



iXPRESS4+ Herringbone milking parlour

Low maintenance, highly dependable, customisable midline Herringbone parlour.



Bringing the best together to help farmers drive dairy efficiency

When it comes to dairying, New Zealand is known for its passionate innovators - creating and implementing new products, equipment and methods, and finding new ways to be productive and sustainable.

GEA adds a global engineering advantage to the ingenuity of New Zealand's dairy industry. We make it easy for you to get the support you need to run state-of-the-art dairy businesses, produce healthy, high-quality milk and drive efficiencies.

GEA New Zealand's comprehensive range consists of milking, stalling, dairy automation and herd management tools - all designed to make farming easier. We provide custom-built modular solutions. Each project is customised to suit your farm requirements and budget - not just for now, but into the future. Every product is manufactured in New Zealand and designed especially for pastoral farming.

GEA New Zealand products offer:

- High-end automation and high throughput at milking
- Savings on labour
- Low running and maintenance costs
- Modular upgrade options
- A cost-effective option with high-tech functionality
- Compatibility with all types and makes of milking systems.

All GEA New Zealand systems are easy to install and upgradeable for tailored solutions, plus some components fit all types of milking systems.

GEA's iXPRESS4+ Herringbone parlour

The modular Herringbone parlour is custom-built to suit your farm and your business goals.

From low-cost pastoral based production methods in New Zealand, Australia and the UK, to intensive farming methods in Europe and the US, the GEA iXPRESS4+ offers a cost-effective and high throughput solution for today's progressive dairy farmers.

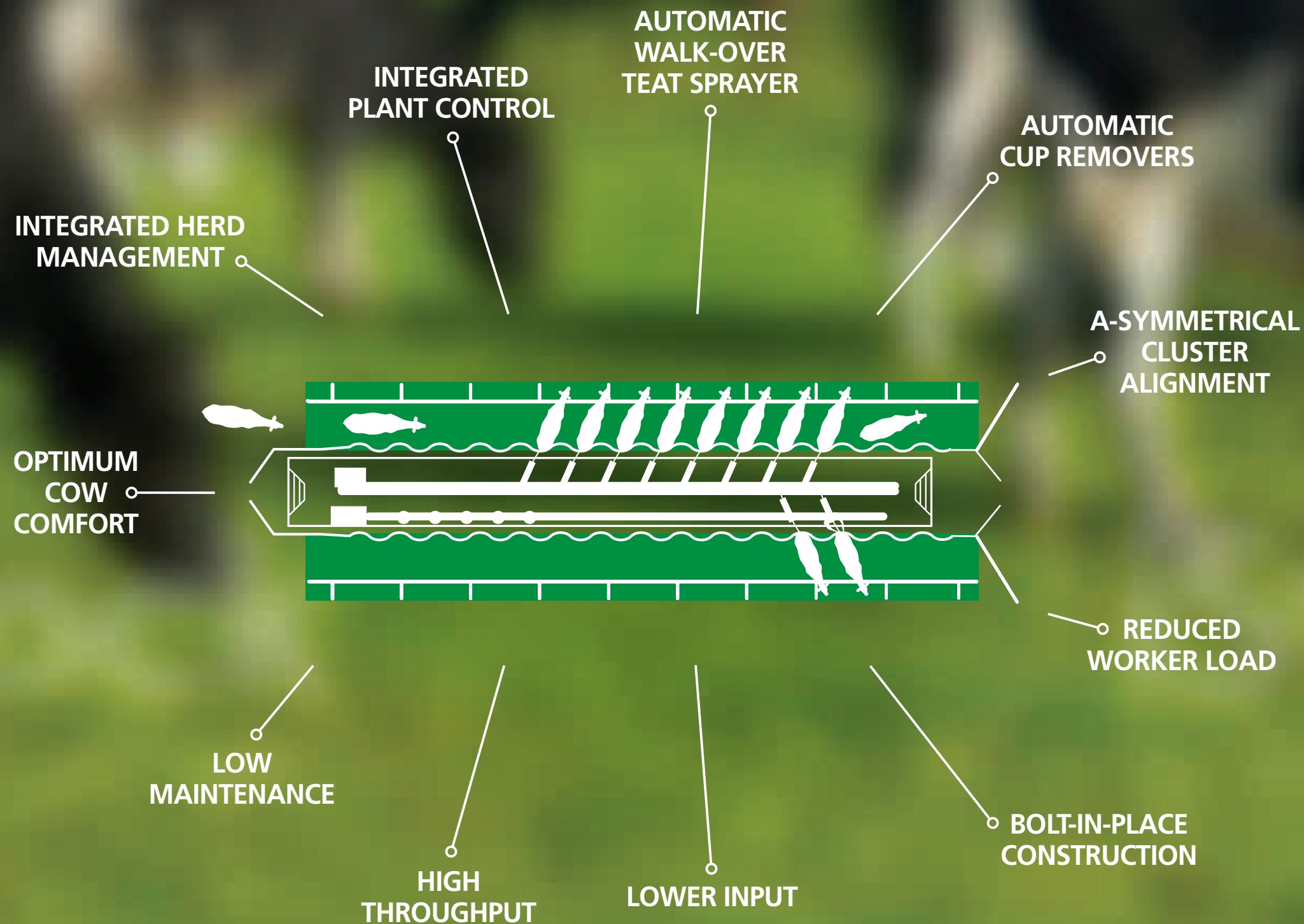
Manufactured as a kitset, the GEA iXPRESS4+ is not only shipped to site ready for easy 'bolt-together' installation; upgrades are easily applied with no engineering required.

The pre-fabricated design means the iXPRESS4+ is quickly and easily bolted into position. Easy to maintain, it has proven ideal for any sized operation, from small 8-cluster

parlours through to large scale intensive farming methods and is used all over the world. The iXPRESS4+ has an automation upgrade pathway, to increase efficiency.

- Up to 50 clusters available, with the ability to milk up to 400 cows per hour
- Basic plant automation, right through to full herd management
- Designed for herd sizes - 100-700 cows
- The modular system provides flexibility for herd size and simple automation
- Pre-fabricated for quick and simple bolt-together installation
- Integrated controls ensure a one-switch operation starts the entire plant
- Easy to maintain and supported by a network of accredited GEA Service Partners
- Designed and manufactured in New Zealand; meets ISO standards for milking system design, construction and performance.





GEA iXPRESS4+ KEY FEATURES

Customisable options to suit your dairy.

- **INTEGRATED PLANT CONTROL**

Easy access control panels customisable from multiple points in the milking parlour, allow for a customised operator milking experience - plant start/shut-off, milk pumps, plant wash and purge, and milk sensors.

- **AUTOMATIC WALK-OVER TEAT SPRAYER**

Automatically senses and sprays teats as cows exit the milking parlour, saving time and reducing worker load.

- **AUTOMATIC CUP REMOVERS**

Designed for simplicity and to improve milking efficiencies, automatic cup removers are easily fitted and commissioned. Featuring a heavy-duty ram, kick-off sensors and easy to use software. Available at an affordable price.

- **A-SYMMETRICAL CLUSTER ALIGNMENT**

Improved design of the iNTELARM guides the cluster from side to side offsetting the location of each cluster. Not only does this open up the pit area, making for a better working environment for the operator, it allows correct cluster alignment and a more comfortable milking process for the cow.

- **REDUCED WORKER LOAD**

With automation options available from the holding yard, during milking, to automated exit gate drafting and heat detection the iXPRESS4+ can be automated to suit your needs.

- **BOLT-IN-PLACE CONSTRUCTION**

Standardised installation and a 'bolt-together' build ensures less build error and accurate assembly.

- **LOWER INPUT**

The ability to milk up to 400 cows, with just one operator.

- **HIGH THROUGHPUT**

With up to 50 clusters available and GEA New Zealand milking efficiency expertise and training the iXPRESS4+ optimises cow throughput and milking-out times.

- **LOW MAINTENANCE**

Robust and low maintenance nylon bushes and the new generation pulsator are engineered for a long-life time of use, even in the harshest working conditions.

- **OPTIMUM COW COMFORT**

With flexible stall design to accommodate all breeds and sizes of cows and the perfect cluster alignment your herd enjoy a comfortable and thorough milking process with less liner slips.

- **INTEGRATED HERD MANAGEMENT**

Management software enables you to manage individual cow health, production, reproduction and feed intake, easily and accurately.

There's a milking parlour configuration to suit your dairy operation

Three pre-configured parlour options to suit those wanting a basic parlour setup to those wanting intelligent automation features.



iXPRESS4+ Grassroots

This entry-level, or Grassroots option gives you a future-proof parlour with the ability to upgrade in the future. With correct stall spacing and perfect cluster alignment, your cows enjoy long-term comfort in the dairy.

- Perfect positioning thanks to precision stalling
- **Classic 300 E** clusters specifically designed to accommodate narrower teat configurations
- **AutoPULS S** - single pulsator per stall
- **iASSIST** swing down jetter system for improved operator comfort, cleaning and a clear working space
- **iNTELARM+** for perfect cluster alignment *(optional)*
- **iNTELSRPAY 2** walk over teat sprayer *(optional)*



iXPRESS4+ Easy Flow

This mid-level, or Easy Flow parlour gives you a milking system that's not only future proof, it offers optimum cow comfort and reduces worker load.

- Perfect positioning thanks to precision stalling
- **Classic 300 E** clusters specifically designed to accommodate narrower teat configurations
- **AutoPULS S** - single pulsator per stall
- **iASSIST** swing down jetter system for improved operator comfort, cleaning and a clear working space
- **iNTELARM+** for perfect cluster alignment
- **iCR+** intelligent cluster removers with Easystart lift or pull vacuum activation, for full control of the milking point
- **DeMax 55** measures milk yield flow for ideal cluster removal
- **iNTELSRPAY 2** walk over teat sprayer *(optional)*
- Or, **DemaTron60** for full monitoring and control over the milking process *(optional)*



iCR+ intelligent cluster removers, iNTELARM+ swing-over arms and iASSIST swing down jettors standard with Easy Flow



iXPRESS4+ Max

This top-level, or Max parlour option gives you a low-maintenance platform with fully integrated herd management, milking point automation and ICAR approved milk sampling for total milking efficiency.

- Perfect positioning thanks to precision stalling
- **Classic 300 E** clusters specifically designed to accommodate narrower teat configurations
- **AutoPULS S** - single pulsator per stall
- **iASSIST** swing down jetter system for improved operator comfort, cleaning and a clear working space
- **iNTELARM+** for perfect cluster alignment
- **iCR+** intelligent cluster removers with Easystart lift or pull vacuum activation, for full control of the milking point
- **iNTELSRPAY 2** walk over teat sprayer *(optional)*
- **DairyPlan** fully functional herd management software to control automation such as; milk meters, sorting gates, feeding and weigh scales
- **DemaTron70** control panels in each bail for individual cow identification, precision milk metering, milk flow and milk yield calculations, ICAR approved milk sampling and optimum stripping functionality. Plus, the ability to draft per bail
- **AutoSelect 3000** for automate 3-way drafting via either a manual remote, EID tags, CowScout collars or DairyPlan herd management software
- **CowScout** heat detection and health management 24/7 *(optional)*.



Add individual cow ID, milk metering with ICAR approved DemaTron 70 control panels



- Pre-fabricated, the equipment is quickly and easily bolted into position
- Simple operation standardises the milking process
- Single point operation reduces time and labour
- A-symmetrical cluster alignment for easy, quick and efficient milking
- New generation pulsator per milking unit - for a faster, more gentle milking-out process and improved udder health
- High throughput system, with adjustable milking techniques to ensure ultimate operator efficiencies
- Low cost of ownership and easy maintenance
- Customisable to fit your budget and farming strategy.

IDEAL FOR LOW-COST PASTORAL MILKING SYSTEMS

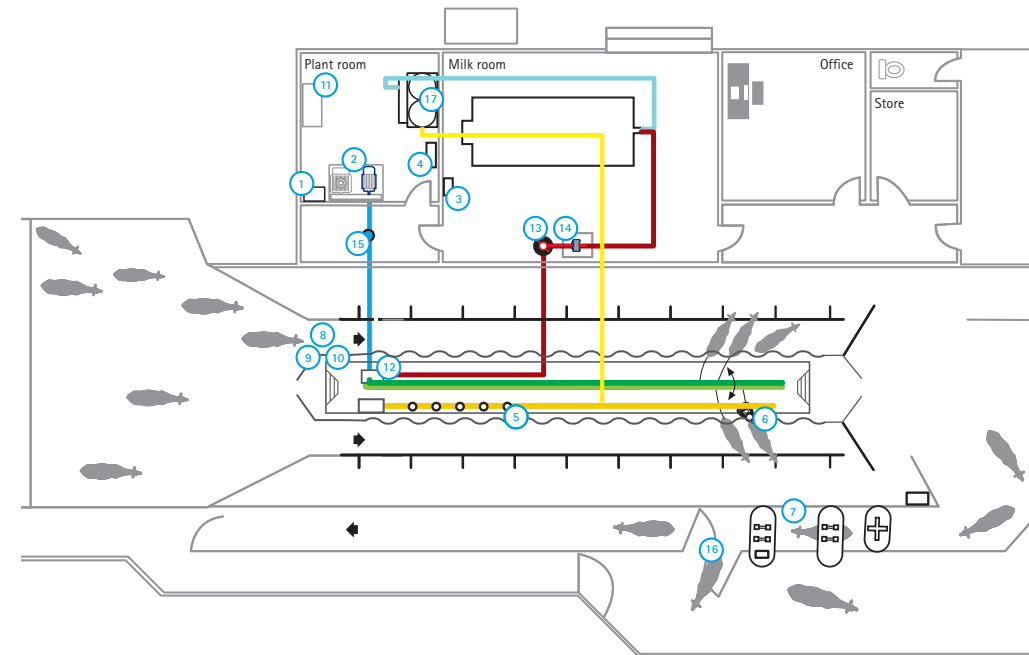
iXPRESS4+ SPECIFICATIONS

	Number of clusters	8 - 50
	No. of operators	1 - 4
	Expected milking performance	up to 400 cows / hr
	Typical herd size	100 - 400
	Automation	Basic plant automation through to full herd management
	Farming operation	Pasture based, partial mixed ration, total mixed ration
	Stalling system suitability	iCLASSIC, ISOLATOR Gates

MILKING PERFORMANCE COWS/HOUR

Milking performance cows / hour						
Rows / hr	8.6	7.5	6.7	6	5.5	5
Row times (minutes)	7	8	9	10	11	12
No. Cows milked per hour						
8	69	60	54	48	44	40
10	86	75	67	60	55	50
12	103	90	80	72	66	60
16	138	120	107	96	88	80
20	172	150	134	120	110	100
24	206	180	161	144	132	120
26	224	195	174	156	143	130
28	241	210	188	168	154	140
30	258	225	201	180	165	150
32	275	240	214	192	176	160
36	310	270	241	216	198	180
40	344	300	268	240	220	200
44	378	330	295	264	242	220
48	412	360	320	288	262	240
50	429	375	334	300	273	250

PLAN VIEW OF iXPRESS4+ MILKING SYSTEM



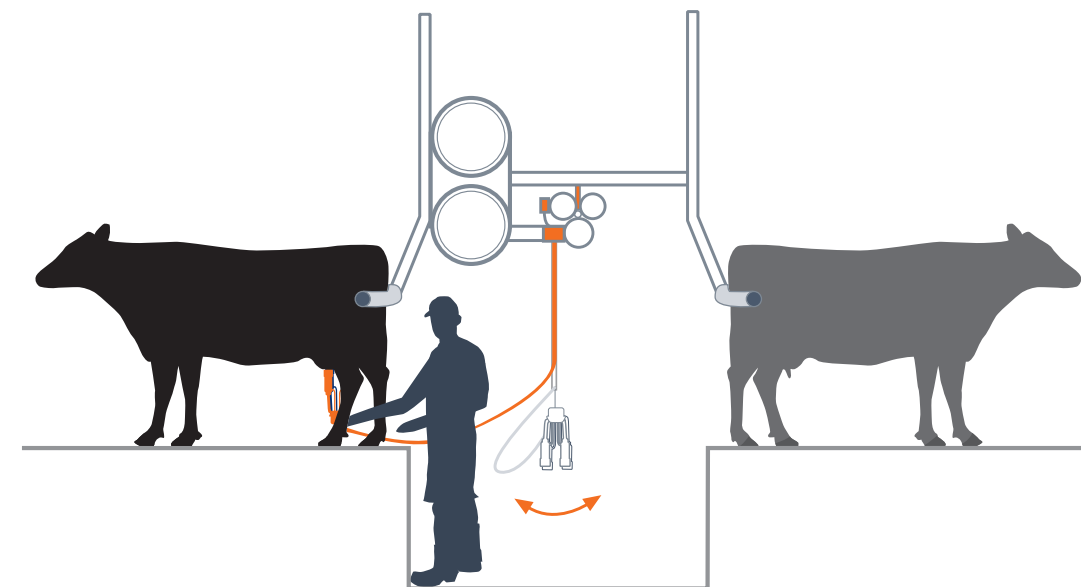
KEY:

Ref	Description
1	Vacuum On Demand™ (VOD)
2	iROTAVAC CL
3	iINTELWASH for silo
4	iINTELWASH for plant
5	iCIP
6	Cluster
7	iINTELSPRAY2
8	iINTELGEN
9	iINTELPUMP
10	iINTELFLOW
11	Water pump
12	Sanitary trap / receiver
13	Milk filter
14	Plate cooler
15	Regulator
16	Sorting gate
17	Hot water / wash tub

KEY:

■ Milk line ■ Milk delivery line ■ Main airline ■ Pulsator airline ■ CIP jetter line ■ CIP recirculation line

CROSS SECTION OF iXPRESS4+ MILKING SYSTEM



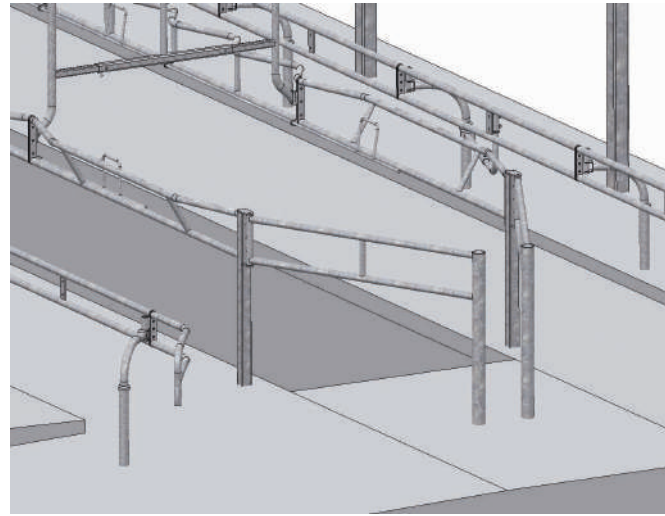
Comfortable cows, better flow

Making sure cows are comfortable while entering, milking out and exiting the dairy is crucial. Not only to cow flow, for milking efficiency too.



Herringbone entry

Clear, wide entry and a clear platform promotes optimum cow movement.



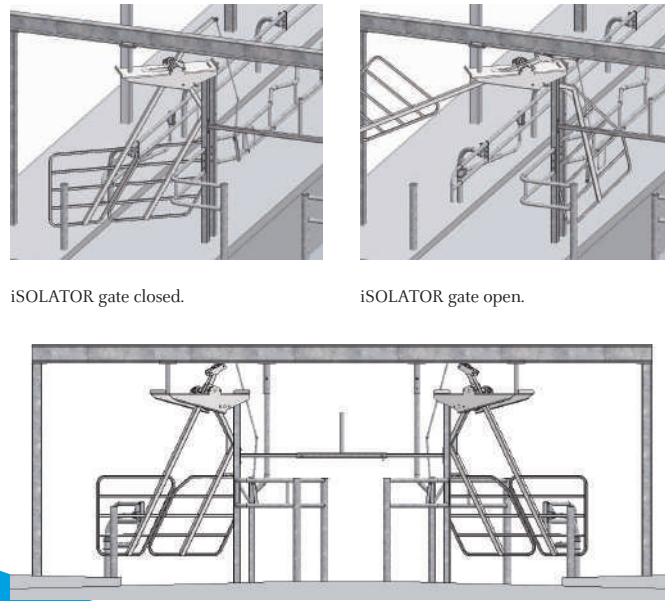
Bail and pit

Cow and operator welfare is top-of-mind with the iCLASSIC Kitset roof-mounted Herringbone stalling.



Exit gates

With Patented 'Gear Driven' twin gate action, cows exit freely with minimal intrusion into the pit and roof space.



iSOLATOR gate closed.

iSOLATOR gate open.

Gate end elevation.

AVAILABLE WITH:



Classic 300 E

The right clusters to suit your herd

Considered one of the best on the market when it comes to milking efficiency, GEA Classic 300 E clusters are installed with every iXPRESS4+.

Designed to cater to the modern, high-yielding dairy cow, whose rear quarter teats are closer together, the modular Classic 300 E cluster features a closer positioning of the short milk tubes, for the perfect fit to rear quarters. The flow-promoting design supports rapid removal of milk without any detours or restrictions to flow.

"We're very happy with GEA's Classic 300 E clusters. They are a lot lighter than our old ones and support efficient cupping techniques."

Graeme Edwards
MILKING 250 COWS
NORTHLAND, NEW ZEALAND

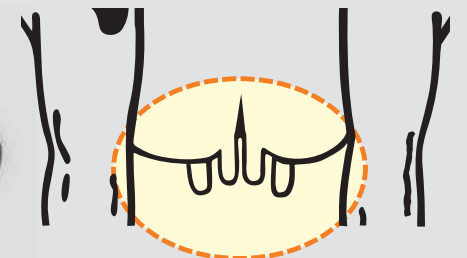


Key features

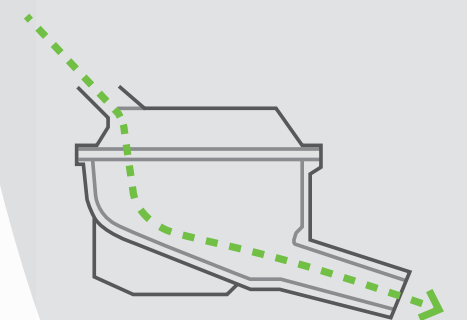
- Closer positioning of the short milk tubes provides the perfect fit for rear quarters
- Easily adaptable for different udder shapes - specifically narrower teat configurations
- Supports efficient cupping techniques
- User-friendly and lightweight for reduced operator fatigue
- Built to last from food-safe materials
- Resistant to acids and impact.



The modular design means the clusters can be adapted to different udder shapes.



For cows with narrow to normal teat position.



The flow-promoting design of the Classic 300E supports rapid removal of milk without any detours or restrictions to flow.

GEA AutoPULS S

For long life and optimum milking performance

A single pulsator handles one cluster assembly, delivering a perfectly controlled pulse to the cluster and an accurate milking and rest phase.

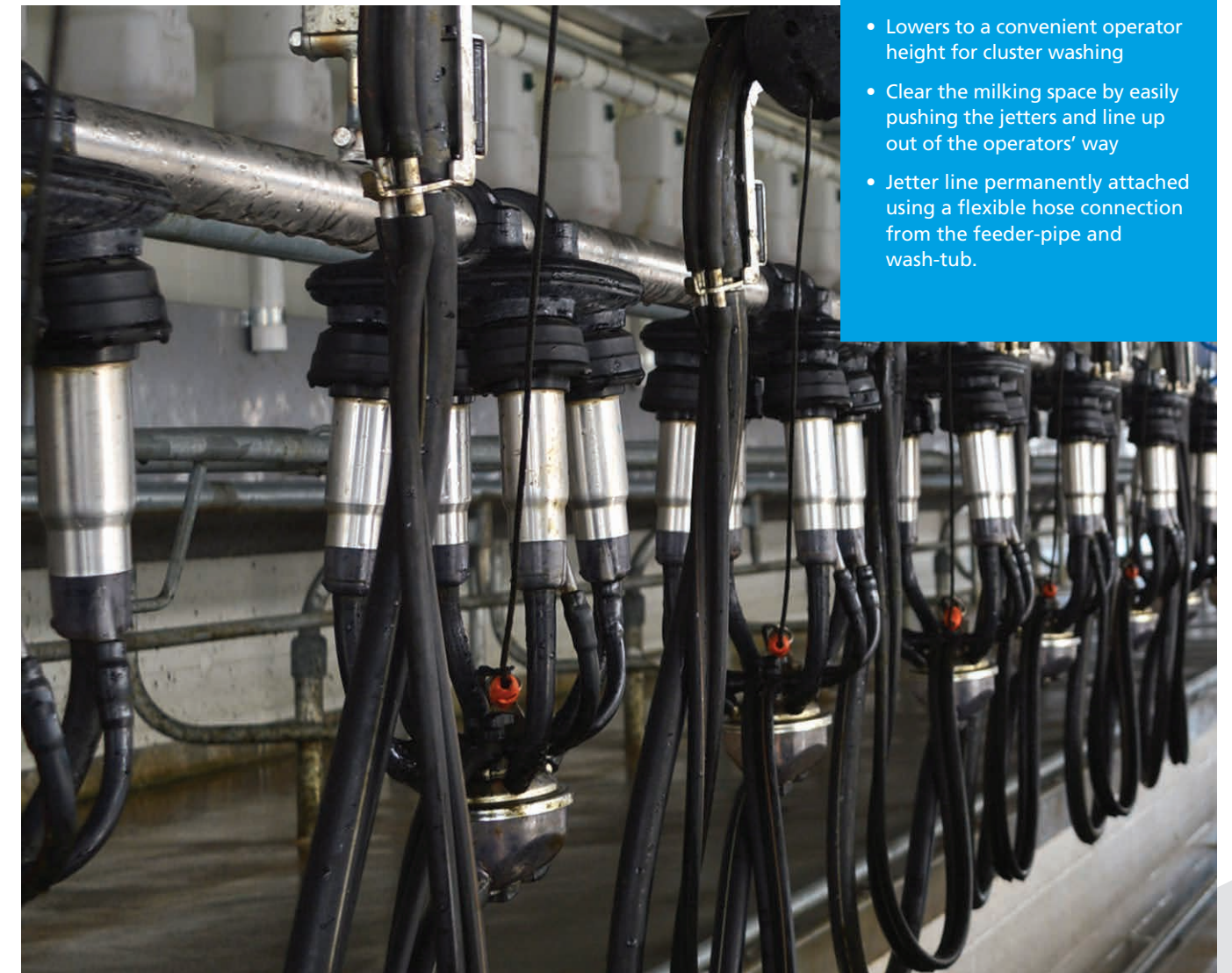
Key features

- Easy maintenance pulsators
- Individual pulsation per cluster assembly
- Front and rear milking ratios possible
- Variable and accurate pulsation rates for optimum milking performance
- Pulsator airline filter included.



iASSIST swing down jetter system

Another smart feature that comes with iXPRESS4+ Easy Flow and Max (or as an optional extra with the Grassroots model) is iASSIST swing down jetter system. Convenient and easy to use, iASSIST improves operator comfort and clears the working space.



Key features

- Ideal for smaller operators - can easily be pulled down for quick cup attachment before cleaning
- Lowers to a convenient operator height for cluster washing
- Clear the milking space by easily pushing the jettors and line up out of the operators' way
- Jetter line permanently attached using a flexible hose connection from the feeder-pipe and wash-tub.



Our more advanced features improve the functionality of the iXPRESS4+ for even better efficiency. These features come with the Easyflow and Max set-ups. You can add-on any of these features to the Grassroots iXPRESS4+, or to any other brand of milking parlour, too.

iNTELARM+ for perfect cluster alignment

Cluster alignment is perfect every time with the help of the new generation iNTELARM+ which comes with iXPRESS4+ Easy Flow and Max parlours. Or, is an optional extra for the Grassroots parlour.

Experience an ergonomic working space for the operator and a clean and even milk out for the cow - with fewer liner slips as a result.

The iNTELARM+ swing-over arm is attached to each cluster, providing the perfect cluster alignment and balance for true symmetry.



A-SYMMETRICAL
CLUSTER
ALIGNMENT
FOR OPTIMUM
TEAT COMFORT



Key features

- No standard droppers
- Clears the working space for the operator
- Increases cupping efficiencies
- Supports calm and comfortable cow behaviour
- Reduces worker discomfort and fatigue
- Seamless upgrade path through to full milking point management.

iCR+ suited to any milking system

The perfect cluster removal system for Herringbones with swing-over clusters, the new iCR+ with EasyStart lift or pull vacuum activation will help save both time and labour, all whilst providing a consistent milking routine for both cows and operator.



In a nutshell - your Herringbone with iCR+

Lift or pull down clusters to activate vacuum

Cup cows

Milking will commence

Clusters removed at either a set time or at milk flow volume

If a milking error occurs (i.e. cups are kicked-off) during milking, the cluster will drop-down into the pit showing the operator that a milking error has occurred

When milking is complete, clusters are vented and gently removed from the udder

iNTELSPRAY2 walk-over teat sprayer can be included as an optional add-on, so post-milk teat spraying can also automate, in line with Dairy NZ milking efficiency programmes.



A red warning strobe lamp in the head of the ram along with a green milking status LED and blue washing status LED advise operator of milking status.



Key features

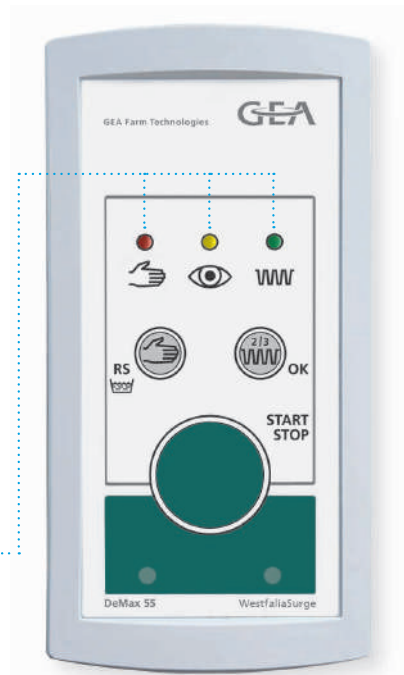
- Heavy-duty, powerful ram fitted to each cluster
- High visibility indicators located at the top of ram show milking mode or indicating a problem during milking
- Simple user interface with single push-button control
- Let-down timer allows the cow to let her milk down before sensor takes over control of the milking (50-300 seconds)
- The final interval timer allows cows to be milked out completely (5-30 seconds)
- Adjustable end of milking sensitivity controls take-off set point for milking cows wetter or dryer
- Abnormal milking alerts - a red strobe light in the head of the cylinder warns the operator of a cluster being kicked off
- Cluster vent time ensures the cluster is slowly vented before retraction from the cow (1-5 seconds)
- Alert standby lowers cluster on ram cord to warn the operator of a problem during milking
- Manual mode overrides the sensor and timers
- Timed take-off removes cluster once set time has been reached (4-20 minutes)
- Sleep mode preserves the life of the iCR (30-120 minutes).

Optimise milking with DeMax or DemaTron

A new dimension of milking, control and measurement.

DeMax 55 milking detacher control unit (Easy Flow feature)

An economic cluster removal solution. The Demax 55 milking control unit offers you an intelligent entry point into the modern automated milking process with individual pulsator control and measuring milk yield flow for ideal cluster removal.



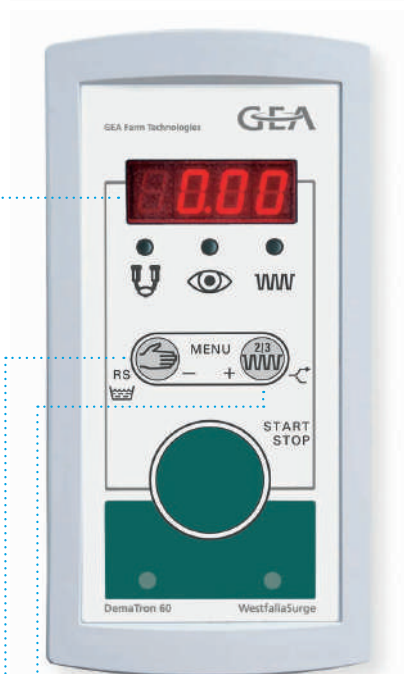
LED Displays
Cluster removal deactivated (red)
Milk flow level (yellow)
Pulsation display (green)

DemaTron - milk metering control units (Easy-Flow option)

For more than just cluster removal, choose the "All-rounder" for accurate measurement and specific help.

DemaTron 60 (Easy Flow option)

Entry into the future of milking technology has never been easier. The DemaTron 60 has an unbeatable price/performance ratio. The combination of workload reducing cluster removal and milk yield display is very attractive.



Milk yield messages
Manual 'Start'
Stimulation change / time



Key features

- Individual pulsator control
- Measures milk yield flow for ideal cluster removal
- Optimal milking every time with a vacuum that is gentle on the udder
- Optional KickOff switch
- Simply raise the cluster to start the milking process with EasyStart.



Key features

- Compatible with all GEA milking parlours, plus can control tasks from other manufacturer's systems
- Calculates milk flow rate and exact milk yields using Metatron MB
- Precision milk sampling function approved by ICAR
- Visual indicators such as 'no milking'. Integrated with DairyPlan; the unit indicates differences in current milk yield and cow conductivity
- Set sort markers directly via the control unit for automatic and targeted animal sorting
- Optimises the cluster removal function and udder health
- Safe monitoring of the milking process
- Optimum stripping.



Key features

- Controls and monitors the milking process - from pulsation to automatic cluster removal
- Determines optimal cluster removal point
- Timely removal protects udder health
- Milk yields measured in free flow using LactoFlow milk sensor
- Gather data on daily milk yields for ultimate management decisions
- Feeding optimisation.

DemaTron 70 (Max feature)

DemaTron 70 provides a relationship between performance and costs. The versatile milk parlour control unit reveals its talent in daily herd management and, together with the Metatron MB metering box, precise milk metering is one of its main features. DemaTron 70 is the basis for your future - opening up the world of precision livestock farming.



Setting segregation button
LED warning lights for example, flashing at the upcoming end of milking

More tools, better efficiency

If you want all-round efficiency, these modular solutions are for you. Think labour savings, better herd health and up-to-the-minute data on your herd for optimal heat detection and herd management.

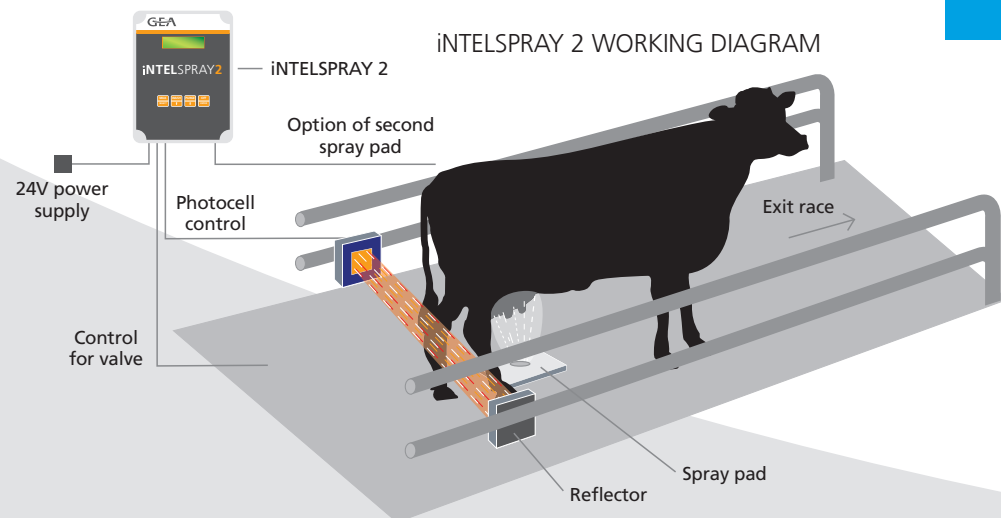
iNTELSPRAY 2 walk-over teat sprayer

This is an optional add-on you'll want to consider for reduced workload and improved teat condition. GEA's iNTELSPRAY 2 automatically senses the cow and sprays the teats when she exits the milking parlour.

Detect Delay - timer stops false triggering of the unit. The time that is set must equal the time a cow is committed to moving over the spray pad (0.1-5 seconds). **Spray Delay** - Time in seconds between the cow being detected and starting to spray (0.1-10 seconds).

Spray Time - Time in seconds that the spray solenoid will be activated (0.1-10 seconds).

Reset Delay - Time in seconds that the controller will disregard the input from the sensor. This is to ensure that a cow cannot be sprayed twice (0.1-10 seconds).



OPTIONAL ADD-ON

Key features

- Free up labour without the need for manual teat spraying
- Each animal receives a consistent, metered dose of teat spray
- Easy to programme and install
- Unique walk over pad features an array of cow restrictors to regulate cow flow
- A remote sensor picks up animal movement and determines the udder position before spraying
- Includes built-in cow counter and cow alarm
- Two spray pads can be connected to one control box
- Easily retrofitted to your existing exit race.

OPTIONAL ADD-ON

CowScout for heat detection and health management

DATA PROCESSED ON FARM

Get to know each and every cow with CowScout™

CowScout™ monitors cows 24 hours a day, providing highly accurate data for heat detection, eating and rumination times.

With CowScout™ gain the insight you need to ensure every cow is healthy, happy and, most importantly, productive.

Health Monitoring

CowScout™'s health monitoring is great for tracking each individual animal's health and well-being, while also giving group information.

It records the time each day an animal grazes and, with 2nd generation tags, also records the time the animal spends ruminating. Drops in these behaviours tell you that there may be something wrong with the animal and that it might need further attention.



Constant monitoring of cows keeps you informed of any potential health problems at an early stage, allowing for quick and early intervention. This can minimise treatment costs, milk loss and changes in body condition - keeping the cow productive.

Transition cows are also fully monitored in the time before and after calving, with CowScout™ keeping a constant and close eye on them. Calving difficulties, metabolic issues and uterine infections can also be identified promptly, increasing the number of successful outcomes.

Accurate Heat Detection

The CowScout™ neck tag works 24/7 to monitor cow activity by identifying movements of a cow on heat, such as sniffing, chin rubbing, bulling and standing heat.

With continuous real-time data gathered while a cow is in range of an antenna, cows on heat can be properly identified, and analysed by the software.

CowScout™ provides you with individual cow reporting on optimal insemination timings, resulting in improved in-calf rates, shorter calving intervals and reduced inseminations per cow - all whilst lowering labour inputs.

Key features

- Improve in calf rates through accurate and timely heat detection
- Detect metabolic disorders early in newly calved cows
- Increase 80 day submission rates in year-round calving herds, and 3 week submission rates in seasonal herds
- Help identify mastitis cows
- Reduce time spent on traditional heat detection methods
- Identify and treat sick cows early, reducing vet costs and recovery time
- Early detection of cows with fertility problems
- Improve overall herd profitability
- Reduce the need for hormone therapies
- Monitor pasture allocation for herds
- Increase number of replacement heifers.

"You can't argue with data; it's been key to better efficiency and more days in milk."

Brad Payne

WAIKATO, NEW ZEALAND





DairyPlan herd management software

Designed to be a fully-functioning herd management software package combined with the process control functions needed to run the equipment connected such as milk meters, sorting gates, feeding and weigh scales.

**OPTIONAL
ADD-ON**

With a customised menu specifically designed for pasture-based operations, it's easy to navigate for a new user and complete enough for the seasoned user. The menu incorporates all the reports and graphs into the menu bar and all the data entry into the working area.

DairyPlan helps you manage:

- Reproductive status
- Drying off
- Culling
- Production and days in lactation
- Reproduction monitoring
- Mating - both natural and artificial
- Calving dates
- Vet records: illnesses, treatments and other actions
- Body weights and condition scores
- Herd test results
- In-shed feeding systems
- Automatic drafting
- Animal alerts: treated cows, high conductivity cows and cows with a sudden drop in milk
- Transfer of data: import or export for use with third party companies, herd testing entities, pregnancy scanning and body condition scores.



**NO
MONTHLY
SUBSCRIPTION
FEES**

AS 3000 - drafting cows, your way

Offering you various systems for automatically drafting individual animals or groups of animals efficiently, quickly and reliably.

The AutoSelect 3000 drafting gate is reliable, fully automated and controlled by either a manual-draft remote, a cloud-based VPU app or with DairyPlan fully integrated herd management software. Giving you the capabilities to automatically separate cows which meet user-defined conditions.



Key features

- Minimised cow flow interruption - ID antenna positioned before cows reach the draft system ensures that only cows that need to be drafted are stopped
- Guaranteed accuracy - photo eyes are incorporated into this system to watch animal movements, ensuring very high accuracy drafting.



In a nutshell

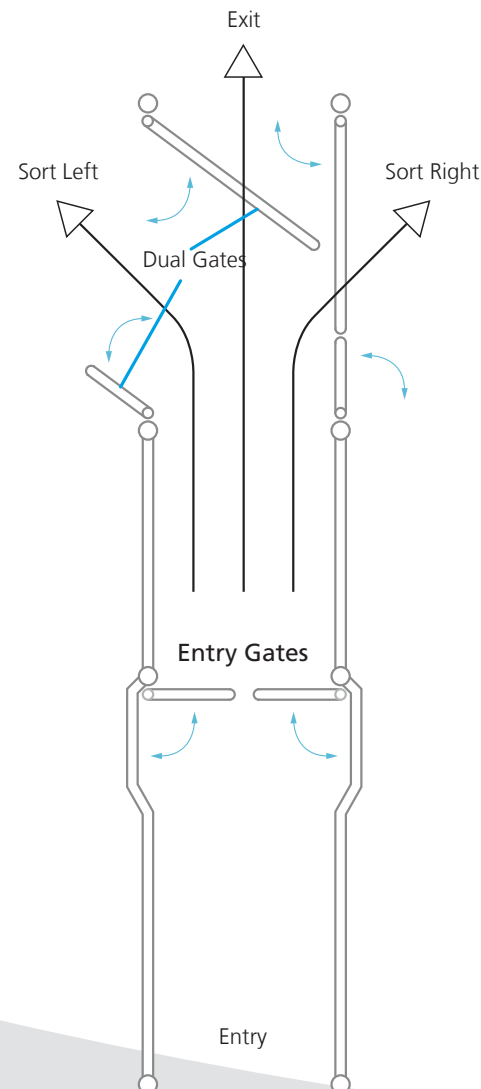
The animal is identified just after the entry gate. The entry gate immediately closes behind the animal.

- **Effect:** The segregation area is shut off from following animals. Light beams in this area check the segregation paths.
- **Result:** maximum segregation accuracy!

The segregation gate only opens for the animal to be segregated when the light beams indicate that the previous animal has left the segregation area.

- **Effect:** the segregation process is optimally coordinated.
- **Result:** maximum working efficiency.

3 Way Sorting Gate



Dual opening gates showing straight-through drafting.



Dual opening gates showing drafting to the left.

Here to support you

With you from the initial consultation, through to total service solutions.

GEA are here to help improve your milk quality and parlour efficiency, with a service partner network certified to deliver what we promise, consistently.

Your trusted service partner is your trusted farm partner. Helping you make the right decisions for your business and helping to improve your productivity, profitability and ensuring your cows are healthy.

Through specialised training, our service partners have experience installing, servicing and trouble-shooting potential problems on all GEA New Zealand milking equipment and components. And, of course, they speak your language - farming.

GEA technicians within your area will know the details of your farm and the equipment you use. This means, if you need assistance, they are prepared to react quickly to assist you, ensuring your GEA experience is second-to-none.

Thanks to our global network, you can rest assured support is there for you, from the equipment we produce to the design phase of a new project, and right through to optimising your system.

Integrated milking systems

With a professionally trained team, an integrated milking system that is designed to work as a cohesive unit, along with technicians who regularly monitor the system, every dairy has the potential to achieve a safe, gentle, quick and complete milk harvest session on every cow at every milking.



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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