

# DeLaval VMS™ V300

A System Approach

DeLaval

IT ALL REVOLVES  
AROUND YOU

DeLaval

# IT ALL REVOLVES AROUND YOU

**DeLaval VMS V300 is all about making dairy farming more personal. More accurate. More profitable.**

It is a system that allows us to treat each farm, each farmer, each cow, even each teat – individually – and to customize the process to meet each individual's needs, to create a better place to be for workers, cows, your families and you.

**Taking a system approach – with you at the center of everything we do.**

A dairy farm is a complex business. It requires systems that do complex things as simply as possible. Systems that manage the interactions between different processes and inputs with one objective in mind – more, better quality milk from healthier cows, without making it impossible for you to have a healthy lifestyle.

To do this it is essential to take a whole-farm approach, and with 135 years experience and more dairy innovations under our belt, it's what we do better than anyone else. We know and love dairy farming; it's all we do.

The VMS V300 uses automation to make you less reliant on an uncertain future labor market, to keep you at the forefront of animal welfare and food safety issues, and to help ensure that dairy farming is a profitable option now, and an appealing lifestyle and career choice for the next generation.



**VMS V300 is not about technology – it's about dairy farming, and it's about you.**



## Animal Welfare

As a pure Voluntary Milking System, the VMS V300 is not a conveyor belt that treats cows like products. It is a fully automated milking system that can generate better results for you and your animals.

## Farm Profitability

The VMS V300 can generate more milk, more efficiently, more safely and more sustainably, in a way that also meets the consumer pressures that farmers around the world are facing today.



# TAKING A 360° VIEW OF YOUR FARM



## Work Efficiency

The VMS V300 is all about creating a better work environment and lifestyle for you and anyone who works on your farm.

## Food Safety

Every day, every milking, every cow; your VMS V300 will help ensure that you are at the forefront of food safety into the future.



# WHY IS IT BETTER?

DeLaval VMS V300 allows each cow to be milked according to her individual needs and capacity. This helps each cow reach her full potential.

 DeLaval

Excellent service by certified technicians

10%  
Higher capacity

More than  
7500 lbs  
milk per day

99.8%  
Attachment rate

Teatspray  
99%  
hit rate

Fewer labor hours

REAL  
Quarter  
Milking

No  
tank milk  
wasted

Up to  
50%  
faster  
attachment  
time

Data collected on test and pilot farms. Results may vary and are not guaranteed.

# THE KEY FEATURES

DeLaval VMS V300 harnesses and applies technologies that weren't previously available, to do things that were never possible on a dairy farm, at any time in history.



## DeLaval DelPro™

Our most advanced milking system requires the most advanced farm management software.



## DeLaval InControl™

A seamless user experience keeping you connected to your system wherever you are.



## DeLaval PureFlow™

A totally separate cup delivers the ultimate teat preparation.



## DeLaval InSight™

Our most advanced camera and software combination delivers the fastest, smoothest process.



## DeLaval Advisory

Start the way you mean to continue with help where you need it.



## DeLaval InService™ All-Inclusive

You may never think about service the same way again.

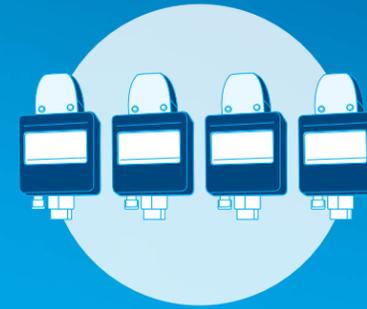
# DeLaval DelPro™

In the 135 years we have been building dairy systems we have learned that to get the best result, you have to focus on the whole farm. And because we still run the original farm next door to our head office, we are reminded of that fact every day.

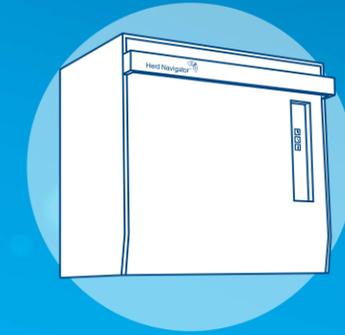
That's why, for us, it isn't enough that the new DeLaval VMS V300 is our best of breed milking system. It is essential that it is capable of forming the central hub for your entire farm, and that's where DeLaval DelPro™ comes into play.



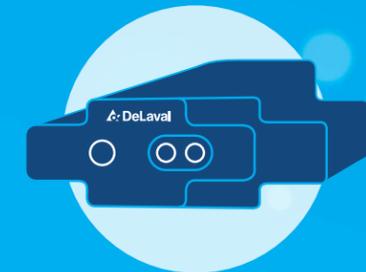
DeLaval VMS™ V300



ICAR approved  
Quarter Milk Meters



Herd Navigator™



Body Condition Scoring  
System BCS



Online Cell Counter OCC



Smart Selection Gate



Activity Monitoring



## System thinking

At the heart of every DeLaval solution is our farm management system – DelPro. It is what turns all the data collected by your VMS V300 and any other sensors, into useful, easily understood information to let you make better, faster, more accurate decisions. Whether you have one or 64 VMS V300 on your farm, you set your management objectives, implement a plan and DelPro will make sure you have everything you need to put the plan into action.

# DeLaval InControl™

DeLaval InControl™ doesn't just make it easier to control and monitor your DeLaval VMS V300; it will provide you with simple visual reports, analysis and information to help you to make better decisions. DeLaval InControl™ means you can call up the performance of a cow, see throughput statistics or change the settings of your system.

Best of all, it delivers all this functionality to you, wherever you want it. Using either the touchscreen or a mobile device, you are always able to view your VMS V300, control its operation, track daily routines, update individual cow data or share information with staff.



## You're InControl

A seamless user experience keeping you connected to your system wherever you are.

## Manage routines

## Quick and easy-to-view features

- Cow queue to VMS V300
- Individual cow status and performance data
- Find my cow in the barn or pasture
- Recently milked cow info
- Activity monitoring information
- Somatic cell count information
- Fine-tune individual cow settings
- Reproduction information

## Share information

## Easy to use

- Large buttons
- Simple icons
- Intuitive layout

## Mobile version

- For Android and iOS

## Remote access

## View cameras

DeLaval InControl also makes it possible to plug in extra cameras and sort gates so that you have one central point to view and control your operation.

# DeLaval PureFlow™

If you are looking for our best milking process - then look no further than DeLaval VMS V300 - after all, milking is its middle name.

It all starts with preparation - DeLaval PureFlow™ doesn't just clean udders, it prepares them. The exclusive, transparent cup allows you to see PureFlow in action, individually cleaning and stimulating each teat to improve letdown and productivity.

Add to this the separation of foremilk, which is removed to a waste container via a separate line, and fully adjustable settings including the ability to add a specialized product for enhanced cleaning, and you have the ultimate preparation.

Once milking is complete, the DeLaval PureFlow™ cup is fully flushed and cleaned as part of the comprehensive cleaning routine that the VMS V300 automatically carries out.

**The start of the gentlest, most effective milking process we've ever created.**



**Better hygiene**

**Air and water**

**A cleaning solution can be added**

**Separate cup**

**Transparent cup**

**Stimulation**

**Adjustable settings**

**Separate lines and containers**

# DeLaval InSight™

When you observe a DeLaval VMS V300 in operation there are two things that strike you immediately: how calm the cows are, and how gently and smoothly the robotic arms go about the repetitive tasks of cleaning, preparing, treating, attaching and spraying.

The key technology that makes this possible is DeLaval InSight™

What you see is a smoother, faster, more accurate arm than we've ever created. An arm that makes attachment, preparation, milking, teat-spraying and cleaning all much faster, more accurate and more efficient. But what is driving these performance improvements is the interplay of our most sophisticated camera, hardware and software ever seen in a milking environment.

**99.8%**  
Attachment rate\*

Easily serviced

Robust design

Smoother  
and faster

Self learning

Most advanced  
software

Self cleaning

Two nozzles  
for sprays

Scratch  
resistant lens\*

**It doesn't just  
react to the udder.  
It learns.**

At each and every milking DeLaval InSight™ maps and learns each cow's udder and teat placement. This means that even if a cow has never been milked by a robotic milking system, the VMS V300 can still milk it efficiently. You won't need to spend time teaching the teat positions the first time a cow comes through.

It also means that InSight anticipates unique udder configurations and adjusts each time a cow comes in, making it possible to carry out each milking step more efficiently.

# DeLaval Advisory

Moving to a Voluntary Milking System is, for many farmers, an excellent way to help generate more milk, more efficiently, more safely and more sustainably, in a way that also meets the consumer pressures that dairy farmers face today.

Our advisory and planning teams are available to help you assess the suitability of a Voluntary Milking System for your situation, and to help you figure out how DeLaval VMS V300 will help deliver you a better bottom line.



We take a  
360° view  
of your farm

Performance  
optimization

Get the  
most out  
of DelPro

Reproduction  
management

System integration  
sensors and  
customization

Standard  
Operating  
Procedures

Facility planning  
and design

Training and  
routines

Total system  
approach

Feed  
management

Milk cooling  
transport and  
storage

Plan and  
manage  
growth

Energy  
savings per  
cwt milk

# DeLaval InService™ All-Inclusive

With an InService™ All-Inclusive agreement in place, you can rest assured that every part of your system from scheduled servicing to routine maintenance, detergents to liners, vacuum settings to lubricants, cleaning, advice and everything in between; is working in harmony to help deliver more, better quality milk.

## It's all included

With a DeLaval InService™ All-Inclusive agreement in place we will deliver Service and Consumables, leaving you to get on with the business of dairy farming secure in the knowledge that every time the cups go on, your system is performing to your expectations.

### Service and maintenance are included

Because DeLaval VMS V300 works 24/7, like any hard working system it needs to be serviced at regular intervals for pre-determined actions. With InService™ All-Inclusive, we will make sure these are performed on schedule.

### Consumables are included

It's not just the labor hours that are included in your InService™ All-Inclusive agreement. We will also make sure that you do not run out of detergent, teat spray, milk filters or oil.

### Performance is included

When it comes to the effect of combining service and consumables on performance, it is truly a case of 1+1=3. We will make sure that you are milking with the right liners and correct vacuum and pulsation settings for your herd. We will also ensure your cleaning routines, temperatures and dosing are delivering the best quality milk.

### Results are included

High somatic cell count (SCC) will significantly decrease milk production. As part of your InService™ All-Inclusive agreement we will make sure that you get the most out of the VMS V300 teat-spraying functions by matching the right teat sprays to your situation.

### Certainty is included

The bigger the operation you have, the more complex it is to keep track of your production costs. With InService™ All-Inclusive we can eliminate that complexity, we will agree up-front to a consistent cost per month, per quarter or whatever you prefer.

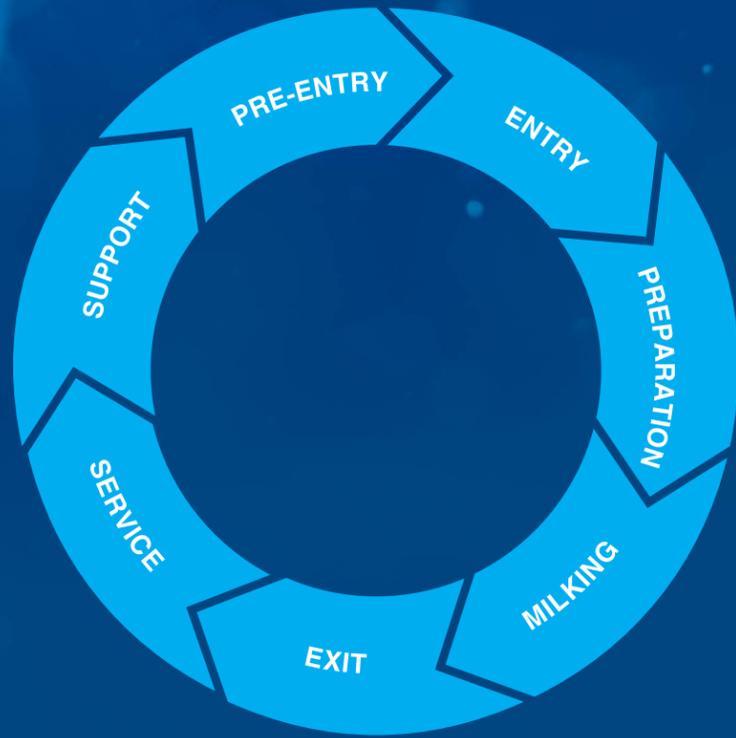
### Milk Quality is included

You can be sure that your detergents, liners, cleaning routines and pulsation settings are operating in total harmony to work to deliver you the Milk Quality you demand.



 DeLaval





# PUTTING IT ALL TOGETHER

The DeLaval VMS V300 is so much more than just a milking robot. It is at the center of a whole new way of dairy farming that when implemented well, helps ensure optimal results at each and every step.





# PRE-ENTRY

Milking is only one aspect of dairy farming. It is where you see the results of your hard work, but those results are generated in the barn, on pasture, or however you choose to feed and care for your animals.



TAKING A 360° VIEW



## Animal Welfare

Treats each cow as an individual, which can ensure optimal health outcomes.



## Farm Profitability

More time on feed with more time to rest can create more milk for a lifetime increase in milk production.



## Work Efficiency

Less time milking and sorting cows means more time for profitable tasks.

There are three major parts to the pre-milking stage of a **Voluntary Milking System:**



## People Management

Focus on the health and productivity of your animals, with consistent, easily understood routines and standard operating procedures.



## Cow Management

Free cow traffic, milk first or feed first, partial or total mixed rations, pasture or some combination of your choice. If it works for your cows and you, it works with DeLaval VMS V300.



## Profit Management

With the ability to control everything from your mobile, touch screen or PC, you can easily view the cow queue to find the cows that are eligible for milking, as well as manage the interactions between different processes to make it easier for you to get the most out of your dairy farm.



# ENTRY

If you want the cows to do some of the work you would normally have to do yourself, like fetching and sorting, it is important to design the entry phase with the cow in mind.



## DeLaval VMS V300 treats each cow as an individual

Each cow is identified on entry and the length of the stall is automatically adjusted to suit her needs. The width can also be adjusted at installation to allow for your herd's breed and size profile. Using the identification, VMS V300 deploys the most sophisticated permission system we have ever created.

TAKING A 360° VIEW



### Animal Welfare

Permission system helps create a virtuous circle of improved productivity, reproduction and longevity.



### Farm Profitability

Assess each cow in real-time to permit another milking, or to send her back to the feed table.



### Work Efficiency

Track daily routines, create reports, view real-time data, call up the performance of a cow and see throughput statistics.



## Milking only starts if it's beneficial

VMS V300 doesn't just milk every cow, regardless of the economic value. It calculates permission based on a combination of her yield and the time since her last milking.

This means it only milks those cows who will truly benefit from another milking. This delivers our best yield, as well as better udder health.

For some this may mean a fourth milking at 3 a.m. yet for others in the same group, only two milkings in a day.

If she is given permission to be milked, the VMS V300 delivers customized supplement feed mix, if not – no concentrate is given and she is exited seamlessly from the VMS V300 so that the next cow can enter.



# PREPARATION

The VMS V300 has two nozzles you can program depending on your preferences or seasonal requirements. It delivers incredibly accurate pre and post spray to each teat, eliminating waste and coverage errors from targeting the whole udder, and ensuring a better result.



## Working with nature

When a cow enters the VMS V300 she will have about 45 seconds worth of milk in her udder and teat cisterns ready for evacuation. The true flow of milk however, will not begin unless Oxytocin has been released and is squeezing the cow's alveoli.

To ensure consistent milk flow by stimulating Oxytocin release, VMS V300 doesn't just clean the teat. It prepares it for milking by using a combination of teat spray for disinfection and the DeLaval PureFlow™ cup for proper cleaning and teat results in DeLaval PureFlow™ cup stimulates oxytocin release and facilitates milk ejection before vacuum is applied to teats by means of a combination of water (or cleaning solution if desired) and air.

This results in a superior flow pattern and less time with cups on, which is great for udder health.



## TAKING A 360° VIEW



### Animal Welfare

Delivering Oxytocin based letdown due to a focus on each teat.



### Farm Profitability

Flexibility to milk a wider range of udders means less culling of productive animals.



### Work Efficiency

As well as working with all udder types, it is also safe, easy, fast and comfortable for you to manually milk with no disruption.



### Food Safety

No cross contamination and can reduce mastitis for your herd.

## So important it demands a separate cup

The VMS V300 uses a separate, dedicated cup to reduce the chance of cross-contamination or residue during the preparation stage. Once attached, the DeLaval PureFlow™ cup uses a unique combination of air, water and optional DeLaval PureFlow™ cup cleaning additive to clean, stimulate and strip the teat to get ready for milking.

During this process pre-milk is collected, transported and dumped for each cow, again using separate lines and containers to ensure there is no risk of cross contamination.

Now the teat is dried and is ready for milking to commence, with the clock already ticking on full Oxytocin based letdown.



# MILKING

Productive cows are important to profitability, regardless of their udder size, or teat height, shape or location. Our teat-friendly process helps lower culling rates and can provide consistently high milking capacity results.



## TAKING A 360° VIEW



### Animal Welfare

A less stressful process that's gentle on udders is better for your cows.



### Farm Profitability

Works with a wider range of cows and udders, and simple, manual milking can reduce culling of productive cows, increasing lifetime milk production.



### Work Efficiency

Without teaching, VMS V300 does the time-consuming, repetitive tasks of milking, forming a central point to manage routines and people.



### Food Safety

Pulsation and vacuum levels maximize flow, and minimize free fat acids, milk residue and carry over.



### Better Information

During milking you can observe milk flow, yield, blood and conductivity, and milking interval as well as other key production data; all per quarter, and all compared to last milking.



### Smart Pulsation

VMS V300 constantly measures each cow's milking performance and adjusts the pulsation ratio accordingly to milk her. The result can be: faster and less stressful milking, which allows for more milkings per day and shorter waiting times for cows.



### Stable Vacuum

With shorter tubes and a superior vacuum system than before, VMS V300 provides better vacuum stability, which leads to better comfort and milk transfer, and fewer slips or kick-offs. The shorter tubes also reduce maintenance costs.



### Better Take-off

The advanced modeling, combined with the real time flow data from the four ICAR approved milk meters makes it possible for VMS V300 to detach at the right time, in the right way to protect the sensitive and valuable teats.

# REAL Quarter Milking

DeLaval VMS V300 delivers our best milking performance because only VMS V300 can deliver REAL Quarter Milking.

With a dedicated ICAR approved milk meter for each teat, VMS V300 has taken milking to a new level, it can deliver incredible gains for animal welfare and productivity.

Using current data, historical information and modeling, VMS V300 is able to automatically adjust pulsation settings to get our best result with the least discomfort for each cow.



# EXIT

Like preparation, it's about spending more time now, to save time and money later.

The sophistication and accuracy of the DeLaval InSight™ means we can now spray each individual teat precisely from a dedicated nozzle. This obviously saves on spray, but more importantly it provides better teat coverage than before, and therefore can provide better health and productivity outcomes.



## TAKING A 360° VIEW



### Animal Welfare

A two nozzle system allows the use of different chemicals for pre and post milking cleaning.



### Farm Profitability

A targeted teat spray results in reduced teat spray consumption.



### Food Safety

Milk is only released at exit following analysis of Mastitis Detection Index (MDi), blood and conductivity.

## What happens next?

As with the entry, DeLaval VMS V300 uses a more natural, curved exit. The unique layout also means that the entry gate encourages the exiting cow to move. For difficult cows an additional Exit Motivator can be added to your VMS V300.

And because the exit doesn't force cows out in a straight line, you don't need to build in extra room to allow them to turn, meaning you can create a more comfortable, faster exit process with less space.

## What happens to the VMS V300?

The VMS V300 will also clean itself to prepare for the next cow. The Auto-Clean process after each milking includes:

- Full flush of DeLaval PureFlow™ cup (outside/inside)
- Full flush of teat cups and hoses (outside/inside)
- InSight™ camera cleaning using water and sponge
- Deck flush

You also have the option to include full disinfection of the four milking cups and the DeLaval PureFlow™ cup, and a full spray of the EndEffector.



## What happens to the milk?

Once the cow has finished milking, the VMS V300 holds the milk for analysis. This means that milk can be diverted based on color, conductivity or MDi.

You set the parameters and milk will automatically be diverted to one of five presets. For example you can separate colostrum, dump, tank and much more.



## What happens to the cow?

Because cows are exiting 24 hours a day, it is critical that your VMS V300 is able to get cows back to feed and water automatically. It is also able to sort cows according to your requirements. For instance you can sort on DeLaval Mastitis Detection Index (MDi), color, conductivity or if milking was incomplete.

The MDi provides early indication of poor cow health. The tool analyzes several parameters to avoid udder health issues and mastitis. VMS V300 calculates the MDi for every cow, at every milking and uses the data to help you ensure better health outcomes.





# SERVICE

With the largest global dealer and service partner network, and the ability to integrate any number of DeLaval products and services into your DeLaval VMS V300 farm, you can rest assured that your VMS V300 solution is not only supported by the best team in the business but is also able to be scaled or configured to meet your farm's challenges.



## Ensuring your VMS V300 is delivering optimal results

Your new VMS V300 is going to operate about 8,000 hours per year. And like all other modern, hard working machines it needs regular service. Preventive maintenance is done according to a service program with three Service visits per year. Our certified VMS V300 Service technicians are well trained on VMS V300 and they use Original Service kits and professional tools when they are testing the system.

In case of emergency it is easy to reach our remote support 24/7 year round. You will talk to professional people that can help, and you will be up and running again quickly.



### TAKING A 360° VIEW



#### Animal Welfare

Pulsation, vacuum and liners work in harmony with your cows.



#### Farm Profitability

Service and Consumables maximize your investment by helping your VMS V300 perform as it should.



#### Work Efficiency

Avoid unnecessary breakdowns and performance loss with timely servicing.



#### Food Safety

Cleaning performance and quality detergents help ensure good milk quality.

# DeLaval VMS V300 never stands alone. Neither will you.



# SUPPORT

DeLaval has built more dairy solutions than anyone else on the planet. Not only that, but it's also all we do.

That experience, and 100% focus on dairy means that if you choose DeLaval VMS V300 you don't just get a robot – you get a total, integrated dairy system. A farming system focused on:



## TAKING A 360° VIEW



### Animal Welfare

Help improve udder and hoof health, and increase longevity and reproduction.



### Farm Profitability

Help ensure that dairy farming is a profitable option now, and an appealing lifestyle and career choice for the next generation.



### Work Efficiency

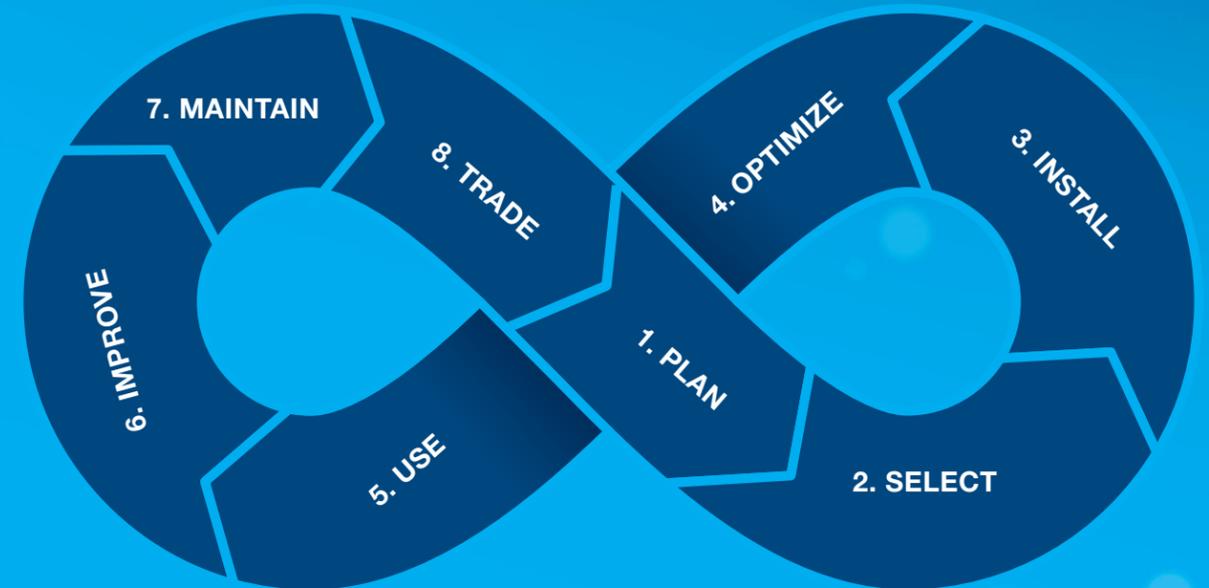
Routines, training and standard operating procedures to get the most out of your labor hours.



### Food Safety

Every day, every milking, every cow; your VMS V300 will help ensure that you are at the forefront of food safety into the future.

# With you on every step of your VMS V300 journey.



## 1. PLAN

You don't plan a new dairy system every day – but we do. Let us help you plan a system that will work for you, the way you want to work.

## 2. SELECT

Because you can customize the VMS V300 and integrate other useful components, specifying the perfect system for you is something we can help you navigate.

## 3. INSTALL

Our professional team will have your VMS V300 installed, commissioned, certified and operating in no time at all.

## 4. OPTIMIZE

It's not a matter of plugging your VMS V300 in and leaving you to it. The process of getting you up and running is the key to a successful installation.

## 5. USE

With routines and standard operating procedures as well as expert advice always available we will help you get the most out of your VMS V300 every day.

## 6. IMPROVE

Easily upgradeable, your VMS V300 will become a hub for ongoing system improvements. Access to these recommendations is an integral part of VMS V300.

## 7. MAINTAIN

Easily and quickly serviced, we will make sure that your VMS V300 is maintained to ensure a lifetime of performance.

## 8. TRADE

One advantage of VMS V300 is that it is easy to add additional units to meet growth. We also help you with trading your old unit if you choose to replace it.

# Get even more out of your voluntary milking system with DeLaval.



## Facility Planning and Design

Cow traffic is essential to a profitable voluntary milking system. Our team of trained experts will help you design a solution tailored to your needs.



## DeLaval Calf Feeder CF1000S

DeLaval CF1000S helps improve the health, growth and future potential of all your calves. Research from leading universities demonstrates clear benefits from "intensive" calf feeding: Increased milk yields, lower mortality and morbidity rates, and earlier reproduction. Healthy calves today, high performers tomorrow.



## DeLaval Herd Navigator™

Instantly receive accurate analysis from every cow to improve your farm's profitability, work efficiency and animal welfare.



## DeLaval Body Condition Scoring BCS System

Body condition scoring is essential to boost productivity, reproduction and longevity – A BCS system can help you accurately record every cow, every milking.



## DeLaval Activity Meter System

DeLaval Activity Meter System helps take the guesswork out of breeding. Knowing when to breed each cow helps improve conception rates, reduce reproduction costs – and improve total milk production and profitability.



## Smart Selection Gate

The addition of a DeLaval Smart Selection Gate will optimize feed access and reduce the time spent fetching cows.



## DeLaval OptiDuo™

To increase feed consumption don't just push feed around – refresh and remix it. OptiDuo is a fully automated solution.



## Milk Quality

To safeguard milk quality, DeLaval presents a variety of milk cooling solutions specifically designed for VMS V300 milking system.



## DeLaval On-Line Cell Counter OCC

DeLaval OCC is the first true automatic somatic cell counter available for voluntary milking systems. OCC offers you proactive, daily monitoring of the SCC level of every cow at every milking.



## Consumables

A full range of consumables designed and tested to help ensure maximum performance from your DeLaval VMS V300.

# HOW CAN WE HELP?

Dairy farming is a business, and like all businesses there are pressures to produce more with less. But dairy farming is also a way of life, and how you want to farm is an important part of the decisions dairy farmers are making every day.

We don't believe that the DeLaval VMS V300 is the right system for every farmer. Your history, your personality, the unique economic and environmental factors that you face will determine the best solution for you.

That is why if you are looking to farm with a voluntary system it is essential that you

choose a supplier who can help you take a 360° view of your whole operation.

A supplier who has experience of every aspect of dairy farming.

A supplier who can help you with how each variable element in your farm system will impact the others, and what their combined impact will be on your key objectives.

A supplier who will help you create a system, that truly revolves around you.

## THE NEXT STEP

To take the next step on your personal VMS V300 journey, either talk to your trusted DeLaval representative or for more information, visit us at [www.delaval.com](http://www.delaval.com)



We live milk

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All facts and figures are the result of more than two years of data collection from more than 20 test and pilot farms, actual results may vary and are not guaranteed.

