



GEA DairyProQ

A fully automated rotary milking system



engineering for
a better world

gea.com

DairyProQ — A Truly Revolutionary Way to Milk Cows!

GEA's fully automated rotary milking system, DairyProQ, provides farmers with groundbreaking ways to optimize the workflow of milk production. DairyProQ represents the perfect balance between people, animals, and technology. The system can fit a range of herd sizes with configurations from 28-80 stalls. And, you can reach throughput levels of 120-600 cows per hour. But, best of all, even if you expand your herd, your personnel requirement is minimized — only one person is needed to oversee the milking process. It is amazing technology that is revolutionizing automated milking.



- Superior milk quality,
through preventive animal health management and exceptional hygiene
from teat to tank.
- Ideal working environment,
though the use of the latest technology, focused on continuous cow monitoring
and management
- Productivity around the clock,
through dependable and consistent system performance and functionality.
- A trusted relationship,
through 24/7 service and support from your authorized GEA DairyProQ dealers.
- A profitable investment,
through the reduction of labor required to milk cows while maintaining efficiency.





Superior Milk Quality

- Optimal milk harvest
- Preventive health management




DairyProQ — featuring the latest technology in milk quality management

Well-managed herds with healthy, comfortable cows, have the potential to produce the highest quality milk. The DairyProQ rotary parlor starts with animal comfort. Through an optimal milk harvesting process that includes proper udder prep and key milk quality assessments for each individual cow, DairyProQ provides a unique, one-on-one milking session.

The system utilizes the latest milking technology to help maximize yields and maintain an optimum level of herd health. It's revolutionizing milk harvest for your herd today and as you plan for the next generation on your dairy operation.

Individual care for every cow

Cows are creatures of habit. That's all the more reason for them to appreciate the calm and consistent milking routine provided by DairyProQ. After attachment, every milking step is performed in a fully automated procedure inside the teat cup, including stimulation, cleaning, fore-stripping, milking, and post-dipping. After milking is completed, teat cups can be removed by individual quarter if desired. This process provides your cows with the consistent precision they respond to best.

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- The image shows a top-down view of a circular milking parlor. Numerous black and white cows are positioned in stalls around a central green circular area. Each stall is equipped with a milking machine. A large, light blue circular arrow surrounds the parlor, indicating a clockwise flow. A legend in the bottom left corner identifies the steps of the milking process with colored circles: yellow for Attachment, orange for Stimulation, pink for Cleaning or Pre-dipping, dark blue for Fore-stripping, light blue for Milking, and green for Post-dipping, Detachment. The parlor has a central staircase and various pipes and mechanical components visible.
- Attachment
 - Stimulation
 - Cleaning or Pre-dipping
 - Fore-stripping
 - Milking
 - Post-dipping, Detachment

The best teat care throughout

With the DairyProQ, complete milking procedures take place “in-liner,” in one single attachment. Teat stimulation begins as soon as the teat cup attaches, gently preparing the udder for milking. Then, cleaning or pre-dipping begins (depending on the country specific regulations) and is followed by drying and fore-stripping.



Sensors analyze milk and provide data to protect udder health and milk quality

The DairyProQ incorporates key sensors to constantly analyze and monitor the flow of milk, conductivity, color, temperature and milk volume on a per quarter basis. Based on this data and any potential alerts, the milk valves open or close, directing consumable milk into the tank line and waste milk into the dump line.



Individual quarter detach helps prevent over-milking

When one quarter finishes milking, the milking process at that teat stops. The milk valve closes, the teat is post-dipped, vacuum is stopped, and the teat cup is removed.



Udder health starts at each teat

Dipping takes place inside the teat cup, evenly and economically distributing the dipping solution on the teat skin. The fresh dip coverage provides excellent protection against mastitis pathogens between milkings. Teatcups are also backflushed between cow milkings to help prevent the spread of mastitis-causing bacteria between cows.





Ideal Work Environment

- Attractive work environment with intuitive cow monitoring tools
- Effective herd and milking management
- Continuous processes, with more flexibility



Invest in the future now

The GEA DairyProQ provides dairy farms with an efficient working environment with the latest milking technology. The automated milking system spares personnel from physically strenuous manual milking procedures, allowing them to focus on the more rewarding activities of herd management. At the same time, automated milking in a computerized workplace serves as a showcase for modern dairy farming.

Animal health at a glance

Touchscreen technology provides thorough insights into the milking process directly at the rotary. Realtime visual graphics and the intuitive interface greatly simplify the monitoring of animal data. Animals exhibiting an abnormality can easily be guided to the treatment area, meaning that you can act quickly and your cattle can stay healthy with just a few clicks.



Visual graphics enables transparent processes and effective herd management.

DairyProQ provides an unobstructed view and easy access to each animal.



New freedom and flexibility

Automated milking routines and fixed milking times allow for structured, efficient work processes for everyone. Since you need to schedule only one operator for the milking process, you can free up workers for other activities. It's easier to plan working hours, shifts, and training sessions. Enjoy your new independence, while reducing fixed costs at the same time!



Fast track to productivity

The GEA DairyProQ does the milking for you, so you can devote more time to managing your herd and its productivity. Relevant animal data is shown on the screen, allowing you to take appropriate action immediately!



- Animal-friendly milking stall design and ergonomic milking
- Unobstructed view and access to each animal enables quick intervention at any time
- Greater success in hiring and retaining personnel with easier schedule and shift planning
- Efficient time management speeds up routine processes and reduces time spent milking





Productivity Around the Clock

- Standardized processes help improve productivity
- Cows can be milked 24/7 with only one operator per shift
- A profitable investment in the future



An all-around profitable investment

DairyProQ was built to deliver high productivity and a profitable return on your investment. Depending on the size of your dairy farm, around 120-600 cows can be milked per hour in 28-80 stalls. But regardless of your throughput, only one person is needed to oversee the milking process. Even if you increase your herd, the personnel requirement stays the same. Our team at GEA will help you calculate your herd size, savings potential, operating hours, wages and fixed costs to see how the DairyProQ can pay off and set your herd up for the next generation.

A solid vision for profitability

Take advantage of the new found peace-of-mind that standardized milking processes provide. Whether it's the weekend or the start of the work week, the DairyProQ is there working for you. Its standardized steps produce a consistent milking performance, which is better for your herd. Look to the future by investing in sustainability, and get your dairy farm ready for the next generation with the installation of DairyProQ.



Per-place-milking ensures production performance

One of the underlying concepts of the DairyProQ is that the milking stall modules operate independently of one another, with a robotic module at every stall. This is the only system that enables reattachment and udder access at any time. Should one module be temporarily out of service, the affected stall can be closed until it's repaired, while all the other stall modules continue operating without interruption. Your cows and your operation are kept on schedule.

Freedom of movement beneath the cow

Once the cow is in position, the MilkRack slides into place underneath her. Should the cow kick, a feedback mechanism enables the mechanical milking arm to maneuver away. Then the attachment process can start over.

Maximum cow comfort

The highly durable stainless steel stall dividers are designed with smooth, rounded corners to properly accommodate the animal's anatomy. In just a few steps the cow is comfortably positioned for milking to begin. Flexible frames can be used to adjust the stall space for different breeds. Altogether, there's no more comfortable method of initiating and carrying out the milking process.

Targeted, quick attachment

A Time of Flight (TOF) camera detects the shape and position of the cow's teats, both visually and dimensionally. The milking control unit calculates the ideal position to automatically apply the teat cups, placing them precisely below the teats. This TOF principle allows for an accurate attachment in a matter of seconds.



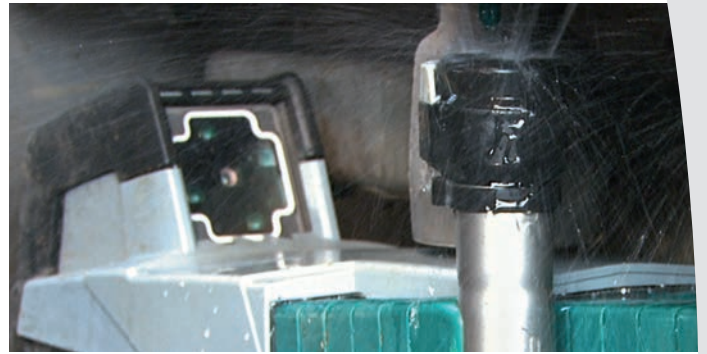


A PLATFORM ENGINEERED FOR ENDURANCE —

The DairyProQ rotary is built on a stainless steel, heavy-duty platform that is like nothing else on the market today. It is turned with a revolutionary roller system that keeps the platform on-center, which helps increase the longevity of the rollers and improve the performance of the rotary. This revolutionary construction keeps your DairyProQ turning 24/7/365!

High-efficiency disinfection

As soon as the arm swings into the park position, the C.I.P. nozzles activate, cleaning the surface of the teat cups with powerful jets of water. When docked into place, the insides of the teat cups are disinfected with a high-grade solution of water, peracetic acid and compressed air. Very quickly, the MilkRack is ready for its next application.



A MilkRack with high-tech features

The MilkRack's cover is made of shock-resistant plastic and protects the equipment from dirt and kicks. With its special sandwich construction, the device is extremely robust and reliable.



Reliable valve components

The valve units supply dipping solution, disinfectant, air and water pressure throughout the various stages of the milking process, and additional safety valves closely monitor the procedure.

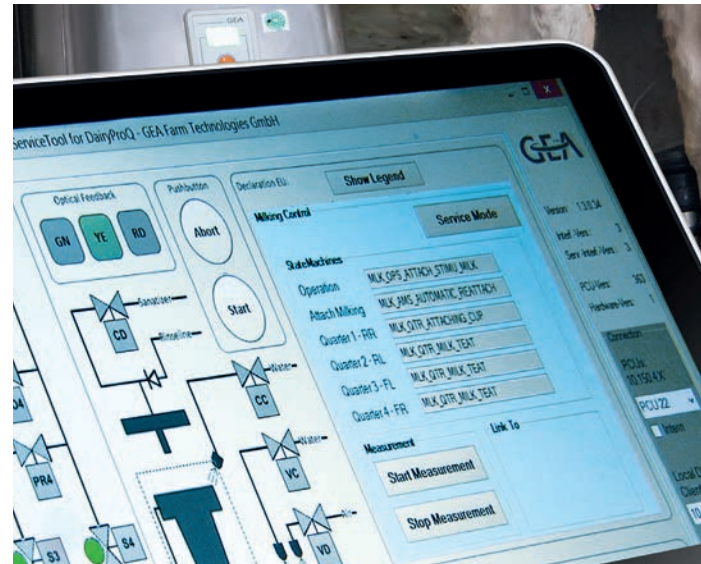
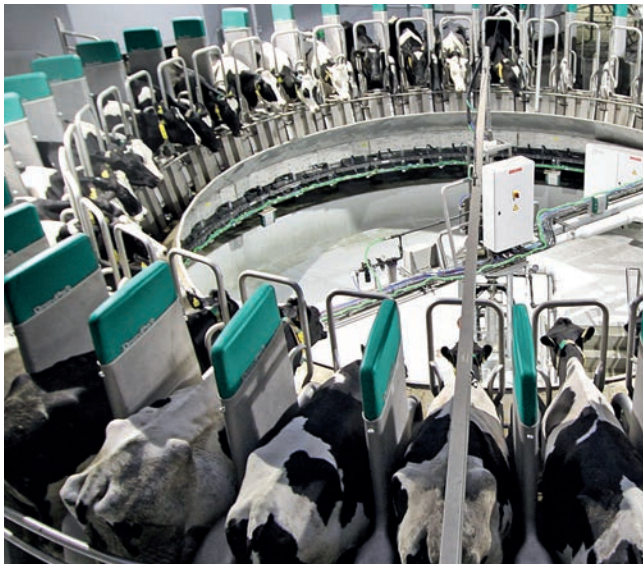


- Independent per-stall modules allow for continuous milking for 24/7 operations, and limit downtime.
- More cows per operator can be milked in the same amount of time
- The time intervals for udder cleaning can be adjusted depending on hygiene
- DairyProQ can be perfectly matched to herd size and future expansion plans



Trusted relationship

- Continuous customer care to facilitate high system performance
- Superior service expertise
- Innovative online monitoring



Tailored solutions for growth and profitability

At GEA, we understand the growing demands of dairy production and strive every day to meet the industry's changing needs. We look to build a lasting relationship with your farm because your day-to-day experience provides us with an inside look at the challenges that lie ahead. Based on the collective knowledge of dairy farms around the globe, we can develop individualized solutions that are tailored to perfectly suit your operation. We as a manufacturer, along with our network of GEA dealers, work hand-in-hand with you to help you reach your profitability and growth targets.

Innovative service concept

Automated milking with your DairyProQ comes with reliable support and provides your dairy with complete milking peace-of-mind.

- Proven, time-tested milking technology maximizes performance and the operating life of the equipment.
- Many maintenance and repair procedures can be conducted during milking operation, minimizing any downtime.
- From installation to operation, your local authorized DairyProQ dealer and GEA support team will be by your side.

Service and maintenance during operation

The service-friendly design of the DairyProQ allows for online diagnostics and parameter configuration of individual milking components during milking operation. A few simple steps are all it takes to replace a service module and entire milking stall modules can be replaced as necessary. The service room provides a clean atmosphere for repairs. Quick and easy service increases efficiency and reduces operational downtimes.

Manual attach: Reliable emergency milking
The individual milking units can be attached manually, providing a safe and easy solution during a milking emergency.



FarmView 2.0

Take advantage of our innovative software solution to gain detailed insight into your DairyProQ performance and to receive instant notification of any system alerts. Combined with a service agreement from your GEA dealer, you'll also benefit from the integrated service calendar that notifies you of scheduled appointments. Log reports and data backups record all maintenance work and daily performance characteristics. Potential areas of optimization can be detected remotely and become the basis to develop a fast, yet strategic solution. You'll reap the benefits of utilizing all of your system's capabilities and the fastest response times from your dealer.



- Modular design makes maintenance and repair easy, and enhances service quality
- Limited interruption in operation during servicing and maintenance minimizing downtime
- Service agreements set pre-determined costs and regular maintenance intervals
- Online system monitoring and optimization via FarmView 2.0



Reliable service on your door step

For GEA, a lifetime relationship with your dairy starts at the very beginning of your farm's buying process. You'll experience ideal customer support through a certified GEA DairyProQ dealer in your immediate vicinity. Before installation you will be involved in comprehensive consultations regarding all matters of planning, production processes and herd management. A site manager will coordinate all the steps of construction and will always be available to answer any questions you may have. When the system is up and running, your local dealers' highly trained staff provides continuous service and support, around the clock.

- Quick and competent help at your location
- Spare parts stock and supply
- Continuous support and regularly scheduled system maintenance
- 24/7 hotline



A total solutions supplier

At GEA, we strive to supply total solutions for all of your milking, manure and barn equipment needs. In addition to the DairyProQ 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
- Barn equipment — freestalls, headlocks, fans, lighting, curtains, mattresses and other cow-comfort products
- 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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