

# **GEA DairyRobot R9500**

An intelligently designed robotic milking system for you and your cows







# Quality, profitable milk production

The DairyRobot R9500 is engineered to enhance the milking process for the cow and help you focus on making the most of your time.

Efficiently designed to welcome cow after cow and help you manage every step in their lactation, the DairyRobot R9500 brings a new level of intelligent milking to your farm. With consistent milking routines, thorough hygiene processes, innovative mastitis detection, and a cow- and operator-friendly design, you have all the keys to excellent, high-quality milk production with the DairyRobot R9500. Whether your herd is 50, 500 or 5,000 cows, the R9500 provides comfortable and efficient milking – while arming you with intelligent tools and technology to manage your cows like never before.

- O Premium milk quality
  - Optimal milk harvesting process, superior udder care and impeccable hygiene from teat to tank
- O Productive work environment

  Ergonomic workspace with user-friendly display and navigation
- Designed for productivity
   Outstanding system reliability enables efficient cow flow and allows for effective workflows
- Trusted relationship
   First-class, reliable service from authorized GEA dealers around the world
- Value-orientated investment
   Excellent yield with efficient use of energy, resources and maintenance



# **Premium milk quality**

- Optimal milk harvesting process
- O Superior udder and teat care
- O Proactive hygiene management
- Smooth and safe milk transportation





# Consistent udder prep precision on every teat at every milking

The milking stall module of the DairyRobot R9500 works consistently and independently, day and night. Cows are creatures of habit and welcome the standardized, calm milking routine that takes place in the openly designed box. Each step is part of a uniform, quick and comfortable process that takes place in-liner, in one single attachment, by individual quarter. Teat stimulation, cleaning (or predipping in applicable countries), drying, fore-stripping, milk harvest, and post-dipping all seamlessly occur inside the liner. The consistent routine, thorough hygiene processes and gentle protection within the teat cup are keys to excellent milk quality!







# Efficient in-liner everything™ prep process

With the DairyRobot R9500, complete milking procedures take place "in-liner," inside the teat cup, in one single attachment. Teat stimulation begins as soon as the teat cup attaches, gently preparing the udder for milking.

Cleaning - Fore-stripping





# Hygienically safe

Once the teat cup is attached, cleaning or pre-dipping begins depending upon the country-specific regulations, and is followed by drying and fore-stripping. A system of milk sensors immediately begins analyzing the milk, looking at SSC, conductivity, color, and temperature.





## Optimal milk harvesting process

While milking, the light-weight, suspended MilkRack and milking cluster can easily adapt to the cow's natural movements, exerting no unnecessary leverage on the udder. Additional sensors monitor the flow from each quarter while measuring milk volume.





## Optimal udder care

When the individual quarter finishes milking, the post-dipping process begins. The dipping agent is uniformly applied on the teat skin, providing protection against mastitis pathogens. Through automated udder care, each cow exits the DairyRobot R9500 properly protected until the next milking.

#### Effective intermediate disinfection

After detachment, the MilkRack immediately swings under the CIP unit. Here, the teat cups are cleaned externally and disinfected internally, rinsing milk soils and dipping residues from the system. High-grade, safe and effective intermediate disinfection reduces cross-contamination between cow milkings.



## Intelligent internal logistics

While the unit conveniently milks your cows for you, the DairyRobot R9500 also tends to the steady flow of perfectly fresh milk. The milk receiver, valves and frequency-controlled pumps ensure that your high-quality milk continues smoothly to the bulk tank.



# Outstanding accuracy and break-through speed for somatic cell count monitoring

The new DairyMilk M6850 provides real-time somatic cell count analysis for every cow during every milking session. It's the first somatic cell count system in the world to focus on each udder quarter individually during the entire milking process. At the first sign of an infected udder quarter or the early onset of sub-clinical mastitis, you're notified right away. That helps you minimize treatment time, and be sure the continuous heath and productivity of your herd is kept on track.

The DairyMilk M6850 sensor uses EPT (Electrical Permittivity Threshold) technology, a patented method to physically measure the somatic cell count in milk, with no chemical consumables or reagents. This state-of-the art technology gives you real-time data for unmatched speed and efficiency – with no extra costs for reagents.

Such precision helps you optimize the health of your herd





# Productive workplace

- Ergonomic workplace provides maximum comfort for operator and cow
- O Real-time display and user-friendly navigation
- Flexible scheduling of managerial tasks
- Smooth workflows

# The appeal of modern-day management

With its innovative functions, GEA's DairyRobot R9500 allows you to design and organize the tasks of daily herd management more efficiently than ever before. Just tap the touchscreen to see key production data. Because the unit can be integrated into your existing barn design, you can monitor and tend to selected animals quickly and easily. Your management activities can be completed in a clean and efficient working environment with the latest in technology.



## High-tech tools that are easy-to-use

The GEA DairyRobot R9500 incorporates highly innovative functions on a large touchscreen display. In Live View mode, real-time events can be monitored in easy-to-read graphs. You can also effortlessly switch the control panel to monitor all the key production parameters. The intuitive interface greatly simplifies handling, and the system automatically alerts you to key production or cow health changes. With such sophisticated software, you have the ability to manage your herd better than ever!



#### Convenient operator access for special needs cows

With an unobstructed view of the cow and easy access to the udder, the operator can freely intervene in the milking process at any time. The integrated mechanical milking arm shifts the milking cluster into an ideal position below the cow so each teat cup can be quickly attached. Kick-resistant LED lighting illuminates the cow's udder for full visibility. Your special needs cows can be handled more efficiently and comfortably than ever before.



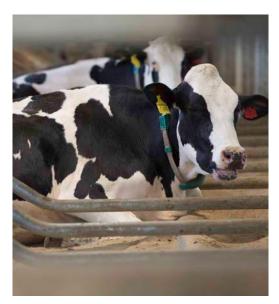




# **Designed for productivity**

- High system reliability
- Effective workflows and flexible scheduling
- First-class service and minimal downtimes





## GEA's philosophy for complete success

You can achieve highly efficient throughput by letting your cows decide when to go to the milking robot. Soon after installation, a sense of calm settles over the barn, and cows become more accustomed to a relaxed, rhythmic cycle of feeding, resting and milking. Automated milking frees up time and resources, making daily planning more flexible and routines more effective. Enhanced tools, such as gate control and manual support components, make it especially easy to tend to cows that require special attention. Whether you integrate one milking box or more into your operation, all milking activities can be conveniently controlled from one central milking and management center.

# Multibox configuration maximizes use of equipment and resources

With the DairyRobot R9500, up to four boxes can be connected to one Supply Unit. This way, they share one vacuum pump, compressor, milk and calf milk line, and tank connection. The multibox configuration increases efficiency, reduces system complexity by using less equipment, and lowers the usage of water and energy.

## Optimized design, maximized throughput

With numerous design optimizations and the latest generation camera system, the DairyRobot R9500 is establishing new gains in efficiency. The open-frame design of the R9500 welcomes cows of all sizes with ideal positioning to optimize attachments. The spacious entrance area is designed to lead each cow into an ideal position for attachment. When the gate closes, the preset box length automatically adjusts the feeding trough to accommodate each cow for a comfortable fit. Both entrance and exit doors are designed so cows can be milked quietly and comfortably without disturbance from other cows nearby.

The feed trough is now hydroformed and has been engineered to optimize feed intake and increase ingredient options.

A trough bowl cover slides up during cow exit to keep cows moving at the end of milking, allowing the next cow to enter as soon as possible. By combining all these new features that are focused on efficiency, you can minimize box times and maximize the number of cows milked per box.

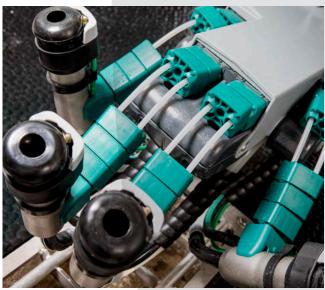
After milking, the feed trough swings to the side. At the same time, a divider on the trough moves upwards, preventing access to the feed bowl to expedite cow exit.



# A MilkRack with high-tech features

Extremely robust and reliable, GEA's MilkRack is also incredibly lightweight. Its ultraflexible plastic cover keeps the equipment clean. If a cow kicks, a feedback mechanism enables the mechanical milking arm to maneuver away. The milking arms can be controlled when flexible or fixed, and the teat cups won't touch the floor. This helps to prevent contamination and provide an optimal environment for clean, hygienic milk production.





#### Safe and fast attachment

The G5 Time of Flight (TOF) camera on the MilkRack detects the position of the cow's teats - automatically and precisely applying the teat cups on the teats. This TOF principle promotes a fast, reliable attachment.







#### Efficient milk transfer

Even while the bulk tank is being emptied and cleaned, there's no interruption to production. The automated milking system simply continues collecting the milk in an interim buffer tank, and the DairyRobot remains available for use. The animals can maintain their usual rhythm, with no interruption in milk transfer or collection.

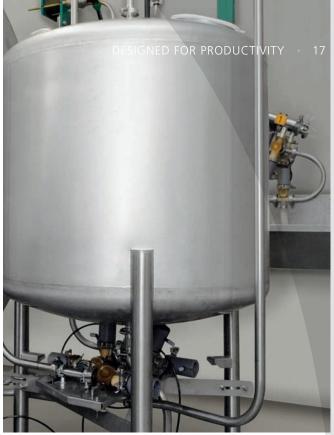




The compact, space-saving supply unit contains all of the components that provide the milking robot with cleaning, dipping and disinfection agents as well as water supply and compressed air. It also controls the flow of milk to the filter, buffer tank and bulk tank.

# Convenient calf milk management

The DairyRobot R9500 makes calf management easy. With just a few clicks, milk can be separated and given to an individual cow's calf, either by bucket or milk taxi. This system helps provide the farm's youngstock with the nutrients they need to grow healthy and strong.







# The perfect fit for your barn

Enhance your barn set-up to make the most of your work routines. The DairyRobot R9500 can be integrated into your preferred concept. The compact, open module provides spacious comfort for each animal. In the calm, accommodating environment, cows quickly grow accustomed to a relaxed,

rhythmic cycle of feeding, resting and milking. Optional gate control solutions steer animals that require special attention to the sections of the barn where you need them. With the DairyRobot R9500 to assist you, your daily herd management activities can be efficiently accomplished.

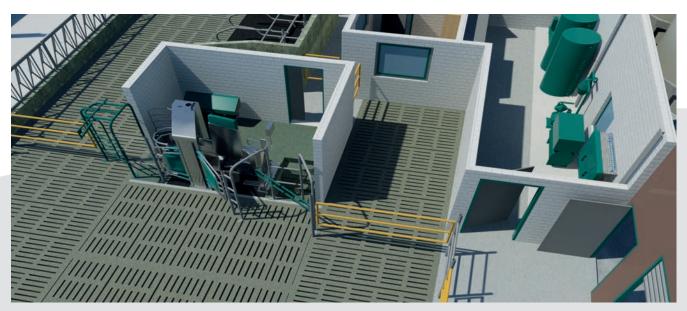


Guided cow traffic system

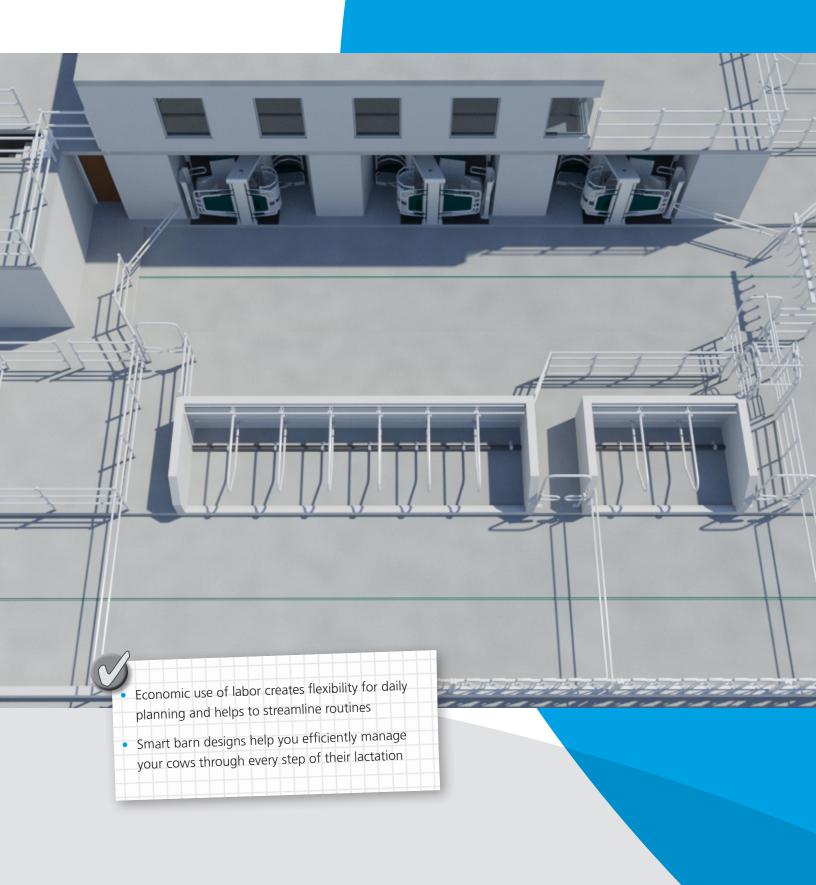
#### Cow traffic options to fit your needs

Guided cow traffic systems provide clear separation of the housing areas with the help of pre-selection, creating a balance of feeding, resting and milking. DairyRobot R9500 barn planning can also accommodate free animal traffic. In this case, the cows

have unrestricted access to the milking system, the feeding area and the freestalls at any time. In addition, some management styles are best suited for a semi-guided cow traffic system, where cows are free to eat and lay down, but utilize pre-selection in the milking area.



Free cow traffic system





# **Trusted relationships**

- O Superior service expertise
- Global network
- Modern remote monitoring technology





# Top technology, service-friendly design

When it comes to service and maintenance, the DairyRobot R9500 gives you peace of mind. GEA's robust and proven milking technology promotes maximum performance and longevity. Our easy-to-maintain design accommodates direct access to the components during operation. Online diagnostics can be performed for quicker solutions, and spare parts can be replaced with short downtimes. GEA provides the latest technology for quick, low-cost maintenance to help keep downtime to a minimum!

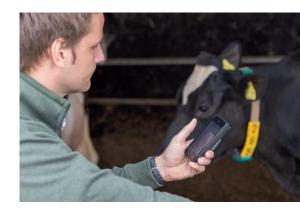
#### We're here for you!

Your decision to select an automated milking system from GEA, marks the beginning of a rewarding relationship. From the outset you'll experience ideal customer care through your authorized DairyRobot R9500 dealer and GEA support team. Together we'll work with you in all matters of planning, maximizing production processes and herd management, even before installation. When the system is up and running, your local GEA dealer offers continuous service and support:

- · Quick, competent help at your side
- Regularly scheduled support and maintenance
- Resources available 24/7
- Spare parts stock and supply

#### **FarmView**

Take advantage of our software solution to gain detailed insight into your robot's performance and to receive instant notification of selected system variations or issues. Combined with a service agreement from your GEA dealer, you'll also benefit from the integrated service calendar that notifies you of scheduled maintenance dates. Log reports keep track of all maintenance work and daily performance characteristics. Potential areas of optimization can be detected remotely to help identify solutions faster. You'll reap the benefits of utilizing all of your system's capabilities with fast response times.



- Comprehensive service using the latest technology helps limit downtime
  - High yields with efficent use of energy resources and maintenance
  - Expert consulting 365 days a year
  - One-of-a-kind milking and management center with GEA's renowned dairy technology expertise



#### A total solutions supplier

At GEA, we strive to supply total solutions for all of your milking, manure and herd management needs. In addition to the DairyRobot R9500 automated milking system, our strategic product line and service offerings provided through a local GEA dealer can include:

- Manure management and handling equipment scrapers, pumps, agitators, spreaders, and separators
- · Dairy design and facility layout services
- Sort gates, identification tags and integrated herd management software solutions
- · Bulk tanks, plate coolers and related cooling equipment
- Teat dips and equipment/facility hygiene products (C.I.P., backflush, etc.)
   along with other dairy supply items and delivery services
- Milk quality and system wash-up evaluations
- Top-notch scheduled service programs
- · Automated calf feeding technology
- And much more!

If your goals are to embrace new technology, manage your herd more precisely, create the best possible living environment for your cows and carve out a more balanced life for yourself, GEA would like to help you get there. With our automated milking solutions and other products and services to support your system, the achievement of your dairying goals lies with GEA!









# We live our values.

Excellence • Passion • Integrity • Responsibility • GEA-versity

GEA is a global technology company with multi-billion euro sales operations in more than 50 countries. Founded in 1881 the company is one of the largest providers of innovative equipment and process technology. GEA is listed in the STOXX® Europe 600 Index. In addition, the company is included in selected MSCI Global Sustainability Indexes.

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