



DeLaval parlour systems

Throughput – the fast lane to profitability



 DeLaval



Put the PLUS+ in your parlour

The more relaxed the cow, the faster the cow-flow

Throughput is the fast lane to profitability: if you want to achieve smooth cow-flow and fast milk let-down, cows must feel relaxed in the parlour.

At DeLaval, we help you achieve fast throughput by ensuring cow traffic runs smoothly, milking equipment performs optimally, and that milking is fast and effective. In this way, you can maximize throughput and milk yield, while minimizing costs per litre of milk.

With the help of our parallel parlours, dairy farmers around the world are producing high quality milk, effectively – parlours that are reliable with a proven track-record.



Complete solutions for higher throughput



When you invest in a DeLaval parallel parlour, you acquire an integrated system.

It's the seemingly small things that can make a big difference: the design of the neck rail, for example, or the width of the lane, or the way entrance gates open. These unique design innovations lead to time and labour savings. Small differences add up to give you consistently higher throughput.

With DeLaval parallel parlours you will achieve:

**Faster
throughput**

**Optimal
cow
comfort**

**Operator
friendliness**

**Integrated
automation**

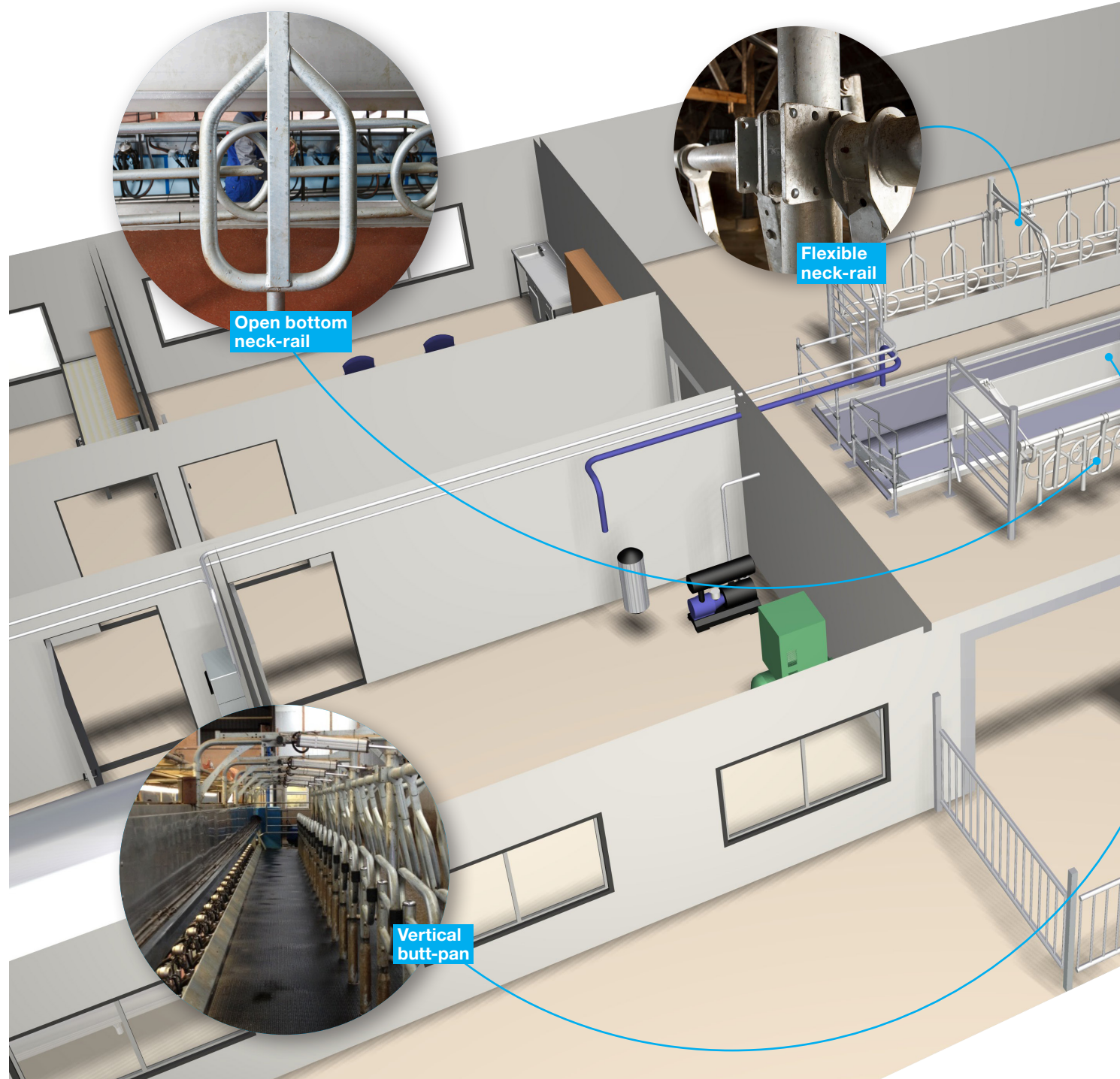
**Flexible
design for
upgradability**

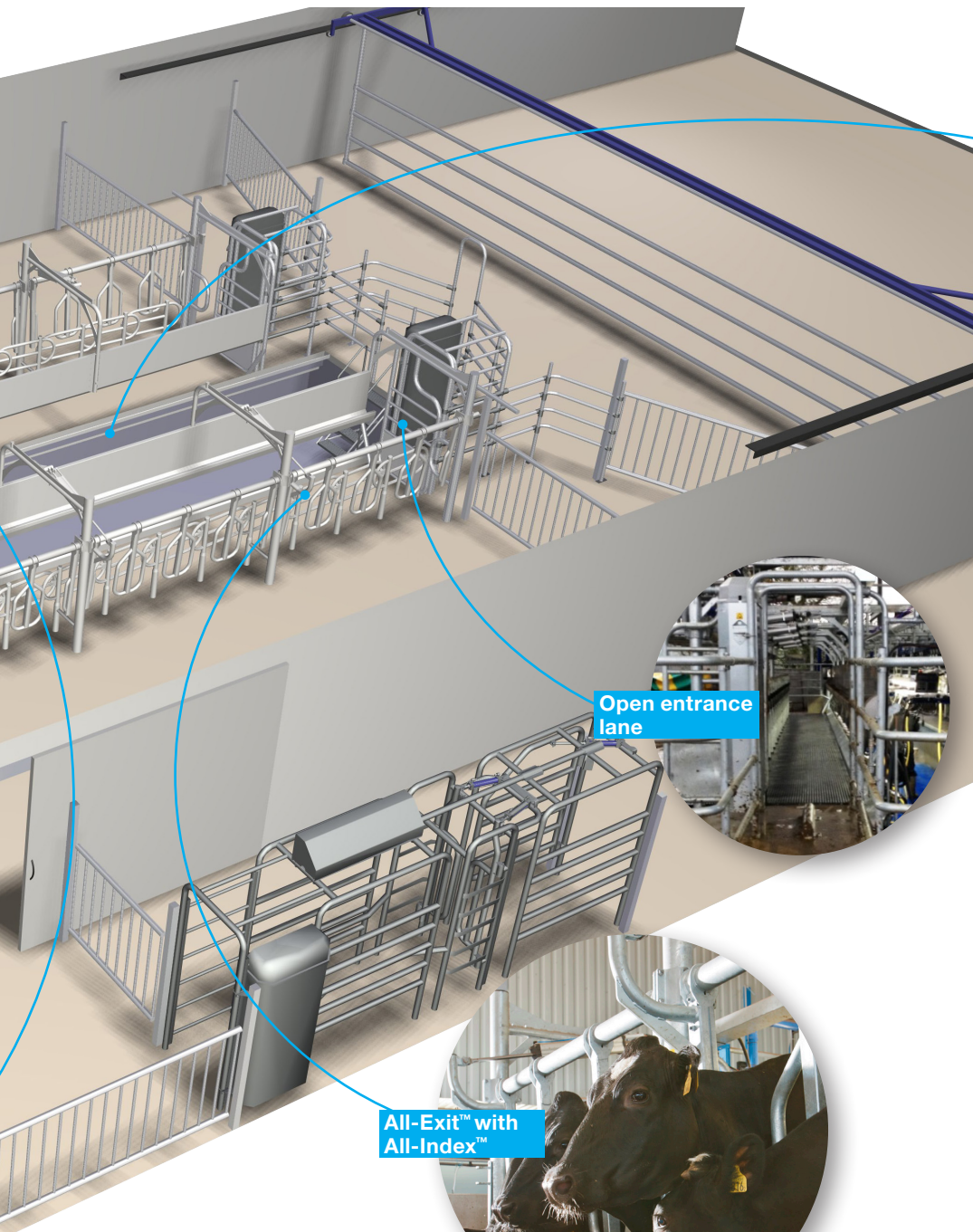
**Low
maintenance**

DeLaval parallel parlour P2100

With the flexibility to match your herd, farm and budget

DeLaval P2100 is ideal for family farms and operations with expanding herds. DeLaval P2100, with its swing-up exit, gives you the flexibility to tailor a parlour that matches your needs: for your herd, your barn and the way you work. Even the neck-rails can be adjusted to accommodate different cow types and sizes.

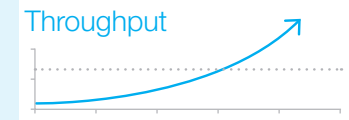
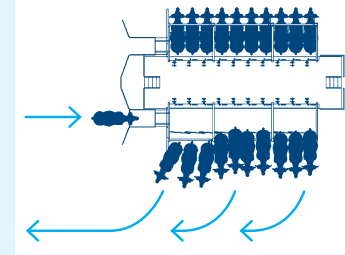
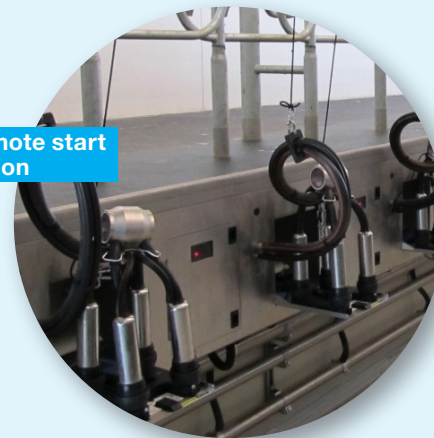
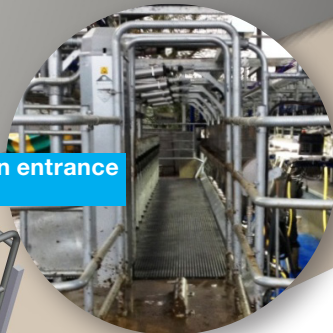




Remote start option

Open entrance lane

All-Exit™ with All-Index™



Faster cow-flow

- Wide entrance lane with sliding entrance gate – quick entry and easy turning encourages fast loading of cows.
- Unique, open bottom neck-rail – designed with understanding of how cows move for faster entrance and exit.
- All-Index™ – optimum positioning of cows for better udder prep, operator comfort and safety.
- All-Exit™ – exiting of all cows on each side with one push of a button, which helps save time.
- Gang-Index™ – begin attaching units to first gangs while other gangs of cows are still being loaded.
- Gang-Exit™ – lets you release each cow gang as they finish for better cow-flow.

Better workflow

- Suspended butt-pan – gives unobstructed view of the udder resulting in better working environment and operator comfort. The vertical design of the butt-pan provides a wider gutter and easier cleaning.

- Comfort start – no buttons to push: just lift the cluster and start milking (option).
- Exit Plus – automates exit-entrance sequence to save operators' time (option).
- Air-powered indexing – gently but firmly positions each cow back against the butt-pan. Consistent indexing positions the cows for comfortable milking, saving operator time while providing more operator comfort.
- Deck flush – automatically cleans platform reducing risk of contamination (option).

Fast installation

- Bolt-together design – eliminates on-site welding and reduces risk of incorrect installation. This also speeds up the installation process for faster start-up.

Robust and reliable

- Robust structure – provides a safe working environment, low maintenance and long parlour lifetime.
- Stainless steel butt-pan, optional stainless steel cabinets and kick curb – easy to clean and durable.
- Air control box with built-in filter: provides pneumatics with clean air for longer life of air components.

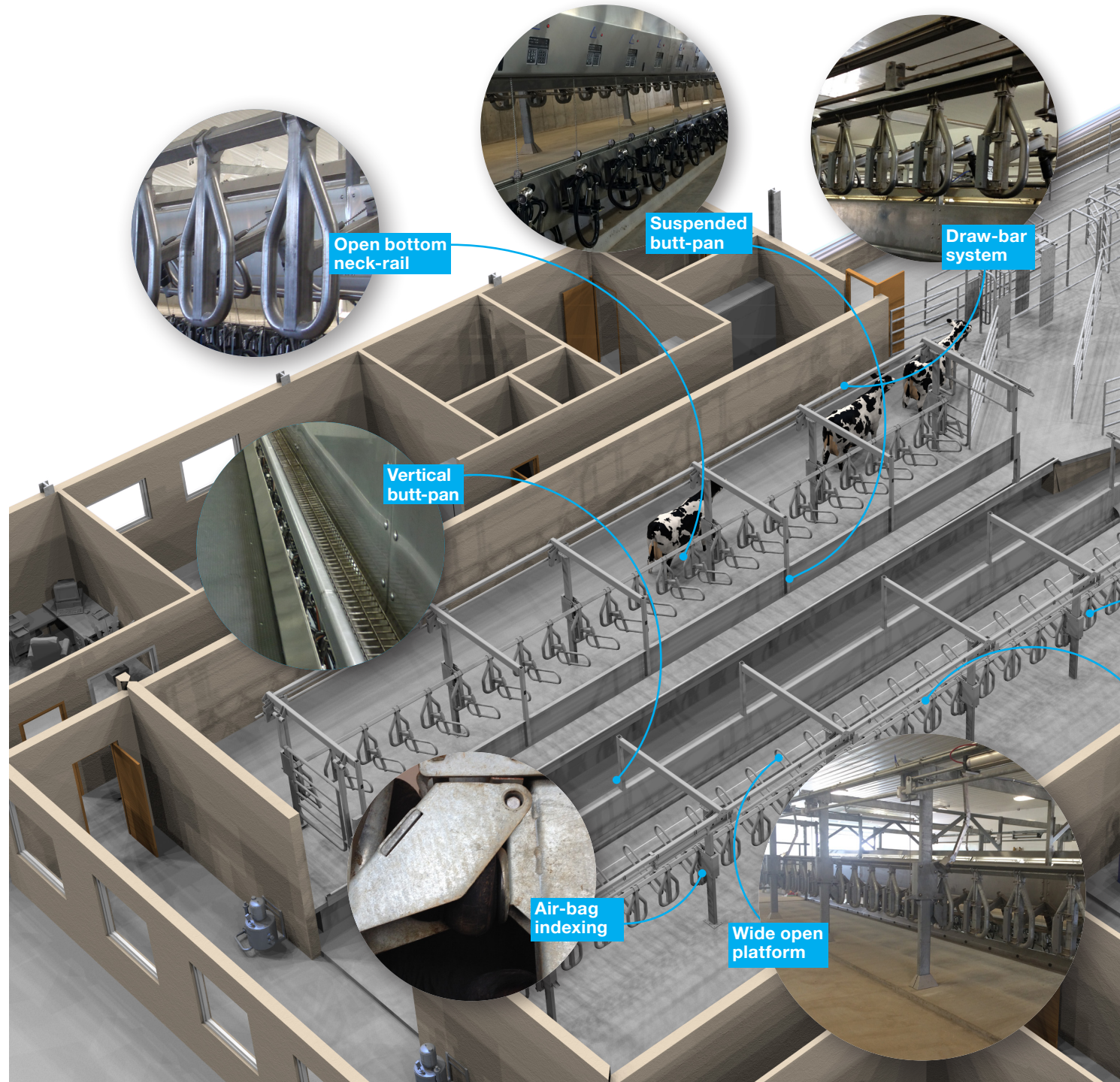
Cow comfort

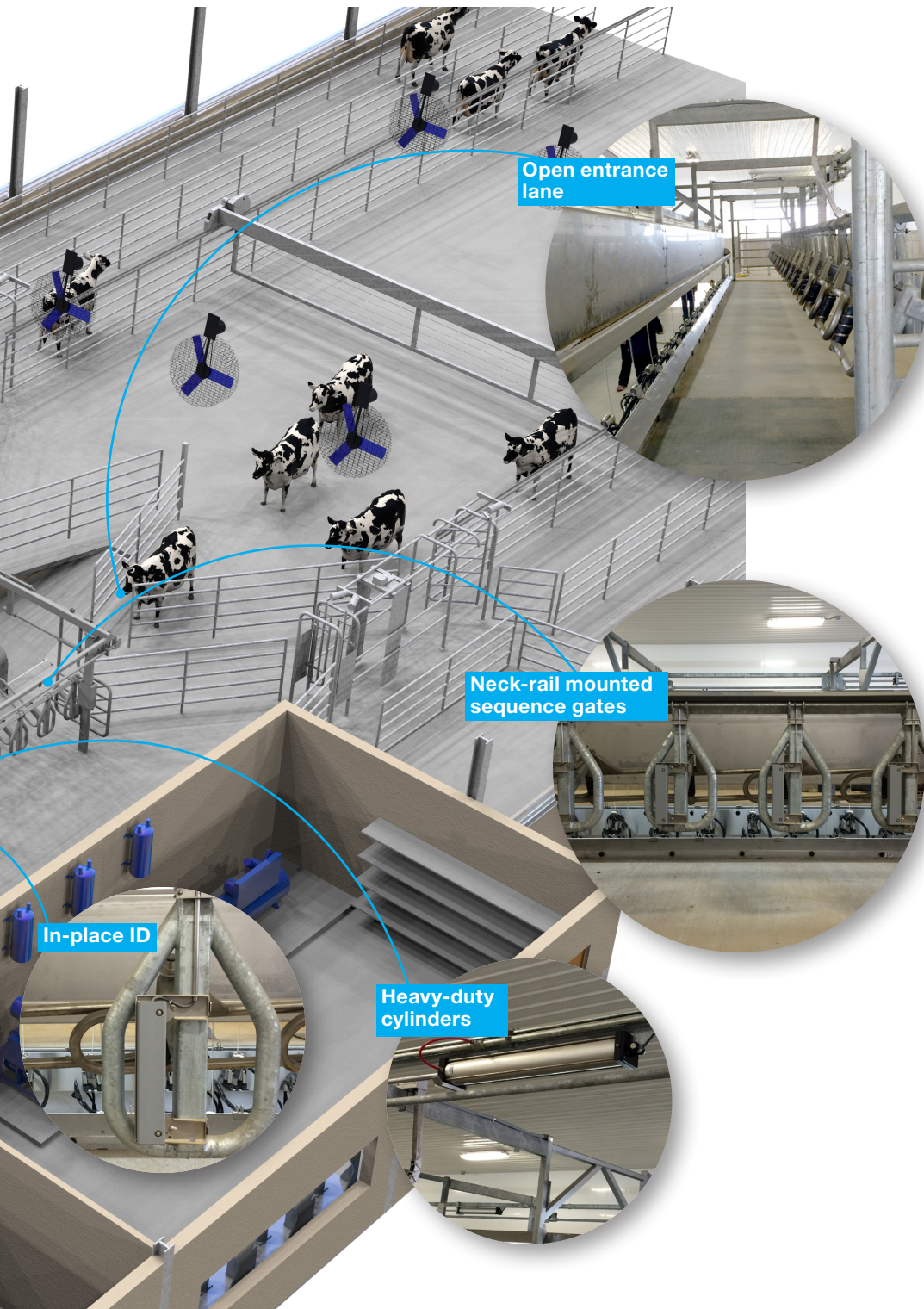
- Cluster support – provides comfort for both operator and cow by ensuring perfect cluster alignment, preventing liner slip and reducing risk of mastitis (option).
- Duplex cylinders – allow different pressure settings for gentle, slow but firm indexing of cows.
- Fully-adjustable neck-rail – suitable for different cow types/sizes.

Champion™ parallel parlour

High throughput for
24/7 milking. Maximum
cow comfort

Champion is a heavy-duty parlour designed for use on medium to very large farms. With the sequencing gates mounted on the neck rails, the cow platform is left completely open for extra high throughput. Neck-rail mounted gates also mean that posts do not have to be cemented in the cow platform, which allows for same-day installation in existing parlours.





Open entrance lane

Neck-rail mounted sequence gates

In-place ID

Heavy-duty cylinders

Faster cow-flow

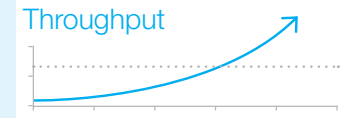
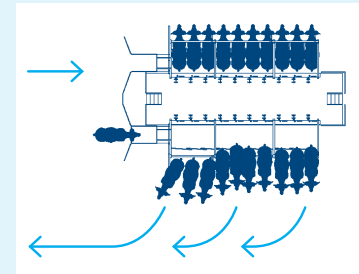
- Sequence gates mounted on neck-rail – faster loading time for all sizes of cow.
- Vertical-lift exit – faster exiting; can be installed in barns with narrow exit alleys.
- Unique, open bottom neck-rail – designed with understanding of how cows move for faster entrance and exit.
- Wide entrance lane with sliding entrance gate – quick entry and easy turning encourages fast loading of cows.
- All-Index™ – optimum positioning of cows for better udder prep, operator comfort and safety.
- All-Exit™ – exiting of all cows on each side with one push of a button, which helps save time.

Better workflow

- Suspended butt-pan – gives unobstructed view of the udder resulting in better working environment and operator comfort. The vertical design of the butt-pan provides a wider gutter and easier cleaning.
- Remote start – initiate take-off without reaching up to control panel, saving operator time and energy (option).
- Air-powered indexing – gently but firmly positions each cow back against the butt-pan. Consistent indexing positions the cows for comfortable attachment, saving operator time while providing more operator comfort.
- Deck flush – automatically cleans platform reducing risk of contamination (option).

Faster installation

- Sequencing gates mounted on neck-rails – gates do not have to be cemented in floor.
- Bolt-together design – reduces on-site welding and reduces risk of incorrect installation. This also speeds up the installation process for faster start-up.



Robust and reliable

- Robust structure – provides a safe working environment, low maintenance and long parlour lifetime.
- Heavy-duty cylinders and no steel-to-steel wear points provide excellent reliability.
- Air control box with built-in filter – provides pneumatics with clean air for longer life of air components.
- In-place ID provides accurate ID information and data integrity (option).

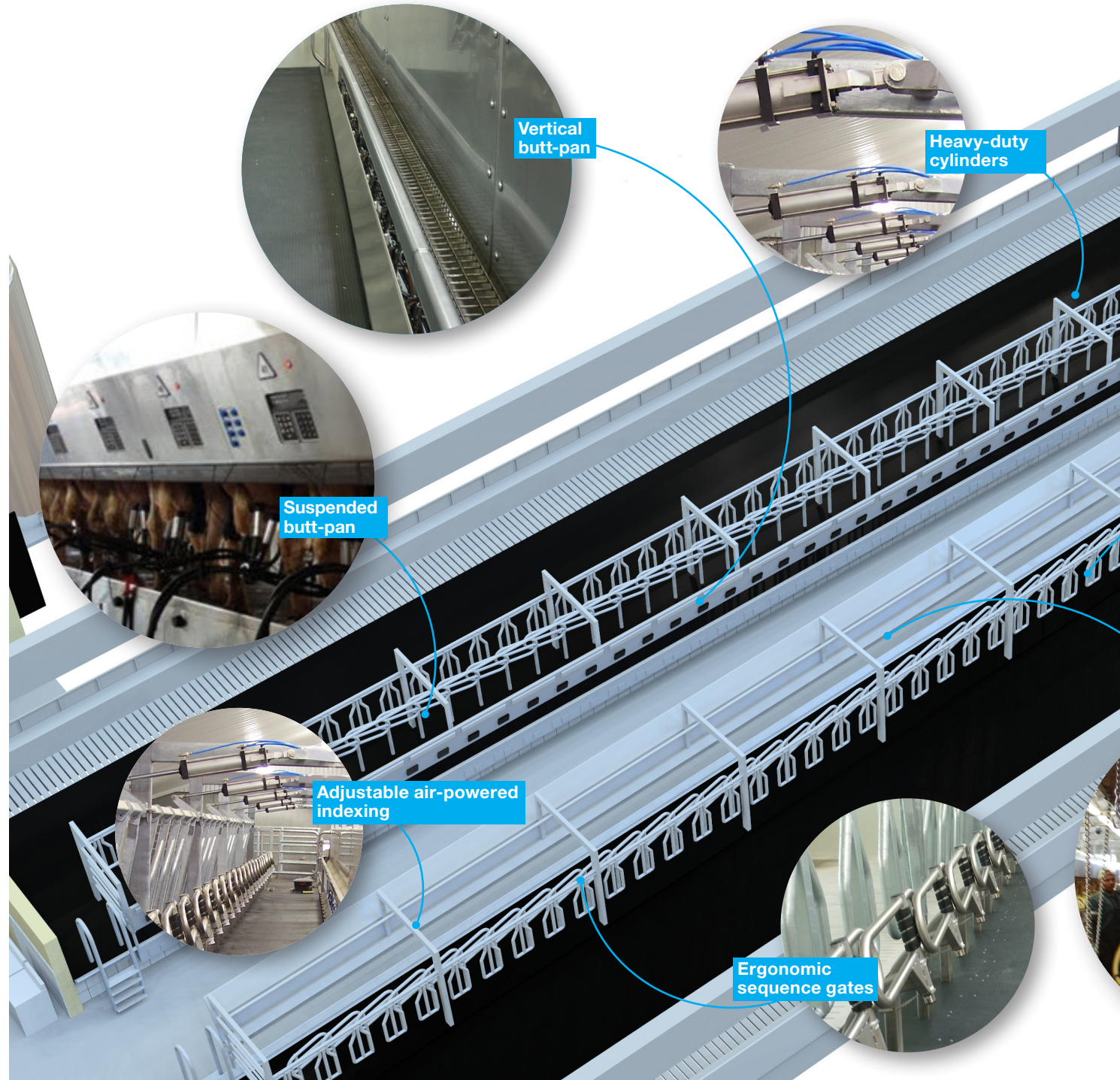
Cow comfort

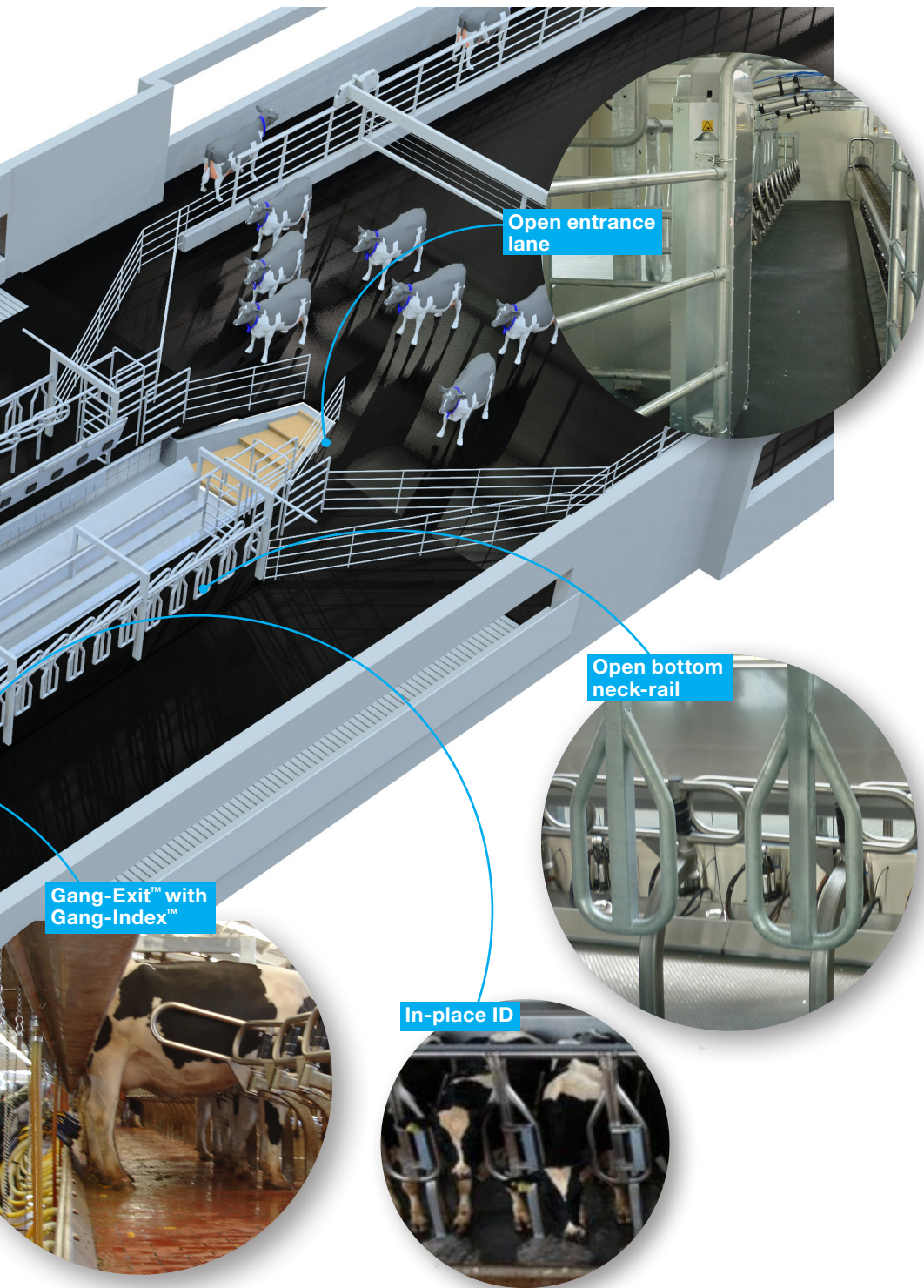
- Open platform – easier to keep clean.
- Lifting draw-bar – optimized lifting of sequence gates keeps cows relaxed while exiting.
- Cluster support – provides comfort for both operator and cow by ensuring perfect cluster alignment, preventing liner slip and reducing risk of mastitis (option).
- Adjustable air bellows – allow different pressure settings for gentle, slow but firm indexing of cows.

EnDurance™ parallel parlour

The gold standard heavy-duty parlour equipped with exclusive features

DeLaval EnDurance is a heavy-duty parlour designed for large- to mega-sized herds that require around-the-clock milking. This no-compromise parlour can handle the toughest conditions with minimum maintenance. It includes a number of exclusive features such as Gang-Exit™ and Gang-Index™ to optimize labour time and operational costs.





Open entrance lane

Open bottom neck-rail

Gang-Exit™ with Gang-Index™

In-place ID

Faster cow-flow

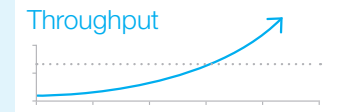
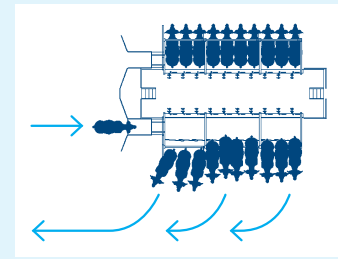
- Unique, open bottom neck-rail – designed with understanding of how cows move for faster entrance and exit.
- Wide entrance lane with sliding entrance gate – quick entry and easy turning encourages fast loading of cows.
- Gang-Index™ – begin attaching units to first gangs while other gangs of cows are still being loaded.
- Gang-Exit™ – lets you release gang of 4-5 cows as they finish milking for better cow flow.
- Ergonomic sequence gates: cow-friendly design with the top of the gate below the hip-bone of the cow. The curved sequence-gate posts give cows the space they need to turn comfortably as the move into the stall, resulting in faster loading.

Better workflow

- Suspended butt-pan – gives unobstructed view of the udder resulting in better working environment and operator comfort. The vertical design of the butt-pan provides a wider gutter and easier cleaning.
- Remote start – initiate take-off without reaching up to control panel, saving operator time and energy (option).
- Exit Plus – automates exit-entrance sequence to save operators time (option).
- Air-powered indexing – gently but firmly positions each cow back against the butt-pan. Consistent indexing positions the cows for comfortable attachment, saving operator time while providing more operator comfort.
- Deck flush – automatically cleans platform reducing risk of contamination (option).

Robust and reliable

- Robust structure – provides a safe working environment, low maintenance and long parlour lifetime.
- No steel-to-steel wear points, 76 mm x 152 mm (3x6") beams and heavy-duty 127 mm (5") duplex cylinders provide excellent reliability.
- Air control box with built-in filter – provides pneumatics with clean air for longer life of air components.
- In-place ID provides accurate ID information and data integrity (option).



Cow comfort

- Cluster support – provides comfort for both operator and cow by ensuring perfect cluster alignment, preventing liner slip and reducing risk of mastitis (option).
- Duplex cylinders – allow different pressure settings for gentle, slow but firm indexing of cows.

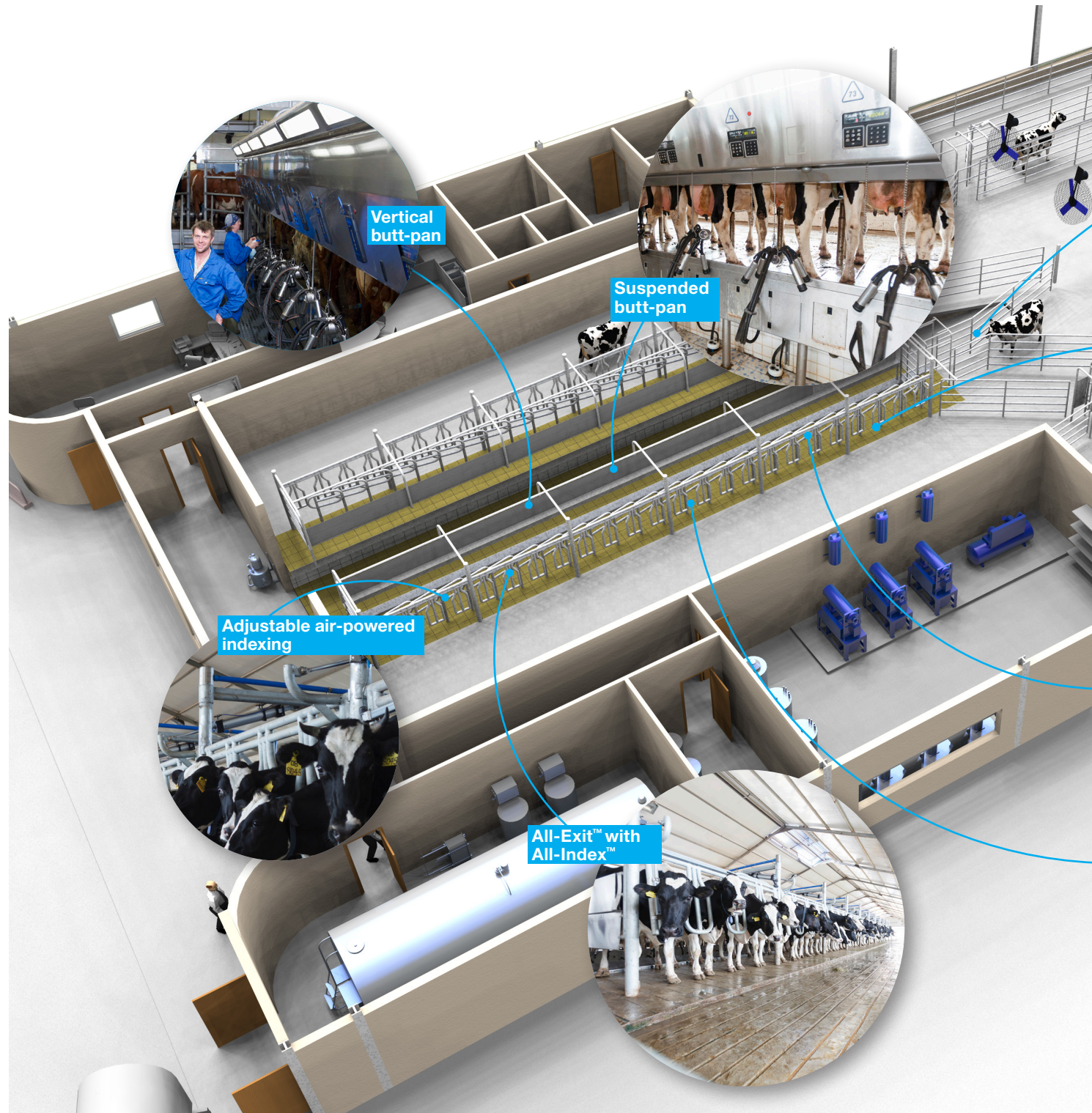
Faster installation

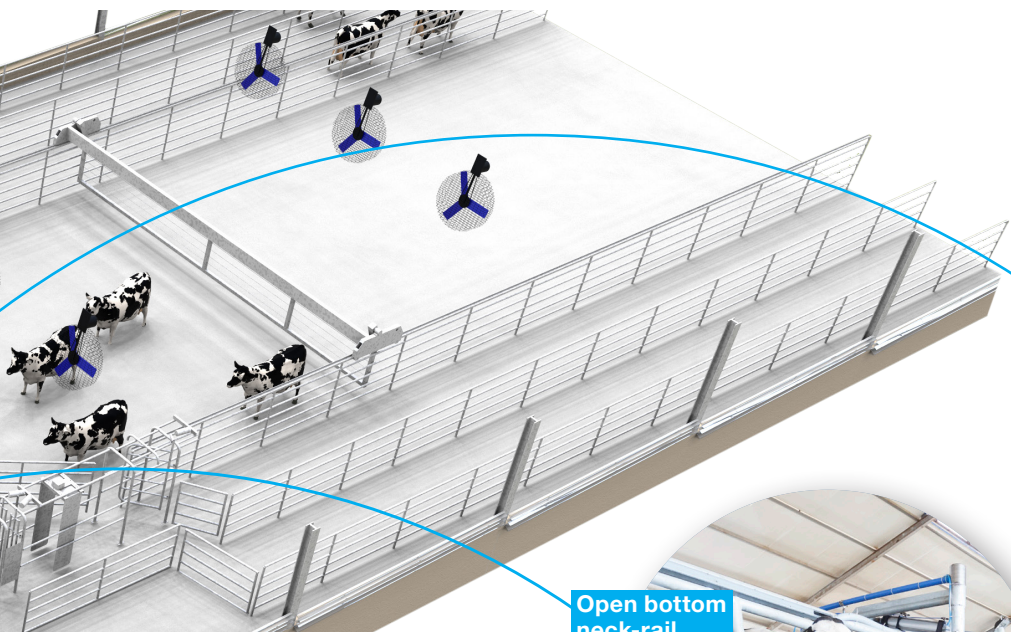
- Factory-assembled – having maximized pre-assembly, installation errors are minimized for fast installation.

Cascade™ parallel parlour

Value-for-money, 24/7
parlour with configuration
flexibility

DeLaval Cascade delivers top-of-the-line performance at the right price. It's a heavy-duty parlour designed for medium- to large-sized herds that require round-the-clock milking. Together with its swing-up exit, DeLaval Cascade gives you the flexibility to tailor a parlour from basic configurations to more efficiency-enhanced solutions. Cascade is designed to increase the speed of cow traffic with smooth cow-flow, while offering significant time and labour savings.



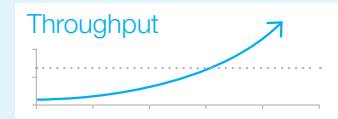
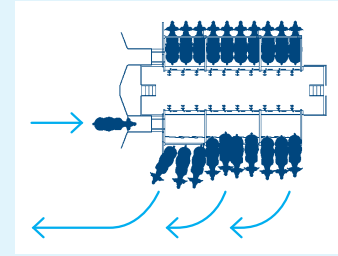


Open entrance lane

Open bottom neck-rail

In-place ID

Gang-Exit™ with Gang-Index™



Faster cow-flow

- Unique open bottom neck-rail – designed with understanding of how cows move for faster entrance and exit.
- Wide entrance lane with sliding entrance gate – quick entry and easy turning encourages fast loading of cows.
- All-Index™ – optimum positioning of cows for better udder prep, operator comfort and safety.
- All-Exit™ – exiting of all cows on each side with one push of a button, which helps save time.
- Gang-Index™ – begin attaching units to first gangs while other gangs of cows are still being loaded.
- Gang-Exit™ – lets you release each cow gang as they finish for better cow-flow.

Better workflow

- Suspended butt-pan – gives unobstructed view of the udder resulting in better working environment and operator comfort. The vertical design of the butt-pan provides a wider gutter and easier cleaning.
- Remote start – initiate take-off without reaching up to control panel, saving operator time and energy (option).
- Exit Plus – automates exit-entrance sequence to save operators time. (option)
- Air-powered indexing – gently but firmly positions each cow back against the butt-pan. Consistent indexing positions the cows for comfortable attachment, saving operator time while providing more operator comfort.
- Deck flush – automatically cleans platform reducing risk of contamination (option).

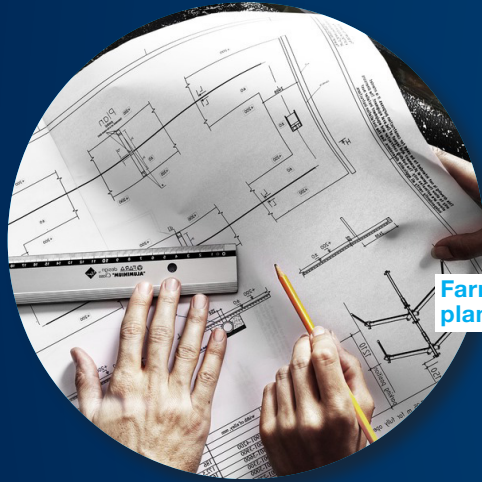
Robust and reliable

- Heavy-duty – designed for 24/7 milking, Cascade offers reliable operation and low maintenance costs.
- Air control box with built-in filter – provides pneumatics with clean air for longer life of air components.
- In-place ID provides accurate ID information and data integrity (option).

Cow comfort

- Cluster support – provides comfort for both operator and cow by ensuring perfect cluster alignment, preventing liner slip and reducing risk of mastitis (option).
- Duplex cylinders – allow different pressure settings for gentle, slow but firm indexing of cows.
- Ergonomic sequence gates – allow for optimum positioning of cows; relaxed cows produce more milk.

The integrated solution provider



Farm planning



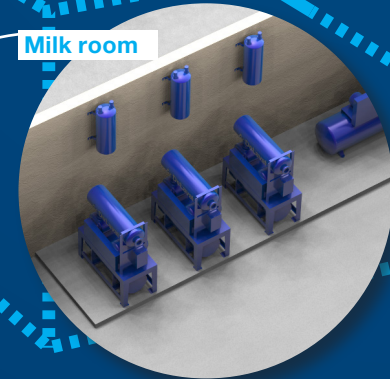
Crowd gate



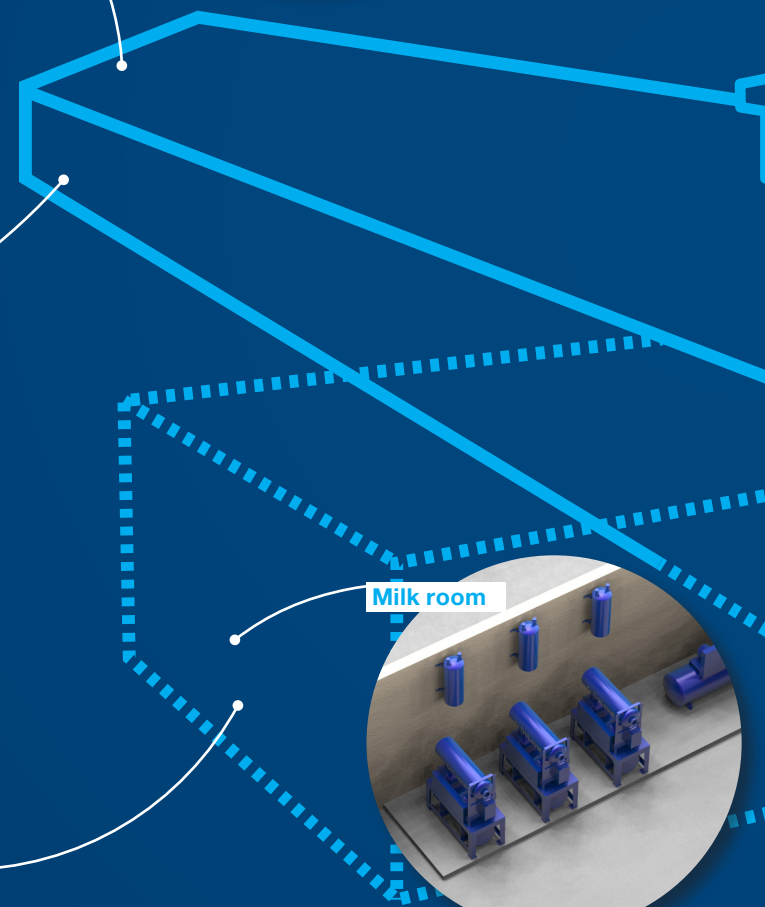
Cow comfort



Cooling



Milk room





Hoof care



Herd Navigator™



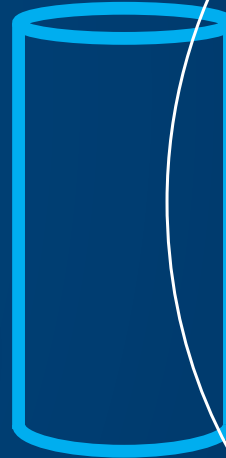
InService™




Farm management



Milking





DeLaval herringbone parlours

Cow and milker interaction – driving superior performance



Put the
PLUS+
in your
parlour

Cow and milker interaction – driving superior performance

When you want to expand your herd without losing close contact with your cows, think DeLaval herringbone parlours.

When you want comfortable cows but superior milking performance, think DeLaval herringbone parlours.

We have helped dairy farmers just like you, produce high-quality milk effectively for over 130 years and are happy to help you find the perfect herringbone parlour for you, your cows and your wallet.



Complete solutions for cow and operator comfort



When you invest in a DeLaval herringbone parlour, you acquire an integrated system.

It's the seemingly small things that make the difference: the suspended, angled rump-rail, wide entrance lane and minimal turning space for the cows. These unique design innovations lead to time and labour savings: small differences that add up to provide extra cow and operator comfort.

With DeLaval herringbone parlours you will achieve:

**Optimal
cow
comfort**

**Operator
friendliness**

**Faster
throughput**

**Integrated
automation**

**Flexible
design
for
upgradability**

**Low
maintenance
for
upgradability**

DeLaval herringbone HB50

Excellent cow-milker
positioning, higher throughput

DeLaval herringbone parlour HB50 allows you to fit in more cows per side than DeLaval HB30 for faster milking. With the angled staggered rump-rail, the cow stands comfortably close to the pit with no pressure on her sensitive pin and tail areas. And because the rump-rail is suspended, it is easy for the operator to access the udder.



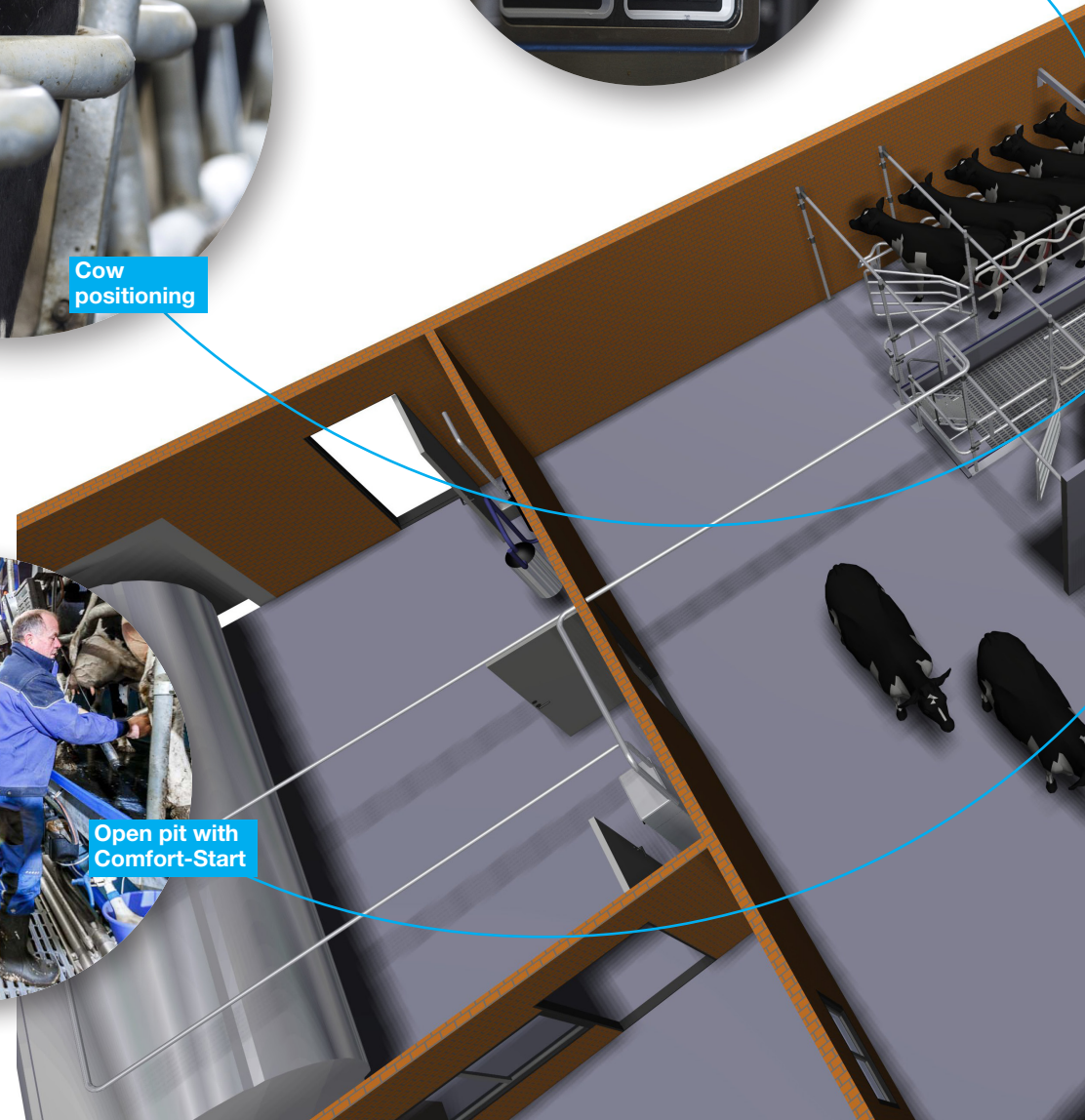
Cow
positioning

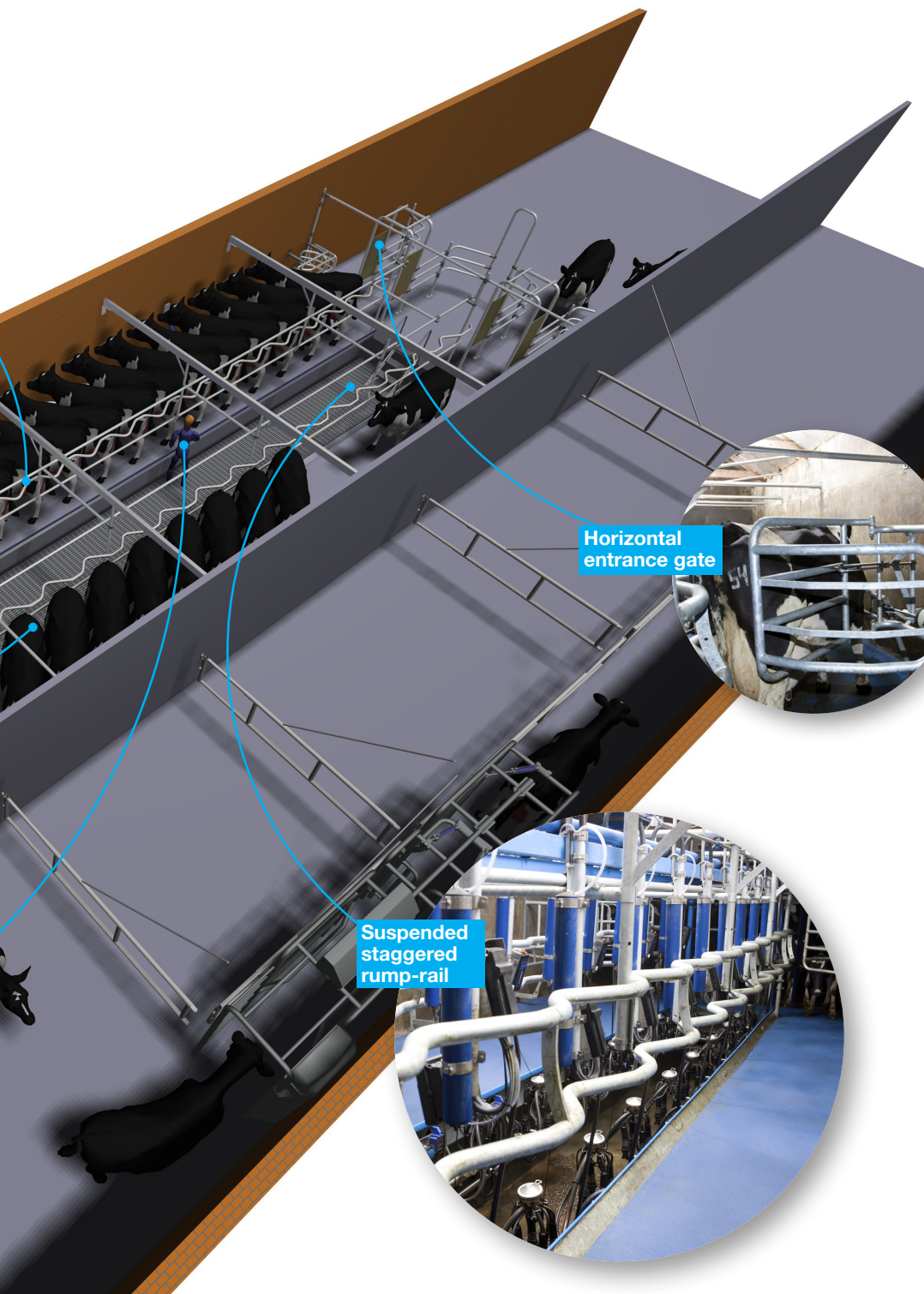


Herd
management



Open pit with
Comfort-Start





Horizontal entrance gate

Suspended staggered rump-rail



Cow comfort

- Angled staggered rump-rail increases cow confidence promoting fast let-down and milk-out.
- Less bullying due to staggered positioning.
- Small turn needed to get into position for fast and easy entry and exit.
- Cluster alignment – reduces the risk of liner slip and mastitis.
- Adjustable breast rail for comfortable, snug fit (manual or pneumatic options).

Operator comfort

- Comfort-Start allows operators to start milking by lifting the cluster, without having to push any buttons.
- Suspended “post-free” rump-rail gives unobstructed view of the udder and reduces risk of operator injury.
- Angled rump-rail allows cows to stand close to the operator.
- Kick-rail positioned close to back leg reduces risk of milker getting kicked.
- Galvanized steel curb for operator safety.
- Splash guard protects milkers and equipment (option).

Optimal flow

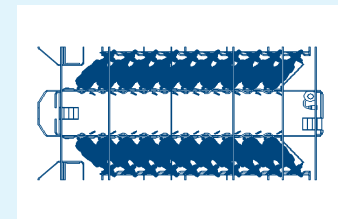
- Fast and precise cluster attachment thanks to unobstructed view of udder.
- Better alignment means better milk let-down.
- Swinging vacuum-controlled entrance gate opens fully for fast entry.
- Swinging exit gate with manual or vacuum control for speedy exit.
- Proven identification system provides fast and reliable cow ID (option).
- Crowd gate for faster milking routines (option).

Robust and reliable

- Durable design with heavy gage steel tubing.
- Rump-rail suspended from robust beam
- Hot-dip galvanised welded components

In-parlour feeding options

- Individual mangers: each cow can eat her concentrate ration in peace.
- Enables challenge feeding to drive up peak yield.
- Prevents post-peak weight gain by feeding to yield.
- Can be linked to DeLaval herd management systems for optimal control and reduced feed costs.

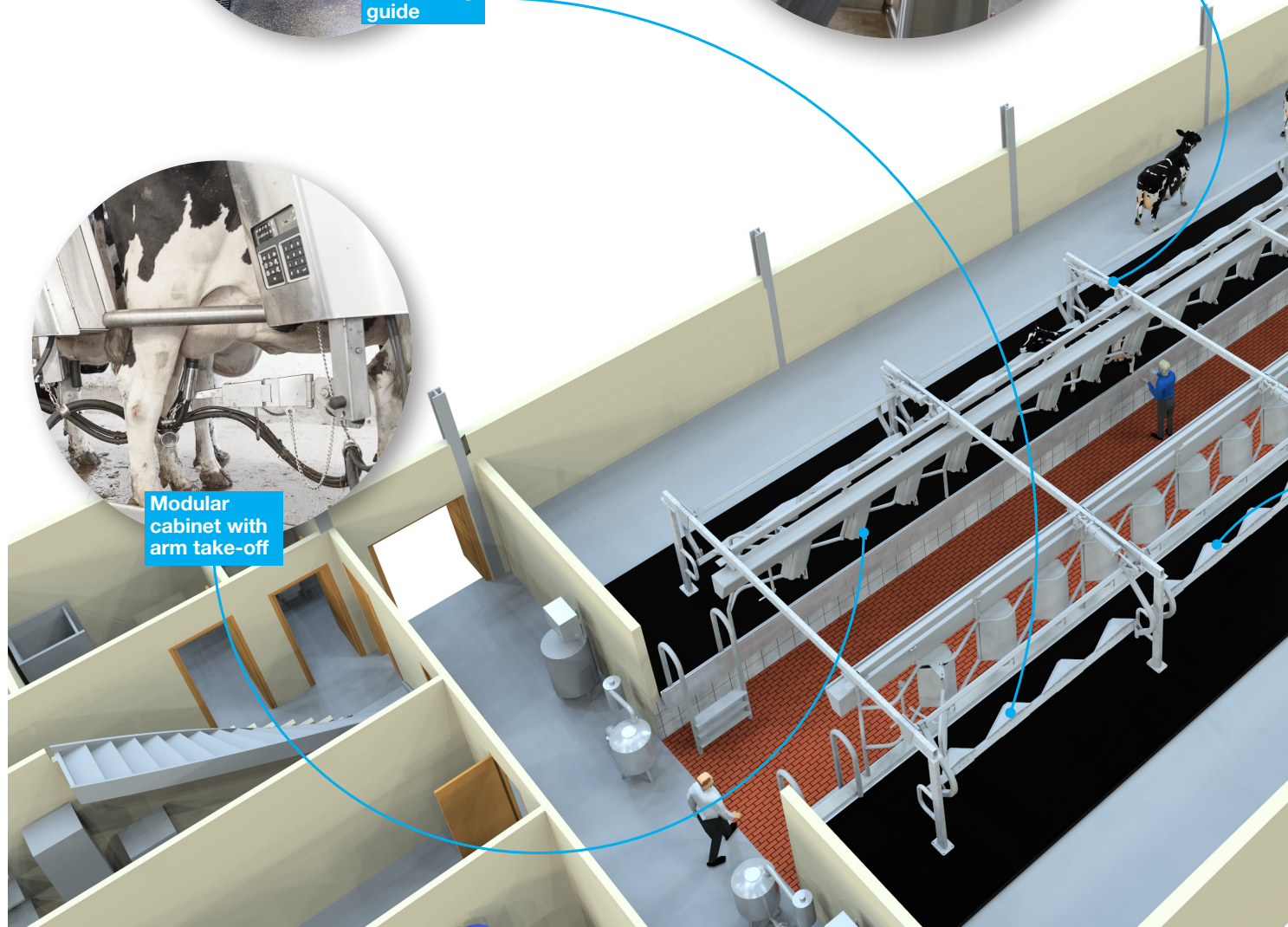
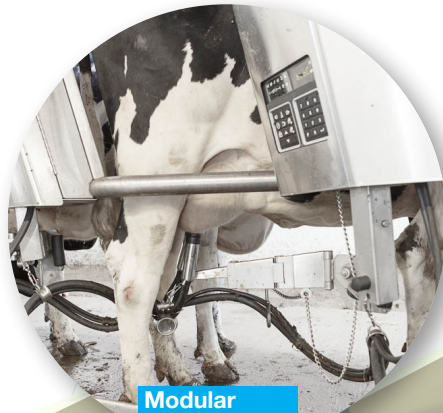


DeLaval herringbone HDHB

The heavy-duty parlour with optimum cow positioning and milker comfort

DeLaval herringbone HDHB parlour improves productivity by optimizing cow positioning and milker comfort. This no compromise parlour can handle the toughest conditions with minimum maintenance.

DeLaval herringbone HDHB gives you the flexibility to tailor a parlour to your special needs. You can choose everything: from type of materials, stall spacing and cabinets, to the level of automation; from stand-alone milking points to full herd management connectivity.





Wide entrance lane



Suspended rump-rail



All-Exit swing-up

Cow comfort

- Brisket rails with positioning guide – allows the milker to attach clusters more quickly.
- Unique two-direction indexing – gently but firmly positions the cows towards the rump-rail and back against the butt-pan. This ensures optimal cow fit and positioning, resulting in faster milker routines.
- Angled rump-rail – shaped to the back of the cow for good cow positioning and comfort.
- Wide entrance lane – minimal turn needed to get into position for fast and easy entry.

Operator comfort

- Suspended angled rump-rail – gives unobstructed view of the udder resulting in better working environment and operator comfort.
- Air powered All-Index™ – optimum positioning of cows for better udder preparation, operator comfort and safety.
- Angled rump-rail with integrated butt-pan – allows cows to stand close to the operator and protects milkers and equipment.
- Remote start – activates milking point controller improving operator ergonomics.
- Deck flush – automatically cleans platform, reducing risk of contamination (option).

Faster throughput

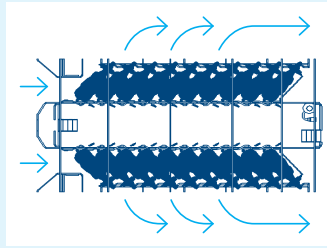
- Fast and precise cluster attachment and alignment – thanks to unobstructed view of udder.
- All-Exit™ – one push of a button allows cows on each side to exit, helping to save time (swing-up or vertical-lift options available).
- Open cow platform from entrance to milking place for fast loading.
- Exit Plus – automates exit/entrance sequence to save operators time (option).

Faster installation

- Bolt-together modular design – eliminates on-site welding, speeding up installation process for faster start-up.
- Surface-mount method – simplifies concrete work resulting in faster installation and retrofitting (option).

Robust and reliable

- Robust structure – provides a safe working environment, low maintenance and long parlour lifetime.
- Heavy-duty cylinders, no steel-to-steel wear points, plus strong rectangular structural frames provide durability and safety.
- Air control box with built-in filter – provides pneumatics with clean air for longer life of air components.
- Entrance lane is designed to provide highly accurate identification for data integrity.



Better alignment, better ergonomics – robust arm take-off

DeLaval arm take-off with legendary reliability offers many benefits (option for 42-inch/1,067-mm stall spacing):

- Quicker and easier cluster attachment – eliminates 20% of your work routine.
- Protects udder health by providing a controlled removal of the claw, with no residual vacuum.
- Claw and teat-cups hang straight in the rest position.
- Fall-offs do not disturb the rest of the system.
- Reduces parlour noise and worker stress.
- Less wear and tear on equipment, claws, teat cups and liners.

Labour effective, batch milking parlours

DeLaval Herringbone Duovac parlours



DeLaval herringbone parlour 30° and 50°. These parlours prioritise smooth traffic, flexibility and comfort. Moveable breast rails ensure smooth loading and gently position the cow close to the milker for optimal udder visibility and access. Wide cow passages allow rapid exit when the milking is over. The herringbone parlours make milking easier for all involved.

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.

DeLaval feed station FSC40



The high demands placed on dairy cows during transition and lactation in a group environment can be very challenging. Feeding each cow to her individual needs, will keep her in optimum health and allow her to perform to her genetic potential.

Individual feeding plans for ultimate health and efficiency

DeLaval feed stations enable you to program an individual feeding plan for every cow, based on her transition and lactation period as well as her milk yield. Your cows have access to their individual concentrate ration in small portions regularly throughout the day. When a cow enters the station, the processor identi-

fies her by either an electronic ear tag or transponder around her neck. Because the processor calculates every animal's daily ration continuously around the clock, it can immediately assess if the cow should eat, and how much. The station blends and dispenses the feed right to the cow's mouth at a speed predetermined to match her eating speed.



DeLaval MidiLine™ ML3100

The swing-over that will help you grow



Put the
PLUS+
in your
parlour

Smart investment	Easy to use	Easy to maintain	Easy to manage
Reduce labour costs: one person can milk more cows	Open working environment	Sleek design with smooth surfaces for easy cleaning	Farm management with DeLaval DelPro™
Fewer milking points mean lower maintenance costs	Ergonomic design for milker and cow thanks to DeLaval swingarm MSA30 with positive positioning	Well-thought through design for easy service	DeLaval ID system for cow-data collection and automatic actions
Cut water usage thanks to air-purged automatic cleaning system	Complete milkout with DeLaval Harmony™ clusters and DeLaval Clover™ liners (optional)	Less parts equal less service	Automatic udder health control and milk metering
Reduce power costs due to smaller vacuum pump and DeLaval variable speed drive NFO (optional)	Comfort-Start and automatic cluster removal	DeLaval In-Service™ for 24/7 support	Heat detection with activity meters
Upgradeable system			Automatic in-parlour feeding for smoother milking process



High-end design. Top-tier efficiency

The sleek, ultramodern lines of the new DeLaval MidiLine™ ML3100 are a reflection of its advanced farm management capabilities. In other words, not only is it a pleasure to look at, but because it's packed with time-saving options, it's also a pleasure to work with.

More management – more cows

Many farmers are increasing the size of their herds. Others simply want to reduce milking times. Whatever your needs, DeLaval MidiLine™ ML3100 – with its wide choice of farm management options – can help you get more done faster.

With DeLaval ML3100, you decide on the level of management automation that suits you. As your herd grows, you can increase the level step by step: from automated cluster removal, to full integration with DeLaval DelPro™ Farm Manager.

Easy to use

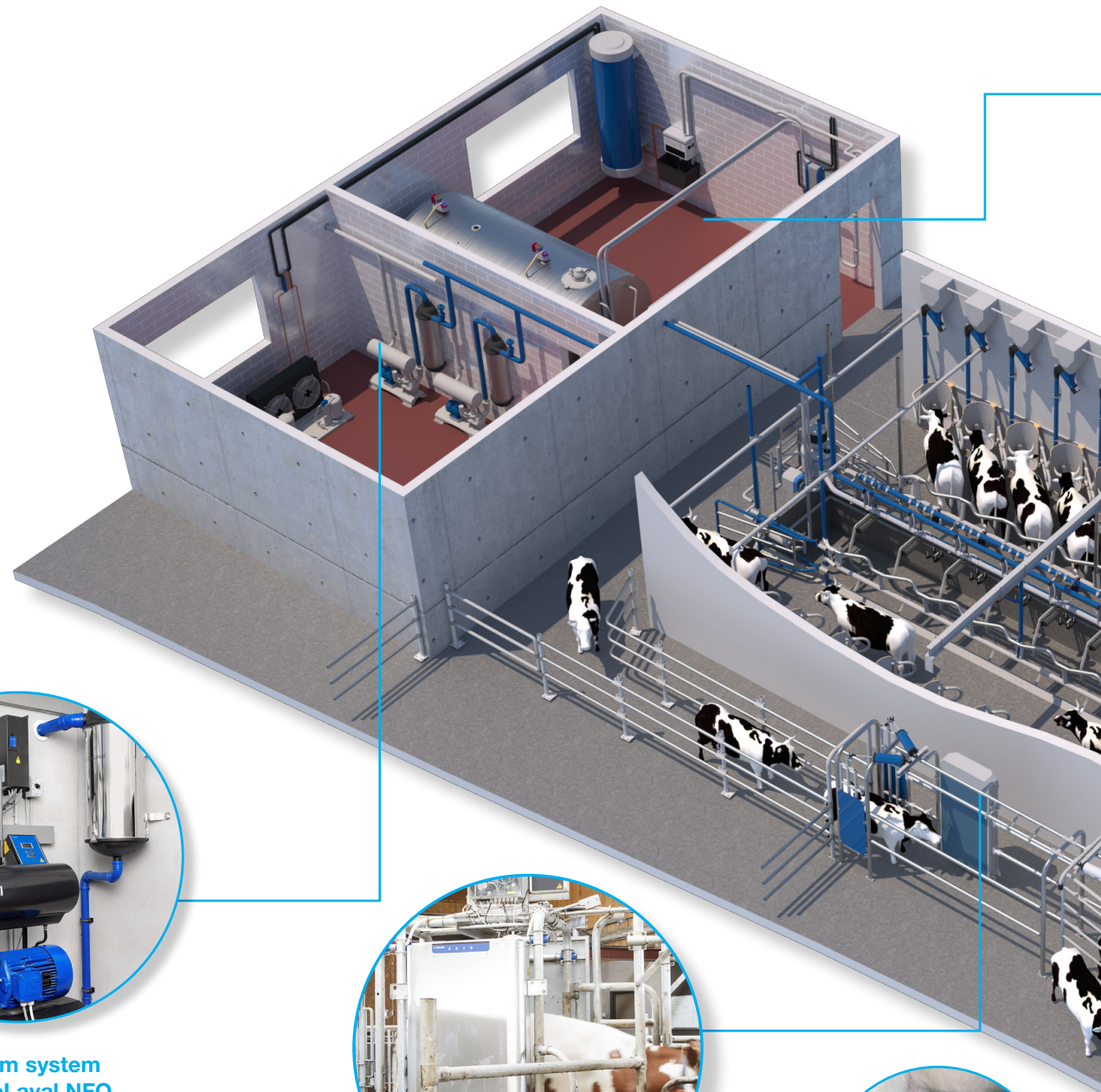
The swing-over arm has been designed to boost throughput and make life easier: whether for you or hired hands. By combining the swing-over arm with our lightweight, industry-leading top flow cluster, you can improve workplace comfort and ergonomics. In addition, since each arm has its own indicator light, you can check milking status or alarms from anywhere in the parlour.

Easy to maintain

The design of the swing-over arm ensures fast and easy maintenance. With plug-and-play replacement of wearing parts, you can finish routine maintenance tasks in a matter of minutes. DeLaval ML3100 is also easy to keep clean thanks to its sleek housing.

DeLaval MidiLine™ ML3100 milking system A swing-over for 21st century farms

You can get more done with **DeLaval MidiLine™ ML3100** because it offers you a higher level of automated farm management. With a range of optional management tools, you can increase productivity and the performance of your herd, while maintaining cow comfort.



Vacuum system
with DeLaval NFO



Cow identification and sorting



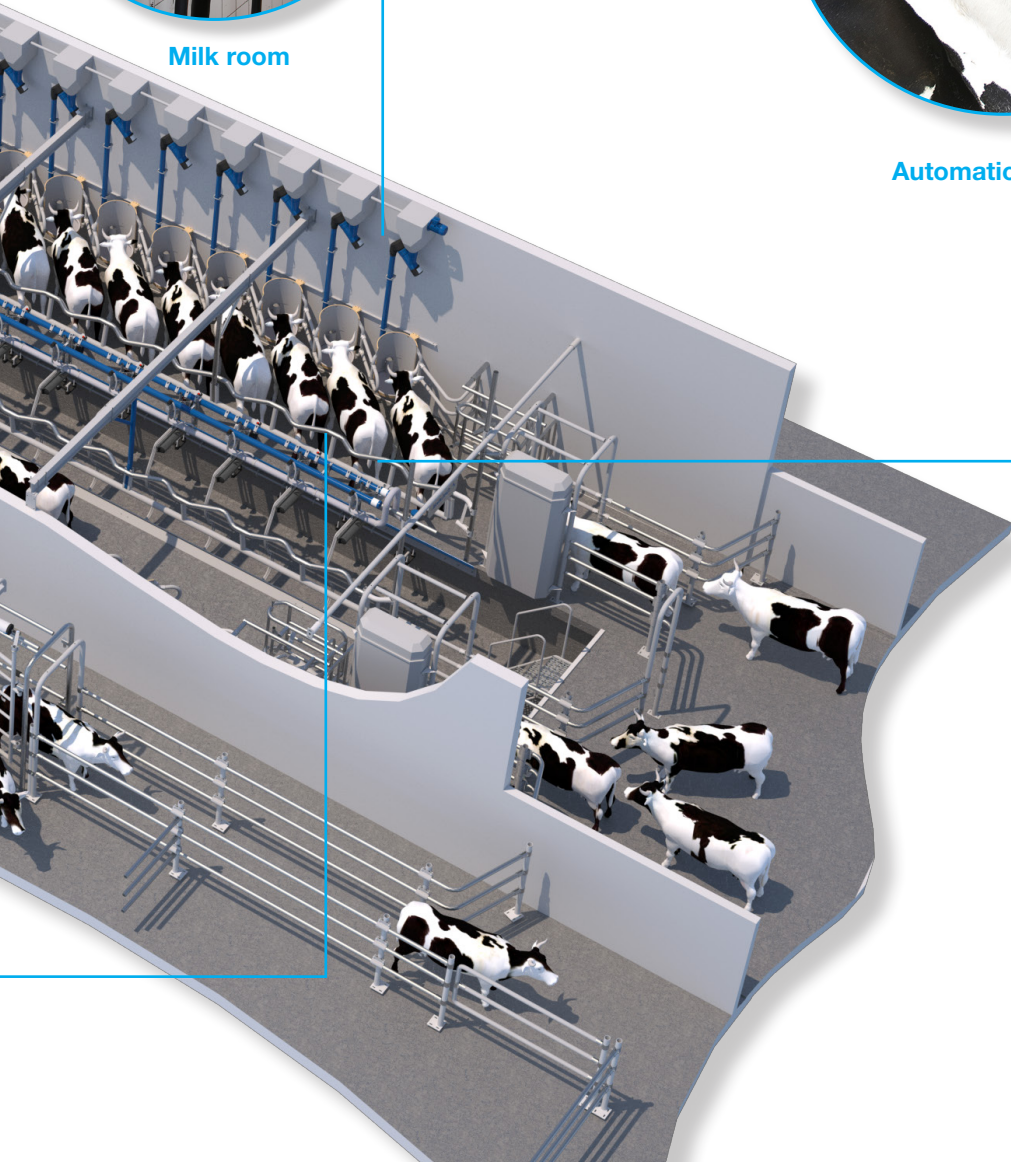
Milk extraction



Milk room



Automatic feeding



Add value with automation

With DeLaval MidiLine™ milking systems, you can add automation as you go –

- DeLaval ID system automates cow identification, collects data and registers actions
- Milk metering provides accurate yield recording for individual cow management
- Sort gates identify and sort cows based on herd management decisions
- Automatic DeLaval body condition scoring BCS identifies incorrect feed balance
- Automated feeding reduces labour and optimises feed utilisation
- Activity metering enables 24/7 automated heat detection
- DeLaval DelPro™ Farm Manager provides the overview needed for making daily management decisions

DeLaval MidiLine™ ML2100 milking system

Low investment swing-over system

With its swing-over clusters positioned in the middle of the pit, DeLaval ML2100 lets you cut automation costs in half.

Serving both sides of the parlour, DeLaval MidiLine ML2100 makes extremely efficient use of milking points compared to a system with one unit per stall. In other words, you can achieve a similar parlour capacity to a double-up or low line system, for a significantly lower capital investment.



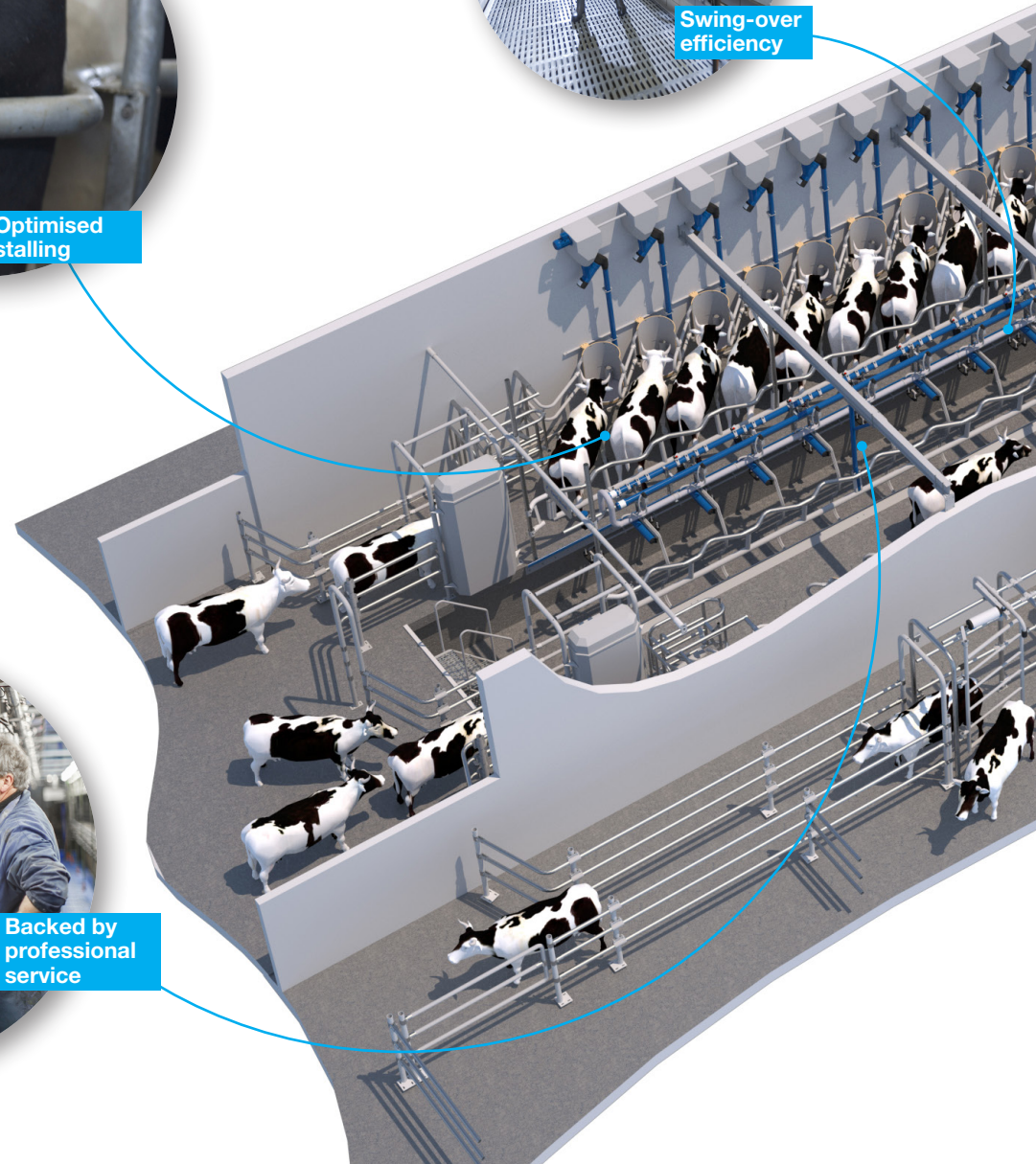
Optimised
stalling

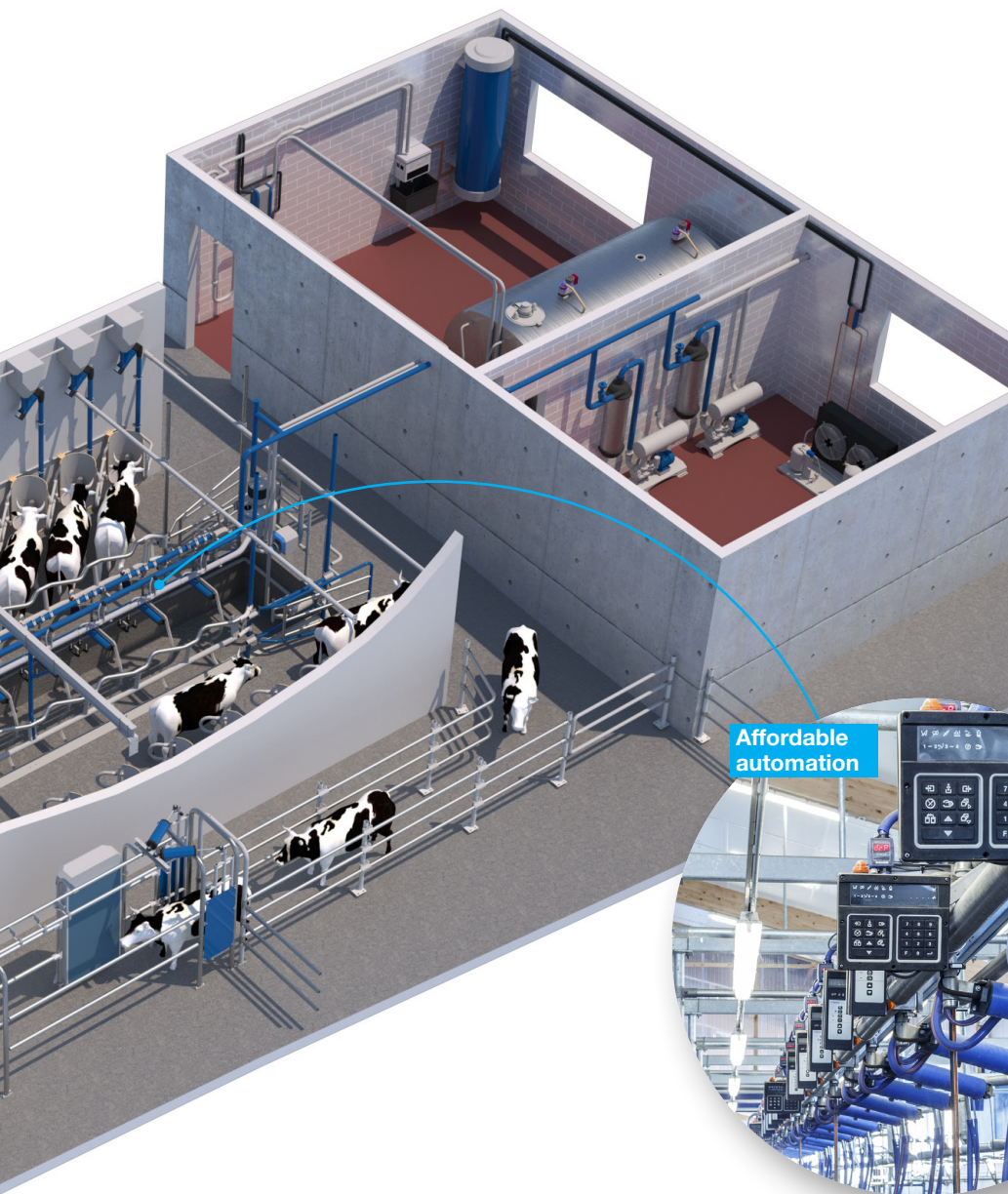


Swing-over
efficiency



Backed by
professional
service



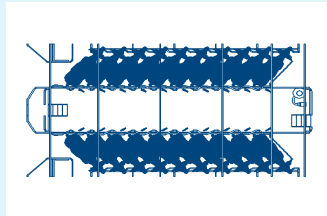


Affordable automation



Operator comfort

- Well positioned interfaces ensure comfortable and easy operation.
- Accurate and intuitive automatic cluster removes ACRs promote better routines and less walking.



- The optimized design of our ML2100 swing-arm, ensures open work areas and unhindered preparation of the next row of cows.

Cow Comfort:

- Perfect positioning leads to comfortable cows. With optimum cluster alignment provided by the DeLaval MSA20 swing-arm, cows milk quickly and easily, leading to higher throughputs.

Affordable automation:

- With a swing-over parlour, you get high cluster utilisation per dollar invested – and that means faster payback.
- Requiring fewer units than a lowline, DeLaval MidiLine ML2100 offers lower investment for high level automation.
- Quality equipment that helps you finish milking faster.



DeLaval MP150



DeLaval MP170



DeLaval MP100 Series

The DeLaval MP100 series are one button operational, electronically programmable, automatic cluster removers. They are protected in durable, corrosion resistant casing for a long, hardworking life. The design looks simple but has many supporting functions for speedy and efficient work flow, such as pre-milking stimulation options for fast and complete milking, and individual

pulsation control.

These Milking points can be combined with various DeLaval flow sensors (HFC, FI2) or milk yield indicator FI7 and Milk Meter MM27BC.

The units are designed to work in every known type of parlour.

1. 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 (picture 1 & 3) or MidiLine (picture 2) 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.

2. DeLaval Milking point MP170

is a simple first step to Herd

management.

The MP170 being the brother of MP150 will not only save you time and prevent over-milking. It's the way to collect yields and cow number and built an accurate database to help you managing your herd in a simple way using DelPro herd management software. MP170 is not just a take off unit since it will give the milker herd related information. Sometimes less is more, the milker

Milk recording

Effective monitoring of milk with ICAR- approved milk meters and non-ICAR indicators provide the information you need to improve cow health and milk quality. DeLaval ICAR-approved milk meters, such as the MM27BC, go a step further in monitoring blood traces in milk, conductivity, kick-off and air entry into liners.



DeLaval MP580



DeLaval MP680



DeLaval MP780

can easily relate to a few key functionalities instead of being confronted with more complex MP.

Although the design is very simple, the MP170 offers many useful features that help managing your herd such as sorting a cow on spot when she leaves the parlour.

MP170 together with Animal identification and Flow indication (FI7) or milk metering (MM27BC) ensures that you know which of your cows are producing best and can act quickly at any yield drop.

Check with your dealer which MP100 is the most appropriate for you.

3. DeLaval Milking point MP580

Used as an integrated stand alone automatic cluster

remover, DeLaval MP580 offers you efficient, simple and fast milking operation. This unit monitors milk yield, provides remote gate operation and indicates abnormal air entry into the cluster, when it is combined with DeLaval flow indicator FI7.

With MM27BC and connection to DeLaval ALPRO™ or Delpro™, MP580 supplies even more. It detects traces of blood and abnormal milk-out, and provides ICAR approved yield measurement and milk conductivity level, and records that data in the herd management software.

DeLaval MP580 makes the link to DeLaval™ and helps you to better manage your herd. You benefit from the interactive user interface, clear information such as “Don’t milk” or “Dump milk”, and it enables sorting of a cow from any milking point.

4. DeLaval Milking point MP680

This is the premium parlour user interface with DeLaval ALPRO™ or 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 offers all the functionality of DeLaval MP580, controlling the milking point for smooth milking and recording milk yield, and much more. It delivers more information and clearer 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 ALPRO™ /Delpro™ software. It combines well with DeLaval MP580.

5. DeLaval milking point MP780

The MP780 was created to give you full control over information on every cow. This superior streamlined milking point for full herd management can connect to ALPRO™ /Delpro™ to give the milker access to all cow data. You can see and set the information such as treatment flags or “sort cow” on the spot. No need to go and change the status in the management program afterwards.

DeLaval MP780 gives full MP680 functionalities housed in a sleek, vertical, stainless steel cabinet for trouble-free operation and easy cleaning; and the quiet environment reduces milking stress for cows and milkers and allows faster milking routines. DeLaval MP780 is suitable for new installations or existing parlour upgrades, and comes pre-assembled for fast and easy installation.

DeLaval Milking Points



DeLaval MP100 Series

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DeLaval MP580 3



DeLaval MP680 4



DeLaval MP780 5

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Farm management systems



Bringing the latest technology to dairy farms around the world

A farm management system collects and processes data around the clock, 24/7. It helps to identify trends and supports you in developing strategies at an early stage, helping you to manage your herd and identify cows in need of extra care.

The right decision at the right time

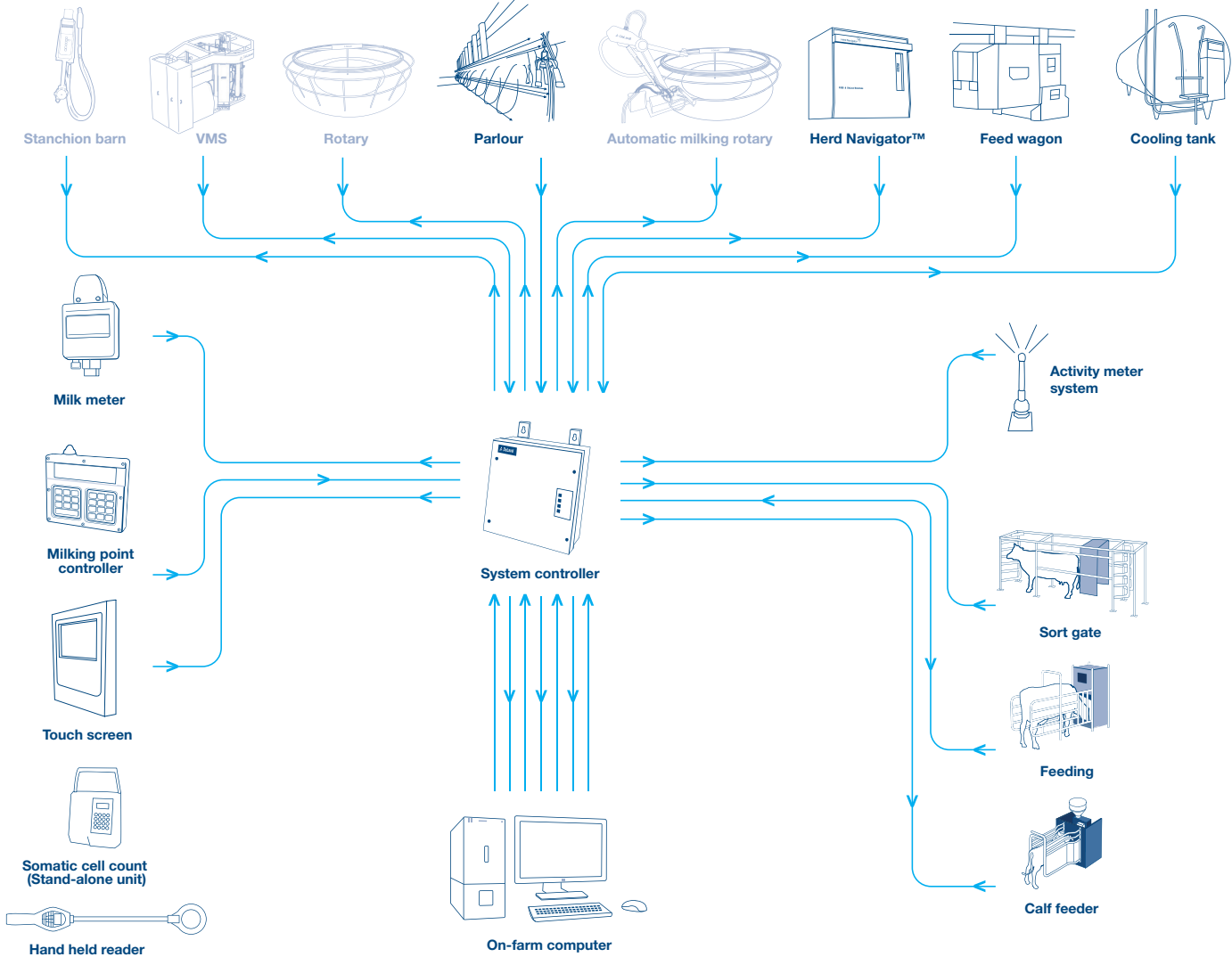
A herd management tool is essential for all farmers who are interested in optimizing production and profits. DeLaval farm management system is a modular concept that allows you to manage sorting, feeding, milking and breeding as one integrated business operation. This optimum herd management solution keeps track of each animal, monitors trends and evaluates options.

The power of control

Knowledge is a powerful tool. Reliable ID and milking point controllers help you to manage your milking process in an accurate way and provide you with valuable information.

Easier herd management

Lactation curves can be displayed graphically as can the development and trends of fat, protein and somatic cell count. Activity meters and a breeding calendar are powerful tools in your reproduction management.



Crowd gate



An intelligent cow traffic system ensures optimal cow-flow and labour savings. Parlour-integrated crowd gates ensure a smooth flow of cows from the waiting area into the parlour. Swing-up and vertical-lift crowd gates often provide the optimal solution.

Optimat™



Automating the feeding process lets you tailor feeding programmes to the needs of individual cows, while saving time, reducing wastage and labour costs. Optimat can be fully integrated with DelPro™ Farm Manager to ensure that each cow receives the optimum feed for her stage in the lactation cycle, thus maximizing yield.

Herd Navigator™



Herd Navigator is the ultimate early warning system. With a 95% heat detection rate – including detection of silent heat – you are able to skip the day-to-day monitoring of your herd for signs of heat. Herd Navigator pinpoints the cows which are in heat and should be inseminated. It accurately detects 80% of cows that have acute mastitis and ketosis, before any clinical signs are visible.

Cooling



DeLaval offers a range of effective cooling and pre-cooling systems that can be tailored to meet the needs of a productive farm. They ensure that milk is cooled down rapidly and kept in motion, preserving fat content and reducing bacterial growth. In short, they keep milk fresh, so that you can maximize milk quality and secure milk premiums.

Hoof care



If a cow becomes infected, the last thing you want is for the infection to spread among your herd. You can minimize this risk by treating and cleaning hooves as cows leave the parlour with our footbath and hoof care products. Prevention with regular hoof care will increase cow productivity and longevity.

Barn equipment



A good barn environment is essential for optimum cow comfort, health and productivity, and to protect your milk quality. This is particularly true in loose-house barns, where your animals are indoors all or most of the time.

Ventilation and illumination



Your animals need fresh clean air to achieve their production potential. Unventilated or poorly ventilated structures with high levels of moisture, manure gases, pathogens and dust are detrimental to your cows, and your profits. Good light management will optimize milk production.

Cow comfort



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

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.



2

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 reclaiming 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.

6. 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.

- Art.no. 95662001 1L
- Art.no. 95662005 5L
- Art.no. 95662020 20L

- Art.no. 95662004 4L
- Art.no. 95662010 10L

3

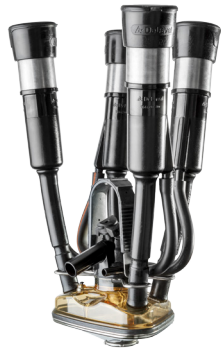


4



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 £	=	14p
Electricity cost per day £	x	70p
Saved electricity cost per day £	=	1.568
NFO Investment	/	£2000
Saved electricity cost per year £		572.32
Time for return on investment (years)		3.5

DELAVAL TOP FLOW The unique TF (DeLaval Top Flow) technology provides dairy producers high flow capacity with stable teat end vacuum. This is essential for good udder health and milk quality.



Harmony Plus™

The asymmetric claw design perfectly matches the natural shape of the udder, which results in fewer slips and fall-offs. Due to the patented TF (DeLaval Top Flow) technology claw, the Harmony Plus™ cluster has the capacity to handle the highest producing cows. This lightweight cluster is ideal for producers milking high yielding cows less than 12 hours per day.

- Weight: 1,7kg
- Short milk tube Ø: 12,5mm
- Outlet ID: 16mm
- Claw volume: 450ml

DELAVAL TOP FLOW



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 TOP FLOW



Harmony™

DeLaval introduced the Harmony™ cluster in the early 1990's. Today the name is synonymous with rapid milk flow, gentle treatment of the cow and easy handling. The light shells and high quality materials give an ideal weight without sacrificing cluster durability. Weighing one kilogram less than conventional clusters, Harmony™ lowers the risk of liner slip and cluster fall-off. Harmony™ will optimally meet the needs of highest producing herds milked less than 12 hours per day.

- Weight: 1.6kg
- Short milk tube Ø: 12.5mm
- Outlet ID: 16mm
- Claw volume: 360ml

DELAVAL TOP FLOW



DeLaval milking cluster MC73

The DeLaval milking cluster MC73 has a robust stainless steel body design, built to reliably handle continuous operation. This heavy duty cluster incorporates our patented TF (DeLaval Top Flow) technology and nipple-less liner design to handle extreme milk flows with minimal vacuum fluctuations. The innovative claw shape prioritizes milking comfort for the milker, with maximum milk production efficiency and performance.

- Weight: 2.1kg
- Short milk tube Ø: 12,5mm
- Outlet ID: 16mm
- Claw volume: 350ml

DELAVAL TOP FLOW



DeLaval milking cluster MC31

The DeLaval milking cluster MC31 is designed and engineered to deliver optimal performance from milking-to-milking for small to midsized 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: 2.7kg
- Short milk tube Ø: 12mm
- Outlet ID: 16mm
- Claw volume: 250ml



DeLaval milking cluster MC93

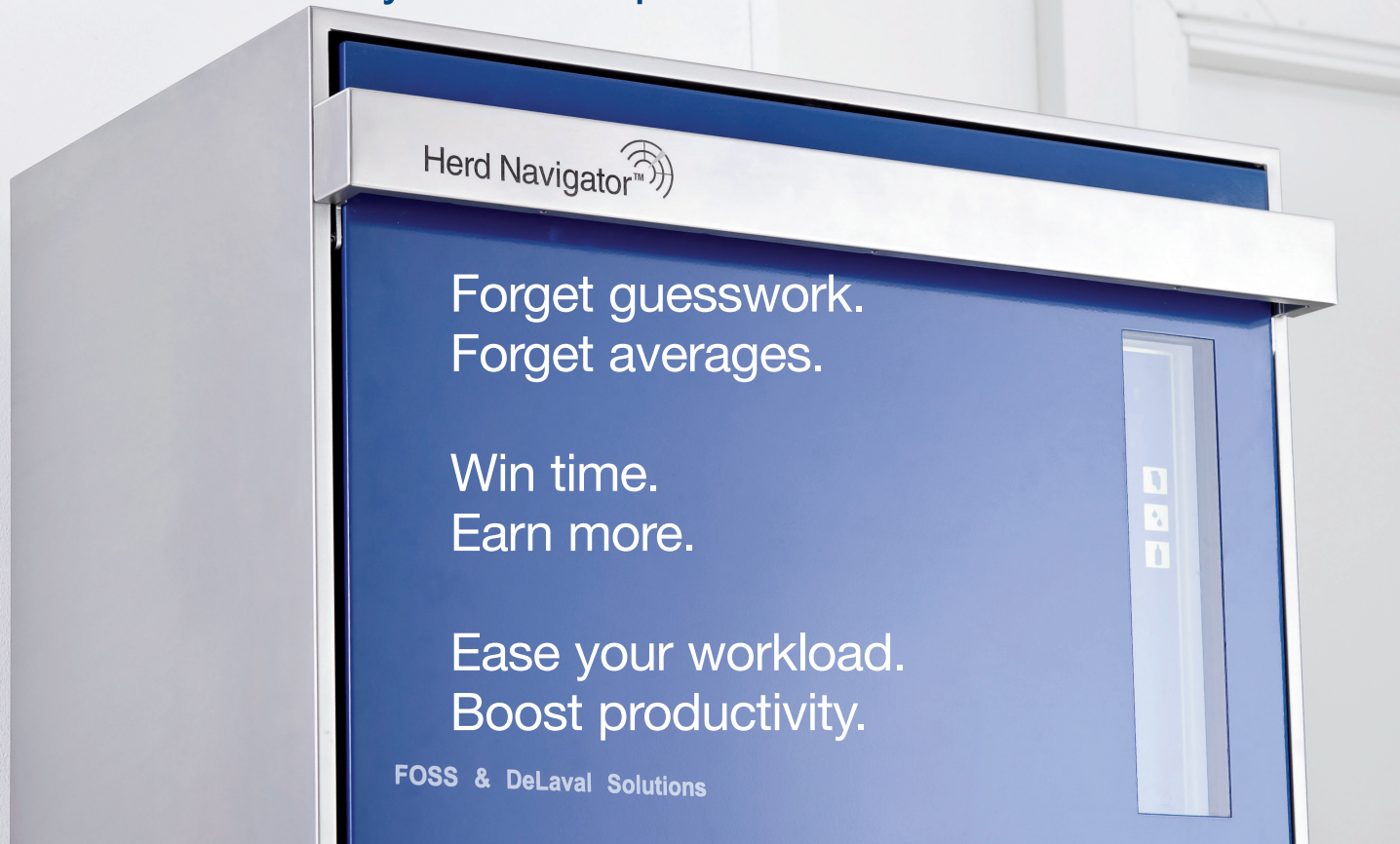
Combined with stainless steel shells and patented DeLaval Top Flow technology, DeLaval MC93 gives stable vacuum throughout milking and is ideal for producers milking high yielding cows less than twelve hours per day. The asymmetric claw design perfectly matches the natural udder shape, for fewer slips and fall-offs. It's fitted with DeLaval soft lip textured liners and nipple-less connection.

- Weight: 2,2kg
- Short milk tube Ø: 12,5mm
- Outlet ID: 16mm
- Claw volume: 450ml

DELAVAL TOP FLOW

Herd Navigator™ for VMS® and milking parlours

You know a healthy cow is a profitable cow...



**You Can Earn An
Extra €250 Per Cow!**

Herd Navigator™ features

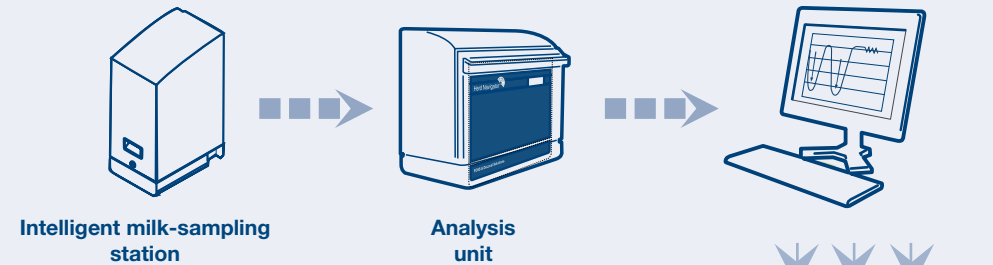
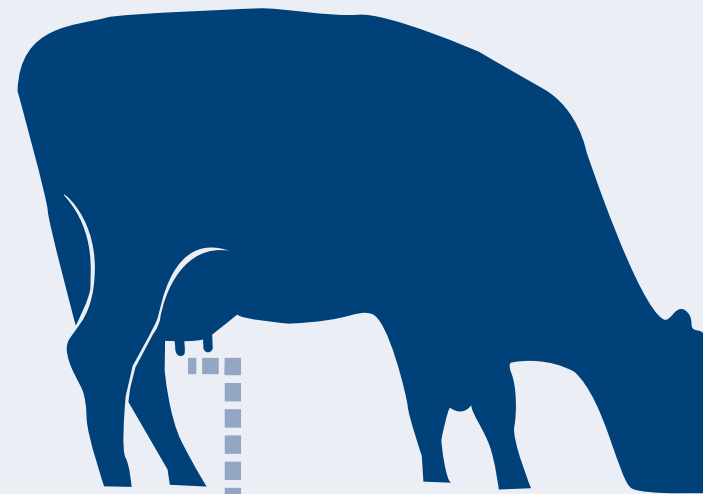
- Automatic sampling of up to eight VMS stations, together with analysis of the respective milk indicators, giving you control over your daily milk production.
- It analyses four parameters:
 - LDH (Lactate dehydrogenase) for mastitis
 - Progesterone for reproduction
 - BHB (beta hydroxybutyrate) for ketosis
 - Urea for feed protein balance
- Clearly identifies the cows in need of special attention – for reproduction, health and feeding.
- It provides clear, easy to understand, recommended action plans.
- You can take action before the clinical outbreak of disease, before a cow shows clinical signs.
- Automatic heat detection with the “gold standard” indicator progesterone finds even silent heats.
- It also provides your vet and advisors with new, detailed information that enables them to give you faster and even better service.
- It improves efficiency in daily tasks and reduces time and labour in work routines.

Herd Navigator™ support

- Easy to use software integrated into the herd management program.
- Well arranged attention lists and graphs for all animals in need of special attention.
- Preset action proposals for the “attention” cows (standard operating procedures – SOP).
- Functionality to develop your own treatment schedule, which you may choose to do with support from your local veterinarian or advisor.

Connect with the experts: if you choose, your veterinarian and advisory service may access your dairy management data remotely to provide advice, quickly and efficiently, based on real time data from your herd.

A Herd Navigator™ from DeLaval gives you the real-time advice you need to treat a cow at risk before it gets mastitis or ketosis. And the information given provides you better control, improving your reproduction, nutrition and health management. And now, with the newest upgrade, Herd Navigator™ can analyse milk samples from up to eight VMS stations.



Detects heat by measuring progesterone

Early detection of: silent heat, heat, pregnancy, abortion, follicular and luteal cysts, and prolonged anoestrus.

Detects mastitis by measuring LDH, lactate dehydrogenase

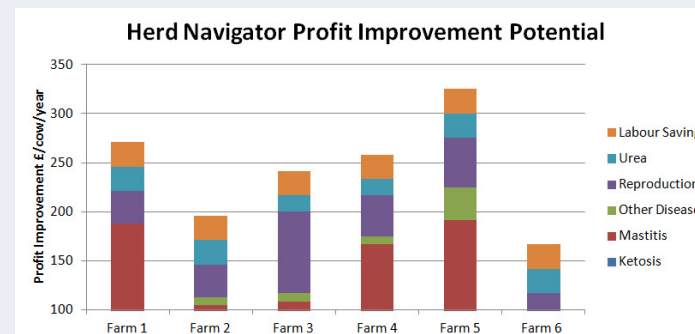
Early detection of acute mastitis.

Detects ketosis by measuring BHB, beta-hydroxybutyrate

Early detection of: subclinical ketosis, ketosis, metabolic diseases.

Herd Navigator™ also detects urea to help balance feed protein.

Parameter	Detection Rate
Heat Detection	≥95%
Mastitis (acute Mastitis)	80%
Confirm pregnancy/abortion	>90%
Luteal cysts	90%
Follicular cysts	70%
Ketosis	>80%



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 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.



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.

Milk meters – 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.



Key benefits of the New DeLaval MM27BC milk meter

- Milk is measured continuously with minimal disturbance on the milk or airflow.
- Monitors blood presence, milk conductivity and milk out performances.
- It is not dependent on a central computer.
- Low service cost – no movable parts.
- Information is displayed on the milk meter.
 - Sealed unit.
 - It is fully compatible with previous generations of products.
 - Unique detection of kick-off, block and slip.

2



3



1. DeLaval milk meter MM27BC

The latest DeLaval MM27BC milk meter delivers you all the key data needed to optimise your herd management for better productivity and profitability. A highly accurate ICAR approved milk meter that also monitors blood traces in the milk, milk conductivity, air entry in the liners (kick-off, block and slip), the DeLaval MM27BC delivers you fast, on the spot milk yield monitoring and improved cow health control. Meeting the demands of dairy farmers around the world for a one-stop solution for sustained production efficiency, the DeLaval MM27BC milk meter harnesses infrared light technology to measure the flow of milk

with extreme accuracy.

2. DeLaval yield indicator F17

This unit uses infrared technology which ensures no direct contact with the milk. It senses the milk flow and displays the estimated yield, giving a good indication of each cow's milk yield. It also measures milking duration. DeLaval F15 has no moving parts which means reliable operation with minimal need for service.

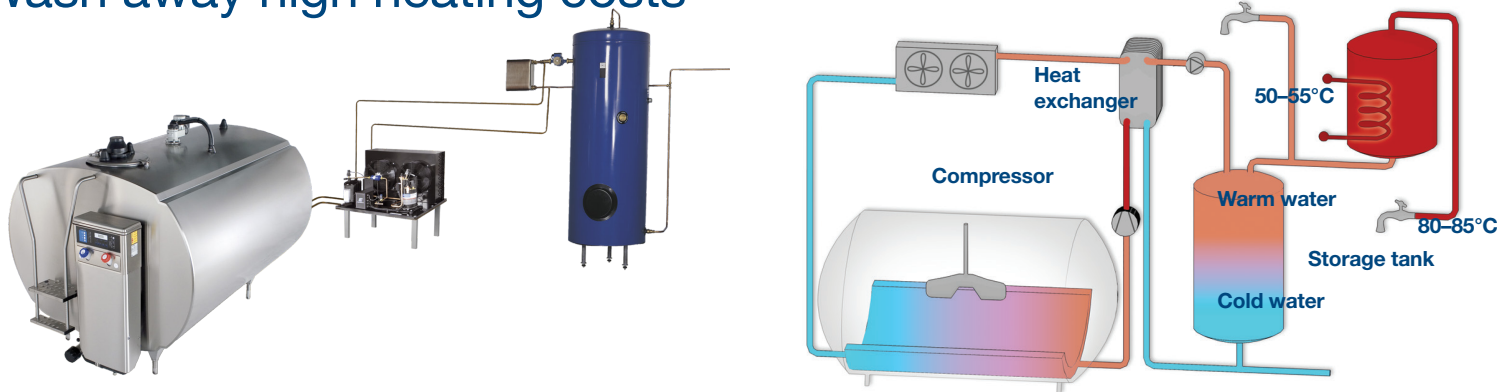
3. DeLaval flow indicator HFC

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

Name	Measurement	Readings	Cluster removing when combined with milking point	In combination with cluster removers	ICAR Approved
Milk meters					
1. DeLaval milk meter MM27BC	Infrared and white light	On meter or on MP	Yes	Yes, optimized for DeLaval MP780, MP680, MP580, and also for MP400	✓
2. DeLaval milk meter MM15	By weight	On MP	Yes	Yes, DeLaval milking point MP780, MP680 and MP580	✓ Blood and Conductivity, Air leakage functions
3. DeLaval milk meter MM6	Manual	Visual on meter	No	No	✓
Milk yield indicators					
4. DeLaval yield indicator FI7	Infrared light	On meter or on MP	Yes	Yes, optimised for DeLaval MP680, MP580, MP400 and MP150	Manual handling
5. DeLaval flow indicator FI2	Volume	—	Yes	Yes, DeLaval MP780, MP680, MP580, MP400 and MP100 series	
6. DeLaval flow indicator HFC	Resistivity	—	Yes	Yes, DeLaval MP780, MP680, MP580, MP400 and MP150	

DeLaval heat recovery system HRS

Wash away high heating costs



Reduce energy costs

DeLaval heat recovery system generates warm water using a milk cooling process. This solution can recover up to 60 percent of the heat extracted from cooling milk and convert it to hot water for use in all your pipeline and parlour cleaning.

Milk cooling to a low storage temperature is an essential part of your daily routine. The environmentally-friendly DeLaval heat recovery system generates warm water from the milk cooling process. The energy removed from this process generates warm water rather than hot air. In fact for every litre of milk cooled, 0.7 litres of warm water is produced.

Profit from heat recovery

The heat transferred from milk to water is maximized through the thermostat or water pressure valve control set, to reduce your energy consumption and related costs. You may even be able to further reduce these costs via subsidies from local energy usage reduction programmes.

No labour is needed for daily adjustments because DeLaval heat recovery system operates automatically and you only need minimal space for this compact, well designed solution. You can also customize your choice from a wide range of heat exchangers and storage tanks.

Numerous uses for on-farm water heating

- You need an adequate quantity of hot water (80°C to 85°C) to clean the milking system after each milking and the cooling tank whenever it is emptied. Our heat recovery unit warms water (50°C to 55°C) and an additional heater is installed to make the water hot. When compared to heating tap water directly from 10°C, this dual approach consumes far less energy and that means less cost.
- Warm water sourced straight from the storage tank can be used for manual milk room washing and cleaning together with general household demands like showers or washing your hands.
- Luke-warm water (15°C to 35°C) is a combination of storage tank water mixed with cold water. It can be used to clean udders before milking, as drinking water for cows and calves during winter time and as milk powder preparation for calf feeding.

Compact chillers for instant milk cooling

CWC60, CWC90 and CWC120

A very cool way to increase your milk quality and profit

One of the challenges faced by every dairy operation is cooling milk fast enough to achieve the highest level of milk quality. This is especially true for dairy farmers who are expanding their operations, changing over to voluntary milking systems or simply trying to make do with out-dated cooling systems that just can't keep up.

The DeLaval Compact Chiller range lets you achieve the highest levels of milk quality and profit by delivering powerful instant cooling that locks in the quality of your milk before it goes into the tank.

In case your existing equipment cannot cope with increased production on your farm you can also use them to pre-chill the milk before it comes to tank for final cooling.

But what's really cool is how well these compact chillers fit into your milking system. As the only complete-solution provider in the dairy industry, DeLaval always looks at how solutions work together – not just how they work on their own. Recognising the challenges of space that many

modern dairy farms face, we didn't want to develop a space-consuming solution that would create one problem to solve another.

So we developed a range of milk chillers that are not only compact enough to fit into the space you have available, but also robust enough to be able to operate away from high-traffic areas – even outside the barn if you need.

With configurable power options that let you customise cooling capacity to meet your needs while allowing you to scale up in the future; DeLaval Compact Chillers are the ideal milk cooling solution for any sized operation.

Core benefits

- Possibility to cool milk on farms where traditional in-tank cooling is not enough
- Provides fastest cooling rate of all cooling system types → conserves milk quality
- One-piece design makes it easy to install and maintain
- Possible to install outside the building to conserve space
- Built in heat recovery to limit energy use
- Makes possible use of vertical tanks with limited cooling surface to store the milk
- Designed with long working time in mind, double system to minimize risk of total failure
- Multiple compressors circuits to adjust capacity to actual milk flow on farm



Voltage 3x400V 50Hz

	Nominal capacity kW at 38°C ambient	Number of cooling circuits	# of compressors	# of circulation pumps
CWC 60	60	2	2	2
CWC 90	88	2	4	2
CWC 120	121	2	4	2

DeLaval cooling tank DXO

No frills, just cools!

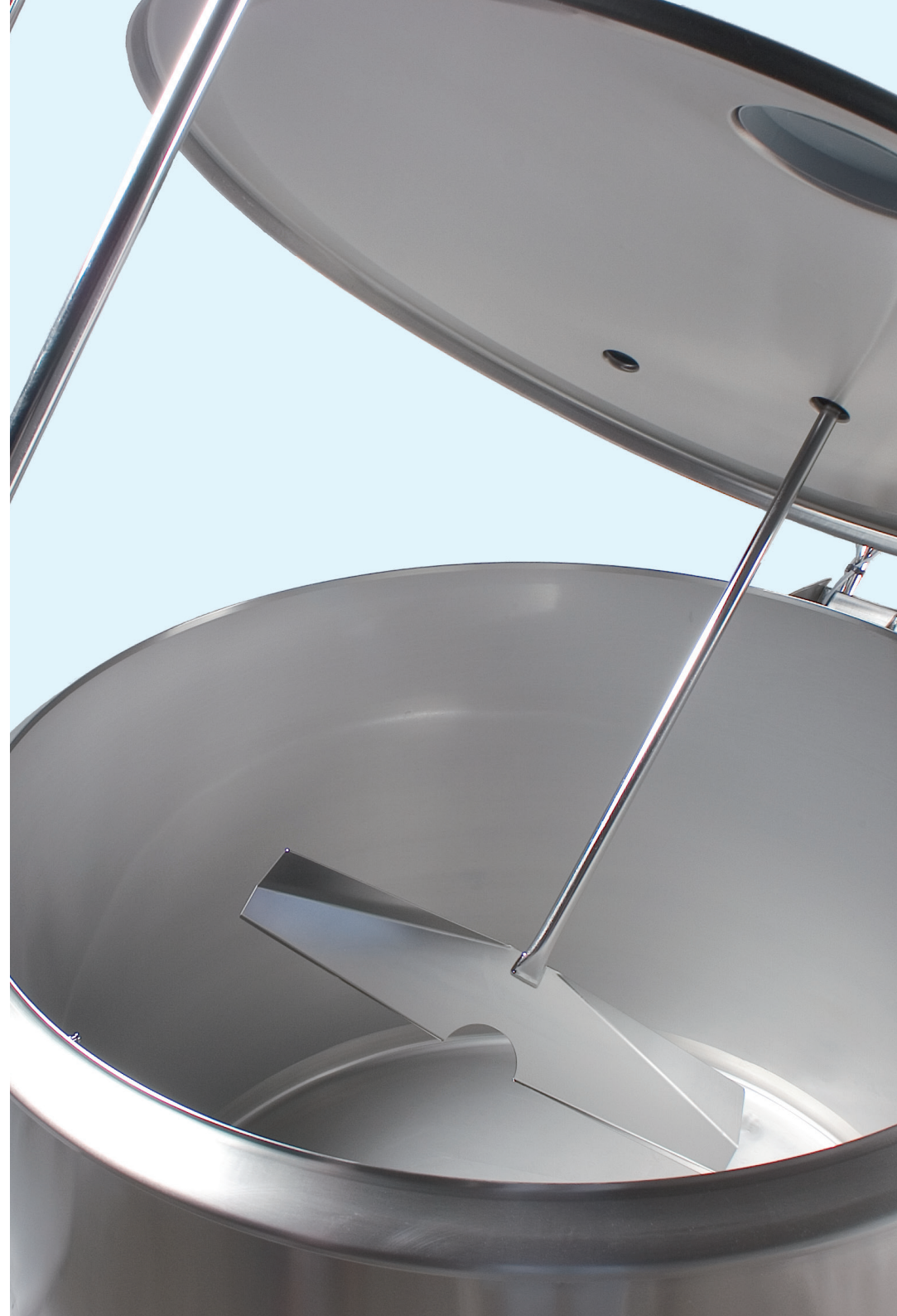
Although milk has a natural resistance to bacteria immediately after it leaves the cow, only rapid cooling will stop the growth of harmful bacteria. Correct milk cooling is the only way to retain optimal quality and command the highest price from the dairy. DeLaval cooling tank DXO efficiently cools your milk so you can maximise your income.

Easy installation

DeLaval DXO tanks all come complete with factory installed refrigeration and electrical systems ready for fast, trouble-free installation in your milk room. Tank capacity can be matched to your needs, based on cow numbers, average yield, and the frequency of milk tanker collection.

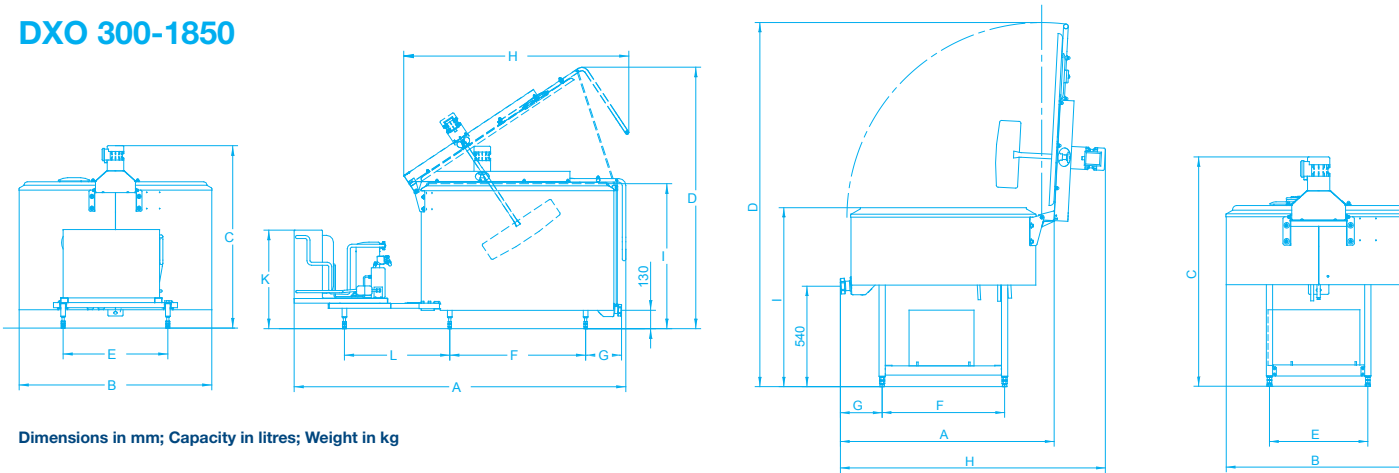
Insulation

DeLaval cooling tank DXO incorporates environmentally friendly (CFC free) high-density polyurethane foam to prevent cold milk from warming up. Any increase in temperature is limited to less than 1°C over a 12-hour period (in an ambient temperature of 32°C) so milk is kept well cooled.



Please check the table below for the installation that fits your requirements

DXO 300-1850



Dimensions in mm; Capacity in litres; Weight in kg

Top hygiene and quality

Cleaning is easy due to the high quality finish of the double-walled, stainless-steel shell. The rounded shape of the lid prevents water remaining on it and minimizes the risk of dirt adhering to the surface.

Compact cooling

With its condensing unit placed underneath the small tank, DeLaval open tank DXO 200litre needs only 1.43m² of space.

100% control

The electronic DeLaval control box T3 takes care of your cooling tank's daily operation. This device controls milk temperature, agitation and cooling time. Its purpose designed digital display and functions make cooling easy.

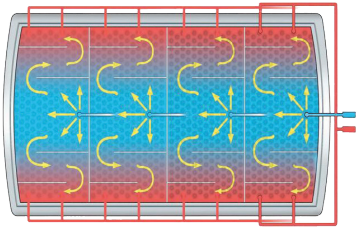
Capacity nominal	Capacity maximum	A	B	C	D	E	F	G	H	I	K	L	Weight
200	217	1150	1000	1236	1960	530	660	223	1430	960	NA	NA	NA
300	355	1750 – 1890	1000	1070	1800	530	660	220	1430	800	580	640	129 ÷ 145
400	427	1760 – 1890	1000	1200	1920	530	660	220	1430	920	580	640	146 ÷ 156
500	537	1850 – 2020	1110	1200	2040	590	750	240	1550	920	720	650	158 ÷ 199
600	611	1980 – 2020	1110	1290	2130	590	750	240	1550	1020	720	650	169 ÷ 204
700	712	2130	1250	1220	1750	670	860	250	1440	950	580	690	187 ÷ 187
800	815	2130 – 2170	1250	1320	1960	670	860	250	1440	1050	710	690	194 ÷ 225
1000	1038	2310 – 2380	1400	1320	1900	760	990	260	1630	1050	710	760	220 ÷ 254
1200	1202	2310 – 2420	1400	1450	2110	760	990	260	1600	1180	890	760	226 ÷ 264
1400	1457	2500 – 2590	1600	1370	1960	880	1150	280	1830	1100	890	760	255 ÷ 297
1600	1605	2550 – 2590	1600	1450	2130	880	1150	280	1830	1180	890	760	289 ÷ 321
1850	2075	2550 – 2590	1600	1700	2380	880	1150	280	1830	1430	890	760	310 ÷ 342



DeLaval cooling tank DXCE and DXCEM – unbeatable cooling efficiency

We designed the heavy duty DeLaval DXCE and DXCEM bulk milk cooling tanks to meet your distinct cooling needs. At DeLaval we can customize this essential cooling component to serve any sized dairy farm, anywhere. Maximize your income by professionally cooling and storing your milk with DeLaval.

DXCE



High gas turbulence inside our evaporators gives rapid cooling and saves energy costs



DXCE with cleaning and control unit T200

Targeted quality cooling

DeLaval effectively caters to the cooling needs of all sized farms around the globe with our top quality DXCE and DXCEM cooling tanks. The elliptic shaped DeLaval cooling tank DXCE matches small to medium sized dairy farms with five different width dimensions and capacities from 1150 to 12 000 litres. The hyper-elliptic shaped DeLaval cooling tank DXCEM serves big dairy farms with 12 000 to 32 000 litre capacities and two different diameter sizes.

Inside out

The unique shape of our tanks allows us to use large evaporator surfaces without over-doing the outer tank dimension. Each tank can contain one to four independent, DeLaval made dimple plate evaporators for reliably efficient milk cooling. All our cooling tanks are insulated with a high density, environmentally-friendly foam which protects against energy loss from the inside.

DXCE with cleaning and control unit T200



Rapid cooling

Milk is increasingly sensitive to mechanical impact as its temperature falls, so our agitator blades run at a minimum speed and are positioned centrally on the tank. This design distributes the cold temperature generated at the bottom of the tank, through the milk within two minutes, to help ensure rapid cooling.

DeLaval DXCE is equipped with one blade to delicately handle your milk and the larger DeLaval DXCEM tanks perform with two. The blade has inbuilt spray nozzles and combines with a strong hydro-power cleaning pump to reliably maintain your tank's hygiene.

The double revolving manhole lid opens vertically or horizontally for easy access and it is ideal for milk rooms with low ceilings.

DXCEM



DXCEM with cleaning and control unit T250

Note: a lid holder is standard on 700 to 1850litre tanks.



DeLaval Flow Controlled Cooling FCC for VMS systems



We invented the easy-to-use and selfcleaning double tank outlet



Our special revolving manhole cover with air-vent and two filling accesses

Top hygiene made easy

DeLaval simplifies daily cleaning routines to save your time and effort by offering a wide, quality range of cleaning and control units. Simply choose the level of automation and programming you require.

You can select from a standard circulation cleaning system like DeLaval cleaning and control unit T10, through to micro-processor controlled models offering several adjustable cleaning programs like DeLaval T100 and T200. DeLaval T200 is the current market leader because it reduces cleaning water consumption by 46 percent, detergent use by 43 percent and cleaning time by up to 60 percent when compared to other circulation cleaning systems. DeLaval T150 and T250 even offer alarm features and data recording.

Automatic peace of mind

Milk producers using an automatic milking system require a special cooling setup. We developed DeLaval flow controlled cooling FCC specifically for this purpose. It helps avoid common problems found on systems not adapted to the realities of automatic milking – like milk freezing, high plate counts, water residues and high freezing points. DeLaval FCC links DeLaval voluntary milking system VMS to the cooling tank and one of our T-family of cleaning and control units.

All relevant process data and alarms are linked between the milking system and DeLaval DXCE or DXCEM. This data is communicated to the milker via the DeLaval VMS display and optional external warning devices.

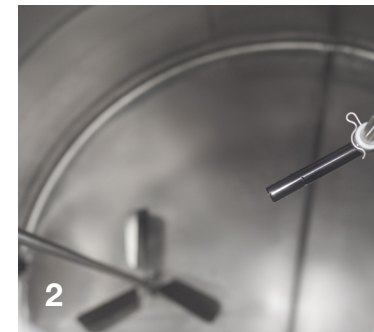


DeLaval silo tank DX3S

Protecting milk quality at large volumes



Agitator



T-Sprayer



Safety air-vent system

Minimizes the risk of tank damage due to negative pressure during both emptying and cleaning of tank.

Efficient cleaning system

Patented direct-to-drain technology with custom-designed T-sprayer provide optimum cleaning results protecting milk quality.

Milk volume indicator

Makes it easy to monitor the volume of milk in DeLaval DX3S.

Smarter storage for farms with parlours and rotaries

With tank volumes of up to 40,000 litres, DeLaval DX3S offers significant storage capacity. To protect the quality of such large volumes of milk, DeLaval DX3S provides optional side evaporators, to give you exceptional cooling capacity for tanks of this size.

When storing large volumes, it's recommended to pre-cool milk before it enters the bulk tank. DeLaval has a range of pre-coolers that can reduce total energy consumption for cooling by as much as 60% compared with direct expansion cooling. To achieve the highest milk quality, we recommend using instant cooling with DeLaval compact chillers CWC and plate heat exchangers.

Cut energy costs by up to 60%

With pre-cooling, you can reduce the total energy needed to cool milk by up to 60%.

Even insulation – longer cooling

Polyurethane coating process is controlled by an infrared camera to achieve highly even insulation.

Thanks to this the best thermal protection and prolong lifetime for compressors.

20% lower mixing costs

Two-speed agitation allows for efficient mixing, whether for small or large volumes of milk.

Soft-start and soft-stop of agitator Reduces wear and tear of gearbox and agitator paddle for longer service lifetime.

Over-flow protection

When the tank is 90% full, an alarm warns personnel to stop milking or when possible to divert milk to a different tank.

1. Agitator
2. T-Sprayer and agitator
3. Manhole lock and Milk sampler
4. Top view of tank: Air vent pipe, manhole on top, agitator motor.
5. Double outlet and pressure sensor

Milk room access

All connections from the tank lead into the milk room to ensure premium milk quality and full control over access to the tank.

Stainless steel quality

Provides mechanical strength and resistance to corrosion. Manufactured with high quality finish for long service lifetime.

Outdoor installation

Makes it possible to reduce the size of the milk room, while making it easier to expand your farm in the future.

Agitator design development

Developed in collaboration with university researchers, the design of the agitator achieves optimal heat-transfer efficiency.

World-class evaporators

The evaporators are extremely efficient, which prolongs the lifetime of the condensing units. Their high efficiency also helps to reduce energy costs.

DeLaval cleaning control unit T300

Keeping milk at the optimal temperature and ensuring the cooling tank is cleaned properly once it's emptied is essential if you want to ensure milk quality is preserved. Automating these processes with DeLaval cleaning control unit T300, ensures maximum cleaning results are achieved with minimum resources.

Fully programmable to meet the needs of your farm

With DeLaval T300 you don't have to worry about your milk in the cooling tank. The pre-programmed control unit automatically cools milk to the ideal temperature, as well as cleans the tank each time milk is collected by the dairy. Cooling and cleaning parameters can also be programmed to meet your, or your dairy's, specific requirements taking minimal required time no matter if you are using conventional milking systems or DeLaval VMS™.

The cost-saving control unit

DeLaval T300 is a cost effective control unit. On average it uses 30% less water than conventional circulation cleaning systems. Additionally, as it registers exactly how much milk is in the tank, it uses the minimum amount of energy required to keep the milk cool – no energy is wasted.

Integrated system

DeLaval T300 can be fully integrated with DeLaval DelPro™ Farm Manager when used with DeLaval VMS. This enables you to control the cooling and cleaning processes as well as view diagnostics reports from the farm computer. DeLaval T300 can also be controlled directly from the control unit, via a user-friendly interface.

Secure cleaning and cooling

DeLaval T300 has a built-in milk monitoring system. It informs you of current milk tank status – including milk temperature and volume, or current stage of cleaning – and provides a history of cooling and cleaning operations. There is an optional GSM module for receiving alerts on your mobile.

Safe collection

DeLaval T300 has a warning system that informs the milk truck driver if it is safe to pump the milk from the milk tank.



Cleaning milking equipment is a vital part of your daily routine. It is essential for maintaining top quality milk but is not something you want to spend time doing yourself, or supervising.

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, regardless of water supply pressure.

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.



1



2



3

1. DeLaval cleaning unit C100E

Although more basic than the C200, the C100E automatically takes care of cleaning your milking plant and is easy to use. The all-in-one unit is easy to install and keeps your milk room looking neat.

The C100E is available as a stand-alone unit requiring a separate wash trough, or with an integrated container. The latter unit is equipped with heating elements and is available with 40 litre, 80 litre or 160 litre containers.

2. 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.

3. DeLaval cleaning unit C50

The hygiene requirements of milking plants on smaller dairy farms are very similar to those of much larger dairy farms. An effective cleaning system which provides a consistent, high quality result – and is reliable and easy-to-use – is a priority for any farmer running a small to medium sized dairy farm.



DeLaval UK

Pascal Close
St Mellons, Cardiff
CF3 0LW
t: 029 2077 5800
fax: 029 2077 5840
e: gb.info@delaval.com
www.delaval.co.uk

DeLaval DAC

Unit 6, Shamrock Business Park
Graiguecullen, Carlow.
Tel: +353 (0) 59 9146859
Fax: +353 (0) 59 9146860
e: info.ireland@delaval.com
www.delaval.ie

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