus on farm management issues, such as feeding, breeding, health and hygiene, or in other words: all the factors that contribute to improving the return on investment of your herd.

VMS is much more than a milking robot. It’s a complete dairy production solution: one that brings together the necessary elements required to deliver successful automated dairy farming, over the long-term.

As demand for more high quality milk continues to rise, so do the demands put on dairy producers.
When you invest in automatic milking, you get one system in which all the different elements work together to deliver optimal dairy farming results.

Optimization of feeding, milking, analysing and cooling is required to ensure overall farm performance. Each part of the chain provides necessary data and performance criteria which can then be targeted to deliver lower feeding costs, improved breeding performance and healthy cows.

A higher level of...
Smart Farming™

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VMS – the ultimate automatic milking machine

The VMS is the ultimate automatic milking machine. It enables you to harvest the maximum milk yield from your herd, while freeing-up time for you and your staff to focus on other duties. Additionally, the different components of the station ensure fast milking, while safeguarding the health of your herd.

Teat prep process

Prior to milking the teats are treated to remove impurities and keep them soft and supple, while promoting quick milk let down.

Smart milking

Milking performance is optimised based on customized settings to help perform maximum milk extraction and flow rates.

Hydraulic arm

Thanks to the compact robot arm, attachment is a speedy and easy process regardless of teat and udder forms and heights. This keeps the culling rate to a minimum, year after year.

True quarter milking

VMS has ICAR approved milk measuring per quarter to assure cow friendly, accurate milk off. Cow data provides milk quantity and milk flow detector quarter which can be used to control and develop your herd for optimal milking speed.

Teat spray

Once milking is complete the teats are sprayed with VMS approved teat disinfectant. The uniform teat coverage protects teats and udders against bacteria and ensures the skin remains soft and supple.

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A complete automatic milking solution designed to optimize quality milk yield

**Capacity**
1. Compact robotic arm: The most compact and energy-efficient robotic milking arm has a wide-reach inside the milking box. This ensures that the VMS can reach cows with various udder conformations and therefore reduce the culling rate.

**Support**
- The technical and herd management support you are going to receive from DeLaval and from its dealership network comes from focused professionals. That is what they do; that is their passion. They offer a lot of expertise and knowledge. Our objective is that you, as a dairy producer, should not waste any time on technical issues, but rather spend the extra time that the VMS provides you in managing other areas within your enterprise.

**Flexibility**
- Most user-friendly touch screen: Gives complete control during milking. Provides access to all cow monitoring and cow queue information.
- Multi-functional manure plate: The manure plate automatically follows the movement of the cow which ensures faster and safer cleaning.
- Easy to clean feed manger: The stainless steel manger is self-draining, so it is easy to keep clean. Position adjusts automatically to fit to each individual cow.
- DePro Personailizable Software.
- ISO ID system for faster and confirmed identification.
- Compatible with touch screen tablets and smart phones.
- Double milk filters: Flexibility means doing things when it suits you. The Double milk filter system provides you with just that as the VMS automatically switches to a clean filter when required between pre-rinse and wash. This allows you to change filters when it suits, while ensuring system cleaning is always performed through a clean filter.

**Milk Quality & Animal Health**
- True quarter milking: Four optical/ICAR approved milk meters monitor milk yields, flow rates, time, conductivity and blood levels.
- Tailor-made built-in cleaning system: VMS cleaning can be programmed to meet the specific circumstances of each individual farm.
- Best hygiene: The teat cleaning cup and the milking cups are rinsed inside and out between each cow, minimizing the risk of bacteria transfer.
- Open design: This allows easy and safe access to the cow and the possibility to attach teat cups manually.
- Automatic floor cleaning: Programmable automatic floor cleaning provides a clean surface for your cows and saves water and time.
- ISO ID system: for faster and confirmed identification.
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**Reliability**
- Pre-mounted compact design: Your support modules are pre-mounted for clean, fast, dependable installation. VMS is the shortest station in the market so it fits in all barn layouts without compromises.
- 100% stainless steel stall.
- Stainless steel floor integrated with the station.
- No electronic cards or sensors on the robotic arm.
- Data are saved automatically.
- System Controller.
Capacity

DeLaval’s VMS is the most efficient robot on the market today. If you’re going to invest in a new system, you want it to work with the cows you have today and the genetic potential of those you may have in the future.

Real milking
This graph shows the VMS milking technique. It shows the effect of good VMS teat preparation, together with the correct attachment moment, good liner and good liner support with the arm. This results in short milking time, high capacity, less residual milk and low teat stress.

Teat preparation cup
This unique equipment cleans, pre-milks, dries and stimulates each teat individually by using water, compressed air and vacuum. The system is completely separated from the milking system. Cleaning residues or first milk from teats is not in contact with any part of the milking system. This treatment method assures proper oxytocin release which results in high milking speed, short milking time. VMS teat cleaning does not need chemical disinfectants during preparation or between cows.

ISO ID
ISO ID provides several benefits: On average one second faster detection is allowed. Less sensitive on how cow holds her head. Cost efficient solution for all cattle sizes. It allows calves to be moved directly into VMS system when they grow. For both existing and new VMS barns.

High capacity per box
The measurement of capacity provided by DelPro software is one of the most important measurements to any producer. This is achieved by: intelligent milking permission module, excellent stimulation during treatment, high speed through familiar milk dairy technology with flexible liners.

Digital camera – accurate and fast teat localization
The VMS camera is digital, which, together with two lasers, creates a 3-dimensional picture of the udder. VMS truly sees the teats, and therefore the attachment is very accurate.

Digital camera
Teat preparation cup
Real milking
ISO ID
High capacity per box
“We were milking half of the herd with two robots and the other half in the flat parlor. We did that for a year, so we had a pretty accurate comparison, and there was easily a 10% increase in milk production.”

“We had a high peak in the parlour, about 38.4 litres. We milked twice a day in the parlour and now 3.2 times a day in the VMS!”

Smart Milking – faster attachment
This represents a new Smart Milking feature, as it seeks the last faster. It allows, with its new technology, to gain approximately 15 minutes or 2 to 3 additional milkings per day.

Smart Milking – Smart Take-Off
This represents another new Smart Milking feature. Some cows have very big milking time differences between the quarters. Taking off earlier from such quarter did not result in higher udder health risks or losing milk yield. Hence, applying this feature or this practice on such quarters resulted in shorter milking times and higher capacity. The gained time was on average 15 more minutes per day for additional milkings.

Smart Milking – Smart Take-Off
These processes improve communication between VMS and the cooling system. VMS can remain milking while milk collection starts. VMS can also start cleaning before cooling tank emptying and cleaning process is finished. This gives 10-15 minutes more capacity per day for milking.

Smart Synchronization
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Smart Synchronization
Milk collection can happen at any time of the day and only a few buttons need to be activated by the tanker driver. The system will send an alert if it detects an unexpected error, so preventive action can be taken before any serious problem occurs.

Our peak in the parlour was 36 litres, the peak in the VMS is 38.4 litres. We milked two times a day in the parlour and now 3.2 times a day in the VMS!”

“For sure, I recommend VMS to other dairy producers. It has definitely helped me stay in farming in a way that results in less labour and much more freedom than I had before.”

Adaway Dairy, Iowa, USA
1 VMS unit, 33 cows

For sure, I recommend VMS to any other farmer.”

Adaway Dairy, Iowa, USA
4 VMS units, 280 cows

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Bordemoor Holsteins Farm, British Columbia, Canada
1 VMS unit, 33 cows

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Bordemoor Holsteins Farm, British Columbia, Canada
1 VMS unit, 33 cows
The monitor board provides a comprehensive overview of:

- Milk production
- Milking queue (status)
- Udder health status (CowMon) - including daily reports on cows with high somatic cell counts (using records from DeLaval OCC)
- Reproduction attentions
- System notifications
- It also includes a user customizable section.

Vet visit module

- Enables preparation for planned vet visits, including timely invitations
- Printed list with comprehensive set of animal data for reference during the vet check
- Fast and accurate recording of vet check results.

Activity meter system

- Accurate remote detection of animals in heat
- Monitoring of animal health deviations

Monitors cleaning records

- Water temperature
- Cleaning time
- Dosing volumes, and so on.

Monitors milk tank

- Milk received
- Milk temperature
- Emptying and filling sequences.

The DelPro Farm Management system brings the latest technology to the dairy farming environment in a logical and easy-to-use format. The intelligent system enables the different elements of the farm environment to speak to one another, thus considerably enhancing dairy farming operations.

In reality this means that milking, feeding and barn processes can be connected to one another in an automated system, whereby any changes in milk yield or milk quality for instance, can automatically result in a change further down the line, such as in the feed provided to a particular cow.

Smarter farming – with DelPro Farm Manager

Keep an eye on your herd

DelPro helps you build up a complete picture of the health of your herd, collating a comprehensive record for each individual animal. Logged data such as vet visits, diagnosis and treatment, milk quality, and quantity, etc., can be instantly accessed via the cow monitor and used to generate reports.

Accurate cow traffic

The system logs individual cow’s milk production and the number of visits to the VMS. It then automatically calculates the optimal time for the next visit, based on the time elapsed since the previous milking, the cow’s age and stage in the lactation cycle. It also calculates the amount of milk expected.

Real-time milk quality monitoring

DelPro logs milk quality for each cow and sends notifications if threshold levels have been exceeded. At the same time it alerts the VMS so it automatically diverts abnormal milk.

Accurate feeding, better controlled costs

Milk data from milk meters, together with fat and protein information from individual milk samples, can be gathered and analysed in DelPro and used to dispense precise feed rations for individual animals at the feed station.
INNOVATION

Every VMS comes with a powerful full color touch screen that enables you to operate the VMS directly in the barn and provides you with instant access to wide ranging data. The user-friendly features including large icons and buttons and no-nonsense menu system make using the touch screen an easy and rewarding experience. What’s more, with a robust design, it can handle the tough conditions of a dairy farm. Programs supported by the touch screen include:

Cow queue
This lists the milking status of your cows in an easy to view color coded fashion, from overdue through to recently milked cows.

Find my cow
This tool enables you to locate the whereabouts of a cow in the barn and/or pasture and see how long she has been there. You can also check individual cow data such as milk production per day or per milking, blood cell count, and times of milking.

Fine-tune settings
While viewing data on individual cows you may want to change certain milking settings. The touch screen allows you to carry out these and see the results for yourself as the cow is being milked.

All at the touch of a button

Making the best even better!
The new VMS touch screen

This user interface is by far the best one in the market. It provides: a large color touch screen that is easy to use, big buttons, colors and symbols that clearly confirm actions, all relevant information about milking, testing and fault seeking to speed up service, testing wizard functionalities, individual cow information, cow settings, trap cow, possibility to delay a release of one cow in stable, larger support wizard for OGC testing and fault seeking, possibility to deactivate dangerous choices, priority milking function, customizable cow queue, Sequential diverts without rinse in-between, and other features.

“The touch screen is very nice because it allows me to manipulate things that I may need to do – when I’m bringing in a new animal, for instance. The responsiveness of the screen is what’s very nice. I can operate it while wearing my winter gloves!”

Diederich Farm, Wisconsin, USA
4 VMS units, 300 cows

Color change when in manual mode

Password protected

Activity follow up included

Choose access level

All at the touch of a button

Password protected

Activity follow up included
Flexibility

VMS offers you the most advanced yet flexible options to best align your system with your individual needs and goals. The VMS solution utilizes upgradable technology, thus ensuring your system remains flexible and efficient, easily adapting to the future demands of your operation.

Keep it cool

The nature of automatic milking – a reasonably consistent flow of small quantities of milk – has thrown up new challenges for cooling. To counter this we have developed a range of VMS specific cooling solutions that enable producers to use most of their existing equipment. Solutions include:

DeLaval flow controlled cooling FCC
This VMS monitors the cooling tank of the volume of milk delivered to it, on a real time basis. The tank then adjusts its cooling capacity to suit that milk volume. This adds up to lower energy costs per litre/kg of milk.

DeLaval instant milk cooling BCC
In this system milk is collected and cooled before it enters the bulk tank. It offers around the clock milking as the tank can be emptied and cleaned while milking continues.

DeLaval buffer vessel BVV
Milk is automatically diverted from the VMS to the BVV when the storage tank is emptied and cleaned. Milk can be collected at anytime without any effect on the milking process.

Meeting your highest cooling and storage needs.
DeLaval offers highest quality milk cooling solutions to meet your cooling demands and help increase milk production efficiency. Our range is able to meet virtually all raw milk storage and cooling demands, from a herd of one to over 1,000 cows.
Feed stations
With a number of different feed stations available, we can ensure you get the right station for your dairy farming needs. The stations are designed to allow cows to eat in a natural and ergonomic manner while allowing you to tailor feeding of concentrates and mineral rations according to individual cow needs. All feed stations are connected to DeLaval Farm Manager to ensure Optimized feeding.

VMS feed manger
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. The feed drop tube shut-off door eliminates the possibility for additional feed to drop in manger once shut-off.

“We wanted the cows and herd to move ahead and the robotic VMS option certainly made sense to us. The cows adjusted to it faster than we did. In a week, they were back up to their normal production of 36 kg (79.4 lbs)/cow.”

“The nutritionists have remote access to feeding information and can do a better job at monitoring what and when they’re eating and are able to make adjustments and recommendations on what they’re seeing.”

Reinderock Farm, Ontario, Canada
1 VMS unit, 60 cows

DeLaval Optimat™ II system – a complete feeding solution, using automation for feed efficiency

Feeding is the largest milk production cost. Optimizing the feed process is therefore an essential part of farm management – one that can improve productivity and herd health, while having a considerable impact on profitability. At DeLaval we can provide different levels of automated feeding, all designed to ensure you get greater milk yield from your feed with less labor.

DeLaval Optimat™ II master is a fully automatic system where recipes, groups and schedules can be programmed from DeLaval Farm Manager and the system manages feeding, mixing and distribution to each group. DeLaval Optimat™ II standard is semi-automatic system. Feed is manually loaded into a stationary manger and then the system handles mixing, unloading and distribution via a rail suspended feed wagon.

DeLaval Optimat™ II mobile offers automated filling and mixing, then delivery by a mobile mixer wagon. DeLaval Optimat feeding centre is designed specifically for use with very large herds. The system, which can be controlled through DeLaval Farm Manager, provides automated filling and mixing of bulk rations at a feeding centre. DeLaval Optimat™ II automatically distributes concentrates and minerals from silos to concentrate feed stations or feeding systems.

DeLaval feed wagon OTS100
Available for both the Optimat standard and master configuration

1. DeLaval Optimat master
1.a. DeLaval feed wagon RA135
2. DeLaval Optimat conveyor
2.a. DeLaval optimat conveyor

1. Stationary mixer
Forage is loaded manually into the stationary manger – or mixer – and the system handles mixing, feeding and distribution automatically.

1. DeLaval distribution wagons:
1.a. DeLaval feed wagon OTS100
1.b. DeLaval feed wagon RA135
2. DeLaval buffer table
Silage and roughage can be prepped and stored on the DeLaval buffer table before being loaded into a stationary manger. The buffer table has feed capacity of 318 ft³ (9 m³) – 706 ft³ (20 m³) depending on its length, and can shred whole blocks of silage before loading them into the feed manger.

DeLaval Optimat™ II system – a complete feeding solution, using automation for feed efficiency

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3. DeLaval Optimat conveyor
A vital component of the Optimat master system, this conveyor has been developed for speed and durability, to empty the mixer and fill the wagon with an even flow through the system.

DeLaval Optimat™ II system – a complete feeding solution, using automation for feed efficiency

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Current availability in Canada and planned to be launched in all the regions of North America. For more information, contact your nearest DeLaval dealer.
A well functioning barn, with efficient cow traffic, is essential for successful dairy farming. Cows need to be able to milk regularly at any time of the day or night, while having access to the feeding and resting areas.

Free cow traffic – comfort and performance

Robot scraper RS420S

The DeLaval robot scraper ensures excellent cleaning of slatted floors and grating. Its unique design provides exemplary scraping capacity, thereby improving cleanliness and limiting pathogens in wet areas. You can program various traffic paths in your barn, and adjust the frequency of scraping by area.

Currently available in Canada and is planned to be launched in all the region of North America. For more information, contact your nearest DeLaval dealer.

Manure handling – DeLaval robot scraper RS420S

Efficient manure handling supports better milking hygiene and livestock welfare. It also improves the barn’s interior climate by reducing the levels of ammonia and nitrous gases in the atmosphere.

Free cow traffic

Feed First™

Cows quickly learn how to use DeLaval SMS. It becomes part of their natural routine and will save you hours of unproductive cow fetching time. Cows can access the milking, feeding or resting areas of the barn at the right time. DeLaval SMS can deliver more milkings per cow per day, with more regular milking intervals — helping to provide higher milk production and better cow health.

Milk First™ — built-in cow traffic control

Use DeLaval SMS to manage your cow traffic in real time right from the DeLaval VMS management software. Enjoy unbeatable flexibility and control by creating rules that make the system work the way you want it to. The generated reports provide you with valuable information on cow behaviour in the barn, to assist your management decisions.

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Flexibility 21

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VMS is conceived to make your life easier

Targeted teat spraying
This feature has it that each teat is treated with great care separately. You can choose, for each individual cow, an economical or more intense ‘care’.

Milk separation (divert) unit
With this solution, you can automatically have colostrums milk, contaminated milk or bad milk with blood or milk with high SCC sent to one of four different locations. This solution can be positioned in the most appropriate area to improve your working conditions. It should be within a maximum distance of 98 feet (30 meters). Resulting milk can be addressed for instance into a bucket for inspection and all the other milk types to their special preset addresses.

Automatic Twin Milk Filter Assembly
Flexibility means doing things when it suits you. The Double Milk Filter system provides you with just that as the VMS automatically switches to a clean filter when required between pre-rinse and wash. This allows you to change filters when it suits you, while ensuring system cleaning is always performed through a clean filter.

True quarter milking
Every quarter milks differently. DeLaval VMS is equipped with one milk meter for each quarter to record time, yield, flow, conductivity and blood. The system’s management software gives you access to the status of each cow, to help you make the right decision.

VMS arm - the largest reach among all robot types
The VMS arm has been proven to have the largest reach due to the angles it can perform and due to its slick design. It can perform the sharpest attach angle of up to 45 degrees. This results in very low culling rate, more liters or pounds of milk per day – hence, it has a very strong positive impact on the dairy farm economy.

Flexible manure plate
The flexible manure plate is placed at the rear position when the cow enters to allow spacious walk-in. It ensures best hygiene as it follows the cow movements during milking and keeps the floor clean.

Automatic milking permission in DelPro
DelPro provides this unique feature in VMS, which automatically calculates the correct milking interval for each cow during three stages of lactation. The parameters you can set include age, stage of lactation, time interval and expected milk yield.

“Over time I have grown to love the unique options the VMS offers. I highly recommend the DeLaval VMS. I’m pleased with the whole milking process and the software that gives a quick yet thorough overview of the herd.”

“I love the flexibility and freedom the VMS gives to manage the farm in a new way. I can analyze the cow’s production, milk quality, and activity for health and heat detection. The smartphone apps are extremely helpful to view, and sometimes correct the robots, especially when I am away from the farm.”

Verhoef Dairy Ltd., Alberta, Canada
2 VMS units, 95 cows

VMS arm
Flexible manure plate
True quarter milking
Automatic milking permission
Milk separation
Targeted teat spraying
VMS milking status
This screen is to check the cows to fetch or check without having to go to the office, cow queue data with days in lactation, time from previous milking, time since milking permission, also “Find my Cow” telling where the cow is, based on Identification points in the barn. By clicking on any cow on the list you will see the Individual cow information.

1 Flexibility

2 Flexibility
Flexibility and convenience – a real time-saver

Whether you are out in your fields, at a meeting, or on vacation, you can manage your herd at any time. Numerous mobile devices are compatible with your DeLaval VMS – tablets, smart phones, laptops.

The DeLaval milking robot was designed to give you comfort and safety. Whether you are on the farm, away from the farm or on vacation, you can manage your herd. The Logmein system gives you both convenience and freedom.

Whatever you are doing or wherever you are, you can connect to the VMS. You can also choose who is authorized to connect to your VMS. This is very convenient if you want to share your data with your suppliers or business partners, and with your vet. The Logmein system also allows you to receive automatic updates without having a technician come on-site. This means convenience and savings.

Together with the camera, you can really watch your robot’s operations.

This system allows you to check the comings and goings of cows in your barn or simply monitor the cows in proximity to the robot.

Check your data remotely

Share your data

Farm monitoring Camera

Benefit from automatic updates

Remote Farm Connection

Save time, have more freedom

Smart phone app

The smart phone app lets you keep an eye on your farm whilst you are away or busy with other things. It also sends an instant notification according to a list of pre-determined action items.

RFC

With the RFC remote farm connection – now a standard component in the VMS – you can securely connect a milking station to the internet. This enables remote access by you, your employees, service technicians, vets, nutritionists, or any other consultant that is granted access.

“I have more information at my fingertips for making decisions on a per-cow basis. We can now focus on other things, like our field work and being able to optimize our time in the other duties of our farm. We are able to fine-tune our feeding with the control that we now have, and we can know how much the cows are eating.”

Legendairy Farms, British Columbia, Canada

2 VMS units, 90 cows

FMC60 camera (or a newer model) is planned to be launched in all the region of North America. For more information, contact your nearest DeLaval dealer.

DeLaval farm monitoring camera

A simple plug and play wireless camera that can be set-up in minutes. Whether you want to remotely view your VMS station or keep an eye on animals in your farm or cattle box when travelling, the camera can help you do the job effectively. The camera, which has a range of up to 3,280 feet (1,000 meters), comes with a hand held viewer as standard. An additional online function enables you to view your operations from virtually anywhere in the world. The optional night vision lamp NVL120 provides an invisible infra red light over an area of 1,290 ft² (120 m²).

Smart phone app

DeLaval farm monitoring camera

“to be able to know what’s going on at the farm when we are not around is great. The remote log in saves time. The dealer can just Log in to the computer remotely and answer the questions that I have.”

Legendairy Farms, British Columbia, Canada

2 VMS units, 90 cows
**DeLaval MyFarm App**

Offers the VMS producer mobile and online herd and farm performance information

- Shows alarms, milk production in real time and animal information.
- Types of animal information: activity, DIM, Blood- MDi- SCC.
- Offers a chat board where messages between the users (employees) can be exchanged.
- Provides Alarm and notification list.
- Includes possibility to monitor several farms in parallel.
- Offers the Technician overview of the farms he/she is connected to, such as alarm performance.

MyFarm App is planned to be launched in all the region of North America. For more information, contact your nearest DeLaval dealer.

**DeLaval Notifier App**

AMS Notifier App features

- Shows alarms and notifications from the milking station and has the same languages.
- Easy to connect to the milking station.
- No registration needed by the user.
- Available for both Android and iPhone.
Smart Selection Gate

DeLaval provides several gate solutions. When installed at the waiting area entrance, they filter access to the robot. They control milking intervals and eliminate refusals for increased capacity. They also allow: more regular milking intervals for better udder health, constant follow up of traffic to know number of feed visits per cow, incomplete cows can be milked again, less cow fetching and less stress for the cows.

New ID Reader Walk By (IRW)

DeLaval IRW identifies each cow quickly, while they simply walk by. It reads both the B-transponder and HDX ISO ID, and allows speedy cow traffic.

The new ID reader walk by is:
- Much more robust and durable than any other solution
- Ensures higher ID performance
- Reads B-transponders and HDX ear tags (not mixed)

So how does it work?
- The 8 shaped antenna is tilted inside the reader
- This creates a reading field that changes in the passage direction of the cow
- No matter what angle the transponder comes in, it will be read within the reading field of the antenna
Feed Pusher FPM300
Pushing your way soon...

• Provides cows 24/7 easy access to feed
• Helps reduce labor and waste
• Simple, flexible design is suitable for new or existing facilities
• Reduces sorting while enhancing ration consistency for all cows
• May increase dry matter intake and productivity level of herd
Milk Quality & Animal Health

The VMS is the ultimate herd management system. It truly lets you manage by exception with clear and concise Key Performance Indicators (KPIs), available at a glance via the Monitor Board of the DelPro Farm Manager. It is equipped with MDi technology and cow calendar as standard. MDi (Mastitis Detection Index) monitors conductivity, blood level, milk amount per quarter; when combined with milking-interval details, provides a valuable indication of milk quality and animal health. It alerts you if an animal is at risk of developing mastitis. Soon, you can take herd management to an even higher level as the VMS is OCC (Online-Cell-Counter) and Herd Navigator™ ready.

MDi™ – Mastitis early warning system

MDi™ (Mastitis Detection index) gives early warnings on which individual cows need real attention to their health. It does not require any consumables. It measures variations in conductivity, changes in the opacity (colour) of the milk, and changes in the behaviour of each cow. You save time and increase efficiency – no more need to interpret raw data – MDi does the work for you!

“When the cow is completely done milking, the VMS pulls out the inflations and puts them upside down and rinses them between each milking. I think that this part looks cleaner versus other solutions.”

“Our cell count is between 150,000 to 200,000, which used to be 200,000 to 250,000. The herd health feature that I like is the cleaning. The teat cleaning cup washes the teats, dries them and takes a strip of milk out of them. If there is any incomplete milking, I can check the cow right away. And I also have the MDi, which is another indicator. If numbers go high, the system automatically notify’s me and dumps the milk, which helps maintain high milk quality.”

L&S Farms, Wisconsin, USA
2 VMS units, 150 cows
Stop Guessing and start measuring
With OCC you gain access to a higher level of knowledge and control. You can identify acute mastitis cases and follow-up on sub-clinical cases. Knowing the SCC level for every cow at every milking puts you in total control of udder health management.

Fully automatic
OCC analyses the SCC of every cow at every milking. Cell counting takes under a minute and the result is recorded in DelPro Farm Manager and presented on the cow monitor screen. There is no guessing or interpretation of a SCC level. The sample result shows clearly as cells/ml of milk.

Treat mastitis at an earlier stage and reduce the use of antibiotics
- Proactive udder health management
- Quicker recovery and less production loss
- More efficient control of the spread of mastitis
- Less risk of penalties or loss of bonus payments

Efficient follow-up of fresh cow udder health
- Earlier detection of infected cows for relevant treatment
- Immediate follow-up of mastitis treated cows
- Clear signal if the cow is treated successfully
- Clear signal when to send milk to the tank

How does it work?
A milk sample from the DeLaval VMS (1) and some colored reagent (2) are drawn into the syringe pump (3). This mix is then pushed through the measuring instrument (4) where the somatic cells are optically measured by a 2D camera.

The SCC value is then sent to DelPro Farm Manager and the cow monitor screen (5).

Lower cell count level pays back
- Every 50,000 SCC drop reduces production losses by 80 litres (198 lbs) per cow per year
- In a 67 cow herd, this is equivalent to 6,000 litres (13,230 lbs) of more milk/year
- And a 100,000 cell count drop in a 67 cow herd results in 12,000 litres (26,455 lbs) more milk per year

- Highly accurate udder health tool, and very fast to react
- Excellent records on accuracy in finding the right cows
- Robust solution that you can rely on
- Smart logic helps avoid mistakes
- Adaptive sampling reduces running costs
- Very easy to use

“Because of it’s constance, the VMS has greatly improved our milk quality going from 150,000 to 85-90,000 somatic cells.”

“With our parlour, it was very difficult to control milk quality because we had several milkers. To manage heat detection, we have added the DeLaval activity system that contributed to reduce the average number of inseminations, and calving interval that rolls around 330 days today. The OCC Somatic Cell Counter gives me a complete and accurate overview of my herd’s health in a few seconds only.”

Ferme Paysanne, Quebec, Canada
1 VMS unit, 62 cows

DeLaval online cell counter OCC
DeLaval online cell counter OCC is available exclusively for VMS. It is the first true automatic somatic cell counter (SCC) available for voluntary milking systems.

Smart OCC sampling to save chemicals in a safe way
Sample four days after calving
Sample it is ordered for a certain date with wanted interval
If SCC is low, prolong sampling interval but test regularly
If SCC increases, then sample again
If SCC is higher, then sample more often

Start sampling four days after calving
Special handling for chronic cow
Sample if it is ordered for a certain date with wanted interval
If SCC increases, then sample again
If SCC is lower, then prolong sampling interval but test regularly
If SCC is higher, then sample more often

Lower cell count level pays back
- Every 50,000 SCC drop reduces production losses by 80 litres (198 lbs) per cow per year
- In a 67 cow herd, this is equivalent to 6,000 litres (13,230 lbs) of more milk/year
- And a 100,000 cell count drop in a 67 cow herd results in 12,000 litres (26,455 lbs) more milk per year

1 VMS unit, 62 cows

34 Milk Quality & Animal Health
Herd Navigator from DeLaval is an advanced analysis system that accurately identifies every dairy cow in need of special attention, and gives you clear information on what action you can take. The early and specific attention alerts enable fast action: improving reproduction, production efficiency, profitability, animal welfare and food safety.

**Reproduction**

Herd Navigator achieves heat detection rates of well beyond 95%, and significant improvements in pregnancy ratios. Herd Navigator changes the workload – where checking 300 cows for heat used to take more than an hour each day, it now takes just 15 minutes.

**Mastitis detection**

Herd Navigator detects mastitis up to three days before physical signs are visible. It accurately detects 80% of the cows that have early stage mastitis, so you only treat the cows that need treatment.

**Ketosis detection**

Farms using Herd Navigator have seen 50% more clinical and subclinical cases of ketosis than previously detected with traditional tools. This enables immediate treatment which helps to prevent milk losses of up to 1,323 lbs (600 kg) milk per cow per lactation.

DeLaval Herd Navigator™…

A higher level of herd management

Currently available in Canada and is planned to be launched in all the region of North America.

For more information, contact your nearest DeLaval dealer.

"Herd Navigator is the best feature we have in our new barn! It gives us information we had only dreamed about in the past."

"By seeing every heat each cow goes through, we can breed a cow up to 5 times by 150 DIM. With our average of 2 breedings per conception, many cows are pregnant before 100 DIM. Purchasing Herd Navigator is the best decision we have made!"

Fepro Farms, Ontario, Canada

3 VMS Units
"We installed the ALPRO™ Activity system about one year ago with the goals of increasing heat detection, decreasing timed A.I., and increasing our preg rate. Once it was up and running we found that it was easy to learn and use. With this system we achieved our goals and even exceeded expectations. Our heat detection went from 60% to 71%. Timed A.I. breedings made up 40% of our total; now only 22% are timed A.I. – that’s almost 50% less. I have watched the preg rate climb from 20% one year ago to 27% today, and I expect it to climb even more as time goes on. We have also found the low-activity feature to be helpful in detecting sick and lame cows. I am very pleased with the performance of this user-friendly system."

Elma Dairy LLC, Washington State, USA

Knowing when to breed each cow improves conception rates, reduces reproduction costs and improves total milk production and profitability.

The DeLaval collar mounted activity meter collects and transmits activity data from each cow, every hour via wireless link to DePro Farm Manager and on the VMS touch screen.

The data is then analyzed to identify cows in heat, thus enabling you to improve the efficiency of your herd’s reproductive cycle.

Preserving milk quality at every level

Regular disinfection of anything that comes into contact with milk is essential for preserving milk quality. At DeLaval we have developed a range of extremely effective teat dips and detergents specifically for use with the VMS.

Tri-Fender™ – VMS approved teat dip that is kind on animals

Tri-Fender™ is an iodine based teat dip that has been specifically developed for use with VMS units. The solution has superior spray performance and works in harmony with your machinery. It incorporates proven technologies, I-tech (Free Iodine Technology), which provides optimal disinfection of teats, and ACT (Advanced Conditioning Technology) that hydrates and softens the teat skin.

- Formulated to spray in VMS, other Robotic and Milking Parlour installations.
- 1% iodine teat dip with 12% emollients.
- Contains I-Tech and ACT technologies.
- Designed to deliver new levels of protection against mastitis causing bacteria.
- Unique formula allows Tri-Fender to stay on the teat and prevent bacteria from infecting the udder through the teat canal.

Preserving milk quality at every level
The DeLaval VMS has a module that prepares the udder before milking starts. This preparation module washes, dries, stimulates and extracts the first jets through an independent cup. Good preparation increases the robot’s capacity. The quality of teat preparation and the efficacy of stimulation considerably increases milk flow and therefore the capacity of the VMS.

During the udder preparation phase, VMS dries the teats to limit butyric spores. Milking quarter by quarter eliminates the phenomenon of over-milking which we observe sometimes in parlours. When milking is finished, the cups go into the magazine top down. The placement of the cups top down ensures excellent drainage and limits the risk of cross-contamination. The cleaning program in the VMS software ensures fast, reliable and controlled cleaning during each step of the milking process.

We chose the DeLaval VMS mainly because of its teat preparation cup, that reproduces the quality of preparation we were use to with our parlour.

Since the installation of the robot about five months ago, we went from an average milk production of 30 kg (66.1 lbs) per cow to 34-35 kg (75-77 lbs), and the somatic cell count has gone from 150,000 to 125,000. With the robot, we can produce more milk with less cows.

Ferme Cristallina, Quebec, Canada
1 VMS unit, 60 cows
Hoof Care – Automatic Foot Bath AFB1000

With AFB1000, you can maintain an effective hoof care program while saving time and money. Flexible system programming, reduced water consumption, new design for better cow flow and safety, multiple treatment products can be used for rotational treatment programs, durable, heavy-duty stainless steel construction, air-operated so there are no electronics near the cow and minimizes labor so you can focus on herd management.

Cow comfort

DeLaval supplies a wide range of proven solutions, equipment, consumables and accessories to help you optimally control the production of highest quality milk from healthy cows. Let your animals relax in a more hygienic and comfortable environment.

Automatic milk sampler

Offers individual cow sampling per milking. The sampler is cleaned when DeLaval VMS cleans the full system.

Water trough S28

This solution provides free access to fresh and clean water that is essential for production, growth, animal health, and profitability of the farm. This solution is made totally of stainless steel and has excellent capacity. The design provides outstanding hygienic conditions and stainless steel durability. It ensures constant access to fresh water, giving up to 7.4 gal/min (28 litres/min).

Flexible swinging cow brush improves animal welfare

This equipment is part of animal welfare. It is considered one of the best investments in cow comfort. It covers the entire back of the cow. Cows love it, and they literally go willingly to it.

ICAR approved accurate Milk Meter MM25

The MM25 is ICAR-approved. It uses infrared technology with no moving parts. It detects blood, conductivity, milking speed, quantity of milk and milk flow per quarter, the basis for MDi™. It analyzes on a quarter per quarter basis. Milking speed is a key indicator of abnormal udder health, hence exact measurement per quarter is crucial.

“We have chosen the DeLaval VMS mainly because of the hygiene level that it offered and the quality of the teat preparation for milking.”

Ferme Carmel, Quebec, Canada
1 VMS unit, 60 cows

“We never want to over or under-milk the cows, and thanks to the data the system gives, we can better manage this issue. We receive milking history automatically and all the necessary information we need to attain this balance. It’s healthy for the cows.”

Rickeen Farms Ltd., Ontario, Canada
2 VMS units, 120 cows
Reliability

VMS offers you peace of mind, as your investment today will remain viable for the long term. All construction is made of stainless steel. Electro polished, brushed and painted stainless steel is used for ease of cleaning and for prolonged durability. The life expectancy of the VMS is long, resulting in lower depreciation costs.

With more than 15 years of experience in robotic milking, DeLaval has constantly ensured that its equipments and software are at the leading edge of durable technology today – strong, reliable, and with the additional bonus of low maintenance costs.

Robust, reliable high-performance

VMS is a very sought-after piece of equipment. It weighs more than 1.2 tons – twice the weight of some other competitors. It can operate 7,000 hours a year – nearly 10 times more than a tractor and 6 times more than a conventional milking parlor. Therefore the quality of the entire system must be very high to ensure maximum safety and reliability.

Hydraulic robotic arm
Precise, sturdy and energy-saving. The robotic arm provides strength and reliability over time. Whatever the atmospheric conditions are, the hydraulic arm is consistent in performance. The hydraulic mechanism operates for only 3 or 4 hours. Therefore, energy consumption is very low compared to the continual operation of a compressor.

100% Stainless steel stall
The floor, manure plate, stall and gates are stainless steel. The gates and hinges are manufactured to the highest quality. The stainless steel floor bolted to the station ensures a very strong and rigid enclosure. The station is designed for intensive use and resistance to external force.

Brixay Farms, Wisconsin, USA

1 VMS unit, 65 cows

Did you know?

that the entrance & exit gates of the milking robot open and close 100,000 times a year?

“Robust, reliable high-performance”

“Did you know that the entrance & exit gates of the milking robot open and close 100,000 times a year?”

“Robust, reliable high-performance”

“We installed the robot in 2008. We were the first farm in Wisconsin to get a robotic milker. The other robots were not all stainless at that time; their main frame was triple-galvanized steel. And also, new parts that become available are adaptable, so you always can have an updated robot, and that seemed a very positive approach to me.”

Brixay Farms, Wisconsin, USA

1 VMS unit, 65 cows
Support

The technical and herd management support you are going to receive from DeLaval and from its dealership network comes from focused professionals. That is what they do; that is their passion. They offer a lot of expertise and knowledge. Our objective is that you, as a dairy producer, should not waste any time on technical issues, but rather spend the extra time that the VMS provides you in managing other areas within your enterprise.

Take control of your automated milking costs with the VMS InService™ Program

Optimize yield and cow comfort
Your technician – trained and certified by DeLaval – will work through a checklist of service points, inspecting all the components in your milking system and adjusting or replacing parts at planned intervals.

Service that’s tailored to your needs
Every farm is different – no one knows your farm like you do. That’s why InService is flexible: so it can be customized to the needs of your farm and the way you run it.

Fixed costs for 3 years
Controlling costs is key to optimizing farm profitability. That’s why we provide the VMS InService Program. This complete package contains virtually everything you need for your VMS operations – from regular and emergency servicing to delivery of essentials such as liners, filters and teat dips.
Remote technical support and assistance

We know that making the change to automatic milking is a big decision and it does not matter whether it is one VMS or twelve.

With regular servicing and maintenance, your system should run smoothly. However, as the VMS station is operating almost 24 hours a day, 365 days a year, there may be times outside of the standard preventive maintenance program when the services of a VMS technician are required. During these times, your DeLaval dealer, via RFC (Remote Farm Connection) system, will provide you with remote support and assistance 24/7.

“DeLaval offers you peace of mind…”

DeLaval’s and DeLaval’s dealer network support continues to ensure that you have the product and herd management knowledge you need to operate your VMS and optimize its performance. It is for this reason that we provide:

The VMS Pro Forums
Objective: To educate current and potential users and improve customer satisfaction and knowledge of VMS from a herd management perspective.
Target: Current and potential users [producers, Advisors, Technicians, Salesmen, etc] Description: In Place meetings: Two-day event, including trainings, user panels, presentations and social activities.

The VMS Pro Webinars
On an average of 3 sessions every month.
• VMS PRO Basic
• VMS PRO Professional
• VMS PRO Management

The VMS Robotic Milking Info Days
Objective: To educate potential customers about DeLaval AMS (automatic milking solutions) through educational presentations, marketing material and farm visits.
Target: Potential customers and industry-related specialists.
Description: This is a one day event, with a 5-hour session that includes a user panel and focused presentations. It ends with a VMS farm visit.

The “VMS Info” monthly newsletter
The VMS Info Newsletter is issued on a monthly basis. It provides the following information:
• DeLaval VMS product knowledge, with all the benefits the VMS represents to the dairy producer
• VMS related peripheral equipments
• Herd Management Write-Ups
• Barn Design Guidance in relation to automatic milking
• Information about events conducted by DeLaval and its dealership network

Robotic Facility Planning - Layout & Design
If you are considering a new dairy farm or wish to expand your existing operation, our barn planning experts can assist you throughout the planning and implementation process, to ensure you get the optimal farming set-up for your needs.

“DeLaval offers you peace of mind…”

Glenirvine Farm, Ontario, Canada
1 VMS unit, 50 cows

“DeLaval offers you peace of mind…”

“We have had DeLaval milking equipment for over 40 years, and we know there is quality that comes with it. We have enjoyed working with the DeLaval dealer over the years because of their product knowledge and their reliable service staff.”

“We chose robotics, as we felt our herd as well as our lifestyle could benefit from this new technology. With a milking robot, we feel we can spend our time in the barn more efficiently. We don’t want to spend less time in the barn; we want to just be more efficient with our time.”

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Glenirvine Farm, Ontario, Canada
1 VMS unit, 50 cows
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