

DeLaval Parlour Systems



The premium range of DeLaval milking clusters

DeLaval Evanza™



2 options available

This is the future of milking. Today.

Evanza™ cluster is not just faster, it's also better for your cows, better for your milkers that may be better for your bottom line. It is quite simply our most advanced cluster, combining 130 years experience in one ground-breaking product.

Put it to work on your farm and turn to the future with Evanza.™



Up to **58%** shorter service time*

Up to **+9.3%** higher milk-flow*

Up to **92%** improvement in teat condition scoring*

10,000 Milkings lifetime of short milk tube*

Reduction in liner slips*

Up to **7%** shorter milking time*

Less than **1 min** to exchange 4 cartridges*

5,000 milkings lifetime of cartridge*

DeLaval TopFlow



DeLaval milking cluster MC53

Engineered to handle high producing cows, this cluster is ideally suited to milking less than twelve hours per day. Designed to offer milker and cow comfort, DeLaval MC53 is lighter than conventional clusters. It combines stainless steel shells and patented DeLaval Top Flow technology to provide stable vacuum throughout milking. It's fitted with DeLaval soft lip textured liners and nipple-less connections.

- Weight: 2.1kg
- Short milk tube Ø: 12.5mm
- Outlet ID: 16mm
- Claw volume: 360ml



DeLaval milking cluster MC31/MC33

Designed and engineered to deliver optimal performance from milking-to-milking for small to mid-sized dairy operations. This all-round, no frills cluster features a 250 ml claw with a big milk outlet to handle milk flows efficiently and safely – minimizing unwanted cross-flows and milk plugs. It is simple to use and cost-effective to operate. MC31 will meet the demands of most producers milking less than 12000 kg per lactation.

- Weight: MC31 2.7kg / MC33 2.1KG
- Short milk tube Ø: 12mm
- Outlet ID: 16mm
- Claw volume: 250ml

Pulsation is the heartbeat of the whole milking system. DeLaval has a range of efficient pulsators designed to meet all needs, from the simplest to the most demanding.



DeLaval master pulsator DMP150 and DMP500

Designed to fit all types of parlours, DeLaval DMP150 and DMP500 control up to 24 or 80 EP100 pulsators. They can be set to alternating or simultaneous pulsation with a wide range of adjustable rates and ratios, suitable for cows, sheep or goats. DeLaval DMP150 and DMP500 provide fully adjustable time-shifted pulsation periods (Rate and Ratios) for stable vacuum conditions and good udder health.



DeLaval pulsator EP100

The DeLaval pulsator EP100 is the most sold electronic pulsator in the world. It works with the DMP master pulsator and offers precise individual pulsation for optimum animal comfort with maximum milking efficiency. A vacuum operated diaphragm means minimal wear while well proven technology offers resistance to temperature, humidity and dirt. The DeLaval EP100 uses 2x2 alternative pulsation, this gives constant even flow during milking not having all 4 quarters milking at once allowing for a constant, stable lower vacuum level during milking.

Duovac parlours



What is Duovac?

Duovac can be explained as when the cluster is attached to the cow the vacuum level starts off at a lower rate of 32kPa. When milk flow is detected the vacuum level goes up to normal working vacuum and pulsation ratio. At the end of each milking when low milk flow levels are detected Duovac reduces the vacuum rate back to 32kPa therefore reducing the exposure of high vacuum to the teats. Duovac then allows for the milker to manually detach the cluster.

At the Milking Point

DeLaval milking point controllers offer complete milking control at the push of a button. DeLaval milking points enable comfortable, yet streamlined routines with high cow flow, ensure udder health by delivering a complete fast milk out, and have highly visible status indicators for full parlour control at a glance.



DeLaval Milking point MP150

This MP provides the highest level of Take off only of the MP100 series. It can be installed in Low Line or MidiLine systems, and allows Duovac™, ComfortStart, remote cleaning/milking operation, claw drop and individual cleaning preparation. MP150 with DeLaval flow indicator FI7 or DeLaval Milk Meter MM27BC displays yield, flow and milking duration, to assist in daily herd management.



DeLaval Milking point MPC680

This is the premium parlour user interface with DeLaval Delpro™ herd management system which gives you full remote control of all other milking points. It is designed to run around the clock and to help you maximize production with a consistent, efficient milking routine. It delivers information and alerts, e.g. feed alarm and ration or cow treatments, and enables many more active inputs on all milking points to parlour operations or into the Delpro™ software.

Milk monitoring – optimising herd management for improved daily milk yield, cow health and profitability DeLaval offers a complete range of ICAR approved milk meters, yield indicators and flow sensors that precisely measure your herd's day-to-day milk production for optimised milk yield, milk quality, cow health and profitability.



DeLaval yield indicator FI7

When milk yield from each cow is monitored accurately, you gain key data for efficient herd management. This compact yield indicator provides:

- A robust design with no moving parts
- Milk yield available cow side
- Additional monitoring of liner slips, kick offs and cluster inlet blocks**



DeLaval milk meter MM27BC

This is a highly accurate ICAR approved milk meter which also monitors any blood traces in the milk, conductivity levels, kick-off and air entry in the liners. It offers fast milk yield monitoring and better control of cow health.

- Milk is measured continuously
- Monitors blood presence, milk conductivity and milk out performances*
- It is not dependent on a central computer.
- Low service cost – no movable parts.



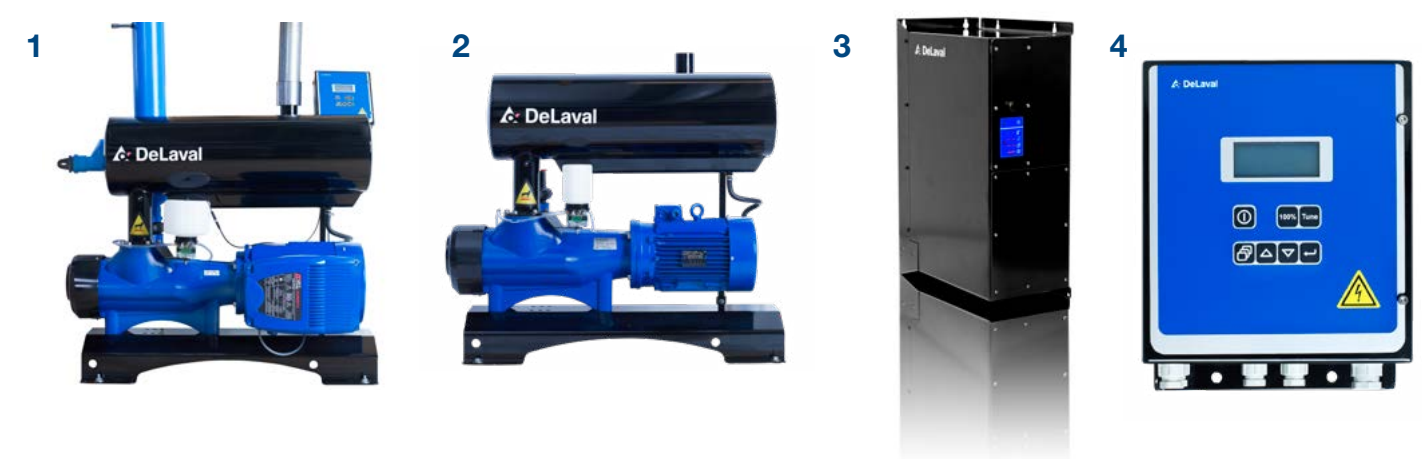
DeLaval flow sensor HFC

Robust construction for heavy duty 24/7 milking. It is designed for high yielding dairy cows. Easy to service.

* Blood and Conductivity function not available on MP100 series
** Not all functions available on all systems

Vacuum system

The vacuum system is one of the key components in your milking system – providing vacuum for efficient milk extraction and transport, and for effective cleaning of the whole system.



1. DeLaval vacuum pump DVPF

Vane vacuum pump with frequency inverter and integrated DeLaval vacuum pump controller VPC for much quieter milking and energy savings of 30% to 60%. Electronic control regulates vacuum levels: constant vacuum at 30% to 50% capacity for milking, full vacuum for cleaning. Up to three DVP2700F can be controlled by one VPC in our multi-pump solution, managing up to 80 milking points.

2. DeLaval vacuum pump DVP

This direct-drive vane vacuum pump has no belt. It is reliable, efficient, and safe, with no exposed moving parts, and none of the worries of belt-driven pumps. Operation is more precise and tolerances are reduced, for constant vacuum and smoother running which uses less oil. The silencer/oil reclaimer collects up to 95% of oil for careful disposal and reduces air borne oil particles.

3. DeLaval variable speed drive NFO

DeLaval variable speed drive NFO is the first in the dairy industry with a whisper-silent variable speed drive for vacuum pump – addressing the source of the EMC problem rather than the symptoms.

4. DeLaval vacuum pump controller VPC

DeLaval VPC Controls up to three frequency controlled pumps and, in the multi-pump solution, the pumps are rotated to even out the run times. That means uniform wear and tear - for low maintenance and long life together with an optimum controlled vacuum level.

5. DeLaval vacuum pump oil

Pump capacity is vital to quality milk production, good udder health and plant cleaning. Original DeLaval vacuum pump oil cost-effectively helps protect pump life, the milking system and resulting profits.

Pump Type DVP1400		
Vacuum pump motor (kW)	x	4kW
Number of vacuum pumps	x	1
Running hours per day	x	4
Electricity cost per kW €	=	0.15
Electricity cost per day €	x	2.4
Savings factor*(70%)	=	0.7
Saved electricity cost per day €	=	1.68
NFO Investment	/	€1,980
Saved electricity cost per year €		613.2
Time for return on investment (years)		3.2

*Figures are for illustration only and can vary.

DeLaval herringbone parlour HB50

Better cow positioning, closer to the milker, makes it safer and more comfortable to milk, while increased size of key components has added to the overall strength and life of the parlour.



Strong and durable design

Good cow flow

Operator comfort and safety



Strong and durable

- Slanted Galvanized rump rail or optional splash guard
- Hot dip galvanized welded component

DeLaval HB50 rumprail and frame components are made from 50 mm (2") steel tubing. The suspended beam frame adds further strength and longevity. This 2 1/2" x5" rectangle beam frame gives added rigidity for even the largest parlors. The slanted galvanized butt pans are standard and stainless steel is an option. This design, combined with hot dip galvanization of every welded component, provides strength and a long operating life.



Improve cow flow

- Wide Platform
- Swing type entrance and exit gates

The entrance gate opens fully to allow cows to enter easily and walk quickly along the wide platform. The cow blocker works very well to keep the cow waiting in the correct position, this feature protects the last cow from any interference with optional electronic Cow ID. The entrance and exit gates are both swing type with the option to operate the exit gate manually or add a vacuum powered cylinder.

Standard features include

- Suspended 63mm pipe frame, is height adjustable
- Suspended rump rail (one post at each end)
- Staggered, angled 63mm rump and 75mm kick rails
- Heavy galvanized steel pit edge with blue plastic edging (cemented in or bolt-on)
- Swinging entrance gate with vacuum/electric control
- Swinging exit gate with vacuum/electric control
- Pit end rails and steps into the pit

Optional features include

- Closed or open pit design
- Range of breast rails
- In-parlour feeding
- Breast rail indexing
- DeLaval adjustable floor

Technical data

Size specifications:

- Sizes: 2x4 to 2x40
- Stall centres standard: 760mm (800mm optional)
- Pipe dimensions main structures and rump rails: 63mm

Excellence in cow positioning, operator comfort and durability

MidiLine™ ML2100 and ML3100

DeLaval MidiLine™ ML2100 is the ultimate low input, high throughput, batch milking system. It makes maximum use of each cluster – positioned in the middle of the pit, they swing over to serve both sides of the parlour – very cluster efficient.



DeLaval MidiLine, the entry-level swing-over parlour that makes automation affordable

Fast and efficient milking

- Cows enter smoothly, settle quickly, present well and exit quickly

With excellent positioning of the cow, you can achieve a high degree of worker and cow comfort. The Swing-Over-Arm improves comfort and effectiveness. It provides clearance in the milking pit and helps to position the milking unit better on the udder.



Customised automation

- You decide the level of automation that suits you!

Whether it is a milk level meter, an automatic milking unit (ACR), or a milking place controller with full access to the herd management system, the MidiLine system can be perfectly tailored to your needs. The DelPro (TM) herd management system also enables the automatic feeding and sorting of cows, automated milking systems and monitoring of milking.



Reduced labour costs

Herd management helps with the daily work and gives a good overview of all the data you need to lead the herd and increase profitability. An automated, animal-specific milking and feeding system reduces the workload. The automated cleaning system is perfectly tailored to the requirements of milking technology.

Reduce outlay

With a swing-over system, you get high cluster utilisation, enabling faster payback on your investment.

Standard features include

- Fully ISO compliant
- Future proof upgradeability
- CIP cleaning

Technical data

Available for parlour types and sizes:

- | | | |
|---------------|-------|----------------------|
| • Herringbone | HB50 | 2 x 4/4 to 2 x 40/40 |
| • Herringbone | HB30 | 2 x 4/4 to 2 x 16/16 |
| • Parallel | P2100 | 2 x 4/4 to 2 x 40/40 |
| • Parallel | SBS | 2 x 4/4 to 2 x 12/12 |

Optional features include

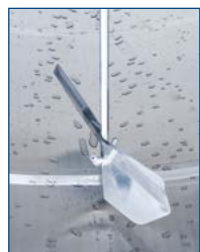
- Choice of 3 Milking points: MP150-MP580-MP680
- Swing over arm for efficient cluster alignment
- Full herd management package
- Milk metering with DeLaval MM27BC, MM15 or MM6
- Flow indication with F17
- Flow sensing with HFC and F12
- Remote start for Milking point
- DeLaval automated feeding system
- DeLaval automatic cleaning units with C50, C100E or C200
- Plate heat exchange for pre-cooling milk

DeLaval Milk Cooling Systems

Preserving milk quality effectively and efficiently



Picture shows DXCE with T200



DeLaval Closed Tank Assortment

Initiates, controls and checks the tank cleaning and milk cooling, providing farmers comfort, safety and quality control.

Cleaning Unit T200

- Water consumption down by 41%
- Direct to drain or circulation cleaning
- Short cleaning cycle - reduced by 60%
- Reduction in hot and cold water by 46%

Cleaning Unit T300

- Water consumption down by 41%
- Direct to drain or circulation cleaning
- Short cleaning cycle - reduced by 60%
- Reduction in hot and cold water by 46%
- Mobile SMS Ready



Optimised cleaning through rotating nozzle

The cleaning of the tank is a key aspect of the cooling ensuring top quality milk, over and over again.

To get to all the corners and complete the entire inner surface, DeLaval has integrated the cleaning nozzle in the rotating blades, ensuring a complete and thorough cleaning of the inside of the tank.

DeLaval Smooth Operator

Milk flow stabilization

Smooth operator is a flow control system with level of milk in end unit (or balance tank) as input and speed of milk pump as output. Level probe is fitted to the container and inverter is connected to milk pump.



When level of milk is between probes of the sensor smooth operator sets speed of pump to medium (adjustable). When high level is reached or during cleaning full speed is used



DeLaval milk pump FMP

Model	Max Flow	Max Head
FMP55 0.55kW	4m³/h	12m
FMP110 1.1kW	13m³/h	15m
FMP220 2.2kW	33m³/h	25m

DeLaval Plate Heat Exchangers

Your cost-saving investment

Pre-cooling reduces the cooling load and thus the energy required. Associated costs, are also reduced. A correctly sized DeLaval plate heat exchanger package can save you up to 60 percent of your refrigeration energy costs.

Stainless Frame Heat Exchanger - Available on request.

Model	M6 Range	BM Range
Minimum Flow (l/h)	3000	1000
Maximum Flow (l/h)	16000	5000
Design Pressure (bar)	10	4
Frame (Painted)	Mild Steel	Aluminium
Plates	SS316	SS316



Did you know

Plate heat exchangers 2:1 water to milk ratio is only a guide. Lower water ratio can be used to maximising your pre-cooling water availability. At DeLaval, we can design the heat exchanger and cooling system according to your individual needs.



Cleaning milking equipment

Entrust cleaning to a DeLaval cleaning unit and solve this dilemma at the touch of a button. These units clean your milking installation automatically after every milking. Instead of standing in front of a wash trough, you can devote your energy to more important things like herd management or spending time with family and friends.



Consistent, no-compromise cleaning

As automated units, DeLaval cleaning units always clean in the same consistent and effective way. They never hurry. They never have a bad day. The result is always the same. This consistent way of working is built into the design. For example, the water level filling feature ensures the same volume is used at every single cleaning.

A full assortment

DeLaval offers a wide range of cleaning units; from semi-automatic units convenient for small bucket installations, up to automatic ones suitable for a big, sophisticated milking installation. DeLaval automatic cleaning systems control essential cleaning factors such as water temperature, detergent dose rate, cleaning duration and water turbulence.



DeLaval cleaning unit C200

Cleaning unit C200 is supplied as one unit, allowing efficient installation, operation and monitoring. This fully programmable unit is electronically controlled, to provide a cleaning system that meets your exact milking plant requirements. This unit provides low running costs. The C200 is available in 40 litres, 80 litres, 160 litres and as a stand-alone unit. A wide range of accessories are available for the C200.

DeLaval Plus - your performance portal

DeLaval Plus is all about how far data can advance your performance.

It is about aiding you in taking your performance to the highest levels, regardless of your farming approach, location, or herd size. The common goal shared by all dairy farmers is to ensure the health, well-being, proper feeding, and efficient, safe, and sustainable milking of their cows.

This is what DeLaval Plus is all about.

It is about providing you with tools that turn all data collected on your farm into actionable, easily understandable information, helping you make fast, accurate decisions that benefit your animals, your workforce, and your profitability.

All these tools are part of an easy-to-access online portal to use the information that is analysed and reported back to you.



- Accessed and managed through a secure web portal
- Easy to read
- Easy to understand
- Customisable to fit your goals
- Benchmark your performance
- Capable of integration with DelPro FarmManager
- Works seamlessly with DelPro Companion