

A fresh approach to milk cooling

 DeLaval

IT ALL REVOLVES AROUND YOU

 DeLaval

Keeping the world's milk fresh

We don't create cooling systems for a range of liquids and sell some of them for milk.

We create solutions specifically for the challenges of cooling, storing and protecting milk.

We believe that keeping milk fresh has some unique challenges that demand a no compromises approach.

We understand that, for you, protecting your income is about protecting your milk, and to do that you must keep it fresh at all times. That's why, at DeLaval, we develop solutions for cooling milk - because when you live milk, you are passionate about keeping it fresh.



Beyond cooling

Our drive to help you deliver the highest quality milk goes above and beyond the equipment required to cool, store and protect your precious income. Beyond cooling, we have developed our technology with operating costs, energy savings and the environment in mind, creating solutions that allow you to save money and improve your bottom line whilst reducing your carbon footprint and protecting the environment for future generations.

We also know how important it is to know exactly what's going on with your system, and to react quickly when something goes wrong. That's why we offer the tools to remotely monitor your cooling operation, no matter where you are in the world, and include a service and maintenance agreement for the peace of mind that comes from knowing your milk is always in safe hands.



Why is it better

At DeLaval we design and manufacture a complete set of solutions for cooling, storing, transporting and protecting your milk. Designed to work together or as individual units, we have a solution to preserve the freshness of your milk through every step of the cooling process - from the moment it leaves the teat, to its collection by the milk tanker.

 **DeLaval**

**Low
running
cost**

**Service
& maintenance
is included**

50%
less
refrigerant*

**Remotely
monitor your
cooling tank**

**Cool to 4
degrees in 4
seconds****

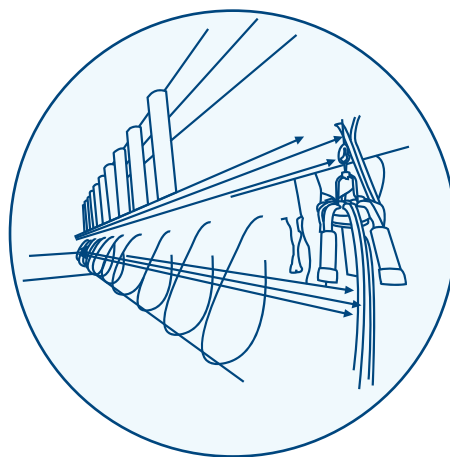
100%
Stainless steel
cooling tanks

*Based on AFCC compared with standard cooling unit

**Based on CWC

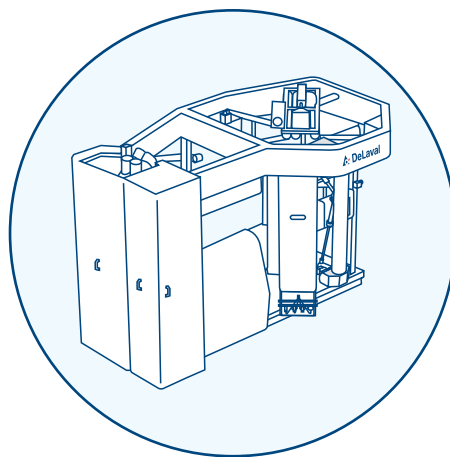
DeLaval complete milk cooling system

DeLaval cooling solutions are versatile and can be used with milking robots, conventional parlours and rotaries. Combine a DeLaval Milk Storage Tank with a Plate Heat Exchanger, Compact Water Chiller and Heat Recovery Tank to complete the ultimate efficient DeLaval cooling system.



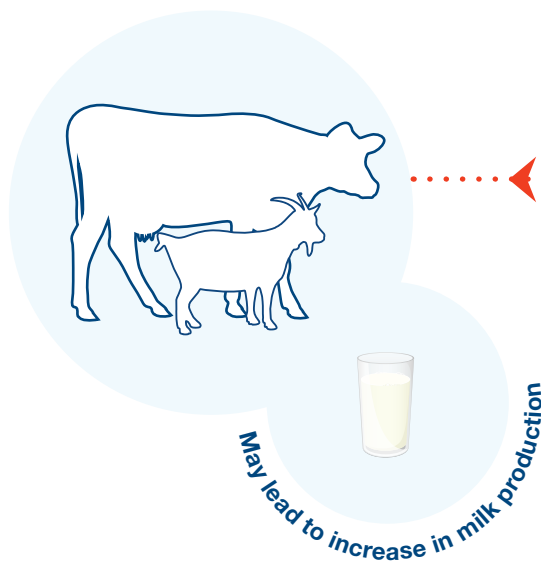
35°C

Parlours



35°C

Milking robot



25°C

Drinking water

SAVINGS

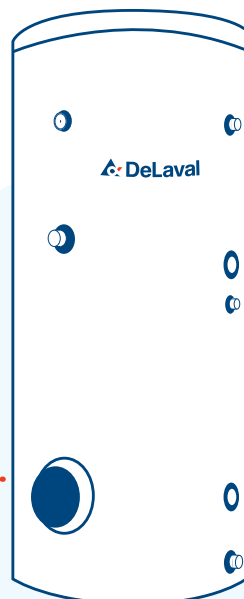


Hot water

50°C

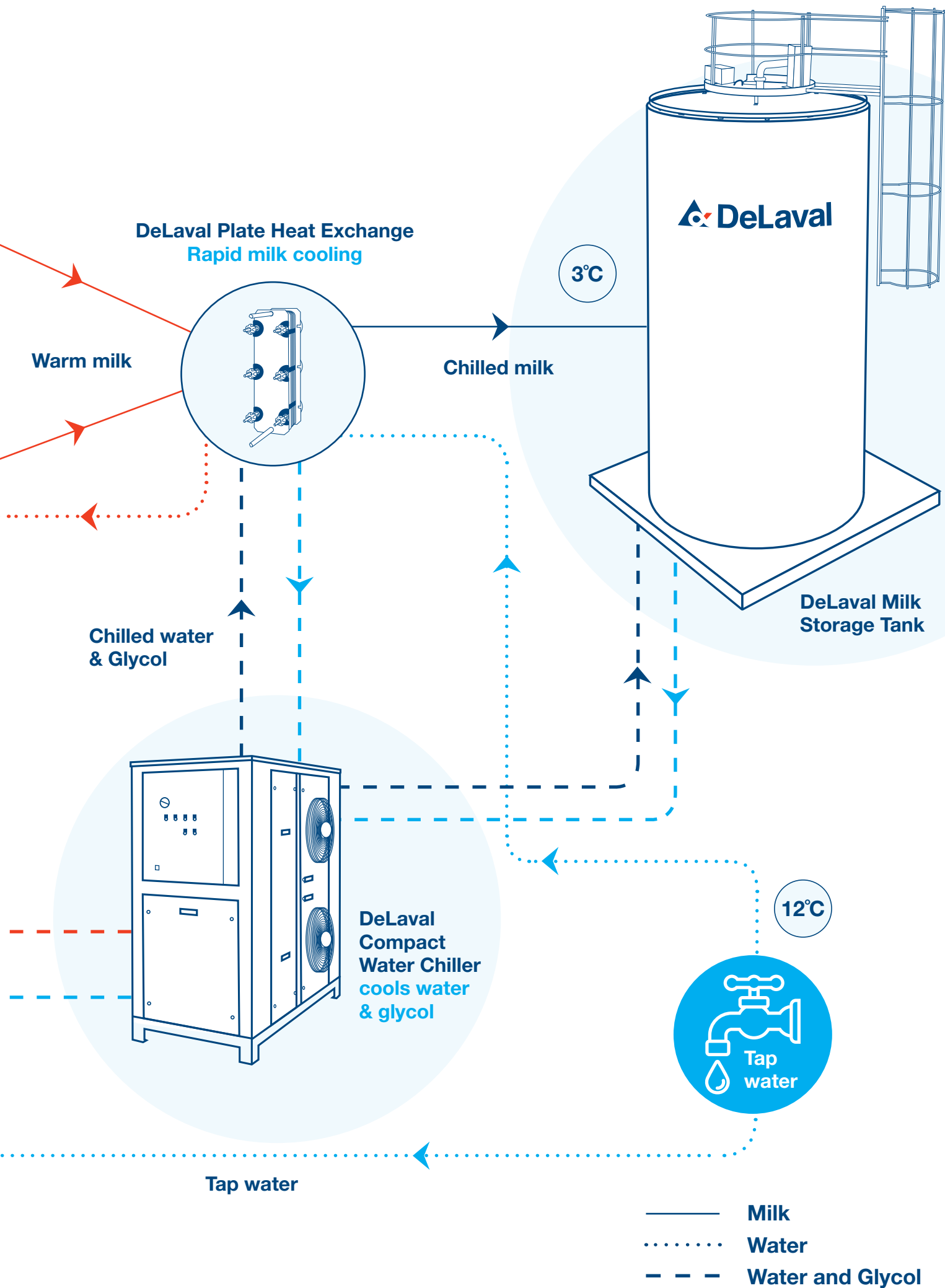
for farm use

SAVINGS



Hot water & Glycol

DeLaval Heat Recovery Tank



DeLaval Plate Heat Exchange
Rapid milk cooling

Warm milk

Chilled milk

3°C

DeLaval Milk Storage Tank

Chilled water & Glycol

DeLaval Compact Water Chiller
cools water & glycol

12°C

Tap water

Tap water

- Milk
- Water
- - - Water and Glycol

Faster means fresher

As soon as it leaves the udder, naturally occurring bacteria in the milk start multiplying immediately. In just two hours 1,000 bacteria can increase to 64,000. The faster you cool the milk, the more you slow this process down and the fresher your milk will be. That's why our unique range of chillers are the fastest we've ever developed.



Robust
and reliable

Low operating costs

Low energy
consumption

Precise temperature
control eliminates
under and over
cooling

CMS & AMS Cooling

Our best solution for the in-line cooling of small to very large milk flows, our patented compact coolers are designed to meet your highest demands and deliver in all conditions. Intelligent cooling and temperature control helps to ensure the freshness of your milk before it enters the cooling tank, and precise power control means it only uses the energy necessary to keep your milk fresh, no more, no less. DeLaval CWC can help you to reduce energy costs and improve your bottom line.

Standard cool unit

Our standard range of cooling units may not be as standard as you might think. Did you know that all of our cooling units are equipped with an extra-large condenser? The extra surface area guarantees optimum performance and low energy consumption, even in the peak of summer. We also supply various safety devices to optimise and protect your compressor performance.

Crossfire

Long before DeLaval made cooling tanks for dairy and beer factories, our development led us to our most advanced evaporation technology.

Our Crossfire design can be found in all our oil-cooled chillers. It provides excellent heat transfer and is suitable for a gaseous refrigerant.



AMS Cooling

The cooling of small milk flows presents a unique set of challenges. Milk flows that vary in volume and milk flows from modern automatic milking systems require a solution that can adjust cooling capacity to match. Our unique and patented AFCC system can handle it all.

With DeLaval Adaptive Flow Controlled Cooling (AFCC), cooling capacity is automatically adjusted to suit milk flow, so varying volumes of milk can be cooled quickly and consistently, without stirring and without the risk of freezing.



Low refrigerant usage

Fast cooling

Robust 'all seasons' housing

Eliminate risk of freezing

InFlow cooling

the agricultural sector, we were developing
, among others. Years of research and
vaporator – DeLaval Crossfire.

cooling tanks and guarantees maximum cold
us refrigerant as well as water.

With DeLaval InFlow cooling milk is cooled to below 4 degrees in only 4 seconds, before it is stored in the cooling tank. Cool your milk faster to lock in its freshness and preserve its quality with DeLaval InFlow cooling solutions.

Vertical Tanks

DeLaval DX3S – 11.000 - 40.000 Litres

Speed controlled digital agitator for gentle mixing

Fully enclosed housing

Unique configuration of bottom evaporators for early cooling

Crossfire evaporators on the bottom and side for high cooling capacity



Milk level measurement and overflow protection alarm

T300 cleaning and control unit with a built in milk-monitoring device

Stainless steel inside and out

3" or DN100 outlet for rapid tank emptying

Cooling tank range



DeLaval DXCE



DeLaval DXCEM



DeLaval DX3S

Horizontal Tanks

DeLaval DXCE(M) – 1.150 to 32.000 Litres

Digital level measurement

Fully enclosed housing prevents heat loss

Stainless steel inside and out

Unique and powerful cleaning from the agitator shaft

Transverse positioned crossfire evaporators for direct cooling from the first litre

T300 cleaning and control unit with a built in milk-monitoring device

Self-adjusting legs for even weight distribution

3", DN80 or DN100 outlet for rapid tank emptying



DeLaval Buffer Solutions



DeLaval Buffer Vessel BWV

300, 600 & 850 Litre options



DeLaval Buffer Vessel DBV

1,150 & 1,600 Litre options

Enable 24/7 operation of your DeLaval VMS™ by allowing milking while your tank is not available due to milk pick-up and cleaning.

For more information and the full range of tanks visit DeLaval.com

Protect

Secure your milk freshness

At DeLaval, we know that protecting the freshness of your milk doesn't end once your milk is in the tank. To maintain the highest milk quality your system needs to be cleaned to the highest standard, and requires regular servicing and maintenance to make sure it consistently performs to the level you demand of it.

Cleaning Control Systems

Our user friendly Cleaning and Control Units automatically clean your tank after each and every collection, allowing your farm to achieve the highest food quality standards.

**DeLaval
InService™**



MQA Milk Quality Auditor

DeLaval MQA, Milk Quality Auditor enables you to check milk temperature, cleaning cycles, historical data, and even plate cooler performance. Receive alarms straight to your mobile or the user-friendly touchscreen. DeLaval MQA can be installed on any model or brand of cooling tank and its integrated battery pack enables operation even when the power is out so you can always respond quickly when it matters most.



Control

Fully control your cooling and cleaning processes from the user-friendly touch panel or via DelPro™ Farm Manager.

Monitor

Monitor your cooling and cleaning processes and receive important alerts when you need them most.

Clean

Our DeLaval detergents have been developed to work well with all of our cooling systems and achieve the cleaning performance required to consistently deliver high quality milk.



InService™ All-Inclusive

With DeLaval Cooling Systems service is included. That means all of your regular servicing, maintenance and consumables are included, for one agreed price, so that your system can continue to perform at the level it did when we installed it.



Save

A fresh approach to sustainability

A DeLaval energy recovery system works as a heat pump and will recover 100 percent of the heat extracted from your milk. Milk plus compressor energy is directly converted to hot water for use in a wide range of applications around your farm including pipeline and parlour cleaning, boiler and house heating support or drinking water for your herd.

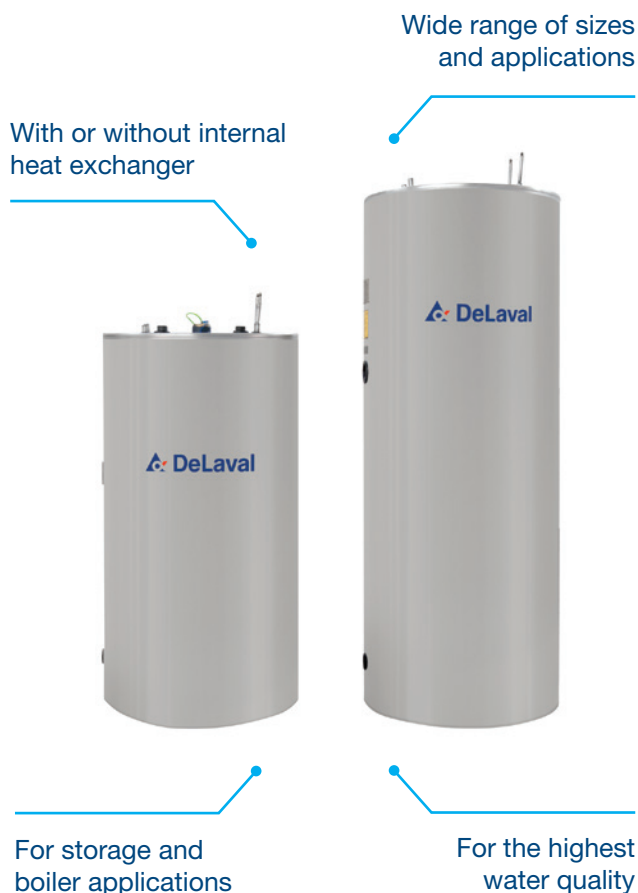
A DeLaval heat recuperation system is compatible with any model or brand of cooling system.



Sustainable Refrigeration

DeLaval cooling solutions can transform energy used for cooling into heat and recover it for use in other applications around your farm.

DeLaval Premium Heat Recovery



DeLaval Plate Cooler (PHE)

DeLaval offers a wide range of plate coolers (PHE) suitable for the smallest milk flows to large industrial volumes. Plate coolers always deliver the best results of any type of pre-coolers by guaranteeing maximum milk to plate surface contact whilst maintaining a gentle flow of milk. With our PHE assortment, milk is rapidly cooled before it reaches the tank, reducing the growth of bacteria, and reducing the amount of energy required for tank cooling by up to 50%. Following the pre-cooling process, warm drinking water can be redirected to your herd at the optimal temperature for milk production.



Save up to 50% on energy costs

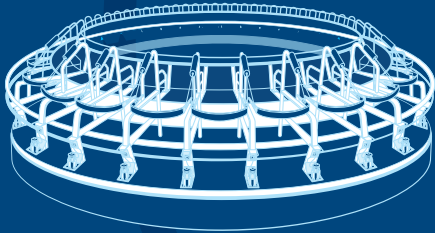
Retrofit to any cooling system

For more information and the full range of DeLaval Heat Recovery and Plate Coolers visit DeLaval.com

DeLaval cooling solutions work well with:



DeLaval VMS™ Series



DeLaval Conventional Milking Systems



DeLaval InService™

We deliver solutions that are designed to help you get more, better quality milk from healthier animals.

That's why we don't just focus on one part of the milking process. We design, manufacture, install and maintain whole systems, and we ensure the quality and reliability of every component of those systems.



DeLaval Detergents



DeLaval Advisory

Put DeLaval cooling solutions to work for you

To take the next step on your journey, either talk to your trusted DeLaval representative or for more information visit us at www.delaval.com