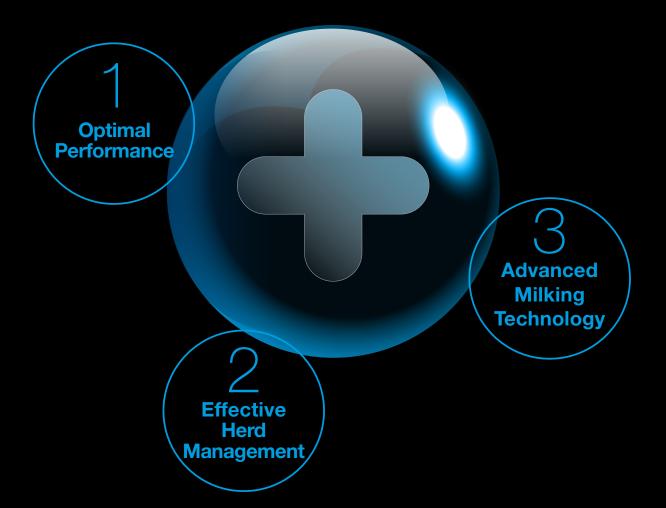


# At DeLaval we can make any farm more productive.

How do we do this?

By bringing together the three pillars of productivity — optimal performance, effective herd management and advanced milking technology.

## **DeLaval Plus+**





# The Fastest Rotary System Around High Quality, High Performance Faster Return on your Investment

The DeLaval PR3100HD is for dairymen who want to see a fast return on investment. With a new design, it brings new capabilities to dairy farms while meeting the high performance demands that farmers expect from a DeLaval rotary system.



A lot of focus has been put on how the system integrates with the entire dairy farming process – from cow comfort, milk analysis and efficient cow traffic, to enhanced farm management and reduced labor requirements.

#### The fastest rotary system around

All the unique features have been designed with throughput in mind. They provide quick cow entry and exit, while automated processes make the entire milking operation much faster. Additionally, cows remain calm and stress-free and have fast let down and milkout. Milker wellness was also top of mind when designing PR3100HD, making milking quicker and more pleasant.

#### The hardest worker on the farm

The PR3100HD is often the hardest worker on the farm and is in operation 24/7. To ensure it is up to this task it has been engineered and built to the highest quality and robustness. This robust design reduces the cost of maintenance. And when a regular service is required, it's much faster to perform, cutting down-time to a minimum.

#### The optimal business partner

When you invest in a new PR3100HD you get the tailored level of support you need. This can be anything from designing your parlor, to training staff, or just performing regular preventative maintenance on your new system. Whatever level of support you choose, DeLaval will be there to help you get more from your rotary system.



# Parallel Rotary PR3100HD More Milk per Hour is a Key for High Profitability

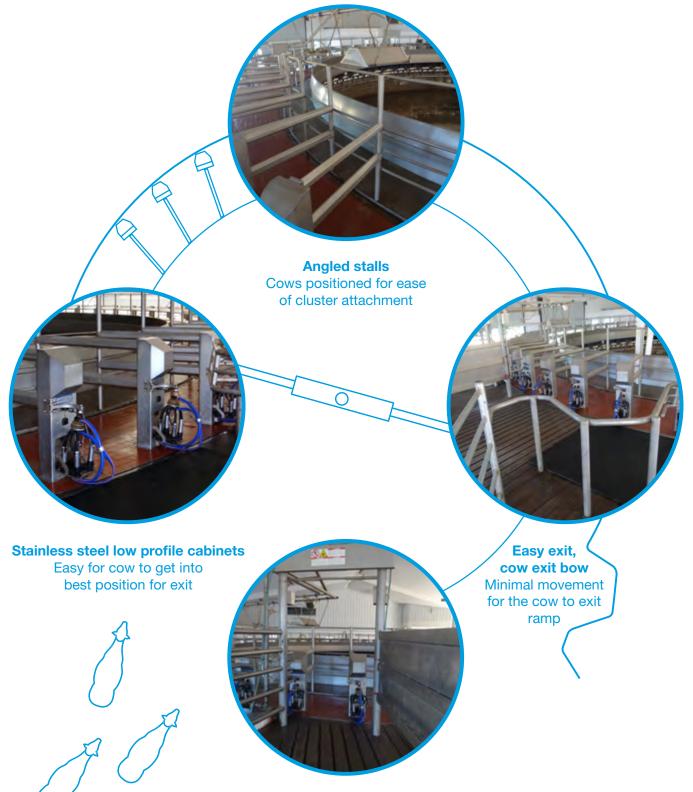
The PR3100HD is designed for high-capacity milking where productivity is key and downtime is kept to a bare minimum.

The revolving platform brings cows to the operator in a calm, comfortable and consistent routine. This enables the operator to focus on the core milking tasks. The result is a milking system that enables you to realize the full yield potential of your herd in less time and with less labor.

#### High performance milking equipment

Fast throughput demands high performance milking equipment.
DeLaval milking equipment is designed to ensure fast milk let down and milkout. We dimension the whole system to get the best performance from your cows in a safe and healthy way. This comfortable milking process means the cows happily return to PR3100HD for their next milking. Our milking equipment is also designed to stand the test of time. With regular maintenance, you will get the same high performance results over the lifetime of your unit.

Features	Advantages	Benefits
Cow and a half entry	Stages cows for quick entry resulting in fewer chances of empty stalls	Maximized platform speed and faster throughput mean more milk per stall
Angled stalls	Your cows can enter and exit the platform quickly	Increased throughput
	Your cows can see those ahead of them exiting	Your cows know when it's their turn to exi
	Better cow comfort	Stress reduction
Stainless steel low profile cabinets are standard, designed for functionality and performance	Your cows have an unobstructed view of the exit area over the cabinets so they anticipate when to exit. Cows can swing their heads over the cabinet to start turning before the exit. The cluster and hoses tuck under the cabinet when retracted.	Your cows have an unobstructed path onto and off the platform. Your cows can exit quickly and smoothly. Durability. Parlor aesthetics. Operator convenience. Equipment is well protected.
Easy exit, exit bow	To exit, your cows only have to take a couple of steps backwards to be gently pivoted away by the rotation of the platform	Reduced stress on your cows
	Fewer stalls required in the exit lane means more stalls available for milking	Improved parlor efficiency
	Enables faster rotation speeds	Increased throughput
DeLaval automation	Each cluster can be placed in the CIP position as soon as its last cow is milked, eliminating an extra revolution for wash set-up	Gaining one revolution per wash-up means more cows can be milked







#### Improved milker comfort

It's not just your cows that are important, improving working conditions for milkers improves job satisfaction and increases efficiency. New safety features such as emergency stop cables, switches and sensors, make this the safest rotary yet. Additionally, the reliable user interface and the ergonomic DeLaval Cluster Support Arm greatly improve milker comfort.



# A Heavy Duty Rotary that Embraces the Tough Conditions of the Barn

The DeLaval PR3100HD rotary system is engineered and built to handle the tough environment of the dairy barn. High-quality, hard-wearing materials are used throughout to ensure it stands up to the daily routines on your farm and keeps on turning.

#### **Heavy-duty rotary**

If you are milking 24/7 or close to it, you need to know your rotary can handle it. The PR3100HD rotary has a number of features designed specifically to handle this. These include a heavy-duty swivel and heavy-duty stainless steel cabinets and stalls. The automation and milking components are well protected under the deck. The rotary is also available with optional hard-wearing stainless steel posts on the perimeter, breast and rump rails.

#### Low maintenance requirements

The PR3100HD is designed as a low maintenance rotary with built-in redundancy to reduce down time. This goes beyond hard-wearing materials to include ease of service when service or maintenance is required. It also has a built-in security feature, so that if one drive unit fails, you can disengage it and continue rotating with the others. However to ensure your rotary is running optimally we recommend a DeLaval service agreement with regular preventive maintenance.

#### Low operating costs

Thanks to its built-in durability and reliability, the PR3100HD has surprising low operating costs with minimal service and low downtime. This rotary offers the performance you desire without the costs you don't.

Features	Advantages	Benefits
Multiple electric variable speed drive motors	Even power distribution. No hydraulic lines.	High reliability
	Higher efficiency than hydraulic drives	Low investment costs
	Redundancy provides back-up protection at a fraction of the cost	Less downtime
Self-tracking patented nylon multi-roller system	Minimal lubrication and no bearings required	Low maintenance
	No radius rollers or spokes	Less wear on the central gland
	The platform rotates on its true center	
Stainless steel vision barriers	Cows load quickly without hesitation, reducing the need	Increased throughput
	for operator intervention	Operator efficiency
Platform washing system	Automatically cleans the skirting, platform and entry lane	Reduces labor
	as the platform rotates	Improves parlor aesthetics
Platforms sized for large	Cows fit the stalls comfortably without stress	Cow comfort
or small breed cows	or unwanted freedom of movement.	Cow positioning







Self-tracking patented nylon multiroller system







PR3100HD has 3 different options for deck surface, you can choose whatever fits better to your needs:

- 1. Concrete: reliable but low cost option.
- 2. Rubber flooring: for maximum cow comfort.
- 3. Bricks deck: the most durable and heavy duty option, unique to DeLaval.









Our rotaries last so long because we build them for the future
Being the best rotary system on the market today means nothing if you can't benefit from the solutions of tomorrow. DeLaval incorporates the latest technology that is compatible with today's systems to be able to embrace the technological breakthroughs of tomorrow.

Features	Advantages	Benefits
Take-off arm	Ensures consistent unit alignment, excellent hose management, and keeps retract chains out of the cow's reach. Controls the unit and hose position when retracted.	Even milk-out with less squawking Operator convenience
	Detacher cords don't catch on your cows' dewclaws	Your cows don't kick at the units
Inner sloping deck	Unique drainage system helps keep the deck clean with optional upper ring drain	Cleaner environment for cows and employees
Options	Advantages	Benefits
Light rail	Directs light where your operator needs it	Operator comfort, convenience and safety
Brick decking	Superior wear-resistant, anti-slip surface	Long life, low maintenance Cow comfort and safety





# Safeguard Milk Quality

Because every dairy farm is different in terms of herd size, barn configuration and milk storage system, DeLaval offers a range of milk cooling solutions to meet any requirement.

DeLaval instant chill systems, like the Yukon Snap, meet the needs of the largest herds in the world. Our cooling systems deliver powerful, instant cooling that lock in the quality of your milk before it goes to the tank, milk silo or directly to the truck.



# Cleaning and Hygiene An effective cleaning system is essential to ensure high milk quality

DeLaval plant cleaning unit C425 is an integrated and modular plant cleaning system that provides fast effective and reliable cleaning for DeLaval PR3100HD.

Not only it protects the quality of your milk, but by cleaning your plant quickly, it minimizes system downtime and time spent on non-milking tasks.

#### Core benefits:

- Peace of mind: Consistent and safe
- Optimal Water, chemical and electrical resource usage
- User friendly interface
- Fast cleaning cycles
- Controlled milk flow through Plate heat exchanger to optimize milk cooling performance
- Inbuilt monitoring and alarm function

#### **Integrated and Modular Cleaning:**

This system automatically cleans and sanitizes your rotary milking system after milking, in the same way, every day, each and every time!

It incorporates a user-friendly interface that allows the farm manager to program operating parameters and to customize your cleaning cycle to suit your specific requirements.

Its One touch 'Start' also provides the ability to stop or start a milking or cleaning phase on demand.

Inbuilt system monitoring optimizes water, chemical and electrical resource to reduce operating costs and minimize environmental impact.

It makes it easy to change filters and change delivery line to next cooling tank in the middle of the milking.

Real time system status is monitored on the unit's LCD display. Optional temperature sensors can also automatically monitor your system during milking and cleaning and activate an alarm if required.



## **Enhance milking performance**

DeLaval offers a range of additional solutions to complement your rotary system.

- Rubber for walkways including slatted floors
- Crowd gates to guide your cows gently to the platform for high and steady throughput
- Milk quality solutions to help preserve the quality of your milk and even reduce the impact on the environment
- DeLaval automatic footbaths for optimal cow health
- Hoof care solutions including automated footbaths
- The DeLaval swinging cow brush is designed to improve cow health, comfort and welfare
- Good ventilation can make a big difference on your farm. If cows are cool they will use their energy to produce milk instead of using it to cool themselves down.



Milk Filter



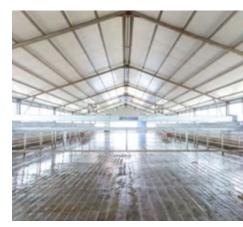
**DeLaval Swinging Cow Brush** 



**DeLaval Vacuum Pump LVP** 



**DeLaval Automatic Foothbath AFB1000** 



Usher HRS - Heavy Duty crowd gate





# **Automate your System**

#### DeLaval DelPro<sup>™</sup> Farm Manager

#### Farm Management

PR3100HD can work with DeLaval DelPro<sup>™</sup> Farm Manager as standard. This powerful system enables you to control your rotary and manage your herd with the same tool.

Cows are automatically identified as they go through the milking cycle and a range of information is collected. This helps with the identification and management of the cows. DeLaval sort system then makes it easy to sort cows for additional attention.

#### 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 DelPro™ Farm Manager allows you to manage sorting, feeding, milking and breeding as one integrated business operation. This optimum herd management solution keeps track of each animal and group, and monitors trends, predicts problems and evaluates options.

In short it provides a complete overview of your dairy operations, while giving you rapid access to the daily information which is essential for successfully running a modern dairy farm.



#### **DeLaval Activity System**

The DeLaval activity meter system monitors each cow's activity and reproductive status. The activity meter collects and transmits activity data from each cow. Every 15 minutes this data is logged into DeLaval DelPro™ Farm Manager. Each transmission covers a rolling 24-hour period so no data is lost.

#### Data logging at milking

Information is sent to DeLaval DelPro™ Farm Manager four times per hour. In addition to this, data is transmitted every time a cow passes an ID reader. This means that when a cow enters the parlour for milking, the information is automatically sent and logged in your farm management system.

#### ISO ID

Reliable ID and milking point controllers help you to accurately manage your milking process and provide you with valuable information.

Receiving timely, accurate information from the system means you can immediately solve problems involving cows that are sick or yielding less milk than usual.

## **DeLaval Remote Farm Connection - RFC**

With the remote farm connection, RFC, you can securely connect your DeLaval milking equipment to the internet.
You can also provide remote access to trusted third parties such as vets, nutritionists and other consultants.
That way they can access data on your animals via DeLaval DelPro™ Farm Manager and prescribe a course of action without having to visit your farm – an effective and cost efficient way of managing your herd.



OptionsAdvantagesBenefitsDeLaval DelPro™ Farm ManagerReliable data from the system can be used to control and monitor milking, feeding, breeding and overall herd health managementMakes it more efficient to maintain a healthy herd







#### DeLaval Body Condition Scoring - BCS

### The BCS system – a revolution in body condition scoring

The BCS camera is mounted on a DeLaval sort gate. It takes a 3D image of a cow's lower back as it passes under the camera. The image is then analysed with the unique DeLaval BCS software to determine the amount of fat covering the loin, rump tailhead, hooks, pins and short ribs. From this the BCS system can accurately calculate the body condition score of the cow.

#### Managed by DeLaval DelPro<sup>™</sup> Farm Manager

The cow's score is sent to DeLaval DelPro™ Farm Manager where it is logged for viewing at anytime from your farm computer. Individual, group and herd information is presented in easy to read graph formats. DeLaval DelPro™ Farm Manager can also be set to send a notification if a cow falls below a certain score. This makes BCS ideal for farmers who manage by exception.

#### **BCS** key features:

- Daily body condition scores of all milking cows
- Consistent method used to score cows
- Eliminates stress for cows when scoring
- Provides automated reports regarding health deviations
- Scores can be shared with vets and nutritionists



Rotary milking platforms are high-performance machines. And like any high-performance machine, they need regular servicing to keep functioning at their best.

DeLaval InService provides you with onsite expertise to get the best out of your rotary milking system. DeLaval trained and certified technicians carry out scheduled servicing and preventative maintenance to keep your system optimized and your operation running smoothly. Regular, planned maintenance is an investment that saves money. DeLaval InService will help you to:

- Reduce unplanned downtime
- Maintain optimal productivity
- Improve the health of your cows



### Our service is 24/7 – 365 days a year Just like your dairy

That is why we have set up a service network to protect your productivity. Over 3,000 DeLaval trained technicians in over 100 countries are ready to act quickly and stop small problems from turning into big problems.

Our technicians have direct access to over 30,000 parts and, depending on your location, can be at your farm in a matter of hours - not days.

# Improve the Safety of Cows and Staff

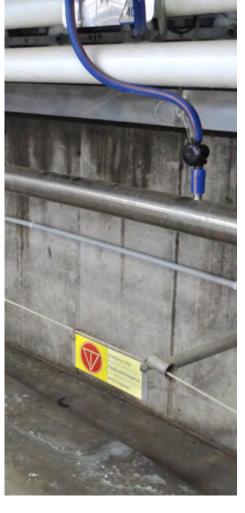
#### **Priority on safety**

We know safety is a top priority for you and your operation. Our expert research and engineering has made PR3100HD one of the safest rotary systems available. With multiple emergency stop cables and switches around the platform and entry/exit gates, workers and cows can avoid injury. Barriers around the receiver and a third rail above the platform also reduce the potential for harm.



Features	Advantages	Benefits
Emergency stop cables	One cable located around the outside, and one around the inside of the platform	Helps keep workers and cows safe
	Pulling this cable stops the platform immediately	







# **Tailored Planning for the Best Results**

#### Plan for success

DeLaval has the expertise required to help you plan a rotary milking system that will suit your specific situation both now and in the future.

Many years of experience from working with high performance farms in different parts of the world makes us the best partner when you are planning a new facility.

PR3100HD is recognized as a true 24/7 milking system and the obvious choice for the most intense dairy farming conditions.

PR3100HD is installed only by experienced Certified Installation Teams which translates to peace of mind and protection of your investment.

Additionally, DeLaval offers a huge range of solutions that complement your entire project, including cooling systems, ventilation, barn environment controls, manure handling, cow comfort, feeding solutions, water troughs... and many more!

# **DeLaval Dairy Farm Planning Services**

Making your project with DeLaval is much more than dealing with a supplier of solutions for dairy farming. DeLaval can assist in planning and design of complete dairy farms.

With an organized central farm planning team we have developed routines to document our customer needs, to provide a customer needs, to provide a customer local conditions and an extensive network within DeLaval.

Your local DeLaval representative has access to a global library of material related to dairy farm designing.

We work with advanced simulation tools to calculate herd size and volumes of in- and output on the farm as well as for economical simulations. In depth analysis of milking capacities of different milking options conducted to ensure that our customers get the right milking solution adapted to their individual needs.

The design of projects is done with the latest CAD technology in 3D which enables us to visualize our solutions for better understanding and communication with our customers. As a consequence of having this functionality in house we can assure you that our design is fully adapted to the DeLaval solutions in all fields – from milking and manure handling to barn stalling and calf rearing.





www.delaval-us.com

#### For more information

DeLaval Inc.

11100 North Congress Avenue Kansas City, MO 64153

Tel (816) 891-7700 Fax (816) 891-1606 DeLaval Inc.

3000 Lakeside Drive Suite 305 South Bannockburn, IL 60015

usa.info@delaval.com

