About MSD Animal Health Intelligence (Previously Allflex Livestock Intelligence)

MSD Animal Health Intelligence (Previously Allflex Livestock Intelligence) is the world leader in the design, development, manufacturing and delivery of solutions for animal identification, monitoring and traceability. Our data-driven solutions are used by farmers, companies and countries to manage hundreds of millions of animals worldwide. By putting intelligent, actionable management information into farmers' hands, our solutions empower them to act in a timely manner to safeguard their animals' health and wellbeing, while achieving optimal production outcomes for a healthy food supply. Allflex Livestock Intelligence is a livestock portfolio of digital products within MSD Animal Health.

Through its commitment to the Science of Healthier Animals®, MSD Animal Health offers veterinarians, farmers, pet owners and governments one of the widest ranges of veterinary pharmaceuticals, vaccines and health management solutions and services as well as an extensive suite of digitally connected identification, traceability and monitoring products. MSD Animal Health is dedicated to preserving and improving the health, wellbeing and performance of animals and the people who care for them.

MSD Animal Health

Livestock Intelligence

Milking & Monitoring

Allflex® Livestock Intelligence™

MSD Animal Health Intelligence

We Speak Cow

Allflex Livestock Intelligence is the world leader in the design, development, manufacturing and delivery of solutions for animal identification, monitoring and traceability. Our data-driven solutions are used by farmers, companies and countries to manage hundreds of millions of animals worldwide. By putting intelligent, actionable management information into farmers' hands, our solutions empower them to act in a timely manner to safeguard their animals' health and wellbeing, while achieving optimal production outcomes for a healthy food supply. Allflex Livestock Intelligence is a livestock portfolio of digital products within MSD Animal Health.

As the largest provider of animal identification technology, we meet growing customer needs by providing over 500 million tags for identifying, tracking and monitoring animals every year and we monitor over 5.5 million cows daily, which allows access to real-time, actionable data and insights to help improve or enhance animal management and health outcomes. With over 65

years of experience worldwide, we have a global network of experts, each with a great depth of experience and unparalleled knowledge, who provide a aluable resource to farmers, companies and countries. Allflex Livestock Intelligence has manufacturing and technology subsidiaries in North America, Europe, Israel, South America, China, Australia and New Zealand. Our products are distributed in over 100 countries.

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Allflex®
Livestock Intelligence™

MSD
Animal Health Intelligence

Table of content

Over 5.5 Million Cows are monitored everyday by our ear tags and neck collars

ACQUISITION

Allflex Livestock Intelligence joins MSD Animal Health

DIVERSIFICATION

With connected microchip enabled pet access solutions and feeders for Pets, SurePetcare further strengthen Allflex Group Microchip Business

INTELLIGENCE

The Allflex Group enters the world of animal health monitoring through acqitition of SCR as platform for the future

INDIA

Allflex Livestock Intelligence started operations in India

INCEPTION

New Zealand - John Burford, of Delta Plastics, met dairy farmer, Brian Murphy to produce a flexible, plastic ear tag which was named Allflex in 1974

2019

2016

2015

2008

1955

Trust Starts Here.

Livestock Monitoring

Our solutions monitor millions of animals worldwide. Successful producers across the globe trust our solutions to help them optimize the productivity of every animal, increase efficiency and improve the wellbeing of their livestock.

Based on over 40 years of experience and innovation, our market-leading livestock monitoring solutions leverage breakthrough proven technologies and deep industry knowledge, and are backed by academic validation. They answer producers' most pressing challenges around productivity enhancement, providing actionable information and insight when and where farmers need it. Easy to use, scalable and modular, our systems are designed to adapt and grow as farmers' needs change.

Dataflow™ II System

The Allflex DataFlow™ II System is a real-time herd management solution. It provides the herd manager as well as the milking pit operator with a set of tools designed to help with daily tasks and work in a more efficient and productive way. The system provides powerful management tools, including reports, graphs, analytics, task lists, and lifetime cow card history. The system also enables control and support of other components, such as sorting gates, individual feeding, in-parlor messaging board, and others.

Advanced Herd Management Solution

Comprising hardware and software, the DataFlow II System controls the whole milking process and automatically collects and analyzes data from the monitoring tags.

- Online milking, monitoring, and milk production using Allflex FreeFlow™
- Heat detection and advanced health monitoring
- Graphs, reports and analysis the exact information you need when you need it!
- Daily task lists and actionable information
- Real-time notifications including labor-related alerts
- Synchronization and connectivity with third-party solutions

Easy to use and Flexible Solution

Our philosophy is to keep the user interface as simple as possible, avoiding complicated panels while delivering the right information at the right time.
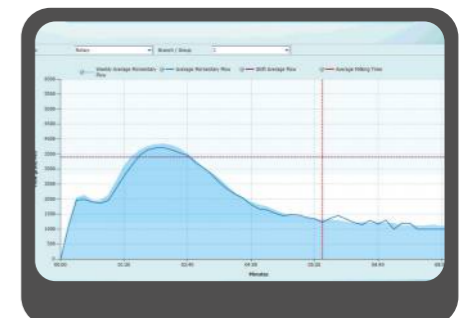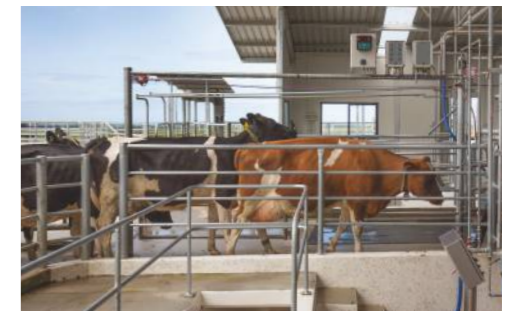
Milking Operator:

- The system presents only the exact information required for milking pit operation, at the individual MC200 milking points and on a central LCD screen
- Relevant information such as sick cows, dangerous cows, or cows that are under-producing, is visible at a glance from the milking point
- The operator is able to enter information directly from the pit

Herd Manager:

- Customizable interface, reports and graphs
- Full support for multiple users (such as herd manager, veterinarian or nutritionist), multiple herds, and different milking parlors
- All data can be accessed from distant locations, including home and mobile phone

Milking Control

Real-time milking parlor management - monitoring the milking Comprehensive information is displayed in easy-to-read reports and graphs.

SenseHub™ Dairy

SenseHub™ is a sophisticated, modular cow monitoring solution that delivers actionable information on the reproductive, health, nutritional and well-being status of individual cows and groups with easy to use user-interface mobile app, even remotely. Leveraging behaviour monitoring based on activity, rumination, eating and other proprietary key cow behaviours, our reproduction monitoring applications provide unmatched heat detection accuracy, including detection of weak heat signs, while minimizing false positives.

SenseHub™
The next generation of cow monitoring

Individual Monitoring

Starter / Advanced / Premium

Reproduction
- Assist in planning insemination with heat index (% of Estrus Expression)
- Assists in identifying optimum time of insemination with colour breeding window (with seperate window for Sexed Semen)

Starter / Advanced

Heath
- Distress alerts assist in identifying high risk cows which needs urgent attention
- Assists veterinarians for detecting efficacy of treatment

Group Monitoring

Premium

Nutrition
- Assists in improving nutrition strategy by quickly understanding how their cows react to ration changes

Wellbeing
- Assist in animal welfare with maximizing production and profitability for farmers

Summer Stress
- Identify herd discomfort due to environment and optimize mitigation measures

Starter
- Heat Report
- Cows with Irregular Heat Report
- Suspected for Abortion Report
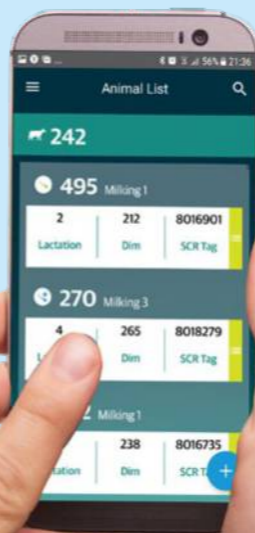- Anestrous Cows Report

Advanced
All starter applications, plus:
- Health Report
- Fresh Cow Report
- Animal to Inspect Report
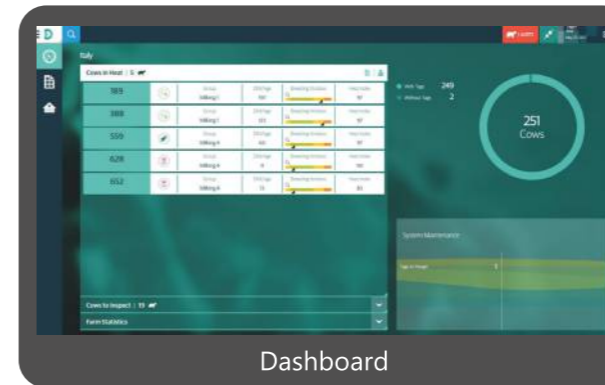- Distress Report
- Distress Alerts

Premium
All starter and advanced applications, plus:
- Group Heat Stress Report
- Group Consistency Report
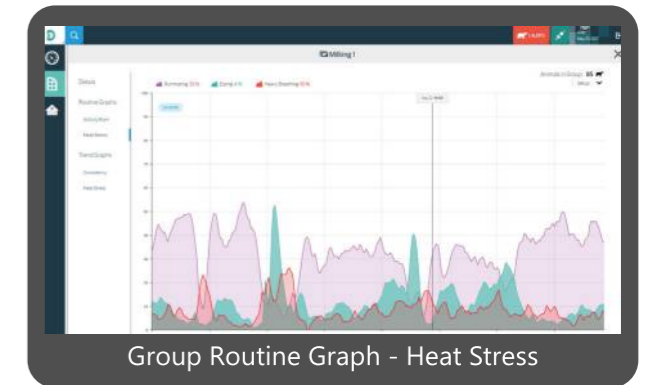- Group Routine Report

Note: Our application plans are easily up-gradable, ensuring long-term investment protection.
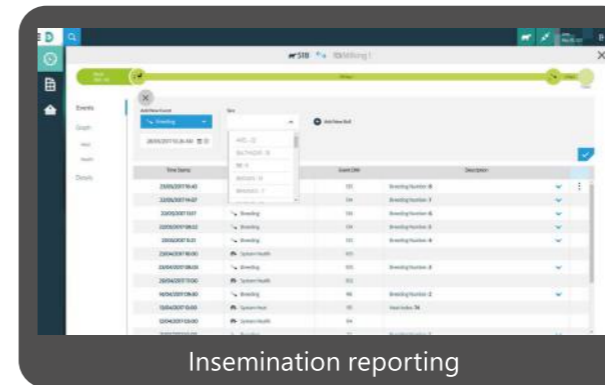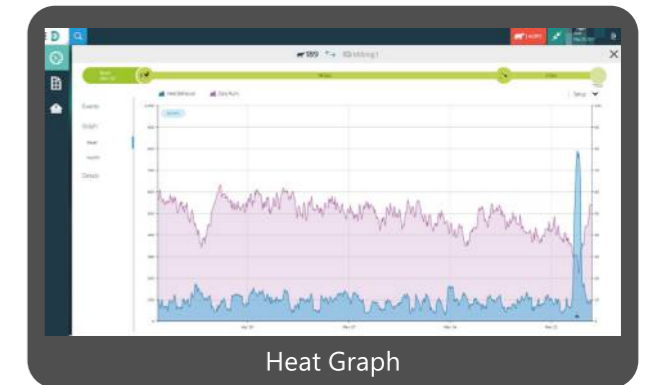

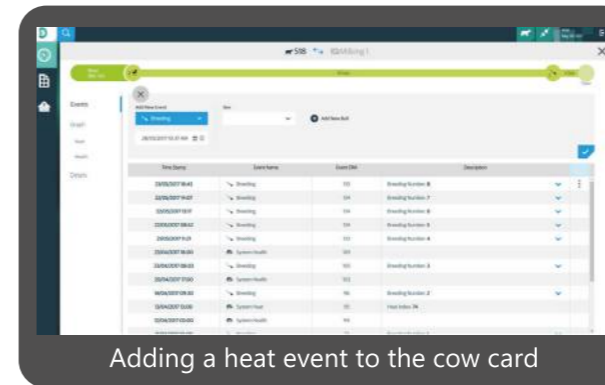# Reporting and Benefits

Dashboard

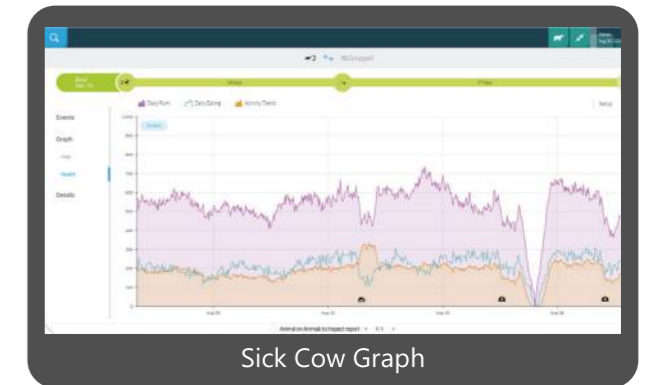Group Routine Graph - Heat Stress

Insemination reporting

Heat Graph

Adding a heat event to the cow card

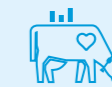Sick Cow Graph

No more tail paint

Improve accuracy of submission rates

Reduces mortality rate on average

Assists in reducing inter-calving interval

These are some benefits our farmers reporting using our Allflex Cow Monitoring Technology

More days in milk

Allows regular breaks over busy events of the season

Helps with maximizing conception rates

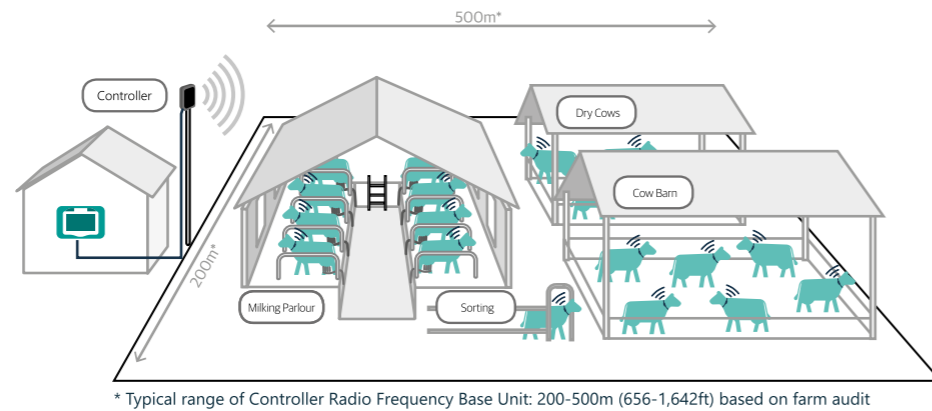Increase yearly milk production per cow

Heatime Pro+

Heatime Pro+ is a the most advanced heat, health, nutrition and group monitoring solution. Powerful, yet easy to use, PC-based system for advanced monitoring of dairy cow herds. With its sophisticated monitoring capabilities, lifetime cow history tracking, and rich data analysis capabilities.

Heat Report

Benefits

- Optimize heat detection and achieve high conception rates.
- Monitor health condition of each cow to improve productivity.
- Monitor nutrition strategy and summer related stress of the herd
- Gain advanced cow monitoring capabilities for data-driven decision-making. Easy to integrate with Allflex Milking Parlours and third-party herd management software.
- Access farm data from a mobile device or computer with SCR HealthyCow24 Solution.
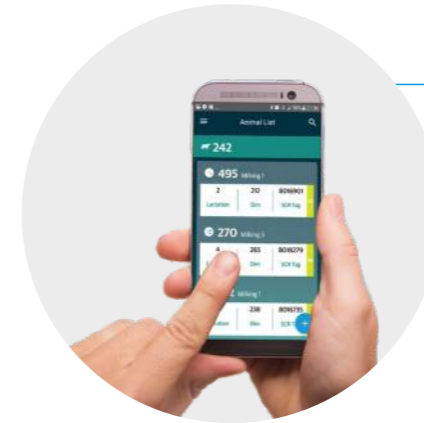
500m*

Controller

Dry Cows

Cow Barn

Milking Parlour   Sorting

200m*

* Typical range of Controller Radio Frequency Base Unit: 200-500m (656-1,642ft) based on farm audit

Scalable Solution

Third-party herd management systems

Additional antennas

Tags

Heatime Pro+ Controller

Control Tower: service and support center

Install base management system

Monitoring Components

User Application

- Remotely Up-gradable
- Easy User Interface

Controller

- Plug and Play Install
- Area coverage: 200 x 500 m (656 x 1,640 ft)
- Acts as an antenna and transmitter
- Connects with POE (Power Over Ethernet)

Monitoring Ear Tag Flex

- Applied on Ear Communication: 2.4GHz - 802.15.4
- Expected battery lifetime: 3 years
- Size: H x W x D: 68 x 38 x 15 mm
- Waterproof (IP68) durability

Monitoring Ear Tag V2 Flex

- Applied on Ear Communication: 2.4GHz - 802.15.4
- Expected battery lifetime: 5 years
- Size: H x W x D: 68 x 38 x 15 mm
- Waterproof (IP68) durability
- Led: Multi-function LED indicator

Monitoring Neck Tag Flex

- Applied on Neck
- Communication: 2.4GHz - 802.15.4
- Expected battery lifetime: 7 years
- Size: H x W: 84 x 64 mm (3.3 x 2.5 in)
- Waterproof (IP68) durability

*Data generated through tags is indicative. Consult your veterinarian for treatment / health intervention. Our solutions are not intended to diagnose, treat, cure, or prevent any disease in animals

Milking Automation

Our milking automation technologies drive advanced milking solutions that are highly reliable, accurate and require little maintenance. These solutions improve milking, save time, increase accuracy, and improve cow and worker wellbeing. They were developed together with dairy farmers to address farmers' needs for an efficient and productive milking process that requires no special skills.

Our milking control serving over 12 million cows and measurement devices are implemented as complete solutions by various integrators worldwide and are also integrated as standalone devices in the milking systems of several other companies. The modularity and scalability of our systems make them suitable for most types of existing milking solutions at small and large farms.

MC200 Series

Allflex Milking Control Systems comprise a highly accurate milk yield measurement device and smart controller, enabling efficient and cow-friendly milking. Easy to install and use, and fully scalable, Allflex Milking Control Systems work in almost any parlor setup. Reliable operation and easy upgradeability ensure long-lasting value.

It comprises of following components to optimize and streamline the milking workflow.
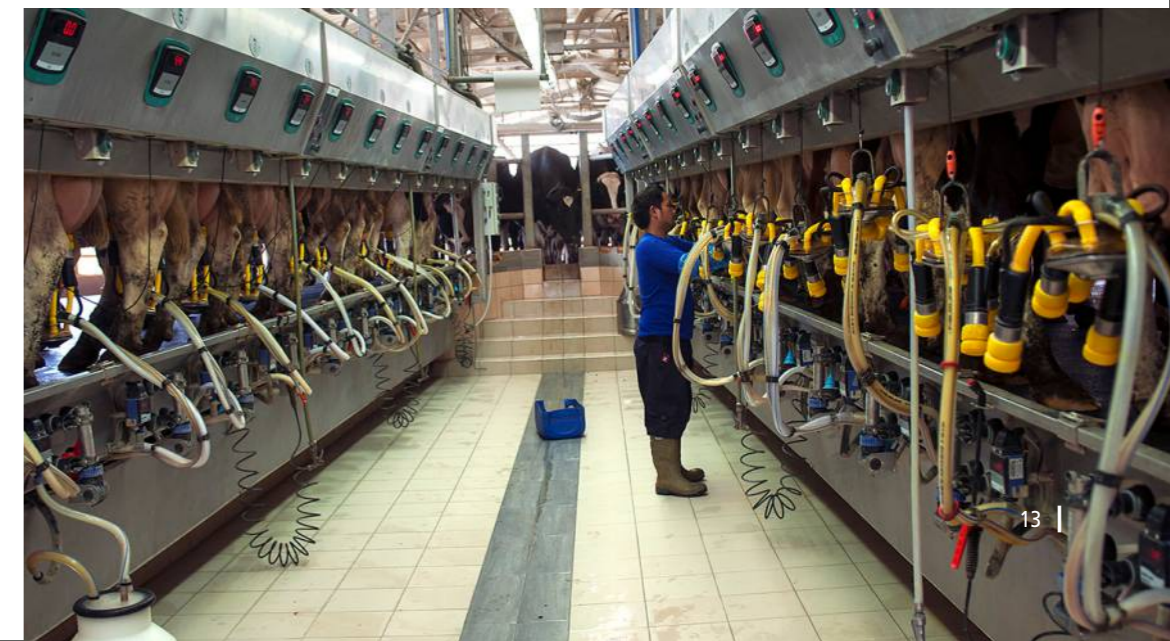
Advanced milking control optimizes and shortens milking, while safeguarding cow wellbeing.

Accurate milk yield data, with the FreeFlow™ milk sensor

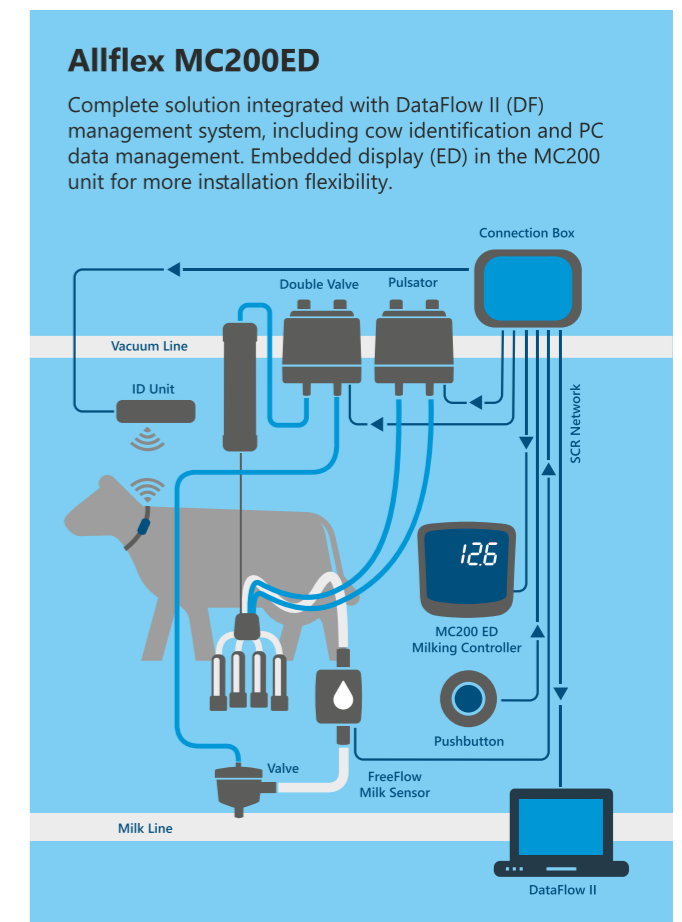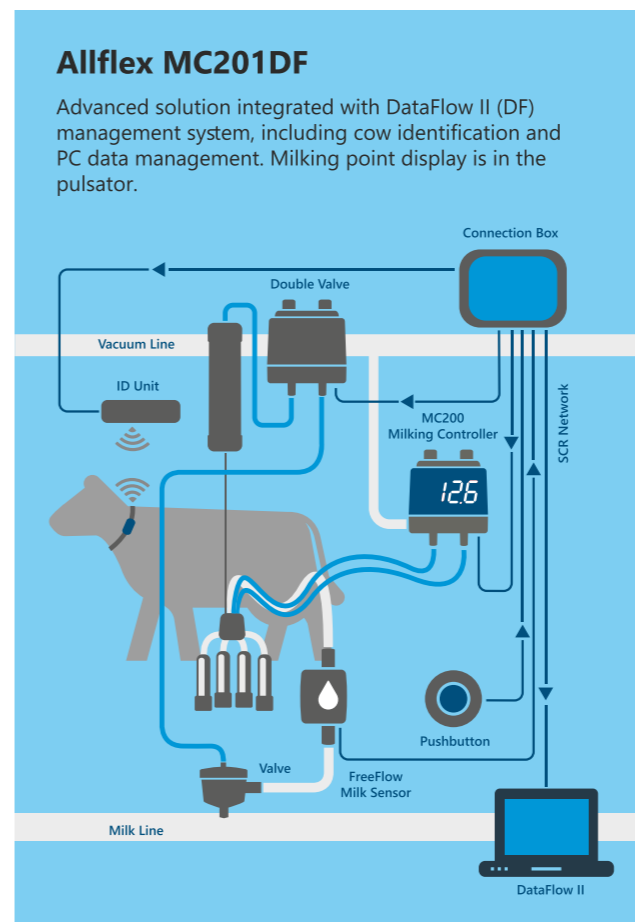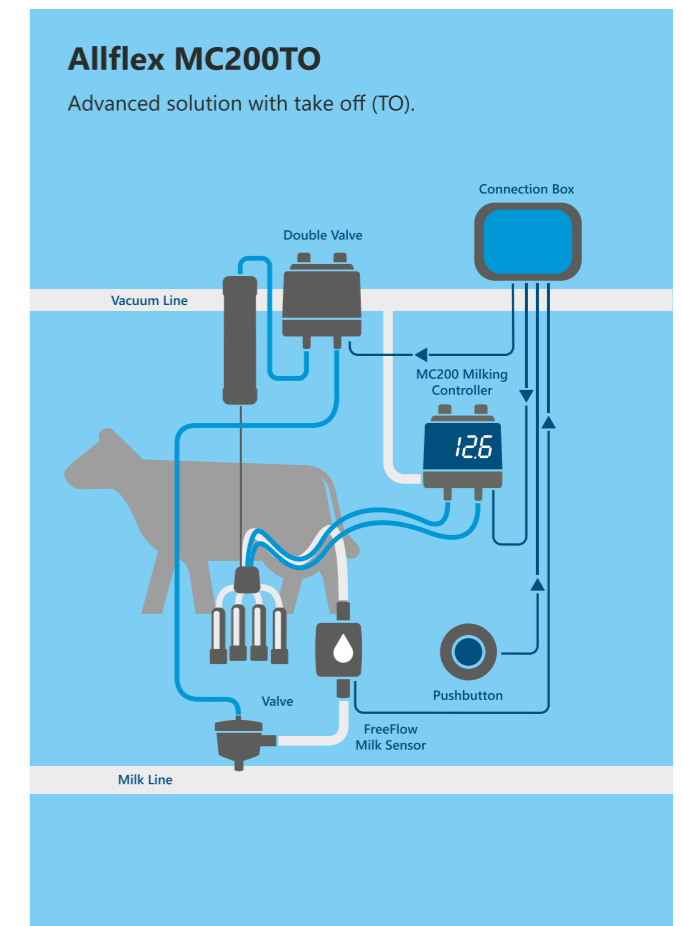Advanced pulsation arrest and cluster removal safeguard cow comfort

MC200 Series

Get accurate milk yield data and improve milking efficiency, while safeguarding cow comfort.

- **Accurate milk yield data, with the Allflex FreeFlow™ milk sensor.**
  The compact and unique Allflex FreeFlow™ milk measurement device enables highly accurate milk yield measurement with very low vacuum fluctuations. This proven device provides accurate data on momentary milk flow and accumulated yield with high precision (better than 5%) year after year. With no moving parts, there is no need for maintenance or annual calibration.

- **Advanced milking control optimizes and shortens milking, while safeguarding cow wellbeing**
  When needed, teat massage is automatically applied to stimulate milk letdown. The sophisticated controlled pulsation system automatically adjusts the pulsation rate and ratio according to the realtime milk flow, optimizing and shortening milking time and reducing teat irritation.

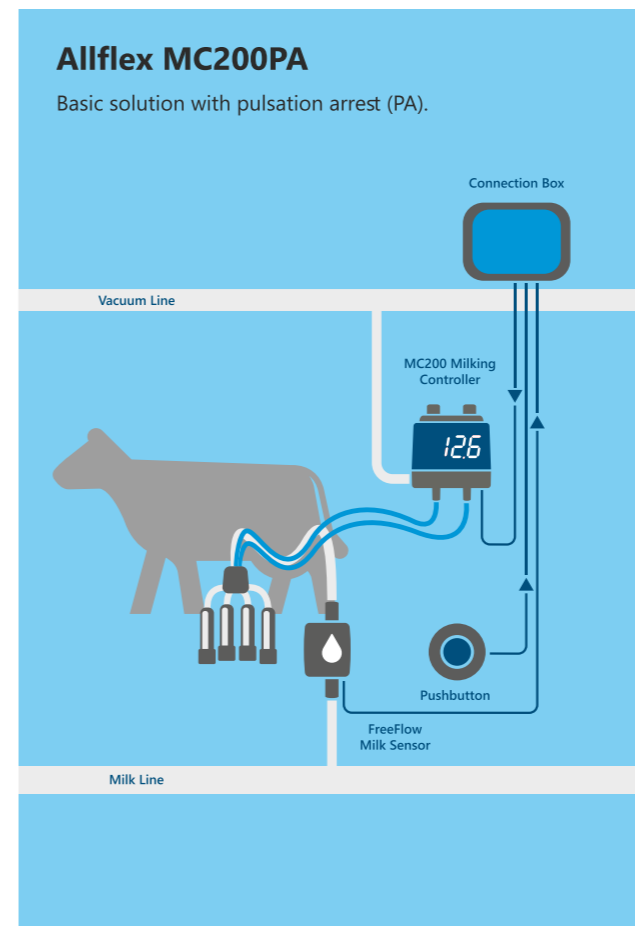- **Advanced pulsation arrest and cluster removal safeguard cow comfort**
  Due to the highly accurate flow measurement, the end of milking threshold can be set precisely and kept stable over time. Two options are available for end of milking: the pulsation arrest feature automatically stops the pulsation and collapses the liners on the teats, preventing over-milking even when the cluster stays on the udder. Alternatively, a smooth and fully adjustable cluster removal feature ensures accurate and gentle cluster removal, further enhancing cow wellbeing.

Grow with a modular, reliable, easy-to-install and use system

- **Easy-to-install, modular milking system that can grow with your needs**
  Allflex MC200 Series components can be installed alone or as a complete system.
  All components are modular and scalable, enabling easy installation and configuration for almost any existing parlor, as well as cost-effective upgrades when your needs change. Adding other Allflex devices and components and integrating them with Allflex DataFlow™ II centralized management software provides advanced capabilities.

- **Easy and flexible setup, and one operation button**
  Operation using only a single button provides unparalleled ease-of-use. With its intuitive interface, the system can be easily adjusted to the needs of the parlor. While the default values cover most common configurations, dozens of different parameters can be controlled by a handheld device. This allows flexible setting and tweaking of the system according to the needs of each farmer. The configured set of parameters can then be easily applied to all milking points in the parlor.

- **Reliable milking with very low maintenance**
  Allflex MC200 Series require virtually no maintenance. The Allflex FreeFlow sensor measures the milk without any moving parts and requires zero upkeep. The pulsator, with just two moving parts, no membranes and no small parts, requires minimal maintenance and is highly reliable even in dusty environments. The single operation button is durable, contactless and fully water and dirt-proof.

Allflex MC200PA
Basic solution with pulsation arrest (PA).

Allflex MC200TO
Advanced solution with take off (TO).

Allflex MC201DF
Advanced solution integrated with DataFlow II (DF) management system, including cow identification and PC data management. Milking point display is in the pulsator.

Allflex MC200ED
Complete solution integrated with DataFlow II (DF) management system, including cow identification and PC data management. Embedded display (ED) in the MC200 unit for more installation flexibility.

Allflex MC200 Series can be installed on either low or high line