

DeLaval Rotary E300

A System Approach



**IT ALL REVOLVES
AROUND YOU**

IT ALL REVOLVES AROUND YOU

The DeLaval Rotary E300 is all about helping you to improve your throughput while optimising the operator hours per milking.

The expertise we have gained designing, manufacturing and monitoring the highest throughput milking systems in DeLaval history have been applied to make the DeLaval Rotary E300 a throughput machine.

To deliver this requires not just a milking platform, but a fully integrated milking system – a rotary system with more information, more automation, more functions and more technology than we've ever included before – and to deliver it so that one person can operate it safely, comfortably and easily, from a central point.

It's not just the milking itself that is simpler, calmer and more comfortable than our previous rotaries; but also the service, support and advice that is an integral part of what makes your Rotary E300 one of the most efficient milking systems available today.

This brochure introduces our standard release of E300. Some features, components and services mentioned herein are optional to the customer. With the flexibility brought by optional features, components and services, you may choose your own version of E300 and your desired level of services based on your budget and needs. Results may vary and are not guaranteed.



**Make
every labour
hour count.**



Animal Welfare

The Rotary E300 is designed to get your cows into position quickly, to milk them quickly and gently, and to get them back to feed smoothly and calmly. It does this by working with the cows, not against them.

Farm Profitability

Designed to optimise fast milking and good cow flow from a system with one agreed cost for servicing, maintenance and consumables – that's what the Rotary E300 is all about.



TAKING A 360° VIEW OF YOUR FARM

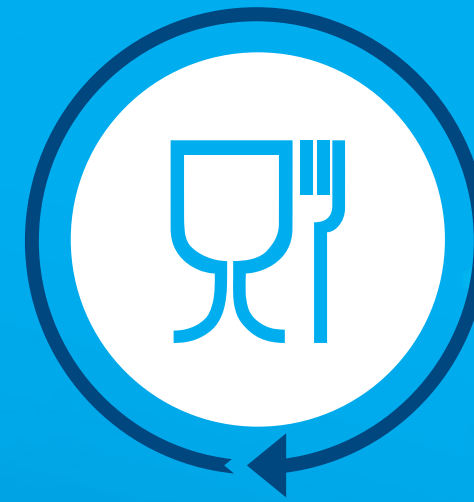


Work Efficiency

Whether you want to milk with just one skilled operator, or you want to get milking completed fast and smoothly, the Rotary E300 is here to help.

Food Safety

With our best milking technology, vacuum technology, transport and storage solutions – the Rotary E300 is at the forefront of food safety in the dairy industry.



WHY IS IT BETTER?

We have designed our newest rotary, the DeLaval Rotary E300, based on the fast flow principle - this means it is designed to help you milk fast, effectively, safely and calmly - with a smooth flow of cows. It all adds to a better place to be for you, your workers and your cows.

1
person
operation
compatible

x2
lifetime of
cartridge*

Improved udder
health due to
automatic teat
dipping and liner
disinfection

Up to
+9.3%
higher milk
flow*

Up to
7%
shorter
milking time*

Up to
58%
shorter
service time*

High efficiency
Up to
1.500kg
of milk per
FTE hour**

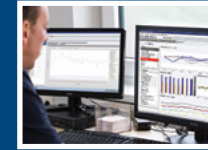
Less than
1 minute
to exchange
4 cartridges*

* DeLaval Evanza™ Cluster related: recorded on pilot farms.

** Data recorded on Test and pilot farms.

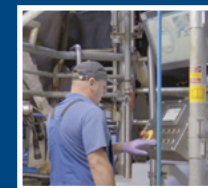
THE KEY FEATURES

The fast flow principle that underpins everything we have built into the Rotary E300 relies on the seamless interaction of every part of the system.



DeLaval DelPro™

The power to make better decisions.



DeLaval Cockpit™

Putting more control into the place where it is easy to access.



DeLaval FastBail™

Cows automatically positioned and presenting themselves for a calm and easy milking.



DeLaval FastExit™

Throughput drives efficiency, and the FastExit system means just that.



DeLaval Advisory

Our Advisory team are there to help you design and manage your E300 throughout its lifetime.



DeLaval InService™ All-Inclusive

A performance plan perfect for a high performance system.

DeLaval DelPro™

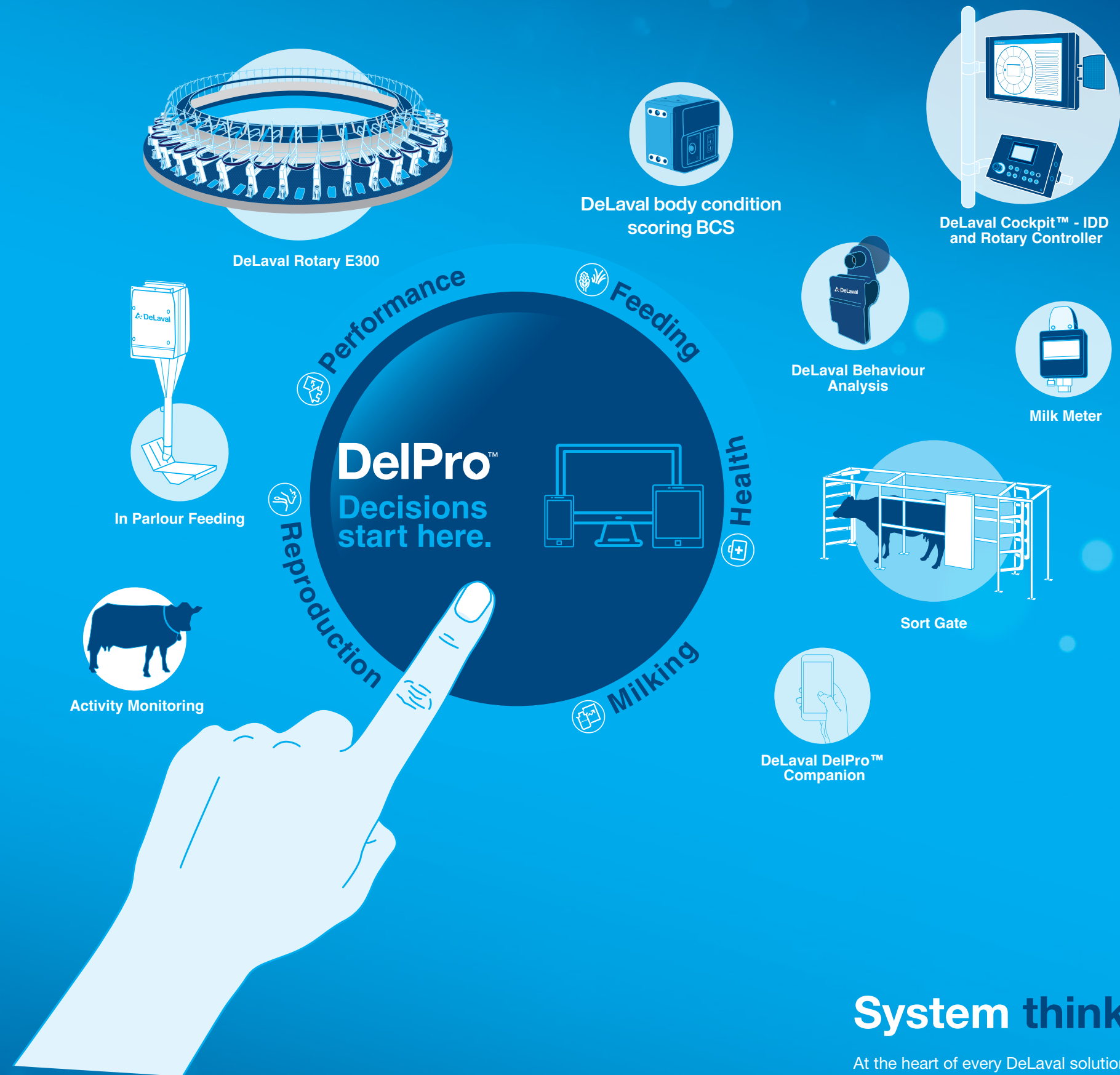
DelPro is at the heart of everything we do, and with a Rotary E300, it will be at the heart of everything you do too.

Capturing data and drowning you in numbers and spreadsheets back in the office is one thing. Delivering you accurate, timely, useful information that helps you make real-time decisions right there in the parlour – is quite another.

DelPro is not just one piece of farm management software, it is a full suite of applications, sensors, BioModels and interfaces that because they are integrated with your E300, allow you to make informed decisions about milking, reproduction, mastitis control, feeding, health, milk yield and productivity.

Benefits

- One easy to use platform
- Recommend action to take
- Complete overview of your whole farm
- Compare group performance
- Heat detection
- Reproduction analysis
- Safe, controlled feed strategies
- Animal feed monitoring
- Animal health records
- Planned health/vaccinations checks
- Health attentions
- Key Performance Indicators
- Device and service monitoring



System thinking

At the heart of every DeLaval solution is our farm management platform – DelPro. It is what turns all the data collected by your Rotary E300 and farm management sensors, into useful, easily understood information to help you make better, faster, more accurate decisions.

DeLaval Cockpit™

The Cockpit unlocks the possibility of one-person operation.

It is about giving you access to more information, more automation, more functions and more technology than we've ever given you before – and to deliver it so that one person can operate it safely, comfortably and easily, from a central point – the Cockpit of your DeLaval Rotary.

It all revolves around you

It may be positioned on the outside of the rotary, but everything about it puts you at the centre.

It's not just that it is possible to control the rotary – we have designed it so that it is easy, fast and low stress on your body.

Simple things like the balance of the clusters to make cups-on easier, all the way to the placement of the larger higher definition touchscreen control panel and the look-through bail that makes it easier to keep your eyes on your milking operation and act quickly and effectively when you see an opportunity to do so.

Cow group speed control

Customised speed for different herds or groups.

Comfort start

Automatic start, fast attachment with low physical stress.

Cow back off system

Reduces unnecessary second rotation cows, helping to improve throughput.

Emergency mode

A redundancy is built in to allow rotation of the platform to remove cows if the control system fails.

Crowd gate control

One touch stop and start for accurate cow control.

Non-negotiable health and safety features

The Rotary Controller shows on the touch screen all the safety trip positions and shows if they are triggered during the milking session. Health and safety is a priority at DeLaval.

Visual alarms

Quick visual alarms to avoid milking disruptions and to help workers and cows operate safely.

Audible alarms

Interactive Data Display (IDD)

Presents the status of all cows being milked at each milking point on your rotary.

Variable speed

Adjust platform speed for optimal throughput so the operator can focus on attachment.

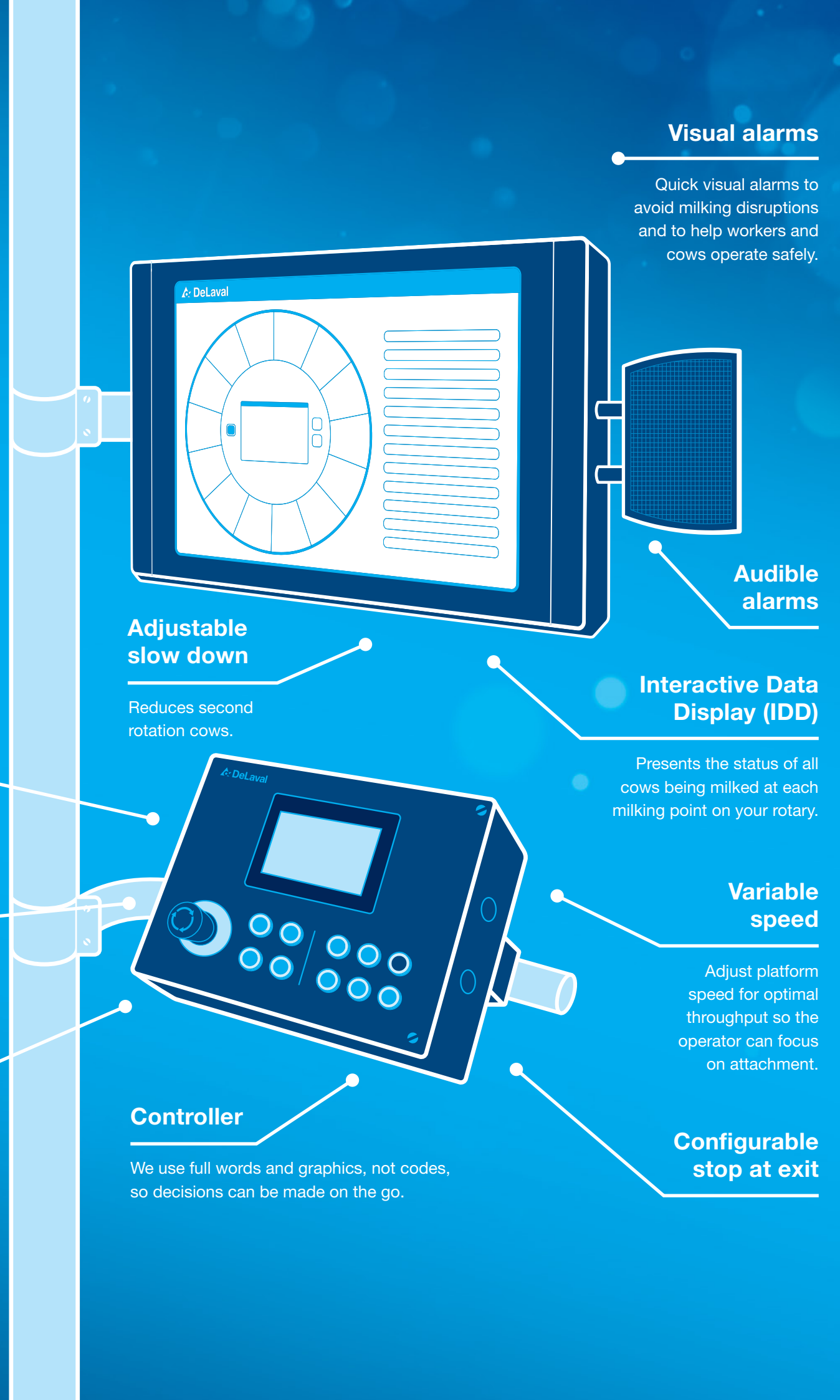
Configurable stop at exit

Adjustable slow down

Reduces second rotation cows.

Controller

We use full words and graphics, not codes, so decisions can be made on the go.



DeLaval FastBail™

The DeLaval Rotary E300 is designed to create continuous and consistent movement of cows through milking - we call this Fast Flow. At the heart of this system is a bail that cows want to enter. This is the secret of DeLaval FastBail.

With an open, low, slim profile bail with no sharp edges cows are eager to get onto the platform. FastBail can be teamed with a 1.5 cow entry for high throughput and seamless cow traffic.

This combination between a bail cows are competing to enter, and an entry design that not only deals with this competition - it works with it to generate fast, efficient loading and a low number of empty bails.

**Central to
the fast flow
of cows.**

**Comfortable
stalling**

Slim lines

**15 degree
angled bail**

Udder is close to milker
for fast and easy cluster
attachment.

Milk tube

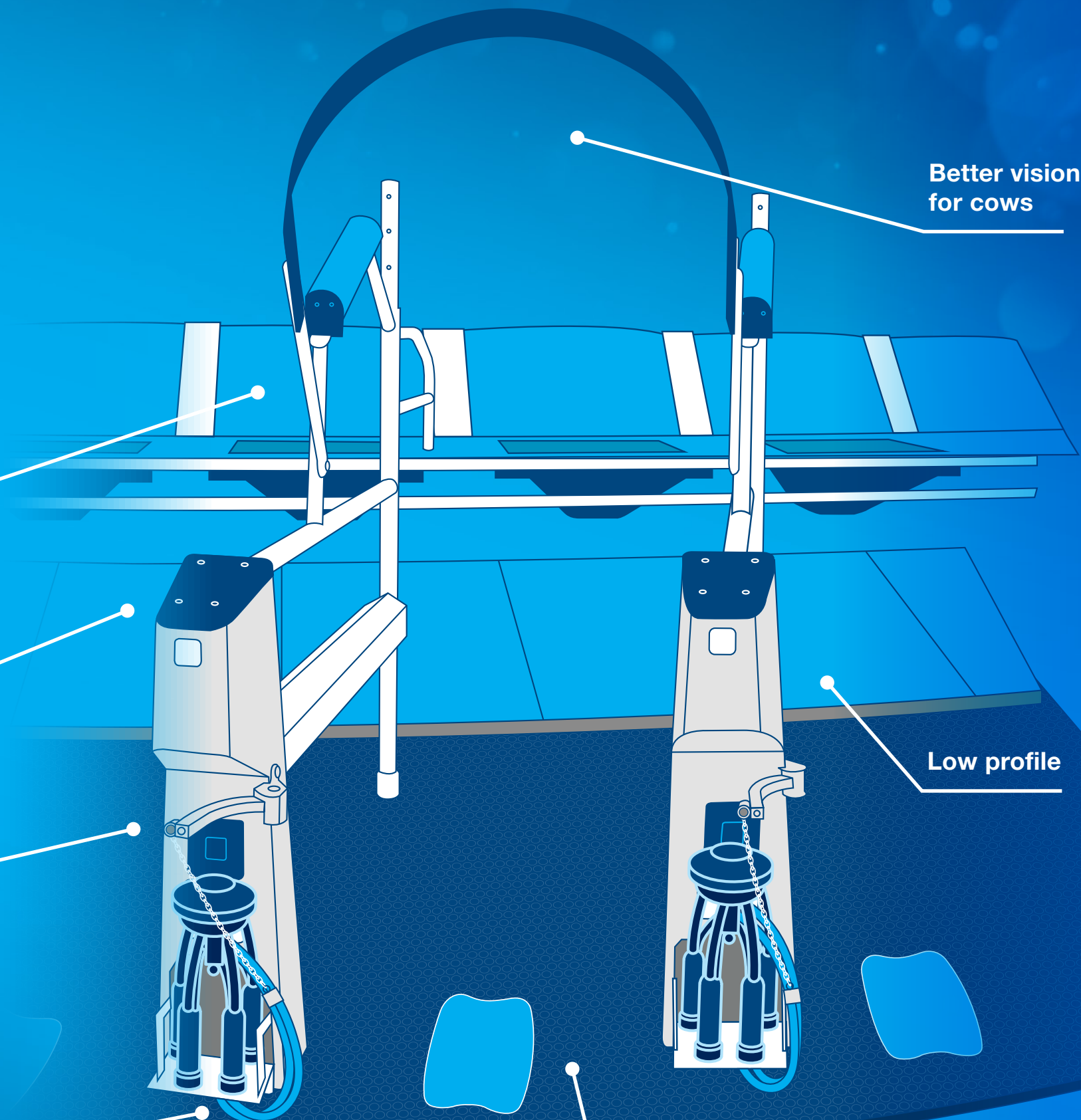
Milk tube support
needs less movement
from milker.

**Better vision
for cows**

Low profile

Better positioning

Cow's inside hind leg is closer to and behind cabinet,
reducing contact with cluster -- less polluting of clusters,
better detachment and more comfortable for cows.



DeLaval FastExit™

The main restriction on the flow of cows in a milking system is congestion at exit. Not on a DeLaval Rotary E300. The Rotary E300 harnesses many of the exit features pioneered by DeLaval over the last decade on some of our largest, highest throughput rotary systems ever made.

By bringing these features to the Rotary E300 we have created a throughput machine.

The key is the combination of an angled bail, a low profile bail and an exit bow.

This creates a simple and comfortable exit for your cows, and this translates directly to speed of exit.

Angled bail

Forms a perfect line with the exit bow to allow a more natural arc of movement for the cow which directly translates to speed of exit.

Low profile bail

Allows cows to begin turning earlier and without having to raise their heads in an uncomfortable and unnatural motion.

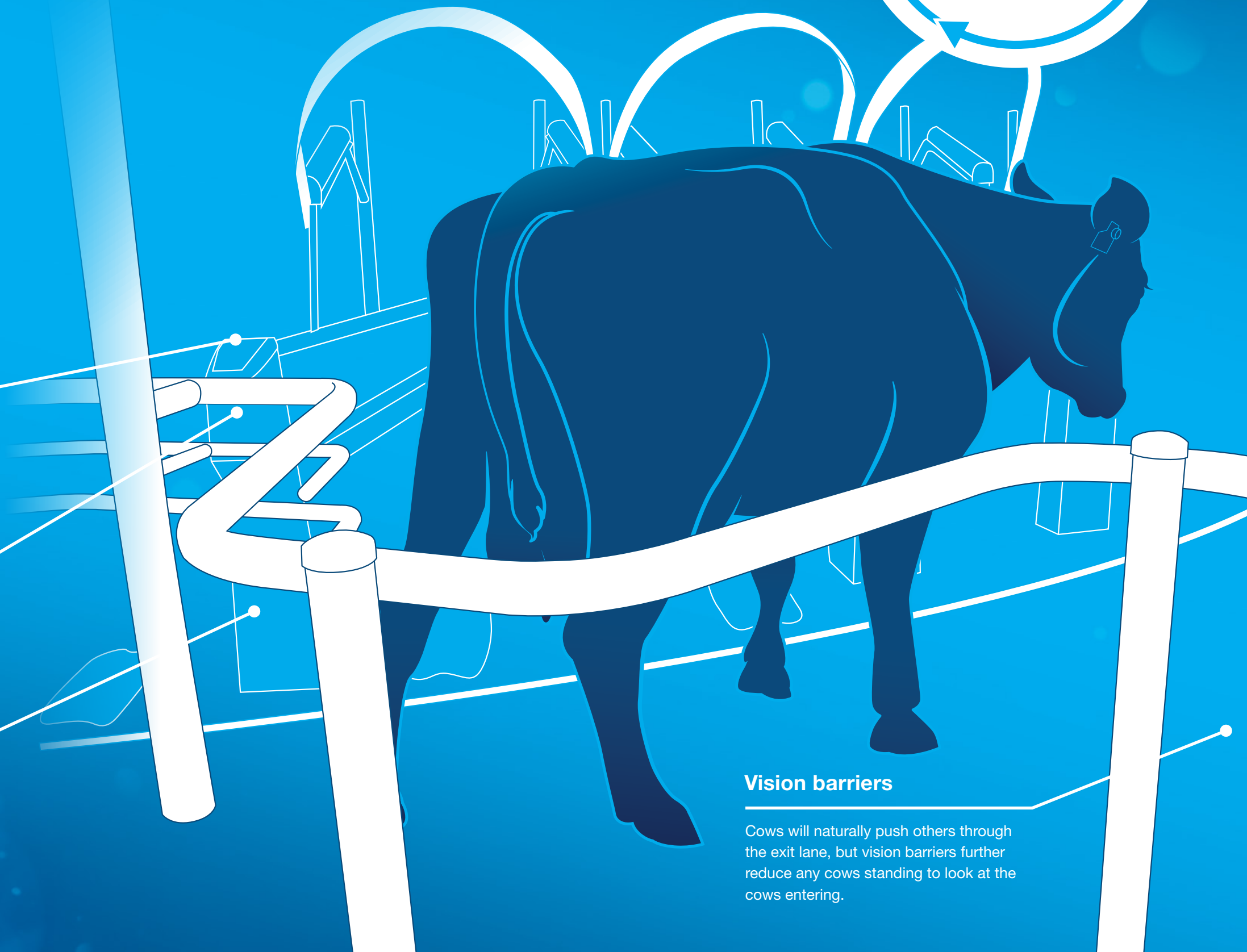
Exit bow

The cow backs in and the shape of the bow encourages her to pivot naturally in an arc to move immediately to the exit lane.

The Fast Flow continues at exit.

Vision barriers

Cows will naturally push others through the exit lane, but vision barriers further reduce any cows standing to look at the cows entering.



DeLaval Advisory

DeLaval are proud to partner with dairy farmers all over the world, from the very largest dairy farms to some of the very smallest, and everything in between. We still commercially operate the family farm that Gustaf DeLaval bought in 1894 which is where our head office is.

This means dairy is in our blood, is what we do – in fact it's all we do – which is why we have built up a huge amount of experience and expertise. When you choose DeLaval, you get access to all that knowledge and practical advice.

Our team of advisors can help out with advice before, during and long after installation.

- Get the planning right
- Build a complete system
- Retro-fit adjustments
- Ongoing performance optimisation

**Standard
Operating
Procedures**

**Plan and
manage
growth**

**Training and
routines**

**Total system
approach**

**Feed
Management**

We take a 360° view of your farm

For your DeLaval Rotary E300 to generate the best results it is essential that it is viewed as one part of your farm system. A system that works seamlessly to generate more with less.

**Performance
optimisation**

**Get the
most out
of DeLaval
DelPro™**

**System integration
sensors and
customisation**

**Barn planning
conversion or
new build**

**Fertility
management**

**Energy
savings
per kg milk**

**Milk cooling
transport and
storage**

Post Installation Optimisation

Once you have installed your new system, we are there to help you with ongoing performance improvement. At the heart of this process is DelPro. Our team can help you use the wealth of information available to put in place, monitor and deliver on your performance plans.



DeLaval InServiceTM All-Inclusive

Your milking system, like any hard worker, requires maintenance, servicing and replacement of oils, filters, liners, detergents as well as regular cleaning to keep it performing at the level it was designed to when you purchased it. We call that level of performance the blue line, and we call the performance plans that ensure it - InService All-Inclusive.



If you service
your system here,
you don't lose
performance.

Your performance plan

We call these plans InService All-Inclusive, and they allow you to select the level of performance optimisation you require. From a baseline plan all the way to the full package which includes all your scheduled servicing and settings adjustments as well as the regular supply and replacement of E300 recommended detergents, teat dips, sprays, oils, filters and liners – all for one agreed monthly price, which means you know that every time you commence milking – your E300 is ready to milk at the blue line.

Teat Condition

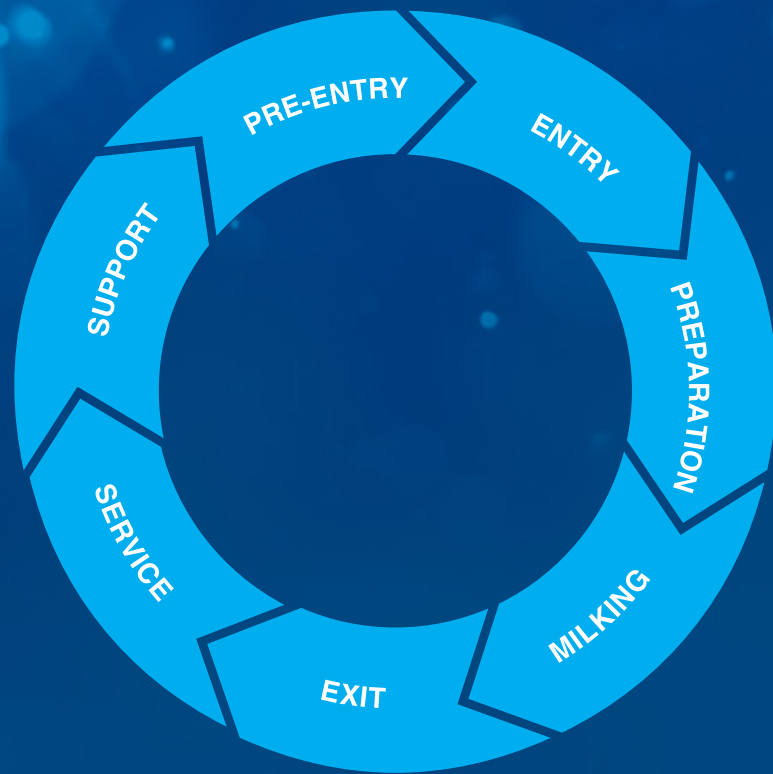
Pulsation, vacuum settings and
liners all adjusted and replaced on
time for consistent udder health.

Mastitis

Don't wait for an increase
in SCC before you
take action.

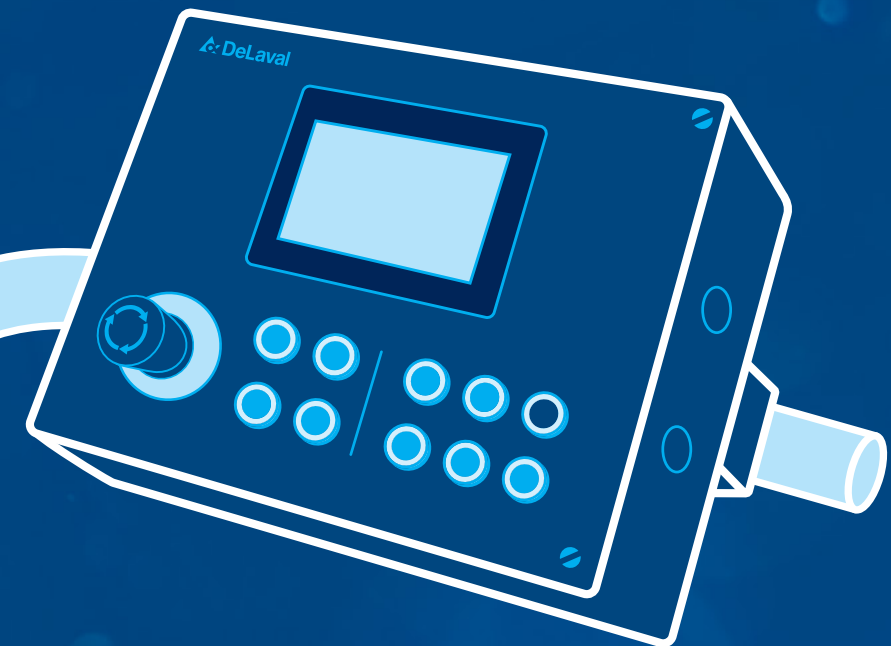
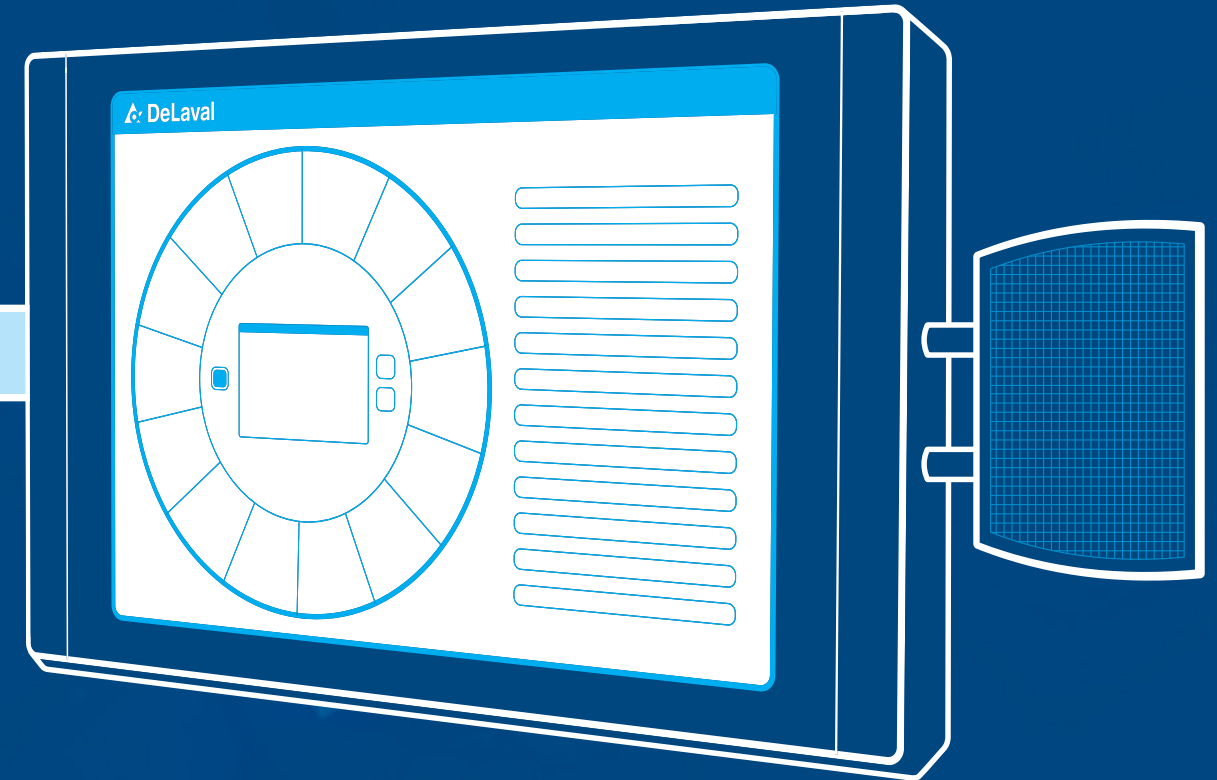
If you wait to service
your system here:

- How do you budget for these costs?
- How much productivity was lost?
- Was it worth running the risk of a break-down?



PUTTING IT ALL TOGETHER

The DeLaval Rotary E300 is designed to generate throughput efficiency by using the deep understanding that we have built up over more than 135 years. You will see the benefits of this experience, combined with our eye for detail, in everything from how the Rotary E300 works with cows' natural movements and physiology, to how it makes it easy and safe for workers – all built around a milking system that delivers advanced extraction, vacuum and pulsation settings for fast, gentle milking.





PRE-ENTRY

The throughput speed and efficiency generated by the DeLaval Rotary E300 all starts at the pre-entry phase.

Time in the waiting yard is wasted time – time that would be more efficiently utilised eating, resting or being milked. That's why the E300 is designed to help you minimise this unproductive waiting.



We recommend extending the rubber matting from the E300 platform into the waiting area – this has advantages for hoof health, as well as speeding cow movement by eliminating the transition from one surface to another that will cause cows to behave unnaturally.

TAKING A 360° VIEW



Animal Welfare

Short waiting times and a calm, fast process is key to rumination and cow health.



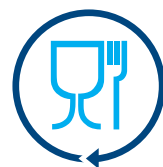
Farm Profitability

Eliminating the time wasted fetching animals means more time on important tasks.



Work Efficiency

The ability to increase throughput as well as improve cow productivity.



Food Safety

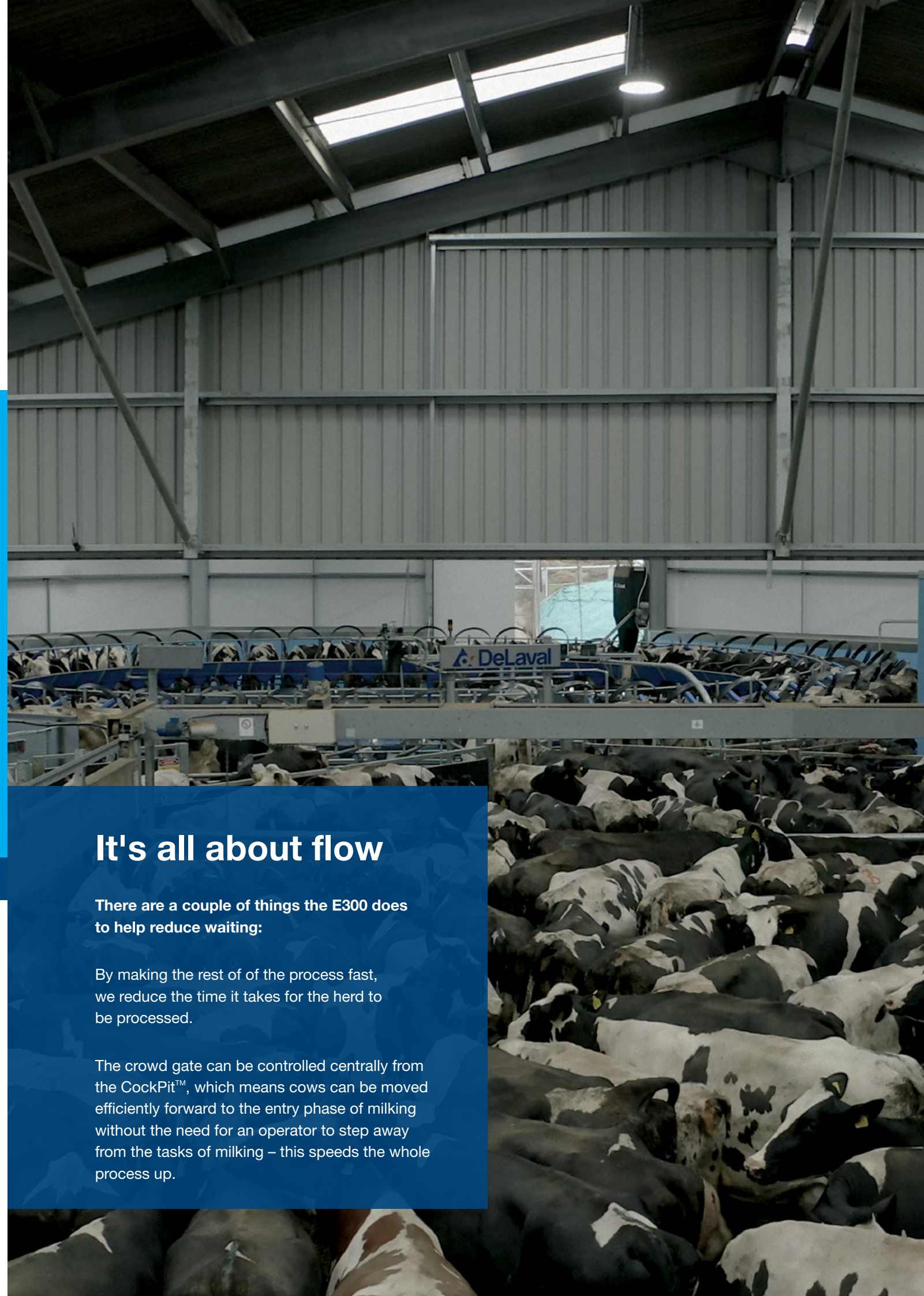
A reduction in stress can lead directly to an improvement in milk quality.

It's all about flow

There are a couple of things the E300 does to help reduce waiting:

By making the rest of the process fast, we reduce the time it takes for the herd to be processed.

The crowd gate can be controlled centrally from the CockPit™, which means cows can be moved efficiently forward to the entry phase of milking without the need for an operator to step away from the tasks of milking – this speeds the whole process up.





ENTRY

We have designed and built many of the world's largest dairy systems, so we know how to make them operate as efficiently as possible. It is this continuous flow of cow traffic that makes entry so important.



In our most efficient systems, the key to unlocking faster entry is the design of the entry fence itself. If not designed properly these create a bottleneck that slows loading and creates stress and noise.

By adopting the 1.5 cow entry pioneered on our very largest, fastest systems, the E300 is able to take advantage of this proven solution.

Results over the last 10 years have shown that with 1.5 cow entry, 20 times more cows get pushed through by herd mates. This push and competition among cows makes entry much faster because any slow cows in front will be bypassed until they feel ready to join, which results in fewer empty bails.



TAKING A 360° VIEW



Animal Welfare

Works with herd hierarchy to make it possible for sorting and movement to occur without stalling entry.



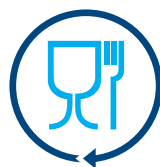
Farm Profitability

Fast, smooth entry designed for fewer disruptions to routines for operators.



Work Efficiency

A fast, safe entry helps you milk more cows with few labour hours.



Food Safety

Cows are positioned for superior processes, and because they are calm, there is less waste produced.

1.5 Cow Entry

With exactly the same entry mechanics as the legendary DeLaval Rotary PR3100 which sets the standard on many of the world's largest dairy operations - The Rotary E300 delivers an entry system that provides fast and smooth entry.



PREPARATION

The FastBail™ is perfectly designed to make preparation easy, fast and effective. By pushing the inside leg towards the centre – the bail design opens up access to the udder, bringing it closer to the milker.



Preparation is the key to an efficient milking process

Correct preparation procedures help to:

- Trigger let-down
- Ensure hygiene
- Ensure udder health
- Maximise milk flow
- Shorten milking times

Correct preparation and stimulation helps to deliver shorter milking times and less damage to teats. Studies conclusively show that teat end condition is highly correlated to new mastitis infection. That is why preparation is so critical.



TAKING A 360° VIEW



Animal Welfare

Designed for easy access and visibility, allowing thorough and consistent udder care.



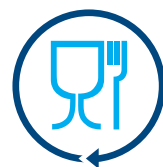
Farm Profitability

Better preparation can improve milk yield and quality while reducing health costs.



Work Efficiency

Excellent hygiene and superior stimulation helps you achieve a higher yield.



Food Safety

Superior cleaning and stimulation helps to improve milk quality.

It's all about Oxytocin

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

If the unit is applied without taking this gap into account you will create a delay between the end of the initial milk flow and the beginning of the main flow of milk. This puts the teat under stress due to constant vacuum with no flow. The DeLaval DuoVac™ system helps to reduce this risk by reducing vacuum levels when there is low or no flow of milk at the beginning and end of milking. This protects the tissues of the teat end, therefore helping to maintain a high level of udder health.



MILKING

Everything we do at DeLaval is about better milking. The Rotary E300 has been designed to include many of our latest and exclusive milking innovations.



TAKING A 360° VIEW



Animal Welfare

Our pulsation technology combined with the latest cluster and liner technology helps you to maintain good udder health.



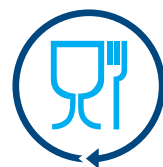
Farm Profitability

Designed to milk quickly and gently - it all adds up to productivity and profitability.



Work Efficiency

Ergonomically designed, simplified, fast routines with safe access to udders means more cows per hour per labour unit.



Food Safety

DeLaval Evanza incorporates DeLaval TopFlow™ technology designed to reduce flooding and cross contamination.

Designed to milk better



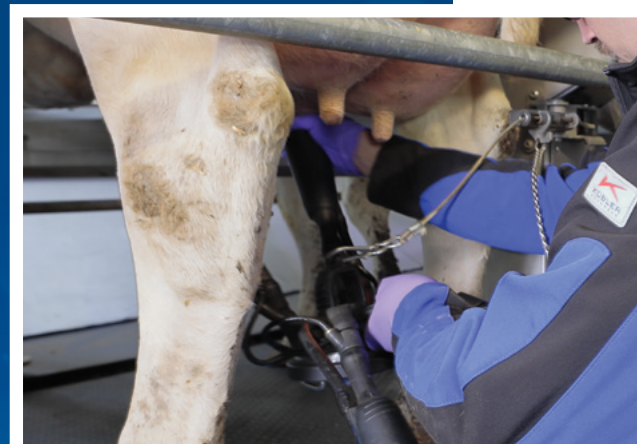
Easy Access

Milking depends on the action of the people milking, and in the Rotary E300 the milkers can easily find a comfortable milking position. This means it is easy, safe and comfortable for yourself or your workers to manage the milking process consistently from the DeLaval Cockpit™.



DeLaval Evanza™

Incorporating our leading Clover™ technology – Evanza is designed for cows, designed for workers and designed for productivity. When compared to our traditional clusters using round liners – Evanza delivers a shorter milking time, more milk, fewer slips, a significant increase in teat condition. Not only that, with Evanza, you replace liners and tubes less often, in a fraction of the time.



DeLaval DuoVac™

Unlike traditional MONOVac systems that don't take oxytocin release into account – DuoVac can allow for the different suction required through the milking process. This means one person operation can be achieved easily with the addition of automated teat spray at exit.

DeLaval Evanza™

Turn up milking with DeLaval Evanza milking cluster.

The most efficient cluster we've ever developed helps to achieve more milk and better udder health, with less labour required.

Compared to our previous clusters, the revolutionary, exclusive and patented Evanza milking cluster is not just faster, it's also better for your cows, better for your milkers and better for your bottom line. It is quite simply our most advanced cluster, and in combination with the Rotary E300 it is a key part of what makes it so efficient.

DeLaval Clover™ cartridge

Ground-breaking cartridge construction with incorporated Clover design for increased milking performance and lifetime.

Durable cups for robustness

Labour saving

Top quality materials

Short Milk Tube

Bayonet type attachment.

Ergonomic

Ergonomic grips and excellent weight distribution for easy attachment.

Cartridge eliminates twisted liners

Clover Shape

DeLaval Turn&Milk™

Turn & Milk principle of Evanza for effortless and time saving exchange.

Lighter for easy handling

DeLaval TopFlow™

Unique TopFlow technology for improved milk flow and udder health.

With AirWash it's even better

The Rotary E300 can be equipped with an AirWash system, which means your Evanza Clusters are fully flushed automatically after every milking. This reduces cross contamination and mastitis - and makes your milking routine flow even better.



EXIT

Having gone to the effort of making it possible for your cows to enter faster and to be prepared and milked faster – it is essential that the exit stage doesn't become the limiting factor in your throughput.



With FastExit™ it isn't a problem.

Cows, like people, move much faster when going forwards. The combination of the angled bail and exit bow allow cows to begin turning sooner, and to complete the turn faster using more of a pivot action. It all adds up to cows moving faster, more comfortably and that means you can move more cows with less effort in less time.



TAKING A 360° VIEW



Animal Welfare

FastExit makes the movement more natural for cows, which puts less stress on them.



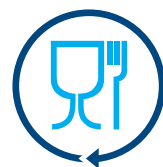
Farm Profitability

Automated retention and variable platform speeds are designed to maximise the yield at each milking.



Work Efficiency

Automated back-off, retention and superior cow-flow helps to ensure fewer disruptions, leaving operators focused on milking.



Food Safety

With an exit process that includes teat spraying, drafting and treatment, the next milking is optimised too.

The Fast Flow principle in action

To help ensure the smooth flow of cows from the platform The Rotary E300 combines three design features to create a fast exit. The angle of the FastBail™ forms a direct line with the exit bow to create a simple straight movement that is not possible without the angle, by adding the lower height of the bail cabinet, these three features work together to keep things flowing - exactly how you like it.





SERVICE

At DeLaval, we strive to help you to better operate and maintain your system.

It's all about performance

To deliver the level of performance you demand, we leave no aspect of the process to chance. That's why we don't just design and manufacture milking hardware, but we also operate state-of-the art specialist production facilities that produce our own ranges of detergents, teat dips, liners and the consumables you need for day to day operations.

- System lubricants
- Routine maintenance
- Liners and rubber
- Filters
- Detergents
- Teat dip
- Tubes

But none of this would matter if we didn't also have a great team of expert technicians who attend regular DeLaval training courses to help ensure that every time they drive on to your farm – they have the specialist diagnostic tools, materials, skills and knowledge to keep your Rotary E300 spinning.

TAKING A 360° VIEW



Animal Welfare

Having liners, settings and detergents functioning together helps to improve udder health.



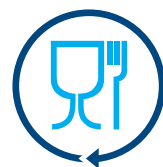
Farm Profitability

Service and consumables help keep your system running at full efficiency.



Work Efficiency

Costs are known up-front allowing for precise budgeting.



Food Safety

Everything working together to protect the quality of your milk.

The DeLaval Rotary E300 has been designed to reduce the service load on your farm. Air cylinders with long lasting stainless steel chain require even less maintenance than our earlier models. The Rotary E300 is robust, reliable and ready to milk - at every milking.





SUPPORT

Local experts with global support

We know that selecting a DeLaval milking system is not a short-term commitment. In many cases it represents a 10-15 year relationship. We take this seriously, and it is the support and advice that we can provide over those years that we feel is our greatest advantage, and key to that is our independent dealer network. With so many dairy farms in so many places, it would not make sense to attempt to support all of those farms without skilled, trusted locals. That's what your DeLaval Dealer represents.



TAKING A 360° VIEW



Animal Welfare

Longevity, fertility and productivity are the key drivers for our advisory team.



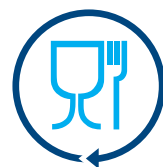
Farm Profitability

Better routines, effective cleaning and ongoing system optimisation helps to ensure operators can get more done.



Work Efficiency

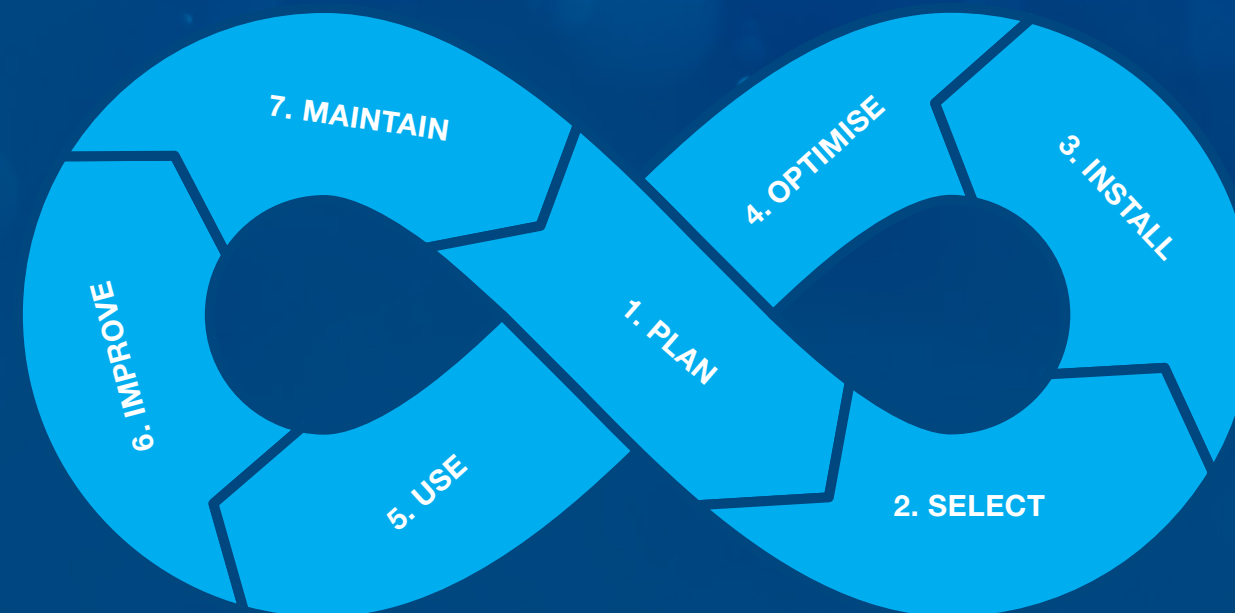
Helping to ensure your system is optimised for your herd, operators and conditions.



Food Safety

Transport, cooling and storage are central to the implementation of any new system.

With you on every step of your DeLaval Rotary E300 journey.



GO SOLO

One Person Milking with DeLaval Rotary E300

Because the DeLaval DuoVac system carries out the vital step of teat stimulation as part of the milking process, with the addition of a TSR Teat Spray Robot at the final station of the rotary, one milker can manage the E300 effectively and safely without compromising milk yield, quality or animal welfare.

More ways to take your labour efficiency to the extreme



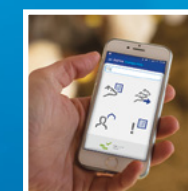
DeLaval DuoVac™

Unlike vacuum systems that operate at one speed, DuoVac is able to work with your cows' biological processes to ensure more effective extraction of milk. By taking into account the effects of oxytocin on the release of milk, DuoVac varies its suction levels to maximise positive suction and eliminate the period of damaging suction that is a reality on monovac systems.



DeLaval Teat Spray Robot

It won't be long before you start thinking of your TSR as a person. A person who is never late, never tired, never needs a break and never slows you down. Accurate, consistent, efficient use of teat spray to help ensure the udder health of your herd – that's what he does every time.



DeLaval Companion

Never miss an insemination, pregnancy check or health treatment, and accurately record every action, in real time with the power to make better decisions, right into your pocket.

HOW CAN WE HELP?

At DeLaval we have been involved in the business of dairy farming for more than 135 years. Even today, we still operate our original family farm as a commercially successful dairy farm, right next door to our head office.

All this means that we have learned a thing or two about designing, building and operating the infrastructure that supports dairy farmers around the world.

It also means that we are fully aware that there is not one system that will be right for every farm. Different economic and

environmental challenges, different farm sizes and farming styles will mean that different farms require different systems.

That's why, if you are looking to install a new system, or upgrade an existing one, we would love the chance to help you find the system that is perfect for you.

A system that will meet your, and your family's needs now, and for the future.

A system that truly – all revolves around you.

THE NEXT STEP

To take the next step on your personal DeLaval Rotary E300 journey, either talk to your trusted DeLaval representative or for more information, visit us at www.delaval.com



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Nothing in this document shall constitute a warranty or guarantee of performance.
Results will vary from dairy to dairy.

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