



GEMINI REVOLUTIONARY MILKING ROBOT



Empower Your Dairy Farm!

A bloodline as deep as the modern dairy industry itself.

Pioneers in milking, since 1852

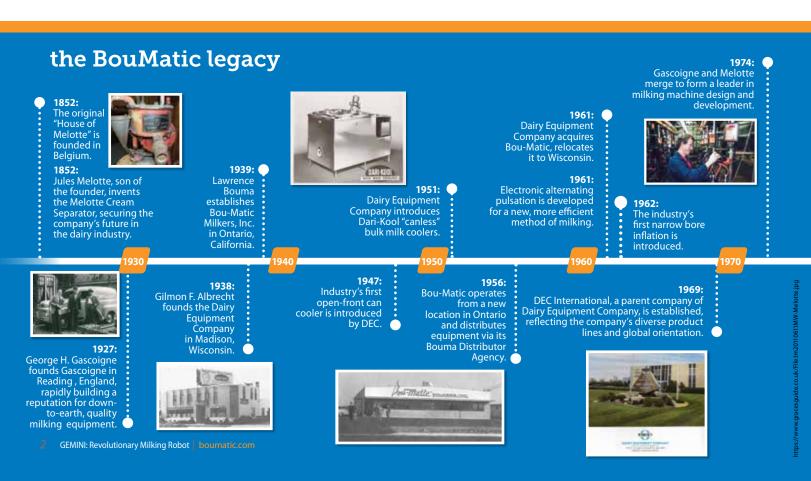
Today ,the BouMatic milking robot has a bloodline that runs as deep as the modern dairy industry itself. Our track record of manufacturing high-quality milking systems started as early as the mid-19th century. In 1852, the original House of Melotte was founded, followed by the ground-breaking invention of the cream separator in 1888 by founder Jules Melotte in Belgium, Europe.

In 1939, Gilmon F. Albrecht founded a dairy equipment dealership in Madison. By 1948 his business, Dairy Equipment Company, designed a cooler with an open front so the milk can could be slid inside. This open-front can cooler was well received, and the Dari-Kool line of milk cooling equipment was born. Albrecht proceeded to develop Dari-Kool bulk milk coolers in 1951, which made the use of milk cans unnecessary.

During the 1940s, Lawrence Bouma made history with his invention of the Hi-flo pulsator, as an alternative to the mastitiscausing milking equipment available at that time. Thus, Bou-matic Milkers was born in Ontario, California. Bou-matic manufactured and sold a line of quality milking machines. Their milking system was scientifically designed for efficient milking while at the same time being gentle to the cow.

Following its acquisition of Bou-Matic in 1961, Dairy Equipment continued to grow and succeed. In 1969, it reorganized and formed a holding company called DEC International, Inc. In 2004, Bou-Matic purchased Gascoigne-Melotte to strengthen its global market position and brought along its vast milking knowledge and experience.

From those humble beginnings, BouMatic has established a solid reputation for producing innovative, high-tech dairy technology over the past few decades in a rapidly changing dairy industry and has especially been recognized as the market leader in milking rotaries. Once we entered the market of fully automatic milking with our own milking robot, our vision was to innovate the solutions that enable dairy businesses around the world to drive efficiency and productivity. Today, that pioneering spirit endures. We continue to push the envelope with our guiding principles centered around the health of the animal, a dedication to scientific research, and the profitability of the milk producer, whether he runs a small family farm, a mid-sized commercial farm or an industrial farm. In the past 15 years, we have added the choice of automatic milking to our portfolio with a typical BouMatic product. Over 80 years of successful business is no small feat for any organization, but we feel those 80 years are only the beginning of what will be BouMatic's long legacy.

















THIS IS OUR NEW PLANT AT MADISON, WISCONSIN

The rapid growth of our company necessitated the construction of this modern manufacturing facility, which was completed in August 1962. Since then, two large additions have been built giving us 140,000 square feet of floor space.

the **BouMatic** founders









The release of Agri-Comp, the first on-farm herd management computer system (2020 modél).



(patented). 1988: The Milk Sentry is the industry's first

portable end of

milking indicator.

1994:

Bou-Matic has divisions in several countries including Australia, England, France, Israel, Japan and Saudi Arabia.

1994:

Glacier Milk Cooler Tanks are released.

> 1997: Smart ID (patented)

> > 1998: DairyXpress is acquired.

2007: Xcalibur 90LX parallel parlor is introduced.



Xcalibur 360EX **External Rotary** is first installed. 2012: Opening of BouMatic **Robotics** Canada.

> 2012: Glacier Chill is introduced.

2014: Pulse MD monitoring systems is réleased.

2011: BouMatic

2018: Launch of MR-S2 and MR-D2 milking robots with new innovative robot arm.

2018:

The largest Xcalibur 360EX rotary – a 110-stall at **High Plains Dairy in Kansas** is installed.

1984: The first unique e first unique : spiral design : Flo-Star claw is introduced.



1993: The first reel type rapid exit milking parlor system is installed.

1989:

Xpressway parlors

– the start of "Rapid exit" parlors

1993: The Smart ID System is introduced, the first from-the-parlor cow sorting system!

1999:

The installation of the Daytona rotary – and the start of the rotary trend.



BouMatic purchases Gascoigne-Melotte to strengthen its global market position.

2006: Strankgo brand and products are

acquired.

2003:

Flo-Star MAX

milking claw is introduced.

2006: Magnum M Liner Series is released.

2009:

SmartDairy is brought to the market.

2009: SmartContol Meter.

Robotics BV is 2010: founded in The Netherlands. The HiFlo **Evolution** Reveal and **Pulsator** is launch of the MR-S1 milking brought to market. robot.

2017: Inov' SPACE Award **SmartWay** 90 rapid exit parallel stall – France.

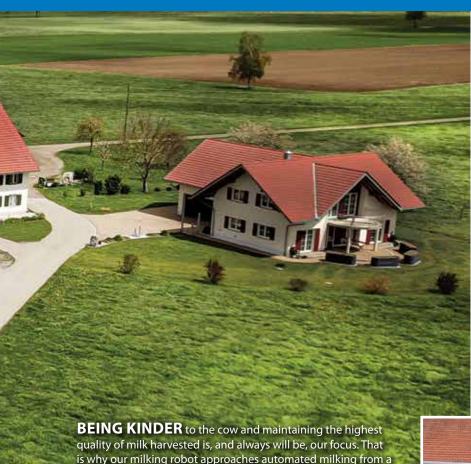


Introduction of the



The BouMatic milking philosophy

A Revolutionary Vision, Gently, Quickly and Completely



Ever since our humble beginnings, we have held true to a set of fundamental beliefs established by our founders.

Today, as an industry leader, they are still our guiding principles.

- The health of the animal
- A dedication to scientific research
- The profitability of the milk producer

Together, these beliefs can be summed up in the BouMatic Principle:

"The milking machine should remove the available milk from the cow's udder gently, quickly and completely".

BEING KINDER to the cow and maintaining the highest quality of milk harvested is, and always will be, our focus. That is why our milking robot approaches automated milking from a completely different perspective. We have brought many years of experience with milking technology and best practices in milking, together into a cow focused milking machine, which is compact, durable, reliable and easy to operate and service.

EACH COW BENEFITS from the industry's leading milking expertise integrated with a forward-thinking machine design. One of the greatest advantages in robot milking is that computerized monitoring provides the dairy manager with extensive individual animal information. Data analysis and herd control, combined with BouMatic's milking expertise and support, enhances the dairy farmer's milking insights and herd management and lead him to an optimal dairy operation.





COW FOCUSED STAFF AND DEALERS

All BouMatic staff and dealers receive in-depth training in milking technology and will always base their thoughts, decisions and actions on the BouMatic milking philosophy. In practice, this translates into numerous concrete benefits for the end-user. As a professional farmer, you can expect the best tailored advice from the BouMatic milking experts, combined with milking solutions that are optimally designed to enhance your efficiency and the comfort of your cows. Together, we will strive to get the best milking results for your dairy farm.





TECHNOLOGY

Constantly moving forward, as are the wishes and needs of the dairy farmer. By taking the initiative and embracing challenges, we can provide systems that are more efficient operation and user-friendly, more profitable and more animal-friendly.





THE GEMINI MILKING ROBOT DOUBLES YOUR ADVANTAGES

Depending on the number of cows to be milked we have a single box milking robot that fulfils all your needs. But, what if you could have a milking system that doubles your advantages in many ways? The Gemini milking robot allows you to benefit from the best milking quality combined in an automated milking system.

- What if you could milk 2 cows side-by-side in 1 robot-unit?
- What if you could get 2 rooms (milking & equipment) in 1 compact unit?
- What if you could milk 2 cows with 1 arm?
- What if you could sort to 2 areas within 1 box?
- What if you could improve your farm and spend more time with family and friends, without worrying about timing issues and labor problems?
- What if we have the solution for you?





The Frizzell Family enjoys high productivity from their Valleyview Farms operation – a 1600-acre farm near Glen Valley on Prince Edward Island, Canada. "Milking with a robot gives lots of flexibility to do other things like help out other farmers during crop season. Although I have to be in barn every day it is very easy to take care of by myself and the weekends are very simple." The family milks their herd using a combination of 4 BouMatic robots, 2 single boxes and 2 double boxes. This is a perfect example of how a farm can select a mix of Gemini robot models to obtain the results they desire for their operation.

Double up your advantages

Meet the Gemini







Gently

Quickly

Completely

Meet the Gemini: the BouMatic milking robot, built on over 80-years of experience in best milking practices, cow focused and designed to take your dairy farm to the next level!







Superior milking quality with the

Best in Milkability



Each cow determines when she is ready to be milked and sets her own rhythm.



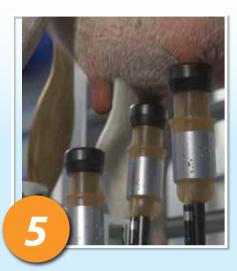
The identification system recognizes the cow, determines whether it is time to be milked and then decides how much concentrate it should be given.



The robot arm approaches the udder between the cow's back legs. The latest camera techniques are used to determine where the teats are.



Gently, quickly and completely, each teat is individually prepped for milking using a liner in a dedicated pre-treatment cup. The entire process is optimally sequenced for teat end cleanliness and milk letdown.



When pre-milking is completed, the milking cups are attached and the milking procedure starts.



The milking process is continuously monitored. Deviations within the milking process are immediately and clearly indicated. When desired, this data can be accessed from a smartphone or tablet.

BouMatic superior milking quality combined with

Robotic Automation



The BouMatic Robotics department has pioneered and patented a system that attaches the milking equipment from between the cow's back legs, creating a milking experience that is similar to that of a side by side parlor. This system uses an entirely cow-focused approach to automated milking and provides direct benefits when it comes to milking, animal welfare and protecting the system itself. The cow is relaxed, comfortable and free from the visual distraction of arm movement encouraging her to milk often and fast. It keeps her in her normal routine as it feels natural to her as opposed to an approach from the side.

From a safe and convenient position, the farmer can manually milk or treat cows when required. The robust stainless steel system and the rear-milking approach minimize the cow's ability to kick or step forcefully on vital machine components.

Relaxed, comfortable and free from the visual distraction of arm movement encouraging her to milk often and fast!





Alexandre Serrant La Grand-Celland, France

MILKING FROM BEHIND CONVINCED US

At Gaec Le Rocher they visited a lot of other robots before they decided to chose for a BouMatic Robotics milking robot. It was mainly the milking between the rear legs that convinced them because they noticed that the cows did a lot less kicking at the robot compared to systems that milk from the side.

After milking for 5 years with a single robot, the dairy farm management decided to install a double box robot because their herd size had increased to more than 60 cows. They chose BouMatic for the following criteria: the robot arm fetching two cups at once, the attaching speed, the proximity of their dealer Lacta-Traite and the cost of maintenance.

"Since then, the work has become really flexible in fact because it's much faster. We've gone from milking twice a day to 2.8, even 3 times. And we're not only producing more milk but better quality milk, and we have a lot less cells," explains Alexandre Serrant of Gaec Le Rocher. "We used to work all of us together every weekend. Now it's one in every two weekends. We're calmer, more serene," he continues.

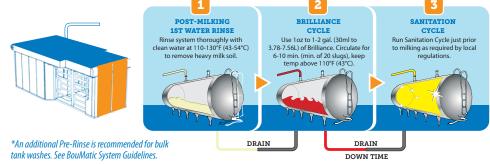
"And since the robot, honestly it's much calmer in the parlor. Herd management and especially activity measurement has also become much easier. I've already recommended it to several people and I'll continue doing so."







Renowned BouMatic Hygiene product range







Optimal udder preparation, cow focus

Before milking, each teat is individually prepared for milking using a separate liner in a dedicated pre-treatment cup. The entire pre-milking process is optimally sequenced for teat cleaning, teat-stimulation, pre-milking and maximum oxytocin production for optimal milk let-down. When preparation is complete, the milking cups are attached, and milking starts straight away. The whole preparation process lasts 60 to 90 seconds, which is also the time a cow needs to have a good oxytocin release and a good milk let-down.



Open view, happier cow

Through the open frame of the Gemini BouMatic Milking robot, the cow has an unobstructed view and therefore feels like she is still among the herd. This experience is even more enhanced in a double box system where cows stand freely but are still next to each other.



Individual quarter measurement

The milk from each individual teat is screened and analysed, and this data is displayed directly on all the farmer's mobile devices, providing him with useful insights on milk quality and cow health. This consequently leads to better follow up and better herd health management overall.



Built on BouMatic experience

When you choose BouMatic milking systems, you know you can expect attractive stainless-steel quality designs, built with robustness and durability in mind. This is also the case for the BouMatic milking robot. Along with its looks, the robot also benefits from integrated, proven BouMatic technology and equipment, like vacuum and pulsation, balancing technology with the very best practices in milking. Every robot is built on BouMatic's longstanding experience in serving and supporting clients to ensure they can harvest their milk in the best possible way for their dairy farm. This wide-ranging experience can be applied to all farm types, whether it is a small family farm or a huge industrial farm, and everything in between.

Animal Hygiene

Following proper Clean-In-Place procedures will deliver the highest quality milk. Milking within any system, whether conventional or robotic, leaves behind fat, protein and mineral residues.

BouMatic has a full line of detergents and sanitizers to accommodate specific water quality and soil load for use in BouMatic Robotic systems.

Robot Hygiene

Gentle on teats, tough on bacteria, BouMatic has pre-dip and post-dips formulated to maintain and protect healthy teats. Here again, BouMatic offers you many years of experience in excellent animal hygiene to harvest high-quality milk in robotic milking systems.



Let's perform

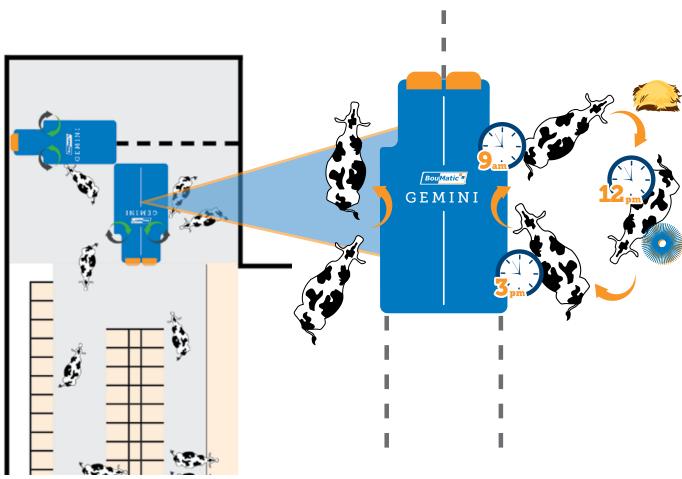
Milking 2 Cows, Side by Side in 1 Box

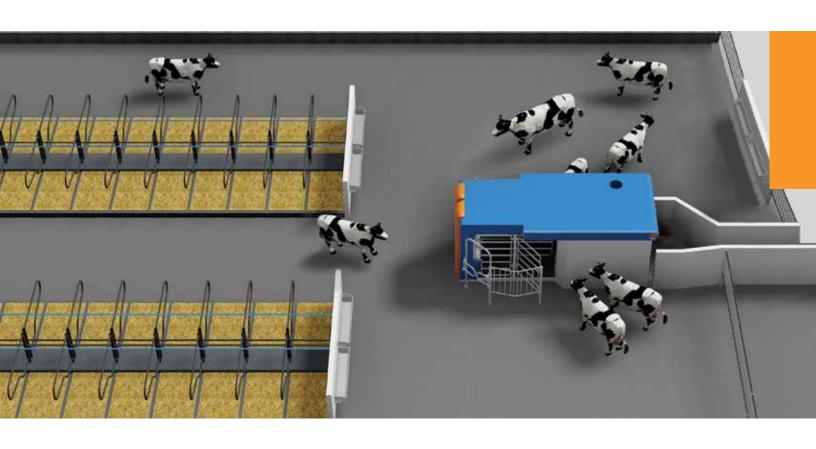
DOUBLE UP YOUR PERFORMANCE!

The Gemini single box milking robot is a 2-in-1 self-contained unit and, as a result, is quick and easy to install. It has an efficient, small footprint, one integrated machine room and unique in-box selection options. It therefore offers an unrivalled automatic milking solution for every farm type.

The Gemini double box robot is a compact milking robot equipped with two stalls, side-by-side. It has one robot arm that milks two cows simultaneously between the rear legs — gently, quickly and completely. Milking 2 cows with one arm, increases profitability and offers you a faster return on investment. The double box also has a very important social aspect: since one cow will attract another into the box, the cows are motivated to enter the robot. Moreover, when two cows can stand next to one another and look out on the cowshed via the open frame, they feel as if they are still with the herd.







OPTIMAL ROUTING, COW FLOW

At BouMatic, we understand how important cow traffic routes are in the cowshed layout. Simple, open routes ensure smooth cow traffic, with cows that are calm. This improves milk production. A calm cow has less adrenaline, a greater supply of oxytocin and consequently will produce more milk. Since the Gemini milking robot stimulates smooth cow traffic, it will also help stimulate higher milk production. This, in combination with the layout of the cowshed is important for the cow's comfort and well-being, improving her productivity and milk quality.



GROW WITH YOUR HERD

BouMatic offers a solution for every farm type and management style, regardless of herd size. Farmers with expansion plans can easily combine single and double box solutions in the same barn, customized to their individual farm needs, now and in the future.



Expand as needed

Convenient and Adaptable



Retrofit-friendly: Integrate into almost any stall configuration

Since there are very few remodelling requirements, this milking robot is ideally suited to fit into almost any stall configuration or to update older cowsheds with the latest in milking technology. There are several cowshed layouts to choose from that offer the best situation for optimal cow flow, integrating the milking robot into a clear routine of milking, eating, and resting. This reduces building costs considerably. Our team of specialists is available for bespoke advice.

Integrated technical room, self-contained unit

The milking robot's operating area is completely closed off and is provided with a ventilation system. This design allows the milking robot to conform to specifications set by both the government and dairy processors. All components are easily accessible in the clear and spacious layout of the technical area. The system is hygienic, advanced and can easily be accessed and controlled remotely by the farmer or service technicians using a computer, smartphone and/or tablet (such as an iPad).

Since the BouMatic milking robot needs very little room in the cowshed with its minimized footprint and unique positioning of the technical area, the paths of the dairy farmer and the cows will not cross. This also improves cow flow in general.





Plug & Play

Our milking robots are self-contained units, allowing for quick and easy installation. Few building alterations are required. Whether the cowshed is old or new, the milking robots can be placed almost anywhere for ideal cow flow. All you need is milk pipes, electricity, air pipes, water and an internet connection. Each system is thoroughly tested before leaving the BouMatic factory so that once installed at the dairy, the milking robot can be fully operational within a few hours.



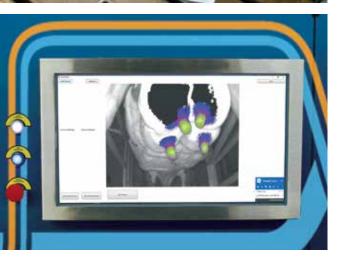
Empower your dairy work flow with

Gemini Robot Technology









FETCH TWO CUPS AT ONCE

The BouMatic milking robots are equipped with a unique dual attachment functionality; an intelligently designed mechanical head that allows the robot arm to fetch two cups at once resulting in efficient arm movement. By reducing the arm movement, this dual attachment increases the cow throughput and maximizes box performance.

BOUMATIC ADVANCED INTERFACE

The software technology in the BouMatic Robotics system is extremely user-friendly. There is a wealth of information and functions available to the farmer for making herd management decisions. The robot's software and the brain behind the user interface is known as the BRI (BouMatic Robotic Interface). The latest version allows you to troubleshoot issues very effectively and easily.

The user has multiple ways to access and manage information: smartphone, tablet, desktop computer as well as at the robot itself via a multi-functional touchscreen. All the important information the user needs can be accessed via this large, robust touchscreen which is installed on the robot. Both the PC and the touchscreen are equipped with powerful processors to automate functions and access key data. Even more importantly, these systems are easily accessible and very user-friendly.

TIME-OF-FLIGHT CAMERA

The camera's time-of-flight technology can determine the exact position of the individual teats. This very advanced new technology has given our milking robots superior attachment results. As it approaches, it conducts a 3D analysis of the teats, identifying the location more accurately. The waterproof stainless-steel 3D camera has a flat surface for easy cleaning.

TEAT TEACH SCREEN

One of our favorite functions to use in the Gemini interface is the Teat Teach Screen. The camera brings up the image of the udder onto the screen. The operator can simply touch the teat ends on the image to 'teach' the camera where the teats are for that particular cow. This can be done for cows that have difficult teat placement. The robot will then remember the location of her teats when that cow enters the box again, and make the attachment process much more efficient.

UPGRADEABLE VIA EQUIPMENT AND SOFTWARE

The BouMatic milking unit is easily upgradeable via equipment and software. Since technological evolution in robot milking has sped up exponentially, you as a forward-thinking dairy farmer can easily follow up on the latest innovations in your existing robot. This is not the norm in the industry and is quite an advantage.



DUAL **ATTACHMENT**



ADVANCED INTERFACE



TIME-OF-FLIGHT **CAMERA**



TEAT TEACH



UPGRADEABLE FEATURES



HSFR-**FRIENDLY**



MILK **MONITORING**



HEALTH **MONITORING**





USER-FRIENDLY, EASY TO OPERATE BY ANYONE

BouMatic's complete robot is easy to operate. As it is quite userfriendly, you can easily hand over the management to another operator, saving yourself a great deal of time. Do you need extra time to focus on something else? Would you like spend time with your family or to enjoy a relaxing holiday? Don't worry, when you need time for other things, you can hand over your dairy operation to almost anyone.

SC-GUARD MILK MONITORING INSTRUMENT

A new option on the Gemini milking robots is our SC-Guard, the milk monitoring instrument for Somatic Cell Count (SCC), which allows the farmer to monitor his cow's health and treat preventively when necessary. The instrument automatically takes a milk sample during milking, which is analysed for sub-clinical mastitis based on the SCC in the earliest stages. This highly accurate device, allows the farmer to intervene quickly if necessary and monitor the trend and variation in the SCC. Early detection of sub-clinical mastitis followed by appropriate treatment reduces the risk of contamination and reduces the use and the amount farmers spend on antibiotics. Chances of recovery are increased, and loss of milk yield is prevented. Animal health and cost savings are secured. Available in select markets.



REALTIME HEALTH MONITORING & GPS LOCALIZATION

With BouMatic RealTime Activity, you have a powerful device at hand to locate and monitor your cows in real time. The farmer will now know at all times where his cows are located.

With the eating time and rumination functionality the dairy farmer is able to give his cows the individual attention they deserve. The BouMatic neck tag provides extremely accurate heat detection with health monitoring. The dairy farmer is able to have individual data on each animal at any time — in real time. These details are needed to achieve optimal overall herd performance.

Coupled with the BouMatic HerdMetrix[™] phone app, the data is accessible anywhere so that the farm manager has a constant stream of data. He will be able to catch cows with health problems sooner and treat them accordingly. Moreover, the increasingly accurate insemination rates will quickly offer a return on investment.

> BouMatic RealTime is fully customizable for a range of alerts and sensitivities. It also allows the alert settings to be customized so the information is sent to whomever needs it the most.

Empower your herd with

Flexible and Smart Selection

WHEREVER YOU WANT YOUR COWS TO GO, the BouMatic selection engine offers almost endless possibilities which are both physically and cow data driven. You can come up with numerous selection gates and various data criteria such as time, calendar, alarms, general cow information, etc.



Cow flow is smooth and easy with the BouMatic milking robots.

The integration of the selection options means that there is no need for extra fencing and gates. The milking robot is equipped with inputs and outputs on both sides, allowing cow selection to take place in the milking station.



The BouMatic milking robot offers great possibilities to farms that wish to stimulate pasturing. Thanks to its integrated selection system, no extra fencing or selection gates are needed and the cows keep an open view

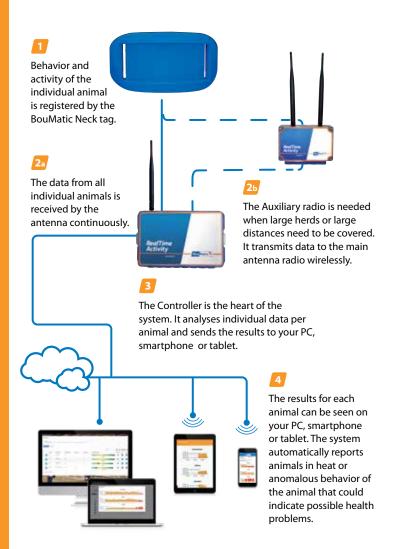
For dairy farms that have their robot installed further away from the gate to the grazing paddock, we offer the possibility to install an extra selection gate.



BouMatic RealTime+ Heat Detection with **Health Monitoring**

The BouMatic RealTime activity, health and rumination monitoring feature is also available for pasture-based dairy farms. It can cover large distances thanks to the (optional) auxiliary radio, which transmits data wirelessly to the main antenna radio, making all the advantages of health monitoring available to pasture-based farms.

- The ID Controller analyses the data continuously. 3
- 4



Devon Toop Chilliwack, BC, Canada

Devan Toop; Vice President of Toop Farms Ltd.

Devan Toop, 6th generation, is pleased with the results he has seen with BouMatic Robotics.

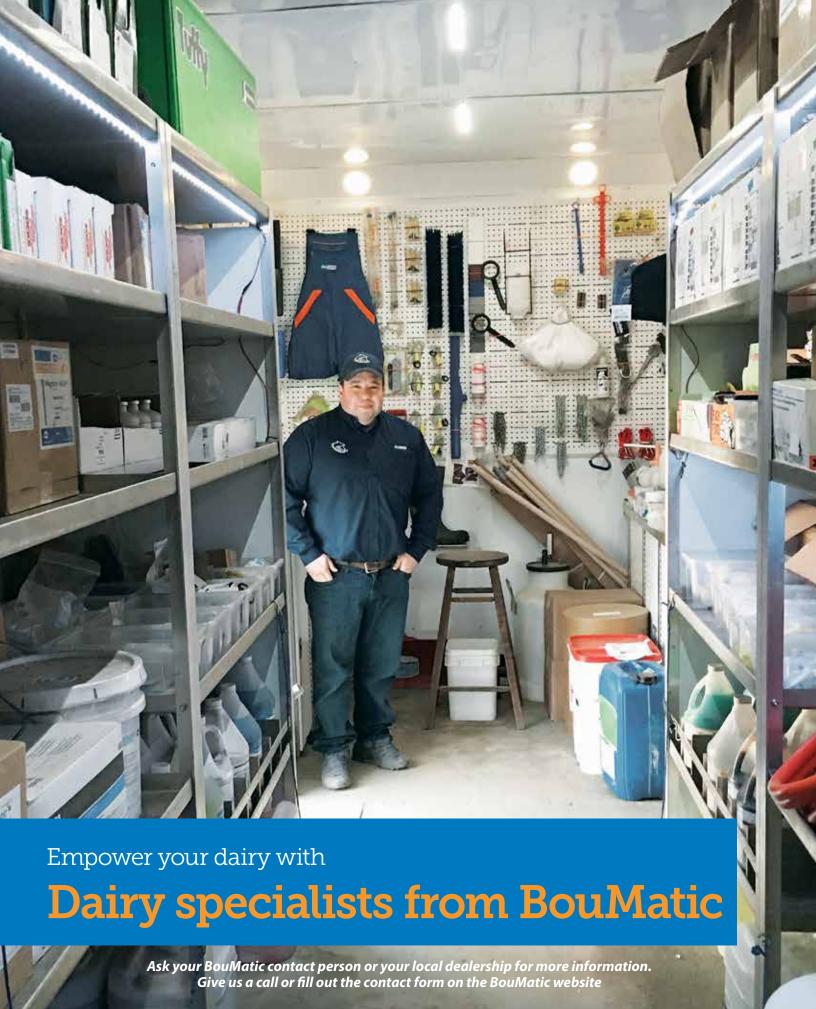
In September 2018, he states, 'We have been running the new camera for 3 weeks on the 3 MR-D1 and 1 MR-S1. We have noticed that the arm movement has been more fluid. Not just a lot of x, y, z back and forth and the arm is able to track the movement for more nervous cows during attach."

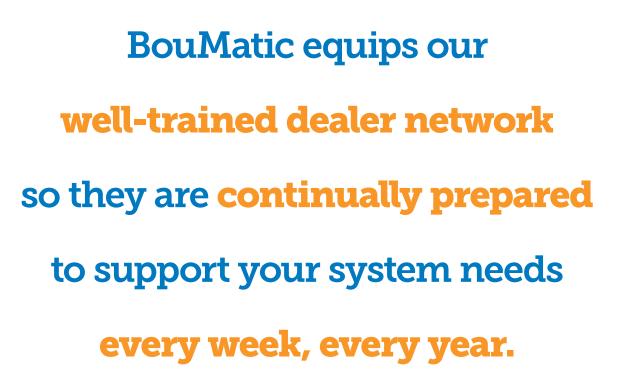
"But we have been very pleasantly surprised with how well the new camera system has worked with some of the cows that have some failed attaches before. And our failed attaches and manuals have gone down dramatically, I'd say probably about 60 or 70%.

I'd highly recommend the new cameras. And I think, and they really are a wonderful piece of machinery."













BouMatic University: Benefit from continuous training and training programs



BouMatic has an abundance of cow and milking system knowledge. We pass this along to our dealers through our BouMatic University training programs. We also provide on-farm support with our technical service members who will also guide and train dairymen on best practices.

All BouMatic Robotics dealers can monitor their installed milking robots more easily and set milking parameters according to their client's needs. The dashboard is mobile adaptive, allowing the farmer and his dealer to easily access their data anywhere, at any time on their smartphone or tablet.

Keep Empowering your Dairy Farm with Additional **BouMatic Products**



Feed Pusher

Reduce labor costs and positively impact milk production. Full consumption of feed ration increases milk yield according to the Journal of Animal Science. The Feed pusher keeps feed to the cows and allows her to eat at any time of the day.



Cow Brush

The BouMatic Cow Brush will improve your cow's health and well-being and consequently her productivity. The BouMatic Cow Brush is designed and engineered in such a way, that parasites and other vermin are brushed away from the places the cow isn't able to reach herself.

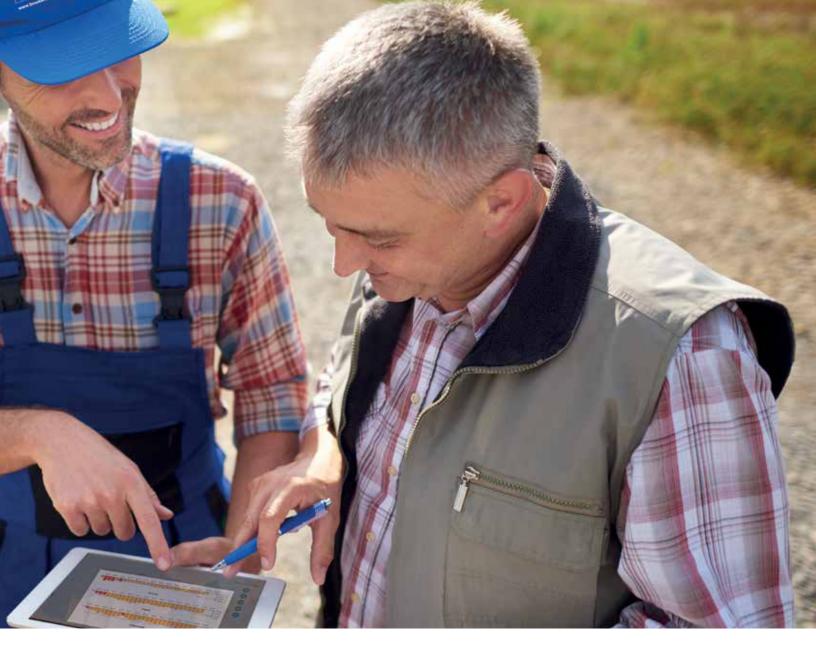


SR₂

A precision engineered robot designed to prevent post milking infections. Leveraging the latest in vision programming technology, this fast and compact machine can integrate safely and effectively with your rotary milking system to deliver a higher level of animal hygiene.



Available & Flexible **LEASING OPTIONS**





We guide you from A to Z

Whenever you start up a BouMatic robotic milking system on your farm, the BouMatic specialists will always guide you to set it up right. We provide assistance with many aspects to smoothly integrate the robot into the farm. From conception and launch to your day-to-day operation, you can count on us to support you at every step and help you to milk your cows with peace of mind.



Custom Leasing

If you are looking for flexible financing options, there are leasing options available from BouMatic specialists.



Maximize your work life balance

Our well-trained dealer network is your first point of contact to check in on your system and to help where needed.



www.boumatic.com





Choose BouMatic robotic milking

Maximize your work and life balance!



Time is precious and the milking robot can help you make the most of it.

Needless to say, dairy farming in general is laborintensive. All over the world, the job of dairy farmer is reserved for passionate people with a love for quality food and animals.

However, in a rapidly changing society, you might find yourself wanting to focus on something else and no longer be bound to fixed milking times. BouMatic robot milking allows you to choose the most efficient way of managing your time in your professional and private life, while the robot does the milking for you.



Stay connected

The BouMatic robotic milking system is easy to operate and user-friendly, so you can decide how you spend your day and where you want to spend your time, with no limits. What's more, after a quick round of instruction, it is easy to hand over the management, to almost anyone else on your farm, leaving you free to go when you need time off for something else!

Since each step of the milking process is continuously monitored via sensors and measurement devices, you can always stay connected to your system and view all important data via your smartphone or tablet.



Improved labor management

Moreover, the milking robot solves the problem that arises from a lack of reliable labor resources which can prove to be very expensive. Labor productivity in general will go up and will become easier to manage. On top of that, the dairy operator's physical strain is reduced remarkably since he is less exposed to repetitive, labor-intensive tasks. In the long term this has a strong influence on the farmer's general physical and mental health.



