SmartDairy ®

MANAGEMENT SYSTEMS

by BouMatic

# SmartDairy®
MANAGEMENT SYSTEMS

Quality Milk Through Technology™

Your Herd.

Your Milking Facility.

One System.

Fully Integrated.

Advancing the dairy industry's newest control technology, SmartDairy® Management Systems deliver fully integrated operation of your dairy at the touch of a finger. Engineered for...

- Any New System or Retrofit

- Any Size Herd

- Any Parallel, Rotary or Herringbone

- Any Milking System Brand

New efficiency, flexibility and freedom are here today with SmartDairy® Management Systems. Discover what advanced milking performance and superior cow handling can do on your dairy.

SmartDairy® – What's Best for Your Cows
- Gentle cow management systems
- Milk production management
- Breeding and Animal Health management
- Reproductive management
- Feeding and Hoof Care

...built on a

Flexible, Efficient,

Modular Platform.

SmartDairy® – Flexible Controls
- Fingertip parlor performance control
- Control access flexibility
- Fully integrated equipment monitoring
- Complete parlor performance management

SmartDairy® – Safe, Reliable Data Management
- Access and review of data locally or remotely
- System redundancy for complete data security
- Durable, robust controls

SmartDairy®...

- Herd Management
- Milk Harvest
- Equipment Systems
- Stall Systems
- Cow Traffic Controls
- Cooling
- CIP/Wash
- Hoof Care
- Sorting
- Maintenance
- Feeding

How a Modular Platform is Best for Your Cows

- A rock solid platform is the SmartDairy foundation
- World class SmartDairy herd management software is an integral part of SmartDairy
- Activity monitoring for cow health and breeding
- Sorting, Feeding, Cooling, Hoof Care applications integrate seamlessly
- New features and applications can be added as your dairy grows
- Ultimate flexibility to expand control and management capabilities

The Modular SmartDairy Platform will grow with your dairy. Start with desired applications and expand as your dairy grows.

Sort Gate

Crowd Gate Control

Hoof Care

Feeding Station

Direct Load

ISO RFID

Tank Control and CIP

System Management

TouchPoint™

ViewPoint™

SmartControl™ Meter

Facility Automation

by **Bou**Matic
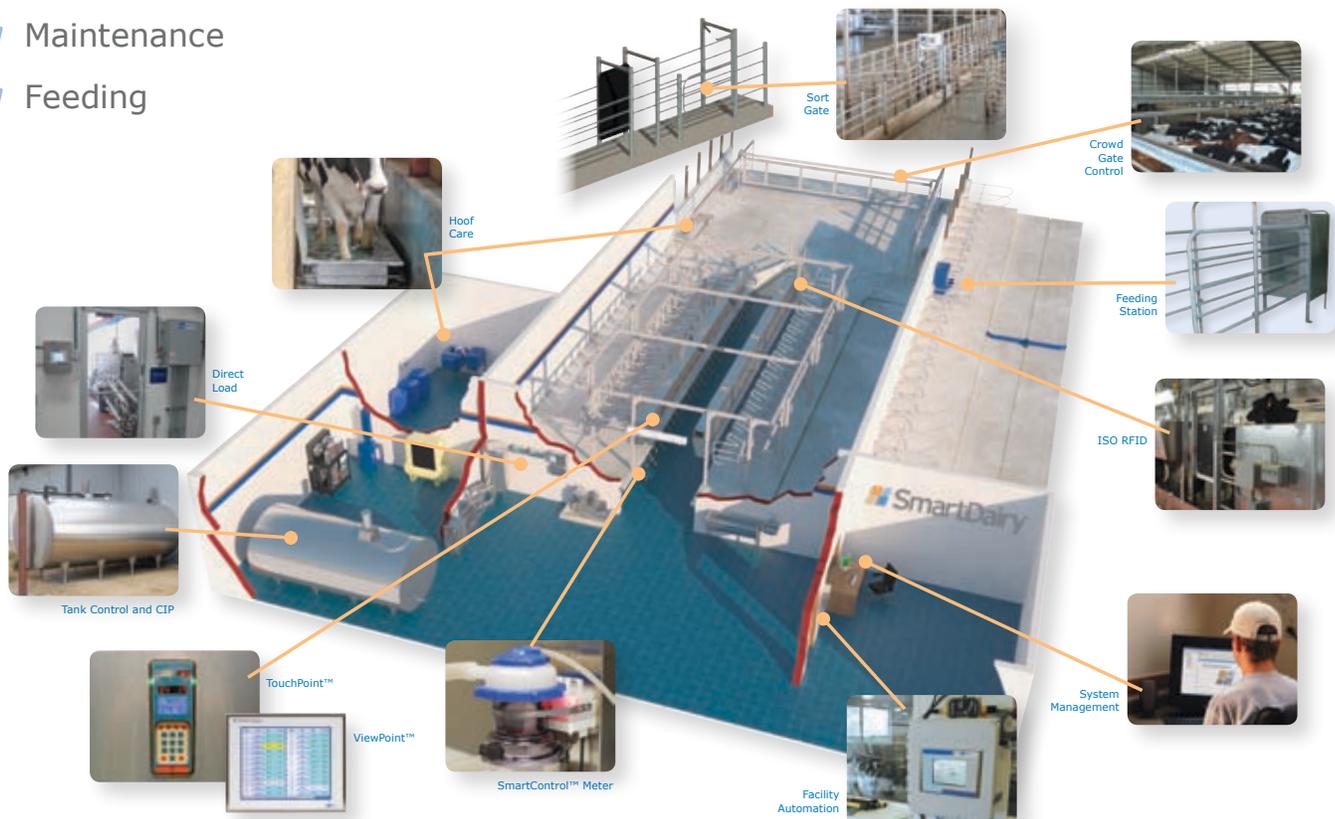
SmartDairy®
MANAGEMENT SYSTEMS
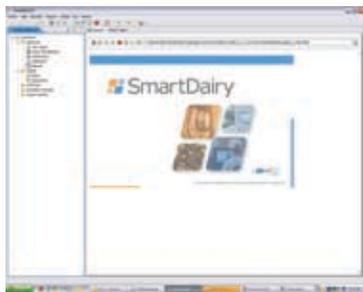
Milk Harvest Software

SmartDairy® Milk Harvest Module

SmartDairy software is easy-to-use and provides the flexibility you need with the freedom you want, in a complete dairy management system. Flexible control and safe, reliable data management means efficiency and performance for your dairy.

SmartDairy Management Systems offers software for Milk Harvest, Sorting, and Hoof Care, along with world class herd management software, HerdMetrix™. With SmartDairy software specific to each module you have the ultimate freedom to manage your dairy for maximum efficiency and profitability.
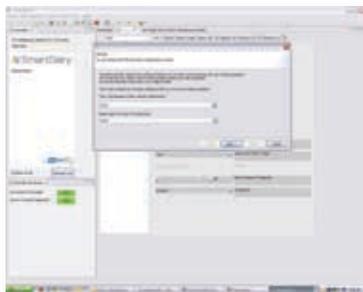
SmartDairy® Milk Harvest Module - Software

Milk Harvest software contains easy-to-use Set up, Diagnostics, Reports, Maintenance and built-in Help files for parlor management and comprehensive information from your Milk Harvest equipment – at your management computer. For herd management, HerdMetrix software is included giving you complete administration of your entire dairy herd.

Set up

Set up
SmartDairy gives you complete set up control of your management system and equipment. All set up screens are found in a single location on the management PC allowing for quick user-friendly access and customization. It's your system, configured your way.
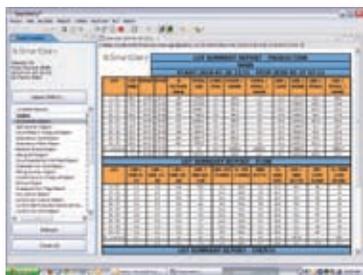
Reports
SmartDairy delivers the information you need for accurate, profit-driven decisions on your dairy. Get the reports you need, where you want them, when you want them, in real-time. This is your portal to essential management information and performance data on your dairy. SmartDairy Reports offer a variety of management information, including flow rates, attaches, re-attaches, lot and stall summaries and much more per cow, stall, group or herd.

Lot Summary Report
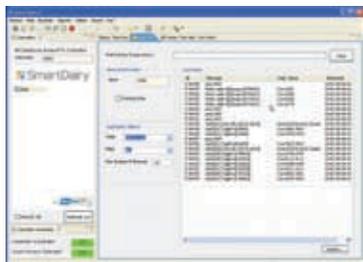
Diagnostics
SmartDairy gives you real-time feedback from operations on your dairy, with the capability to see live data on attaches, manual detaches, sort gate function and more. Diagnostic screens provide users and technicians convenient access to data communication signals on your management computer.

Diagnostics

MySmartDairy.com

Maintenance

SmartDairy Maintenance provides a visual indication of equipment service timelines and timely reminders via email, to one or multiple users specified by the dairy operator. With consistent, programmed service and maintenance from SmartDairy, increase the longevity and integrity of your BouMatic equipment and genuine service parts.

Help

Help files in SmartDairy software are easily accessed in all SmartDairy modules, providing quick assistance as needed.

SmartDairy® Milk Harvest Module - HerdMetrix™ Software

HerdMetrix™ Base Level Software

HerdMetrix is BouMatic's world class herd management software included with the SmartDairy Milk Harvest module, or is available as a stand-alone herd management program. HerdMetrix provides unique management features such as an Action Scheduler for daily management of animals, a customizable Report Writer allowing you to develop your own reports and generate on a scheduled basis. HerdMetrix Base also includes a Standard Peak Production Analysis to monitor feed intake relative to production and lactation on a per cow basis, Feeding Calculations including set up, purchased feed management, a feed deviation alert and much more.

HerdMetrix™ Advanced Level Software

Upgrading to HerdMetrix Advanced provides a more in-depth analysis of your herd and requires Base level HerdMetrix software. HerdMetrix Advanced adds Herd Fertility Graphing, Insemination Analysis, StepMetrix Scores, a Vet Checklist, Pedigree and Cow Profile information, a twelve month prediction and more.

HerdMetrix Advanced provides more detailed graphs and statistical analysis of your herd. Start with HerdMetrix Base and easily upgrade to HerdMetrix Advanced when the time is right for your dairy.

HerdMetrix™ Advanced Plus Level Software

HerdMetrix Advanced Plus is the direct link to governmental animal recording and tracking systems. Advanced Plus allows you to send your pedigree registrations, import classification data, view your dairy's profit and loss information, access your herd inventory summary and generate monthly economic performance reports all at your SmartDairy management computer.

HerdMetrix™ PDA Software

HerdMetrix software for PDA devices provides access to management reports. With the HerdMetrix PDA you have another option for out-of-parlor SmartDairy management, from anywhere on the dairy. With your PDA you maintain the ability to access individual cow data at your fingertips.
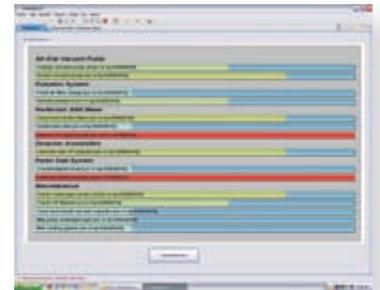
Maintenance

HerdMetrix Action Scheduler
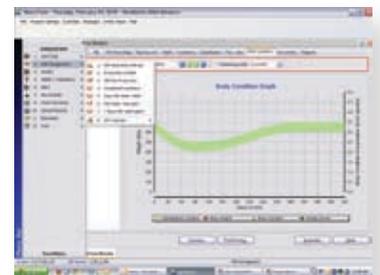
Body Condition Score Analysis
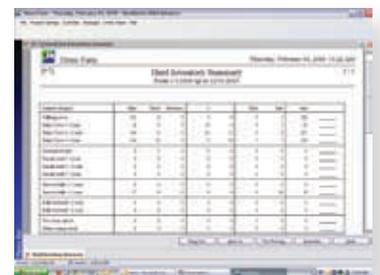
Herd Inventory Summary

by **BouMatic**

SmartDairy® MANAGEMENT SYSTEMS

SmartDairy® Milk Harvest Module - Hardware

SmartControl Meter

SmartControl™ Meter

The heart of the SmartDairy Milk Harvest module, BouMatic's dependable, ICAR pending SmartControl Meter, delivers proven accuracy and dependability. Based on the legendary performance and reliability of BouMatic's Perfection 3000™ meter, the SmartControl Meter has its own intelligence that provides individual cow milk yield, flow rate, milk conductivity and other critical parlor performance data.

Pulsation Control through SmartControl™ Meter

1. With the SmartControl Meter, pulsation can be controlled and managed at each stall point. No master control is needed.

2. Program the pulsation to stop when the milking unit is detached on each individual cow. Save unnecessary run time with power saving mode when your pulsators are not in use.

3. Special pulsation rate/ratio is pre-programmed for the wash cycle. Adjusted pulsation during washing saves run time and reduces liner wear.

4. Pulsation control is available from the SmartControl Meter to give you more flexibility when designing your milking facility.

TouchPoint

TouchPoint™

TouchPoint is the parlor display and keypad for controlling milking procedures at each stall point. Constructed of super-durable engineered resin, TouchPoint can be mounted in a cabinet or as a stand alone unit on herringbone and parallel stalls or integrated into rotary milking cabinets. TouchPoint is the direct parlor link to cow data and provides complete command and control of the entire milking process.

The TouchPoint display provides stall position, cow number, milk yield and flow rate in real time and gives warnings on deviations from your cow's normal milking levels. Enter commands, recall data or custom program function keys through the TouchPoint keypad.

Pulsation Control through TouchPoint™

1. With TouchPoint, pulsation can be controlled and managed at each stall point. No master control is needed.

2. Program pulsation to stop when the milking unit is detached on each individual cow. Save unnecessary run time with power saving mode when your pulsators are not in use.

3. Special pulsation rate/ratio is pre-programmed for the wash cycle. Adjusted pulsation during washing saves run time and reduces liner wear.

4. Pulsation control is available from the TouchPoint to give you more flexibility when designing your milking facility.

Quality Milk

Through

Technology™

ViewPoint™

If you have limited need or time to access data at each stall, ViewPoint offers management control of the milking facility through one or more touch screens placed in the parlor. The ViewPoint Touch Screen can be programmed to provide information needed for the entire parlor, along with vital individual cow data.

Touch Screen as the ViewPoint™ Interface

1. View real time cow information available from SmartDairy software on the touch screen; cow ID at the stall, milk yield, conductivity and activity per cow are all available at each ViewPoint Touch Screen for every cow in the parlor.

2. Additional controls allow your milking crew to sort cows during or at the end of their milking session.

QuickStart™ with SmartDairy®

Lift the milking claw to take the tension off the rope or chain and vacuum automatically starts for the milking unit. No buttons to push. No extra steps. Saves extra motion for your milking crew, so attention can be focused on the cows.

ViewPoint Touch Screen

SmartDairy® collects and delivers all data, safely and reliably, while providing fully integrated control of your dairy at the touch of a finger.
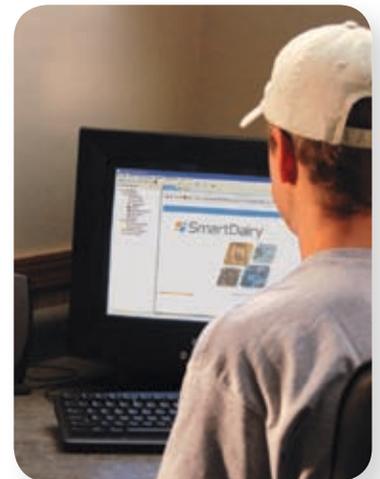
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Talk to your BouMatic Dealer today.
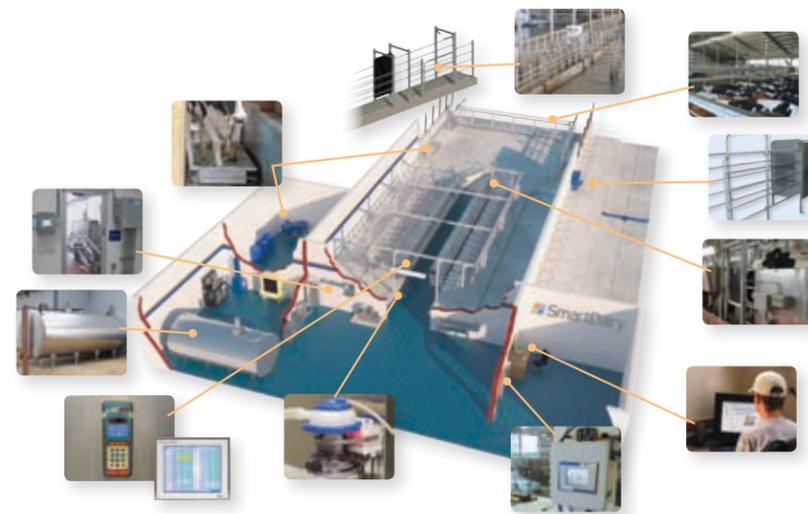
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SmartDairy® Sort Module

Sorting cows is one of the most labor intensive activities on a dairy. And every dairy needs to sort cows for grouping, culling, hoof trimming, breeding and health issues. Now this time consuming process is eliminated with SmartDairy Sort.

Sort Criteria Page

SmartDairy® Sort Module - Software

From your management computer, windows-based SmartDairy Sort software lets you easily configure and operate your sort gates, create your herd's custom sort criteria and assign all parameters to specific gates. SmartDairy Sort software makes certain your cows are gently directed to the proper holding area or pen as needed and is available as an add-on module to SmartDairy or as a stand-alone system.

View your sorting operations in SmartDairy with the Scheduled Cow Sorts, Current Cow Sorts, All Cows and Unassigned Tag reports. SmartDairy Sort graphs include Sorts Completed by Lot and Gate, ID Detection Rate and Sorts by Shift.

SmartDairy® Sort Module - Hardware

Using new ISO RFID ear tags found on dairies around the world, SmartDairy Sort identifies cows by reading their tags as they enter the milking system, and with SmartDairy, herd managers can select cows to be sorted through their PC or in the parlor through SmartDairy TouchPoint or ViewPoint control systems.

SmartDairy software provides input commands for single or multiple sorting operations. No more wasting time pushing cows out of a group or holding them in headlocks – SmartDairy gives you fast, flexible and efficient sorting at your fingertips.

SmartDairy®

SmartDairy® Hoof Care Modules

SmartDairy® Hoof Care Module - Software

StepGuardian™ Software

Program your StepGuardian PLC directly from your SmartDairy management computer. Configure initial setup including bath names, number of baths and dispensers and view the controller status all within SmartDairy StepGuardian software. Formulate each bath recipe to meet the needs of your herd. Program the dates and times you want each bath to dispense and monitor your estimated chemical usage directly from your SmartDairy software. StepGuardian software is available as an add-on module to SmartDairy or as a stand-alone system.

StepGuardian Chemical Levels

StepMetrix™ Software

StepMetrix software allows basic user functions for setup and diagnostics along with StepMetrix (SMX) score data. Cow number, tag number and SMX score information is provided via the StepMetrix Cow and Herd Snapshot reports. Action lists can be created for follow up on treated cows.

StepMetrix software works seamlessly with HerdMetrix herd management software, providing vital feedback and analysis from StepMetrix equipment. When used in combination, StepMetrix and HerdMetrix provide group reporting, historic cow information graphs, treatment overviews, milk production and an in-depth look at disease, problem location on hooves and claws and repetitive cases of lameness. You also have the ability to create a hoof health action list, scheduled trim list, trimming report and automatically sort cows for hoof health attention. All cow and herd management information from one location – no need to support separate software programs.

StepMetrix Reports

by **Bou Matic**

![SmartDairy Management Systems logo]

SmartDairy® Hoof Care Module - Hardware

StepGuardian

StepGuardian™ Hardware

StepGuardian hoof baths are an important part of the complete SmartDairy facility management program. A fully automated system, StepGuardian reduces the time and labor needed to clean, fill and empty hoof baths on your dairy.

StepGuardian dispenses optimum levels of powder, liquid chemical and water into its mixing chamber before pumping it to the hoof bath. Having precise metering and dispensing of chemicals creates a safer workplace and reduces the consumption of hoof bath chemicals. With SmartDairy, mixing, filling and flushing your hoof baths is managed at the touch of a finger.

StepMetrix™ Hardware

StepMetrix is the first automated, objective, real-time lameness detection system available to dairy producers. Research has shown that a typical case of lameness costs a dairy $400. More accurate than human observation, StepMetrix will save dairy operators money by monitoring the soundness of every cow, every day.

StepMetrix

Installed in return lanes, StepMetrix identifies cows and measures weight distribution as they walk over the system's sensors. A numeric value is created for each hind leg based on the weight distribution, and will indicate potential hoof problems before they are visible and more costly to treat. StepMetrix can be used to track lameness on individual cows, groups, or an entire herd.
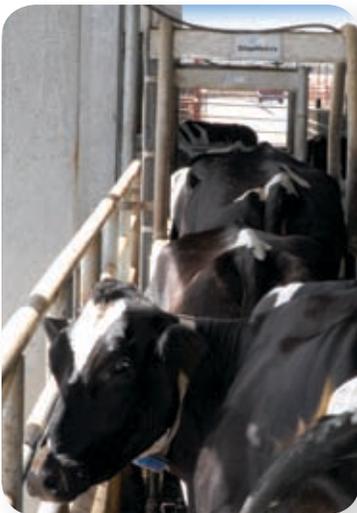
SmartDairy®

SmartDairy® Feeding Module

Balancing the diet of cows in various stages of lactation is critical for optimum milk production. Individual feeding can be effectively used to balance each cow's ration to maintain or increase production and reduce overall feed and labor costs.

Feeding – In Parlor
Feeding grain in the parlor offers the opportunity to feed to the individual needs of the cow's milk production, stage of gestation and body condition score.

If all cows are fed the same ration, some cows will be overfed, which increases feed costs. Overfeeding also leads to inefficient feed utilization. Some cows will also be underfed, which will prevent optimum milk production and may also lead to depleted body reserves and associated reproduction and general health problems.

Feeding – Out of Parlor
With computer-controlled concentrate feed stations in the freestall area, each cow is identified with its ISO RFID ear tag or BouMatic neck tag as it enters the feeding station. The correct volume of feed is dispensed based for the cow's predetermined ration, calculated within SmartDairy software.

Easy-to-use set up of feeding parameters enables operators to recalculate individual or group rations. Comprehensive Reports provide information needed to optimize balanced feed programs.

SmartDairy® Crowd Gate Control Module

Cow comfort and safety with even, consistent movement through the milking process means productivity that will make a difference on any dairy operation. The heart of SmartDairy Crowd Gate Control is simple, proven ISO RFID technology.

For rotary or conventional parlors, Crowd Gate Control uses ISO RFID ear tags to advance the crowd gate automatically as cows enter the milking system. Designed to monitor gate and cow movement, cow flow through any holding area is enhanced with SmartDairy Crowd Gate Control. It's at your fingertips through the integrated SmartDairy PLC.

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SmartDairy® MANAGEMENT SYSTEMS

SmartDairy® Rotary Control Module

Cow comfort and safety while entering and exiting an external rotary platform are a priority with SmartDairy Rotary Control. But even more important is the safety of the milking crew.

SmartDairy Rotary Control delivers consistent speed to the rotary drive and monitors each hydraulic motor through settings in the integrated PLC. Hydraulic pressure can be monitored and alarm thresholds set for ultimate safety.

SmartDairy® Cooling Management Modules

The industry's most efficient milk cooling system, SmartDairy Cooling Management modules move raw milk through the cooling process with an even flow to maximize the efficiency of the plate heat exchanger. SmartDairy features BouMatic's OptiFlo™ CF, equipped with the dairy industry's first 3A approved single float milk probe.

For regions requiring time and temperature recording, SmartDairy offers a digital Milk TTR - Time and Temperature Recorder to record and document milk tank data. Fast becoming the industry standard, the TTR is far ahead of old style chart recorders.

Optimum management of cooled milk for efficient storage requires SmartDairy Cooling Management. It's fingertip control for the way you move your milk.

SmartDairy® Tank Control and CIP Module

SmartDairy Tank Control and CIP ensures the safety of your milk and helps avoid costly human error. Feedback sensors provide peace of mind on all milk lines, wash pump hoses and water or chemical lines. Tank Control and CIP provides agitator feedback, TTR function – monitoring time and temperature of the cooler, on/off control of hot or cold water, wash, detergent, acid and sanitizer pumps.

SmartDairy® Tank Control and CIP

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SmartDairy® Direct Load Module

The SmartDairy Direct Load module includes a robust magnetic flow meter, a 6-bay level monitor with alarms and a display of milk production totals per bay. One SmartDairy PLC provides fingertip control of multiple bays and each can be set up with variable operational requirements. SmartDairy Direct Load provides valve feedback making certain your equipment is in the correct wash or milk position, along with visibility to the tankers you are filling. A light stack option allows you to see alarms monitoring your tanker high level, high and low temperatures, alerting you before your milk spoils or plate cooler freezes.

SmartDairy® Direct Load

SmartDairy® Milk Line CIP Module

Manage pipeline system wash-up with SmartDairy Milk Line CIP, all at the touch of a finger. The Milk Line CIP module manages milk line washing and sanitation, vacuum pump feedback and rotation, as well as two independent air injector outputs based on required wash guidelines. Chemical pumps and multiple sensors provide real time, fingertip control of the milk line wash-up process. SmartDairy Milk Line CIP provides secure, password protected input of wash settings, with up to ten unique recipe settings and up to four recipes scheduled per day.

SmartDairy® Milk Line CIP

SmartDairy® Refrigeration Control Module

SmartDairy Refrigeration Control adjusts compressor and glycol pump sequencing based on runtime per milking, balancing run time on each compressor or pump for optimum efficiency and performance. Control for up to 12 compressors provides intelligent management of the chiller's compressor operation to improve efficiency and extend equipment service life. The auto-skip feature keeps your dairy operating smoothly if a compressor or pump fails, by automatically switching to the next compressor or glycol pump in the sequence.

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