HerdAbout News Magazine

2019

Speak to GEA specialists near you

Our team wants to say hello

The Success of GEA Dairy Robot R9500

5 Good Reasons Why You Should Have Milk Meters

engineering for a better world

GEA's ApolloMilk-System leaves nothing to chance

...when taking care of key or aspects of the welfare of today's dairy herds

The GEA system dips, teats and flushes the milking cluster automatically after every milking to improve or maintain the health of the udder and individual teats, save money for the farmer and maintain the quality of the milk for the consumer.

Udder health is crucial for all dairy farmers to ensure that they can maximise yields and keep costs to a minimum. The disinfecting of teats immediately after milking is a key element of this care; however, dipping each animal manually is timeconsuming, can be wasteful of chemicals, and is subject to human error. Apollo is the latest milking parlour technology from GEA that performs this function automatically thereby achieving simultaneously the key aims of high-quality milk, improved labour productivity, better milk yield and very good udder hygiene.

The ApolloMilk-System automatically dips the teats, with a 5000ppm solution of iodine (Veterinary Medicine authorised), after milking and before the milking cluster disengages. In this way it ensures that iodine solution, approved to the highest industry specification, covers the required area perfectly, without waste, preventing any chance of human error and providing absolute consistency in the dipping of every cow.

"It's much more efficient than using a manual method, either with a spray or a dip cup," said David Simmons, GEA's Head of Milking & Dairy Farming in the UK. "It's one less job for the milking operator to do and he can be confident that it's always performed consistently." Apollo uses just the right formulation of iodine teat dip to ensure the highest level of disinfection and, with its incorporated patented safety valve, contamination of the milk is avoided. With each clinical case of mastitis estimated at £200/cow/case on average, then activities that minimise new infra mammary infections are likely to support savings for farmers over the long term. The unique ApolloIQ milk safety valve developed by GEA effectively separates the dipping medium from the milk thereby ensuring that there is no possibility of iodine contaminating the milk. Apollo features the award-winning IQ cluster with each quarter of the udder milked into separate chambers eliminating cross quarter, infra mammary infections via the cluster, then automatically flushes the used milking cluster to prevent any opportunity for cross infection between cows.

Dairy farmer Jeremy Platt installed the Apollo system at the end of 2015. "It's been 19 months since we started milking in the extended GEA Global 90i 50/50 parlour and I am absolutely delighted with the parlour and the Apollo," he said. "I think it's incredible how the cluster milks the cows. I am milking 450 cows now and I do not get one kick off in the whole milking, making it a stress-free environment. Somatic cell counts are averaging 82. This is the reason why I ordered a GEA rotary parlour for my other farm. The building work for this rotary should be finished in July ready for the installation of the new rotary to begin."

Ed Newton from Millers Court Farm near Malvern started milking in his new GEA Euroclass 800 20/40 Swingover parlour in September 2015. He is now milking 500 cows through the parlour which is equipped with the GEA ApolloMilk-System. The parlour also contains a moving floor, which can go up or down to suit the working height of the milker. The swing arm smoothly swings over and automatically switches on the unit when the milker is ready to put the unit on the cow. The Dematron control unit links to the Dairy Plan herd management software, feeding information back and forwards to keep the operator informed so he can easily manage his cows. "The cows are milking well, averaging 33 litres, with low cases of mastitis and my last three-month average cell count was 119," said Ed. "I am happy with my decision to buy a GEA parlour for myself and my operators."



The Apollo Milk System is a major advancement in any previous technology allowing dairy farmers to take better care of their cows' udder health, improve milking efficiency, improve milk quality and potentially yields, save time and reduce both the use of antibiotics and their costs.

Speak to GEA specialists near you

GEA will be exhibiting throughout 2019 at national and regional events. We aim to showcase the best of our Equipment and Service offering to existing and potential customers.



enter you in the competition!

AGRI-SCOT

We can help

If you have or suspect bactoscan, cell count, mastitis or lameness issues which you wish to resolve at GEA - we have considerable on farm practical experience which can help.

Our support and advice is offered without charge, and available on a first come first serve basis.

> Call us now on 01985 216444

Redlynch Agricultural Engineering - your new local specialist in GEA manure

Founded in 1981, building on passion for the farming industry, the business continues to develop and evolve by taking on new and modern working practices and represent leading brands.

To support farmers across the UK, Redlynch are working alongside a network of independent local dealerships to support them with the installation and service of these products across the UK. GEA has the process expertise that allows to design and implement tailor-made, high-value manure management solutions that meet specific requirements: from the collection and transfer of raw manure, to land application, and effective separation systems for liquid recycling.

Due to the success of the GEA Superpump lagoon agitators, Redlynch are now taking on the scraper systems as part of their product range along with other GEA slurry management equipment.

> Sales enquiries Giles Clothier giles.clothier@redlynchtractors.co.uk 07912 608753

> > Spare parts parts@redlynchtractors.co.uk 01749 812628



Your partner in efficiency

Near Skipton in the UK, you will find Phil Ormerod's farm working in full swing with a herd of around 1,400 goats.

The farm underwent major changes taken in two stages. Stage one was to install a fully automated feeding system in September 2014, stage two followed two years later when a new 72 stall rotary, bulk milk tank and Glycol instant cooling system were installed. The farmer chose equipment by leading dairy farming equipment manufacturer GEA and is continuously looked after by authorised dealer Pennine Farm Services. Here's what Phil has to say about what the new equipment has done for his herd and efficiency on farm:

In our old setup, we were milking 1,100 in 4 hours. Now with the upgrades, in less than 2 hours we milk an increased herd of 1,400 goats.

We've noticed great improvement in teat end condition since the new parlour went in and since we upgraded our feeding processes with the GEA Mullerup system, we now can achieve accurate, energy efficient and labour saving way of doing what we used to do. The GEA rotary also meets our needs for multiple entry, individual recording and high throughput. We can see positive impact on the quality of milk we produce thanks to more efficient cooling.

Most importantly, we are getting a better price per litre, which increased by 2p, because we are not mixing cold with warm milk. The chilling process is quicker, which also is saving us time with milking.

In all honestly, I recommend fellow farmers to explore automation with their milking and feeding processes for the efficiency it can bring on farm and get in touch with GEA if they need reliable equipment to deliver on their requirement."



GEA has over 20 EMX pumps working in British farms; one farm has two pumps working in sequence to feed a Digester 23 hours a day. The Stanfields are now looking at the possibility of separating sand and liquid from the manure, to reduce the storage capacity needed, and are working with GEA and RMS on the project.

"We had absolute confidence in GEA right from the start"

Simon Stanfield with his Electromix pumping system from GEA

A farmer in South Wales pumps sand-laden manure over 200 metres away

GEA has supplied its top-performing Electromix pump to a farmer in Ceredigion, South Wales to pump sand-laden manure over 200 metres away from the cow shed to the slurry store.

The site is at Trefaesfach Farm in Ceredigion. Farmers Simon and Cristopher Stanfield decided to improve the housing for their dairy cows by building a new, 300ft-long shed, adjacent to the existing buildings. The Stanfields decided to use deep sand bedding as it is both comfortable for the animals and it helps to reduce the incidences of mastitis.

Tractor scraping was used to remove the sand-laden manure from the milking area, however, it still had to be moved from the shed in the most effective and economical way. Simon and Christopher called in the Farm Equipment Sales Manager for GEA, to work on the problem. He suggested the use of a GEA Houle Cross Gutter scraper (CGS) to drag the manure along a 1-metre square underground channel to a reception pit at the end of the shed. The challenge from there would be to move the manure some 215 metres to the existing slurry store.

GEA has supplied this type of equipment to farmers for many years and knows exactly what can be achieved, and what can't. "They know exactly how far it can pump slurry taking into account its consistency, the pipe size and the elevation,".

GEA said that unlike the centrifugal pumps favored by some manufacturers, the Electromix (EMX) piston pump is like a "huge syringe", with a 60cm diameter piston inside the stainless steel barrel. A hydraulic pump moves the piston up and down with a 100mm ram. To reduce wear the pump does just four strokes a minute. This will move the manure from approximately ten cows' daily production in just one minute, for non-sand installations, but a little slower for thicker sand laden manures, depending on other factors to be taken into consideration. Trefaesfach Farm has 300 cows and the Stanfields bed the cows liberally with up to ten tonnes of sand a day. "So the pump has to run for ≤60 minutes a day to clear the manure and waste sand,". Between the cow shed and the slurry store, GEA has recommended the installation of a 10-bar ABS plastic pipe which reduces friction as the manure moves through the pipe. No blockages have occurred as it is purged daily using compressed air. During very dry periods the manure can get very thick. This can be easily remedied by adding a few gallons of water from the volume washer or grey water from the parlour washings.

The system has now been in operation for 16 months and is operating perfectly. The Stanfields chose GEA as they already had GEA parlour equipment and a bulk milk tank on the farm and had received excellent service from GEA's local agent, RMS. "During the procurement process we had a quote from another company for the same type of pump," said Simon, "but they were not convinced their pump would do the job. We had absolute confidence in GEA right from the start."

GEA parlours milk over 290 cows in one hour and twenty minutes

Back in August 2016 the Evans family of Llwyn Goronwy farm, near Llanrwst, Wales in the United Kingdom were looking to install a new milking parlour as the existing one was getting old and milking was taking far too long. They have a spring block calving system, milking about 280 Jersey cross cows, so getting the cows back out to grass as fast as possible after milking is vital to them.

"We initially were looking at putting in a 30:60 herringbone parlour," said Elgan "because we thought that a rotary was going to be out of our price range, but after looking at various makes and getting some ideas on design and receiving a few quotes, it became apparent to us that this was definitely the way to go as you could easily and quickly milk a large number of cows, but most of all we were impressed how happy and content the cows and operators were."

With an existing shed that could be utilised, it also meant that they did not have to erect a new dairy as they could simply optimise the existing one as it was big enough to accommodate a 40 point rotary. "We can use the existing collecting yard as well, and that will be extended once the old parlour has come out." he said, planning for the future.

After looking at a few different manufacturers the farmer decided to go for a GEA Milfos 40 point rotary, because of the strength of the double beam system, the fact that it uses nylon rollers and the stainless steel troughs, all meaning that maintenance and running costs would be kept to a minimum. In addition, he selected higher automation options including iCR cluster removers and cow retention straps to keep the cow on if she has not finished milking or has kicked the machine off, the iPUD'S on platform teat sprayer and leg spreader, a variable speed milk pump to pump the milk slowly and gently through the plate cooler, and the cluster drop down feature meaning that the clusters drop to go under the bridge preventing the cows from tangling with the rubber tubing when they are coming on or backing off. Elgan mentioned that the aim is to use automation so that he can have only one person milking. "We plan to have two people when the cows are freshly calved, also when we are doing the artificial inseminations and segregating for pregnancy diagnosis, but the rest of the time we want one person to manage the milking process".

First milking took place in April 2017 and the farmer reported the cows went through even easier than expected. From the first unit going on until the last it only took two and a half hours. "Now after two months we only take about one hour and twenty minutes to milk all 290 cows." Elgan said delighted.

"We are very pleased that we opted for a rotary parlour as it has made life a lot easier.

We have much more time in the day to get all the other jobs done."

With a timely delivery and a professional installation by dealer McKnights from Donegal, who even lived on site while completing the job, Evans family of Llwyn Goronwy farm are happy with their new parlour and as a sure sign of a good decision they have reported that their cows are enjoying their new milking environment as we do not have any kickers anymore, and rarely do we have any cows dunging in the parlour.



Photo: (from left to right) The two brothers Gareth and Elgan Evans and Gareth's sons Nedw and Mynor

Our team wanted to say hello



ASM Equipment South



ASM Equipment West Country & Wales



ASM Equipment North



ASM Egipment North Wales & Midlands



UK Farm Management research. I then spend some time working with RMDC as an advisor before taking up a role with NMR." Support



"From early teens, I spent school holidays and weekends working on a local dairy farm. After college

I went to work in Ontario in Canada for the world-renowned Hanover Hill Holstein herd, part of the team that won the Herdsmanship award. Once returned to the UK I got a job with Black and White Sires in South Wales. In 2004 I left the industry and turned to selling milking equipment, and later was involved in setting up the MILFOS brand, now incorporated under GEA range. To date I have sold 47 external GEA iFLOW rotaries, varying in size from 28 points to 80 points and delighted to be working for GEA, because I truly believe the product range can cater for all dairy farmers." Emrys John

"I joined GEA in January 2002 but been involved all my working life within agriculture and hold a HND in agriculture. After jobs at some previous companies which introduced me to sales and the dairy expertise, the opportunity arose to join what was "WestfaliaSurge", now GEA, who were the market leaders. I started as an area manager and then was involved in setting up Dairyflow our own dealer and a 1st in the UK. My main expertise is milking machines and Mullerup automatic feeding systems. Now covering Scotland and the North of England as ASM and I like this industry, because it covers a wide range of skills and you meet interesting dealers and customers over the years." - Dave McNair

"Having grown up on a Dairy farm I was always drawn to the Dairy industry and was fortunate enough to ut my technical engineering experience and qualifications to good use when I started working for a Westfalia -dealer installing and servicing herringbone and rotary milking parlours across North Wales, Cheshire and Staffordshire. Using that experience I have had sales roles with different milking equipment suppliers and now I feel very lucky and proud to be working for the manufacturer that supplied the equipment for those first installations that got me into the industry. I started in my current sales role in GEA Farm Technology two years ago and I support GEA dealers selling conventional and robotic milking parlours and equipment." Gareth Roberts

"Relatively new to GEA (6 months and going strong), but not to the industry. My role is focused on

analysing data and supporting customers across the UK in interpreting the information provided by GEA

technology to optimise their business. I became interested in dairy farming since studying Agriculture

at College. My area of expertise is management practices, nutrition, lameness and mastitis prevention.

Started as an assistant herdsman and I worked my way up to herd manager roles, where I was invited

to manage the unit at Moulton College. I spent 6 years managing the unit and assisting with trials and

MDF Service

"After 8 years with GEA and over 25 working in local dairy connected businesses, I think my passion now officially rivals my experience. It is a unique industry and very fast paced. The area I cover is Midlands and the East country for our GEA hygiene products. It's varied and challenging work to be involved in, but I'd like to look at it as "If it were easy, everyone would be doing it!". Not just selling, really delivering a service to our customers that goes with our reputation of best in the industry. We face challenges daily with so many things influencing the price of milk and therefore the livelihood of those around me, but I feel confident that if you keep delivering to the best of your ability, the rest will work itself out." Melanie Heath



ASM Service

Midlands & East

ASM Service West Country & Wales



Sales Manager

- James Vaughan

"By trade I'm a NOAH qualified animal health specialist specialise in trouble shooting Bactoscan somatic cell count and mastitis control on the Hygiene team. In short, I'm the guy who customers call to be on their farm at 5am to solve a problem or better yet prevent it from happening. And I'll do that with passion. 11 years of experience with GEA, I really enjoy the work and being within a highly specialist team in a market leader for milking systems, which means we can be of service to our customers as soon as they've got their new equipment installed." - Stephan Taylor

"I have been employed by GEA since 2006, joined as Marketing Manager with a national responsibility, at the then "WestfaliaSurge" company based at Milton Keynes later becoming Commercial Manager. Since GEA re-organisation 2015 I am MDF UK Service Sales Manager. As I was younger, I started working on a farm in summer vacations. 1981 I graduated in Agricultural Economics from Nottingham University and then entered the milking machine industry with another manufacturer until 2004. With GEA's focus on innovation and growth of assortment, the company ambitions have ensured there has always been much to do and with a great bunch of colleagues, dealers and customers it's a genuine pleasure to get up in the morning." - Dave Wenner







"For the last 8 years with GEA, I've built my area and worked closely with farmers and the team to provide an excellent service every time I'm on farm. Customers call on us for our reputation and the specialist care we provide around troubles on farm, but I like to focus on prevention. Studied Agriculture in college, specialised in dairy and now I'm glad to be using my own skills with specialist backup when required. Working in this industry is all I've ever known, and it gives me great reward and job satisfaction to see our products on farm helping customers look after their herd in the best possible way." - Susan Heath

"I've been working for GEA for 4.5 years and I cover some parts of Northern England, all Scotland and Northern Ireland. I had always worked on my local Dairy / Arable farm in Wigan during school holidays and at weekends. After finishing College, soon started to take more interest in the dairy side of the business. Always enjoyed going on farm and helping to ensure the milk is produced as hygienically as possible and helping animals stay a little healthier. Our chemicals have the best reputation for quality in the market. It's good to sell products you know will work. Also, nice to see the farm I used to work on has recently bought a new GEA Parlour." Barry Heaton

Explore the future of UK dairy farming technology

Agri-EPI Centre has launched its state-for-the-art South West Dairy Development Centre in Somerset, which aims to offer a fresh vision for sustainable UK milk production.

The £1.36 million, 180-cow dairy unit provides a truly innovative environment for the development, testing and demonstration of new technologies and techniques to support sustainable, efficient and high health and welfare milk production.

The centre combines innovative building design and management systems to create a highly efficient, low cost dairy system, with the capital cost of developing the dairy from scratch amounting to less that £8,000 per cow. The centre's remit is to offer a platform for industry to trial and review new ideas for the benefit of dairy farmers throughout the UK.

Duncan Forbes, Agri-EPI project manager for the new centre said: "Our mantra here is, 'measure it to manage it'. Sensor technology is being used to gather data to enable us to maximise precision in many aspects of feeding, production, health and welfare across the farm: indoors and outdoors, by satellite, and on and inside the cows. The automation of many processes within the dairy releases skilled staff to devote more of their time to cow health and welfare."

Precision grazing is at the top of the centre's agenda. While the number of robotic dairies in the UK continues to increase, and it is recognised that grass can be a least-cost feed for dairy herds, successful grazing has been difficult to implement on many robotic units.

The new centre aims to tackle this by using emerging technology such as hyperspectral imaging and satellite data to monitor and predict grass growth in its surrounding paddocks, allowing the herd access to up to three fresh areas of grazing per day. A network of tracks and flexible paddocks encourage cow flow between the between the paddocks and the robotic milkers. The dairy is one of only a handful in the UK to uses GEA automated milking which gather data about each cow's milk yield and quality while optimising udder health.

An automated 'feed kitchen' allows accurate amounts of fresh feed to be delivered up to 15 times per day. The automated rail mounted feed dispenser is positioned high up within the building, reducing disruption to the cows. The building is designed to protect the feed itself from wildlife and the weather.

The cattle housing design reflects the best of the natural cow environment while providing automated protection from changing weather conditions. It includes enrichment elements such as rotary cow brushes and state-of-the-art lighting.

The building itself is the first of its kind in the UK. Its lightweight fabric roof means the steel structure is also lightweight, making it faster and easier to install while reducing the environmental impact of its construction. The translucent fabric roof is black outside, helping to reduce its visual impact in the landscape, and white inside, providing even levels of light across the interior. The roof design achieves efficient cross ventilation to regulate ambient temperature. The design also allows for a more open plan interior, so the herd can see the robotic milkers from anywhere in the building.

A number of trials are already underway or planned for the centre. It is one of three UK 'testbeds' for the 5G RuralFirst project, the UK's most ambitious connectivity project. Led by Cisco and involving a consortium of partners it aims to demonstrate how connectivity will benefit rural communities and business across the UK. A number of technologies utilising 5G data are to be trialled, including cow collars, monitoring health and welfare, digital systems to monitor cow fertility through milk analysis and, in the future, a 'virtual vet' system connecting stockpeople to a vet using augmented reality. The Dairy Development Centre has been established in close partnership with independent dairy specialists Kingshay, who manage the facility. The Centre has been established by Agri-EPI using funding from Innovate UK and support from industry partners.

Welcoming the Centre's launch today at an event attended by figures from industry, academia and government, Ian Cox, Innovate UK's Agri-Tech Centres Innovation Lead, said: "The new South West Dairy Centre fits very well with Innovate UK's vision to support the development and adoption of new technologies to help UK farming become more sustainable, efficient and profitable. It is good to see that the new centre is now operational and we hope it will become a central resource for use by the UK dairy industry."

About the South West Dairy Development Centre

The Centre is located at Beard Hill Farm, Shepton Mallet, Somerset. There are five key industry sponsors of the Centre: Barbers', For Farmers, Galebreaker, GEA, Kingshay and Zoetis. The centre is one of three dairy initiatives being run by Agri-EPI Centre, the others being at SRUC's Crichton Royal Dairy Farm in Dumfries and at Harpers Adams University in Newport.

About Agri-EPI Centre

Agri-EPI Centre is accelerating the adoption of precision agriculture and engineering technologies to boost productivity across the whole agri-food chain. It does this by exploring how to optimise performance of the highly complex agricultural production and processing systems. This includes considering key drivers of profitability and sustainability, such as livestock and plant growth rates, nutrient efficiency, product quality, and health and welfare. The Centre provides world-class R&D facilities, connects academia and industry and progresses next generation technologies such as sensing, imaging and robotics to create a new understanding of production efficiency. Agri-EPI Centre is one of the four Agri-Tech Centres of Agricultural Innovation, a unique collaboration between UK Government, academia and industry to drive greater efficiency, resilience and wealth across the agri-food sector. A 90 million investment from the UK's strategic innovation agency, Innovate UK, is enabling the four centres to harness leading UK. research and expertise as a well as build new infrastructure and innovation.

About 5G RuralFirst

5G RuralFirst is the UK's most ambitious testbed for connectivity in rural areas, demonstrating 5G's gamechanging potential and identifying practical use cases that will benefit businesses and communities right across the United Kingdom. Through its three testbeds in the Orkney Islands, Somerset, and Shropshire, 5G RuralFirst is identifying and exploring new business models and use cases for connectivity deployment in rural areas and showcasing the potential of 5G in rural environments.

The consortium comprises world-leading expertise from 29 partners from across the technology, broadcasting, academic, agricultural and public sectors, including Cisco, the University of Strathclyde, the BBC, the Agri-EPI Centre, Orkney Islands Council and Scottish Futures Trust.

For more information visit

www.agri-picentre.com

www.agritechcentres.com

www.5gruralfirst.org



Why consider automated milking in your dairy farm?



ERNIE DUROSE, GRANGE FARM

"Up to now I say the robot is life changing in a positive way for both: me (the farmer), and the cows. The robot is far more flexible and it's easier to find someone to monitor and do the routine jobs of a dairy farm if they have not got to actually milk the cows. When we as farmers install a new product, we have to accept that the technical staff at GEA and dealers are learning about the machine, but I cannot fault GEA for their technical support."

DAVID FRASER THOMSON, KIRKTON OF BREATH FARM

"Our goals starting this project and main reason to invest was to milk the cows 3 times a day, increase capacity and run our parlour with minimal labour. Convinced that reliable technology would also provide us with high quality milk, we chose GEA automated milking robots because of speed of attachment and a simpler design. An added benefit was also that 1 supply unit can service 3 robots at the time, therefore reducing costs. Now we are milking on average 3.2 times a day and bactoscan averages 11 and cell count 165. The biomass boiler provides free hot water and the milk cooling costs are minimal because of high capacity plate cooler with a slow steady throughput."

DUNCAN FORBES, KINGSHAY DAIRY CENTRE

"Our cows came from grazing herds in the Republic of Ireland and despite having never seen a robot milkers before took to them very well. The Kingshay team who run the farm had a full-on first fortnight to get them learning the system. Now the herd is all in full milk and attachment is very impressive with only a couple of cows with badly placed teats needing us to manually intervene and a couple of others who give the arm a good kicking sometimes!"



5 Good Reasons Why You Should Have Milk Meters on Your Dairy

See how milk meters and the information you can extract on a per-cow basis can exponentially raise your management game!

1 Get Accurate Milk Weights on Every Cow at Every Milking

The GEA Metatron milk meter provides production data that can help you with important cow management decisions. For example, you can find cows that dropped in milk production which will help you identify and treat sick cows sooner something you can't do with having monthly test data alone.

Also, by regularly monitoring production you can dry cows off more timely (earlier or later) and cull cows appropriately, closely evaluating when they fall below the farm's threshold for cost effectiveness. The production data will also help you decide if the nutrition profile for the cow is on par or if adjustments should be made.

As farms get larger, the production data on individual cows helps to ensure that no cow gets lost in the group and that you are maximizing the production potential of every member of the herd.

2 Identify Cows With Mastitis Sooner to Improve Milk Quality

The Metatron milk meter contains a sensor to measure the conductivity of the milk from each cow. Conductivity measurements have long been correlated with detecting mastitis before clinical symptoms occur (especially when combined with drops in production data).

This precision management tool can help your milking operators perform better as well. The cowside detacher control panel can indicate when a cow has received a high conductivity reading through the meter, after milking. It can also alert operators to a cow that has received a high conductivity reading at the previous milking, so they can pay close attention to that cow upon prep, to see if they can match clinical signs with the reading. Or, they can perform a CMT paddle test on the cow to pinpoint the affected quarter before it becomes a full clinical case of mastitis.

Any way you start to use conductivity readings on your dairy, you will quickly find that they can help to fine-tune your mastitis control plan with more timely treatments, which typically leads to a faster and higher cure rate.

3 Improve Parlour Efficiency by Grouping Cows Based on Milking Speed

A key benefit to meters is using the cow data to group cows accordingly to help improve throughput. Slower milking cows can be identified and grouped together, rather than mixed amongst the whole herd, slowing down every parlour turn. In fact, on some farms, operators will remove the units on slow milking cows, just to keep the parlour on schedule, jeopardizing complete milk-outs. Grouping is a win-win-win.

- You can end up milking more cows per hour (some farms have seen up to a 30-percent increase in cow throughput numbers due to grouping).
- With a more efficient parlor, holding pen times decrease, and cows can get back to eating and resting as quickly as possible.
- You can help to ensure more complete milkouts on the slower cows by milking them together, without fear of holding up the other cows.

4 Better Monitor Milking Routines and Operator Performance

Detailed milk flow data on your cows can tell you a lot of information about what is going right in the parlour and what can be improved. For example, information about bi-modal milk flows can alert you to an issue with proper milk let-downs and prep lag times, along with analyzing data such as percent of milk in the first two minutes and flow rates over time. When flow rate data on your cows is looking good, and cows are getting in and out of the parlour quickly, more than likely this is reflective of solid operator routines.

5 Prepare Your Farm for the Future

Even if you are not milking with robots today, more than likely you will strongly consider this option with your next facility update. By working with this data on your conventional parlour and managing with technology, the transition to robotics will be much more seamless in your day-to-day routines, as you start relying on the computer more often to help manage each individual cow on your dairy, in the best way possible. Just like activity monitors, milk meters are a step in the right

technological direction if you are not using them now, and you are thinking about installing robots in the future.

Parlours run minute by minute. And, small optimization improvements can return big results. With in-depth information about your cows, you can put the data to use to make better decisions to help make your herd more productive over time.



MILK SENSOR VS. MILK METER WHAT'S THE DIFFERENCE?

GEA VisoFlow - is a milk flow sensor. It only senses flow for the purpose of automatically detaching the milking units.

GEA LactoFlow - is a milk yield indicator. It has larger deviations than a milk meter and is only <u>estimating</u> milk production.

GEA Metatron - is an ICAR* approved milk meter - which means it carries an independent certification for the accuracy of the meter. It measures milk weights within a +/- 2.5% deviation. It requires connection to an ICAR control, or a "brain" and in turn provides many data points on a per-cow basis (when combined with ID) for herd management purposes.





ICAR = International Council for Animal Recording

Making the Data Work For You!

From the parlor to your computer - better understand how the information you need gets put to use.

With GEA's DemaTron detacher line, there is one "master control unit" or "brain" for every two stalls that brings the information from the meter and/or the control panel in the parlor, to DairyPlan. DairyPlan handles, 1) processing (to log and keep record of each cow's statistics) and, 2) analysis (to generate useful management reports per cow or summarized for the herd).

Data from DairyPlan can also be sent back to the master control, which can send information directly to the control panel in the parlor, so that operators can be notified via an alarm, if there is an issue with a cow after milking or if there is a cow that requires extra attention (i.e. possible mastitis or a sick cow).



ID REQUIRED FOR INDIVIDUAL COW INFORMATION

It should be noted that farms will need to have individual ID on cows in order to receive the milking, health, and performance data on an individual cow basis.



10

11



GEA's DemaTron 70 & 75 Detachers

Stall control panels that pair with the Metatron milk meter to get as much information as possible from your herd.

GEA offers a full range of detacher options for herds of all sizes, regardless of milking system - from a 120-stall rotary parlor to a stanchion barn. But, as you look to improve efficiency on your operation and prepare your farm for a more technology-driven future, milk metering can be a good first step. GEA recommends upgrading your conventional parlor to a detacher system that works with our best milk metering device, such as the DemaTron 70 and 75 models. This way, you can start the process of using more high-level data to better manage individual cows and your herd, without drowning in an overwhelming amount of information - which can happen when you make the switch to robots with little background in data analysis. There is no doubt that data will drive success. Start slow and start smart with the GEA Metatron milk meter and DemaTron 70 and 75 detacher control panels.



Management Tools that Work For You!

BASIC FEATURES

asy-to-use ergonomic controls		
Central start and clean (one button to start wash or milk mode)		
asily reattach (milk in manual mode) for special needs cows		
Ailking unit drop down feature (for easier access to cows)		
/acuum-on delay for better vacuum stability		
djustable removal delay and threshold		
Adjustment via a central network		
EDs for signal display		
ED display that can show 6 digits (milk yields, cow information)		
Animal number input		
Dptions: EasyStart, remote start, kick-off alarm, milk save function, backflush control		
ANAGEMENT BENEFITS TO PRODUCER		

	Cow Productivity	Cow Health	Milk Quality	Milking Efficiency	While the DemaTron 60 can provide many of the same management benefits as the DemaTron 70 and 75, it does not work in conjunction with a Metatron milk meter. Therefore, it should be noted that the information gathered about milk production and conductivity is not as accurate compared to options that work in conjunction with the ICAR-approved Metatron.			
Measures milk production per cow	8					Indicator Only	Accurate ICAR Weight	Accurate ICAR Weight
Allows you to see deviations in milk production		8				Not as accurate		
Evaluate if herd/group deviations in production can be a signal of problems with environment, nutrition, operator processes	8			8		Not as accurate		
separate cows via sort gate				8				
Monitor liters of milk per hour	8			8				
Nonitor cows milked per hour*				8				
rack length of milking time so you can group cows and monitor operator procedures*		8	8	8				
Monitor detailed flow rates with milk weights*				8				
valuate percent of bimodal milkings*	8		8	8				
rack number of re-attaches to monitor unit lignment and operator procedures*	8		8	8				
Measures conductivity for improved mastitis detection and earlier treatment		8	8			Not as accurate		
Automatically detaches for a consistent (not overmilked or undermilked) cow milking	8			8				
Displays information on control panel before/after nilking for operator attention	8	8	8	8				

* Only in combination with DairyPlan

DID YOU KNOW ...

The Metatron also measures "flooding" and therefore indicates if the amount of wash solution going through the meter is appropriate during the cleaning cycle - before a bacteria count issue could become a problem.





Rely on our Expertise

With regular system optimization, you can ensure milking times are on-par and teat health is maintained. That's good cow milking from GEA!

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