



GEA Automation Solutions

A full range of automation technologies to fit any management style - the choice is yours!



**GEA
Automation
Solutions**

The automation advantage

Dairies of all sizes can benefit from the labour reduction, consistency and constant monitoring available with GEA automation solutions.

At GEA, we know every dairy is unique and deserves automation solutions that work with your herd and management style. Whether you are looking to automate the entire milking process, your heat detection or calf feeding system, our customisable automation solutions can be tailored to fit your individual needs.

Reduce labour

Automation can help solve labour issues you face on your dairy by replacing everyday tasks with robotic technology. Plus, our automated solutions allow you to take a step back from focusing on physically-intensive labour tasks and dedicate more time to cow and farm management.

Increase consistency

Cows respond best to consistent routines, especially during the milking process. Automating any portion of the milking routine ensures the procedure is completed the same way at every milking session, day or night.

Constant monitoring

Automation success is driven by data. With automation technology, your cows are constantly monitored for variations in their normal behaviour to signal when they are sick or ready to be bred, giving you improved accuracy and earlier detection than human monitoring can provide.

Whether you are ready to jump into full-scale automation on your dairy, or just looking to automate a single-step in the management process, GEA has automation solutions to help your cows produce the highest quality milk possible and to keep your operation running efficiently and profitably.

When it comes to milking automation, only GEA offers a full-range of choices

Our team is here to help you find the milking solution that best fits how you want to manage your herd and employee base, while maximising your quality of life.

For example, you may want to pursue complete milking automation to reduce labour, but desire to continue to manage your cows as you do today. Then, the DairyProQ may be an option for your farm.

You may want more flexibility in your life with no scheduled milking times. Then, the Monobox system can be an option that fits your needs.

You may not be ready to jump into full-scale milking automation, but would still like to minimize labour. Then, our operational automation options, such as heat

detection could be the ideal system to fit your herd. Choosing the next milking system for your dairy is no small task. Factors that impact your lifestyle, your cow's health and welfare, and labour availability in your area are all considerations. Your current or future housing facility plans and desire to grow your herd size are also important factors. The management considerations listed here are only a start to help guide your decision-making process.

The team at GEA, along with our dealer network are here to help you every step of the way.

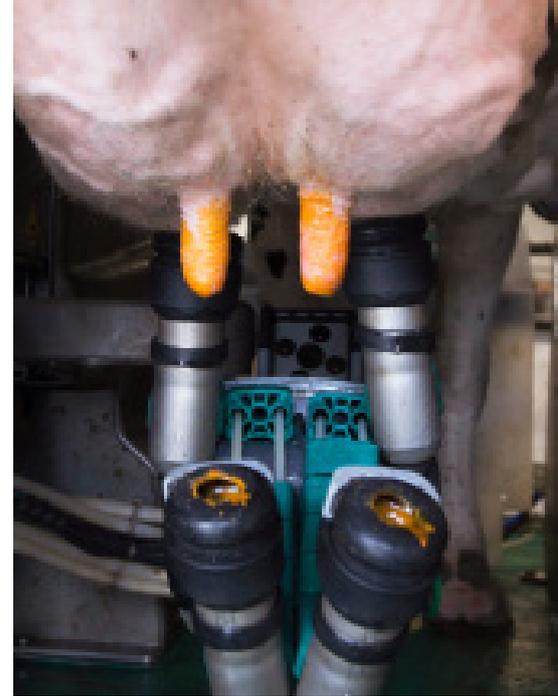


EVERY DAIRY HAS INDIVIDUAL REQUIREMENTS AND GOALS FOR FUTURE SUCCESS. GEA IS HERE TO HELP YOU EVERY STEP OF THE WAY.

Management considerations

COMPLETE MILKING AUTOMATION

	Monobox Automated Milking Box	DairyProQ Automated Milking Rotary
Herd size	Up to 65 cows/box	> 500 cows
Milking schedule	Voluntary milking-unlimited and individual-cow based (usually 2-4 times per day)	Fixed milking times-limited to 2-3 times per day
Cow flow	Cows move on their own 24/7	Move as a group to milking
Feed management	PMR with in-box pellet feeding (based on individual production)	TMR feeding (group-based)
Milking labour reduction	Fully automated milking process with no milking operators	Fully automated milking process with 1 operator/shift
Cow fetching	Cow fetching labour required	No cow fetching; only group cow pushing labour required
Milking routine	All milking steps in one attachment-100% process control	All milking steps in one attachment-100% process control
Milk quality and mastitis detection	Sensors analyze milk colour, conductivity and temperature per quarter	Sensors analyze milk colour, conductivity and temperature per quarter
Maintenance and service	Regularly scheduled maintenance and service are required for optimal performance	Regularly scheduled maintenance and service are required for optimal performance
Hygiene supplies	When using manufacturer's recommendations, amounts are similar to conventional milking	When using manufacturer's recommendations, amounts are similar to conventional milking
Herd management	Shifts to more concentrated, individual cow management	Manage cows similar to a conventional barn
Lifestyle	No fixed milking times means more flexibility in your daily schedule and the physically-demanding milking process is no longer a task	Flexibility is limited with fixed milking times-the physical demands are removed as the operator "oversees" milking rather than performs tasks
Return on investment	Potential labour savings and general benefits to cow health and management, ROI can be more advantageous than conventional milking	Significant labour savings and general benefits to cow health and management, ROI can be more advantageous than conventional milking



DairyProQ - Unmatched automated milking efficiency

Milk up to 400 cows per hour with only one operator overseeing the parlor.

With GEA's DairyProQ, each milking step is performed inside the teat cup for a fully automated milking process without any human intervention. This provides your operation with consistent, efficient, quality milk production with less labour.

- Fully automated rotary milking system with a robotic module on each stall, is turned with a revolutionary, heavy-duty roller system that is like nothing else on the market today.
- Advanced time of flight camera for the fastest attachment in the industry.
- In-liner technology stimulates, cleans, strips, milks and post-dips inside the teat cup, all in one attachment.
- Automatic backflush reduces contamination between each cow.
- High-tech sensors analyze milk colour, conductivity and temperature.
- Cowside parlor monitoring provides one-touch access to cow and robot performance data, and easy-to-read LED signals on each stall show milking status and required attention.
- Customised with 28-80 milking stations; 120-400 cows are automatically milked per hour with one operator overseeing the parlor.





“With the consistency of the robots and the speed of milking, DairyProQ gets more cows in and out of the parlor to help us remain profitable.”

“Since installing DairyProQ, we have seen more efficiency from our parlor because of the increased speed of milking and decreased labour. Our milking time used to be five to six hours, and with DairyProQ, we have cut that time in half. Now, we can milk about 300 cows an hour, which is very exciting for us. The speed of attachment on the DairyProQ also impressed me right away. It’s faster than most robots, and the in-liner technology is a great feature that does all of the work to get the cow milking. With the consistency of the robots and the speed of milking, DairyProQ gets more cows in and out of the parlor to help us remain profitable.”



Name: John Kampman

Location: Chilliwack, British Columbia

Farm/Herd size: Gracemar Farms, 1,000 cows

Milking System: 60-stall DairyProQ Automated Rotary

FROM STIMULATION TO POST-DIPPING,
GEA'S DAIRYPROQ COMPLETES EACH MILKING STEP IN
ONE ATTACHMENT WITHOUT HUMAN INTERVENTION.



Monobox Automated milking any time

This all-in-one automated milking system offers herds of any size an optimal milk harvest that is not only efficient but focused on milk quality.

Utilizing the same robotic module as the DairyProQ in a box-style configuration, the Monobox can be seamlessly integrated into your preferred housing design. Cows will quickly grow accustomed to a relaxed, rhythmic cycle of feeding, resting and milking. With no rigid milking schedules, your time is more flexible and you can focus on other herd management tasks.

- Advanced time of flight camera for the fastest attachment in the industry.
- In-liner technology stimulates, cleans, strips, milks and post-dips inside the teat cup, all in one attachment.
- Automatic backflush reduces contamination between each cow.
- Convenient operator access and manual attach feature for special needs cows.
- High-tech sensors analyze milk colour, conductivity and temperature.
- Comfortable stall for easy entrance and exit.
- Calf milk can be easily separated.
- Easy-to-use touchscreen monitor.





“We really like the camera feature that allows for efficient attachment. Plus, with the all-in-one liner, it cleans, milks and dips in one smooth motion.”

“We decided to install the Monobox on our farm because it allows our cows to choose when and how many times a day they want to be milked. We really like the camera feature that allows for efficient attachment. Plus, with the all-in-one liner, it cleans, milks and dips in one smooth motion. The manual attachment feature is very easy to operate and we have the option to divert one quarter from a cow if needed. Since switching to the Monobox, our cows are calmer and happier. Our milk quality has improved and our somatic cell count was reduced. With a great support staff from GEA, we were able to overcome any obstacles and easily adapt to the Monobox. I would rate that a 10 out of 10.”

“The speed of milking and attachment has been a huge advantage for us. We are running an average box time of 6 minutes, which allows us to milk more cows per hour.”

“The efficiency of the GEA Monobox automated milking system is far superior to any other robot unit out there. The speed of milking and attachment has been a huge advantage for us. We are running an average box time of 6 minutes, which allows us to milk more cows per hour. Since installing the Monoboxes, we have added almost 30 cows and still have room to expand. My vet bill has also dropped dramatically. We are able to catch any health issues earlier, and the consistency of cleaning with the in-liner-everything milking system has helped us significantly reduce clinical mastitis cases. We’ve also lowered our SCC and increased milk production.”



Name/Farm: Adam Garfat

Farm/Herd size: R&D Garfat Farms, 50 cows

Location: Mapleburg Holsteins, Woodstock

Milking System: 1-Box Monobox

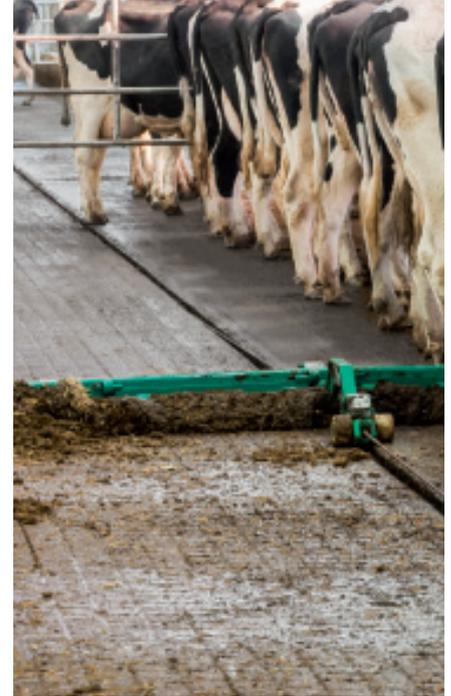


Name: Corwin Van Veldhuizen

Farm/Herd size: Van Veldhuizen Dairy, 245 cows

Location: Rock Rapids, Iowa

Milking System: 4-Box Monobox



CowScout™

Automated animal monitoring

Be everywhere and know everything. Improve herd management and gain control over cow health and reproduction with less labour.

- Continuous monitoring helps identify heats and cow health issues sooner than visual symptoms appear.
- Optimise fertility management with accurate heat detection 24/7.
- Rumination data, along with eating, standing, lying and walking times provide detailed, individual cow information. The system sends immediate alerts when deviations occur from normal behavior.
- Automated animal monitoring empowers dairy producers of any size to make the best decisions for their herd based on the best information.

FRone

Automated feed pusher

Minimise labour and maximise production. FRone pushes feed towards the feed line at the times you define and according to the routes you set.

- Ensure consistent, high-quality feed is available day and night to increase dry matter intake and boost production.
- Benefit from a quick return on your investment with payback in one to four years.
- Robust, reliable design ensures longevity and limited maintenance.
- Twin batteries charge quickly for maximum run time around the clock.

Alley Scraper Systems

Automated free stall cleaning

Incorporate an automated alley scraper for labour savings and cleaner barns.

- Schedule alley cleaning to occur automatically several times throughout the day based on your farms' specifications.
- Choose from a variety of alley scrapers engineered to handle every herd size, bedding type and barn layout.
- Industry leading drive units paired with heavy-duty corner wheels and scraper blades, for long-lasting chain, steel or rope cable system.



Livestock Comfort System

Automated environmental
control

Automate your dairy barn ventilation for optimal cow comfort and energy savings.

- Customisable system goes beyond fans to automatically manage your sprinkler, curtain and lighting systems. With easy management, simply set it and forget it.
- From the heat of summer to the cold of winter, environmental conditions inside and outside of your barn are continuously monitored in real time.
- The system is easy to program and the interface is a user-friendly touchscreen monitor.
- With potential energy cost savings of up to 70%, the system will pay for itself, on average, in one to three years.

DairyFeed

Automated calf feeders

Customise your calf feeding with modern technology for less routine labour.

- Every calf can be recorded and monitored from the day it is born.
- GEA feeding systems record feeding and drinking habits, store the data and report any deviation immediately.
- Milk is always fresh, at the right temperature and mixed on demand so each calf gets their own individual ration.
- Based on the number of calves and size of your farm, GEA has an automated calf feeder system that fits your needs.

NEW FEATURE! Link your calf data to the CalfCloud and access it with the CalfApp anywhere and anytime.

GEA'S FULL RANGE OF AUTOMATION TECHNOLOGIES CAN BE CUSTOMISED TO FIT YOUR OPERATION AND HELP YOU BETTER MANAGE YOUR LABOUR FORCE, YOUR TIME AND YOUR HERD.



We live our values.

Excellence • Passion • Integrity • Responsibility • GEA-versity

GEA Group is a global engineering company with multi-billion euro sales and operations in more than 50 countries. Founded in 1881, the company is one of the largest providers of innovative equipment and process technology. GEA Group is listed in the STOXX® Europe 600 Index.

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