



GET MILK READY

Your system works with
DeLaval Detergents milking
after milking which is no
real mystery, after all, we
designed it that way.

**IT ALL REVOLVES
AROUND YOU**

 **DeLaval**

IT ALL REVOLVES AROUND YOU

We take a system approach with you at the centre of everything we do.



Dairy farming is a complex business where everything needs to come together every time you milk. That's what we call being Milk Ready.

It means never wasting a single minute of all your hard work and making sure that every time a milking

unit is attached, your system is ready and able to extract, transport and store the highest quality milk.

This means not just thinking about one point in the process, but looking at everything from chemicals and water to routines and training.



Animal Welfare

DeLaval detergents & cleaning have no effect on animal welfare. We will not promise something that we cannot deliver.



Farm Profitability

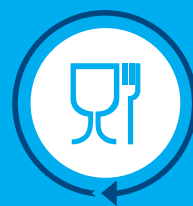
DeLaval detergents are optimised to work with your equipment. We strive for optimal dosing for maximum cleaning efficacy and long lifetime.

TAKING A 360° VIEW OF YOUR FARM



Work Efficiency

One supplier with competence on detergents, equipment and to help you choose the best settings, that's simply peace of mind.



Food Safety

DeLaval detergents are fully compliant with the latest legislation and dairy demands to secure your milk quality and avoid residues in milk.

GET MILK READY FOR BETTER RESULTS

It's about focusing on your milk, not just detergents.

We don't formulate and manufacture detergents because selling chemicals is all we do.

We do it because dairy is all we do.

For 135 years we have been at the forefront of the dairy industry, designing, manufacturing, installing and operating more milking systems than probably anyone on the planet.

That's why we also design, formulate and produce things like liners, oils and detergents that we know will work seamlessly with our systems to deliver the results you expect from us, and that we expect from our systems.

As a result, we produce detergents that are focussed on delivering the highest quality milk.

It means that, rather than just cleaning, with DeLaval you know that your milking system is Milk Ready.

OUR DETERGENTS HELP INCREASE YOUR EQUIPMENT LIFETIME

- Reduced wear on equipment
- DeLaval detergents made and tested to work with DeLaval equipment

WE CAN HELP YOU PRODUCE HIGHER QUALITY MILK

- Low total bacteria count
- No residues

WE CAN HELP MAKE YOUR MILKING EQUIPMENT CLEANER

- Reduced risk of biofilms
- Reduced risk of milkstone
- Bacteria don't grow on clean surfaces





**PROVEN
EFFICACY**

All 12 detergents
passed challenging
cleaning tests*

**DELAVAL
LINER
COMPATIBLE**

No influence to
original liner material
& elasticity within
lifetime*

**100%
COMPATIBLE**

with DeLaval equipment.
No damage to
sensitive original
parts within
lifetime*

**30+ YEARS OF
EXPERIENCE**

In formulating
and manufacturing
DeLaval detergents

**DLG
APPROVED**

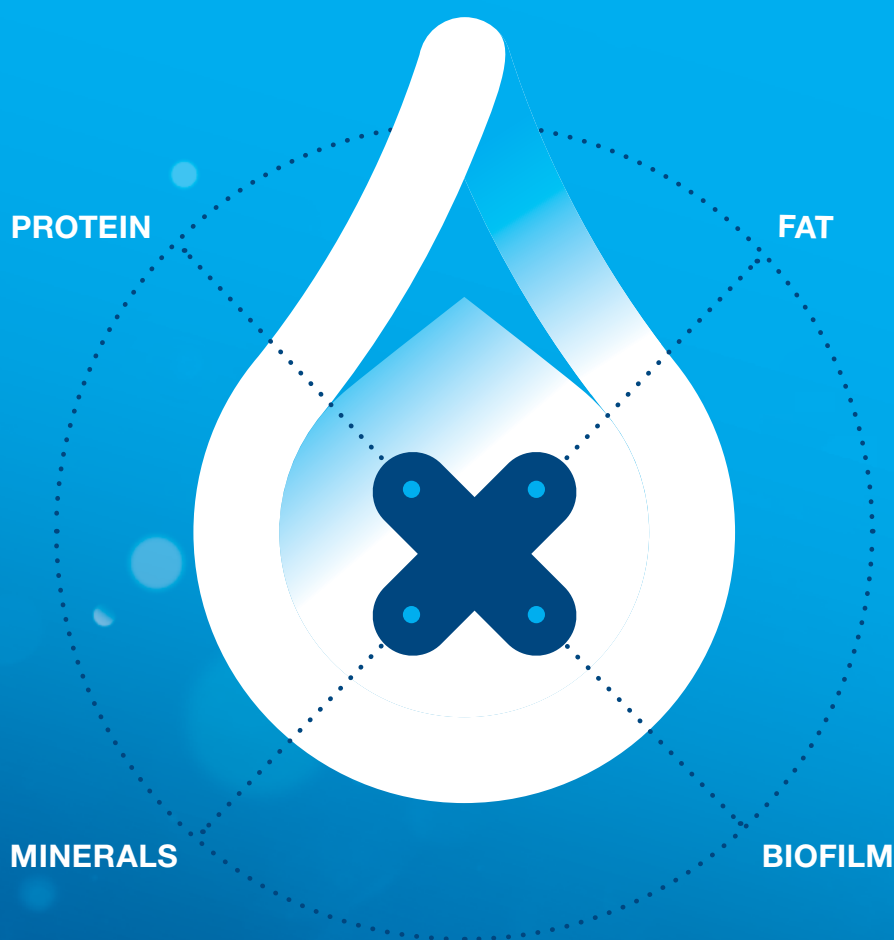
All detergents
passed the
demanding German
DLG tests

**It's all about being
ready for the most
important moment on
any dairy farm: the
next milking.**

*Proven in challenging in-house lab tests

WHAT CAN STOP YOU FROM BEING MILK READY?

The strange thing about milk readiness is that the two things that can prevent you from being Milk Ready are in fact milk and the water you use to clean your milking system.

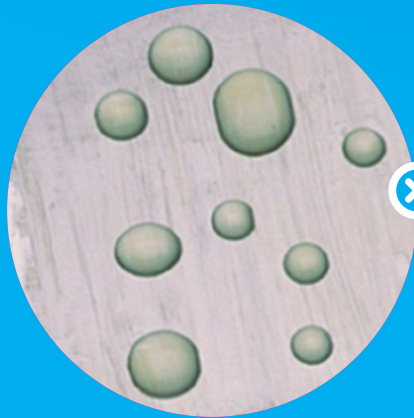
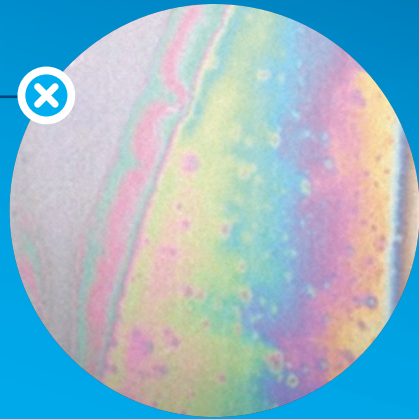


WHAT TO LOOK FOR?

How to easily recognise the main challenges on your farm

PROTEIN

In newly formed milk deposits, protein concentration can reach up to 20%. On equipment, it gives these recognisable rainbow-like colours.

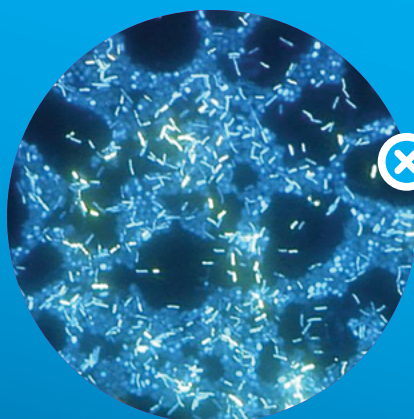


FAT

In newly formed milk deposits, fat concentration can reach as high as 25%. Fat deposits can look and feel like a greasy layer.

MINERALS

While there are minerals present in milk, the ones present in the water used for cleaning can be a much greater problem. Mineral residues give a powder-like appearance, and can be white or orange/red depending on the type.



BIOFILM

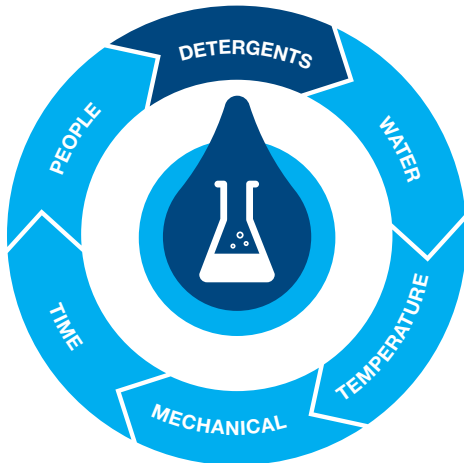
Sudden peaks in bacteria count can be caused by biofilms. Biofilms usually form on a soil deposit that has already adhered to equipment surfaces. They can typically be found in harder to clean areas. These complex living communities of bacteria, fungi and other micro-organisms are hard to clean with regular cleaning routines.

GET MILK READY



We develop and produce detergents specifically formulated to work with the cleaning systems and processes used by modern milking systems.

This means they are fierce with contaminants, but gentle on your system and its components.



WHAT IS THE ROLE OF THE DIFFERENT DETERGENTS IN THE SUCCESS OF CLEANING?

The formulation of a cleaning product relies on the functional properties and possible combinations of well-known chemicals. To effectively prevent deposits the following properties are considered:



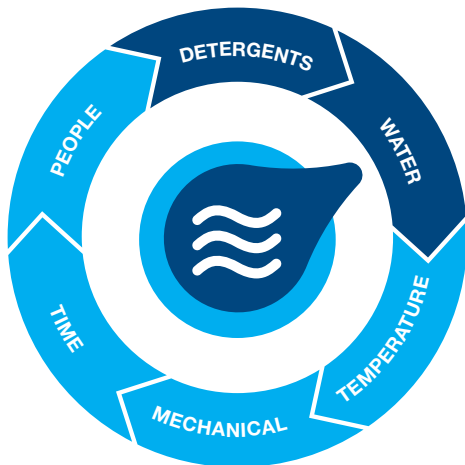
Alkali: An alkaline detergent will convert fat into a soluble compound that is suspended and can then be rinsed out with the cleaning solution (saponification), so it doesn't stick to equipment surfaces.

Surfactants: The main function of surfactants is to detach deposits from surfaces and suspend them in solution.

Acids: Dissolves minerals and can remove general milk deposits in combination with surfactants.

Chlorine: Breaks proteins into smaller parts and has disinfecting properties. Liquid chlorine is unstable, depending on formulation and storage conditions. Therefore, avoid long storage, high temperatures and exposure to UV light to maintain product efficacy.

Water softeners: As minerals reduce the cleaning efficacy, water softeners are used to counteract this and to avoid minerals settling in the installation.



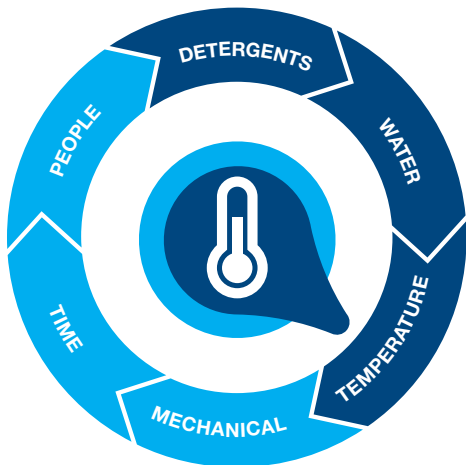
WATER CONTAINS MINERALS AND HARDNESS IS A MEASURE OF THESE MINERALS

Hard water may cause problems in hot water boilers and other equipment due to the formation of mineral deposits. It will also reduce the effectiveness of the detergent if not dosed properly. For this reason, properly formulated detergents contain ingredients that counteract these effects.

We will help you choose the chemicals and processes that suit your water source.

Water quality and quantity must be tested and understood. The source must be known and the minerals in suspension must be tested. Knowing these details helps to recommend the correct products for your system. Water quality can significantly impact cleaning success and must not be underestimated.





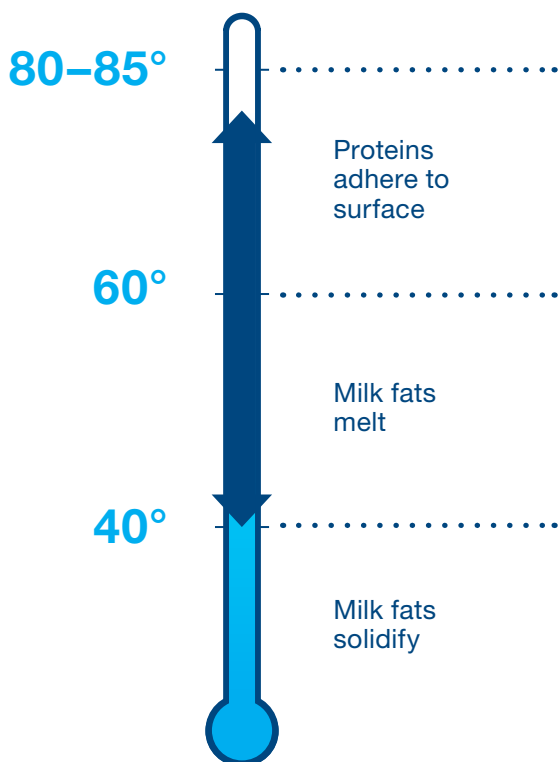
TEMPERATURE IS A CRITICAL ELEMENT IN ANY CLEANING PROCESS

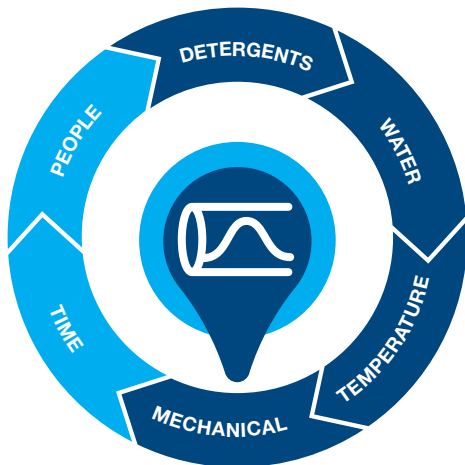
The role of heat is to improve the dissolution and emulsification of different materials and to enhance detergent action. It is important to use the right temperature at each stage. If the temperature is too low – milk fats will solidify, if it is too high - milk proteins will adhere to surfaces, becoming very difficult to remove.

Pre Rinse: A warm water rinse, to get rid of most of the milk residues after milking. The rinse should continue until the discarded effluent water is clear. The temperature should not exceed 45°C in order to avoid denaturing any native proteins, which would then become much more difficult to clean, but should also not be lower than 35°C because then fats will solidify.

Main Rinse: A circulation cleaning with a cleaning solution containing the detergent. The water temperature is usually around 80° to 85°C at the start and is decreased to about 40° to 55°C at the end of the circulation. An actual cleaning temperature of 60-70°C will also boost detergent efficacy. The end temperature should never be below 40°C since this could cause the formation of fatty coatings.

Post Rinse: A final rinse, usually with cold or luke warm water, to remove any residuals of the cleaning solution. “The last glass of (post-rinse) water coming out of your system, should be drinkable!”





SLUG FORMATION: SLUG QUALITY AND QUANTITY IS CRITICAL FOR CLEANING

A slug can be described as a moving cylinder of water measuring from a few centimeters to several meters in length.

The slug fills up the whole pipe section over its length.

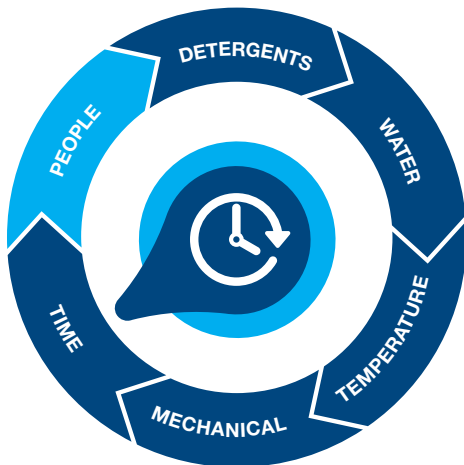
This means that all surfaces in the pipe will be reached by the cleaning water including the “roof” of the pipe.



Not optimal flow



Optimal flow

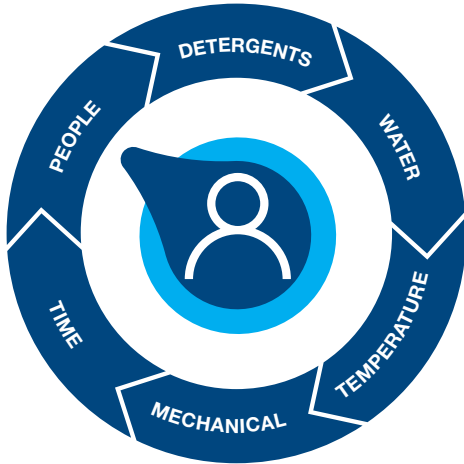


7-10 MINUTES OF MAIN CIRCULATION TIME (MAIN RINSE) IS RECOMMENDED

Cleaning must be long enough to ensure proper contact time between water, detergents and all milking system parts and surfaces, and to allow optimal mode of action of the detergent.

On the other hand cleaning must not be longer than needed because temperature will then drop too much, which can result for example in sedimentation of fat particles (will solidify in low temperatures).





WE WILL USE OUR EXPERTISE ON EQUIPMENT, DETERGENTS AND ROUTINES TO HELP OPTIMISE YOUR CLEANING RESULT

DeLaval will assist in ensuring an optimal balance of all cleaning factors with correct settings and dosage to help ensure that you are Milk Ready. In most cases, you just need to regularly check the cleaning results and unit in case of unforeseen circumstances.

Our service technicians are trained to check, service and help to optimise your cleaning results to your farm conditions. They will help you select the best detergents for your farm and help optimise dosing accordingly.

As well as carrying out the key Milk Ready cleaning tasks consistently and thoroughly, it is essential that storage and replacement of detergents follows best practice. Store them out of direct sunlight and regularly check shelf life, as chlorine is known to degrade over time so large amounts of stock are not advised.





Keep your milking system performing at the level you demanded when you purchased it.

HELPING YOU TO SELECT THE RIGHT COMBINATION OF DETERGENTS TO HELP ENSURE YOU ARE MILK READY

Step 1

Choosing the correct Alkali

	WATER HARDNESS					
	SOFT		MEDIUM		HARD	
	ALTERNATE	DOMINANT	ALTERNATE	DOMINANT	ALTERNATE	DOMINANT
UltraClean	☹☹	☹☹	☹☹☹	☹☹☹	☹☹☹	☹☹
SuperClean	☹☹	☹☹	☹☹	☹	☹☹	NS
BasixClean	☹☹	☹	☹	☹	☹	NS
C-AlkaClean	☹	☹	☹	NS	☹	NS
Extra*	☹☹☹	☹☹☹	☹☹☹	☹☹	☹☹☹	☹
Fresh25*	☹☹	☹☹	☹☹	☹	☹☹	NS
CFD100	☹☹	☹☹	☹☹	☹	☹☹	☹

☹ Good ☹☹ Great ☹☹☹ Excellent **NS** = Not Suitable

*Use biocides safely. Always read the label and product information before use.

*Not all products available in each country. Please check with your local dealer.

CLEANING EFFICACY

PROTEIN	FAT	MINERAL
2	2	3
3	2	2
2	2	1
1	1	1
2	2	2
3	2	1
1	3	3



UltraClean

- High sequestrant capacity to prevent mineral deposits, in all water hardness conditions
- Built with chlorine to help address milk protein, high alkalinity to remove fat

SuperClean

- Built with extra chlorine to help remove protein deposit
- Suitable for dominant routine in soft to medium water & alternating routine in hard water

BasixClean

- Contains chlorine to break down protein residues
- For alternate or dominant cleaning in most water conditions

C-AlkaClean

- Built to remove milk residues
- In soft water conditions or alternate cleaning routines

Extra*

- Specially designed to give excellent disinfection performance
- Works in all water hardness conditions

CFD100

- Works in all water hardness conditions
- Free from chlorine and phosphoric components

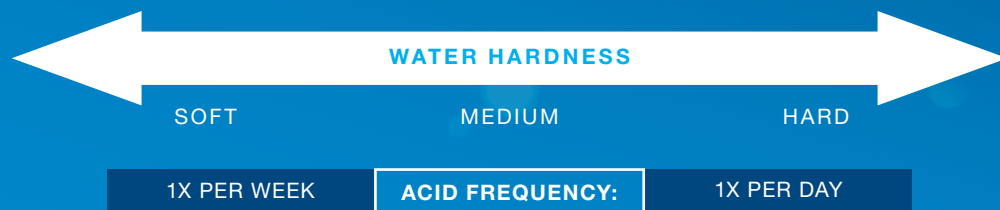
Fresh25*

- Specially designed to give excellent disinfection performance
- Can also be used at reduced temperatures

Step 2 Choosing the correct Acid

Your required acid to alkaline frequency ratio depends on your water hardness and the cleaning efficacy of your selected Alkali.

- Alkaline dominant routine
1 to 4 acid washes per week
- Alternating routine
1 acid and 1 alkaline wash per day



CidMax

- Works in all water hardness conditions
- Effective descaler, mild to equipment

OptiCid

- For soft to medium water conditions
- Giving excellent descaling power at a low cost in use

Step 3

If/when required an additional powerful acid disinfectant for milking and cooling equipment

DeLaval PeraDis*

- Concentrated hydrogen peroxide and peracetic acid based disinfectant
- Free from chlorine and phosphoric components

*Use biocides safely. Always read the label and product information before use.

OUR FARMS ARE MILK READY



“I’ve been using DeLaval Detergent for almost five years since our new parlour installed. With DeLaval it is not just about detergents but about a complete and easy service. Every product is delivered on time by my dealers mobile shop. The service technician takes care of all the settings on my milking and cleaning equipment, so I don’t have to worry about it. The equipment remains in good condition. We don’t see any black rubber residue. My milk quality is always great and we always get the quality hygiene bonus payments. We also never have had any issue with chlorine residues.”

FARM NAME DRONE HILL HOLSTEINS
LOCATION CO.DOWN NORTHERN IRELAND
HERD SIZE 180 DAIRY COWS
PRODUCTS OPTICID, C-ALKA, BASIX, CIDMAX



“As anyone dairy farming in Ireland knows chlorine and TCM’s are fast becoming a big issue, thanks to DeLaval CFD100 my issues are resolved. Excellent cleaning and excellent at keeping my TBC’s under control.”

FARM NAME BALLYMORRIS FARM
LOCATION CO.WICKLOW IRELAND
HERD SIZE 110 DAIRY COWS
PRODUCTS CFD100



FARM NAME DAY HOUSE FARM
LOCATION SHREWSBURY UK
HERD SIZE 140 DAIRY COWS
PRODUCT ULTRA, CIDMAX, PROACTIVE IOBAC

"I've been working with my local DeLaval dealer for over 28 years and the service is first class, very reliable. I think it's important to support local businesses. I've been using DeLaval chemical and Dips (Ultra Brilliant, Ultra, Cidmax, Proactive and Iobac) and I've got a good Bacto Scan and SCC which I need for my Tesco contract. The teat dips are kind to the cows and the chemicals clean very well"



FARM NAME GOOSEFORD FARM
LOCATION DEVON UK
HERD SIZE 300 DAIRY COWS
PRODUCT IOBAC, ULTRA, CIDMAX

"I use Delaval detergents to ensure continued milk quality and low TBC/Cell counts. In my opinion DeLaval detergents and teat dips are second to none, giving me peace of mind and one less thing to worry about. I would recommend DeLaval detergents to any farmer wanting great results at competitive prices."

WHAT ARE THE CRITICAL POINTS?

By checking the cleanliness of the following parts, it is easy to identify potential cleaning issues. In case of problems, ask your trained DeLaval service technician for effective troubleshooting. They know the equipment, can check cleaning settings and advise the best solution to resolve and prevent any cleaning issues.

MILKING INSTALLATION

- Filter unit – check for any residue
- Dump bucket – check for any residue
- Liners – check for wear or black residue

PARLOURS

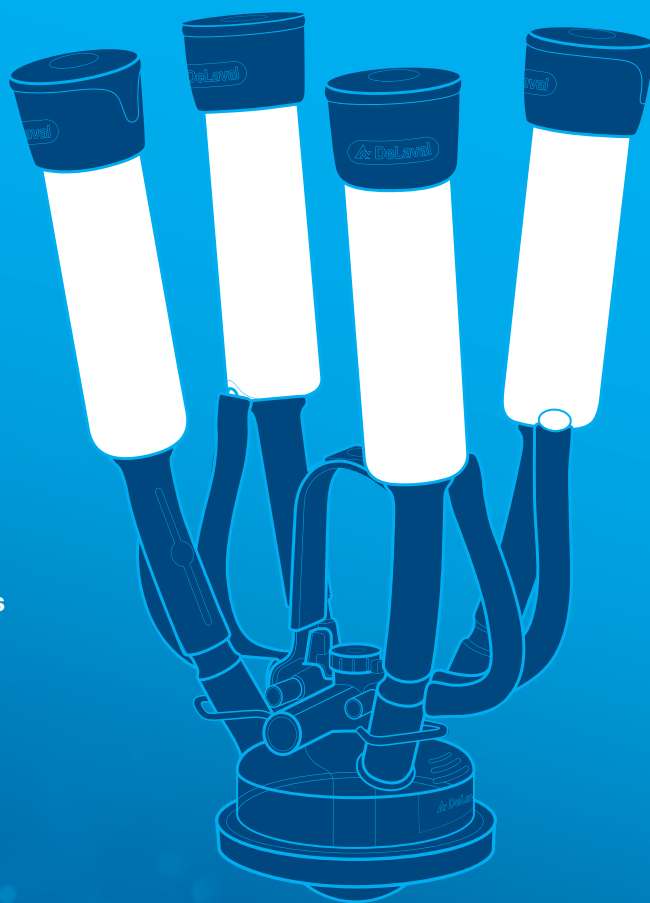
- Cluster bowl – check for any residue
- End receiver – check for any residue

AUTOMATIC MILKING SYSTEM

- Preparation cup – check for any residue
- Buffer tank – check for any residue

COOLING TANK

- Tank outlet – check for any residue
- Spray ball & nozzle – check for blockings





DeLaval

Don't just clean.

Make sure that your system is ready to extract, transport, cool and store the highest quality milk.

WE HELP YOU STAY MILK READY!

We want to help you get the optimal output from both our milking equipment and consumables like detergents. We thoroughly test and understand how these combinations best work together.

With this knowledge, we train our service technicians to optimise cleaning according to your equipment and farm situation. This means we can ensure:

- Optimal settings of the milking and cooling installation and the cleaning unit
- Expertise to fine-tune all 6 cleaning parameters
- Advice about detergents and help you to select the best product for your milking and cooling equipment, based on your farm challenges
- Advice based on DeLaval Cleaning Analysis (DCA): we use the VPR200 to take readings while the milking system is being cleaned. This detailed data is then analysed to create a set of actions to help your cleaning process work correctly

Cleaning milking equipment is essential for milk quality and with DeLaval, you can be certain that when you run your cleaning process, it contributes to the best milk quality possible without using too much hot water or detergents. Through continuous training and supplying our technicians with our best tools and materials available, we will keep you Milk Ready!

**You take care of extracting
milk from your cows.**

**We'll take care of extracting milk
residue from your system.**

InService™ All-Inclusive

For one agreed price we will help make sure that your milking system is Milk Ready. It all revolves around you. This means we will carry out scheduled servicing and supply for example chemicals and filters. We will even advise you about detergent storage conditions, keeping in mind their shelf life.

We will help to select our best product for your installation and challenges. Our trained DeLaval service technician will help ensure cleaning is well-balanced for maximum cleaning performance and minimal impact on your equipment. They know the installation, cleaning equipment and DeLaval's detergent range to help you to secure your milk quality and maximise your income!

With DeLaval InService™ All-Inclusive we will carry out routine maintenance, scheduled servicing and the replenishment of consumables, including your preferred detergents; all for one agreed price and with a payment structure that works for you.

Making sure your cleaning system is performing at the optimal level - liners, tubes, detergent, teat spray, filters and oil will all be replaced as required throughout the agreement.



HOW CAN WE HELP YOU?

Your challenge is to ensure that your dairy farm is producing the highest quality milk in a sustainable and profitable way.

Our team understands your challenge and the importance of teamwork to make it possible.

We would love to show you how we can apply everything we have learned about the process of extracting, storing and transporting the highest quality milk to help you make sure that every time you attach a milking unit your farm is Milk Ready.

After all, with DeLaval, everything we do revolves around you.



DeLaval

**IT ALL REVOLVES
AROUND YOU**

We live milk

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 **DeLaval**