



## Integrated milking point analysis & control

In  line  
milk lab



**afimilk®**



Afimilk introduces a new dimension to dairy farming by implementing the In-Line Milk Lab - the industry's power couple AfiMilk MPC and AfiLab

Managed by AfiFarm dairy farm management software, data is used for earlier detection of health problems and nutritional deficits, better control over milk quality and improvement of the entire milking environment for precision milking.

By providing such vital benefits, the In-line Milk Lab enhances management capabilities, giving dairy managers a competitive edge in their operations.



### Improved Health

Timely identification of changes in milk production and solids for earlier detection of health problems

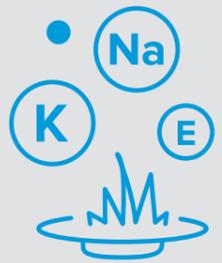
- **Early detection of ketosis for healthier cows:** The In-line Milk Lab provides alerts for elevated fat-to-protein ratio above a threshold level correlated with early-lactation ketosis. Early detection of ketosis results in a well-managed return to energy balance, which is correlated to higher fertility and milk production and a lower risk of other metabolic diseases. This also allows voluntary/smart culling, ensuring the future of the herd.
- **Mastitis detection for reducing damages of udder disease:** The In-line Milk Lab measures yield and milk conductivity, alerting for signs of mastitis. Early mastitis detection and treatment reduces damages and milk losses.
- **Fresh cow follow-up for optimizing the milk curve:** Monitoring production during early stages of lactation is especially critical for identifying animals failing to perform. Early attention to these animals gets them to the expected production curve.



### Top Milk Quality

Prevention of milk contamination and ensuring proper wash procedures

- **Prevent loss of bulk milk:** The In-line Milk Lab blocks the start of the milking function for cows identified as "milk rejection" (colostrum, antibiotics, high SCC) and automatically stops the milking process when blood is detected in the milk to prevent erroneous contamination of the bulk milk.
- **Ensure proper CIP wash to prevent bacterial growth in the milking system:** The wash-monitoring module follows up wash procedures at each milking point. Wash temperature, hot-wash time and detergent concentration are continuously monitored. Alerts are sent for any deviation from the desired levels to allow for corrections of wash faults to inhibit bacterial growth inside the milking system.



### Efficient Nutrition

The immediate effect on milk solids enables early detection of nutritional deficits and poor feed quality

- **Sub-Acute Ruminal Acidosis (SARA) detection for preventing production losses:** The In-line Milk Lab indicates milk fat reduction on a group level, indicating SARA and allowing feed correction. In addition to preventing production losses, it also helps to prevent complications such as laminitis.
- **Precise feeding management for reducing feed costs:** By measuring milk fat, and protein production, the In-line Milk Lab allows for accurate planning of feeding regimes and the effects of any change in feed.
- **Alerts of reduced feed-quality for preventing losses in milk production:** The In-line Milk Lab detects changes in milk solids, indicating deviations in feed consumption at early stages to allow corrections. It reduces damage associated with health, reproduction and milk quality.

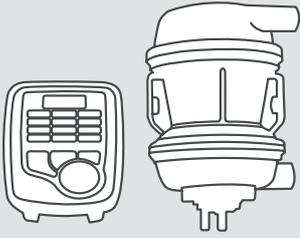


### Precision Milking

Uniform procedures and fewer irregularities improve the entire milking environment for better overall herd health and management.

- **Obtain udder health:** The In-line Milk Lab controls pulsation, stimulation and cluster removal for precise milking. It enables automatic adjustment of milking parameters for each cow per her milking status (fresh cows, mid-lactation, pre-dry), providing the flexibility needed for customizing milking according to each cow's physical state. It also allows for automatic adjustment of pulsation rate and ratio to flow of milk, thus creating an optimum milking pattern.
- **Adherence to procedure with fewer irregularities:** The In-line Milk Lab measures milking times and flow rates, parameters used for analyzing and evaluating the quality of animal preparation for milking/milk let-down, which are a must for adequate milking.
- **Maintain a calm milking environment:** The In-line Milk Lab alerts for cows demonstrating restless behavior (kick-offs, slow milk let down, double attachments, and more) which are the primary indicators of faults and interferences during milking.

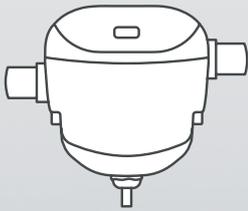
## The In-Line Milk Lab - the industry's power couple AfiMilk MPC and AfiLab



### What is AfiMilk MPC?

The easy-to-use AfiMilk MPC milk meter provides full control over the milking process at the milking point.

AfiMilk MPC is an ICAR-approved milk meter, offering a series of supporting features and operator aid alerts for milking (flow and vacuum fluctuations), cluster removal, pulsation and pre-milking stimulation.



### What is AfiLab?

AfiLab is an innovative milk component analyzer which measures fat, protein and lactose concentration in-line in real time.

AfiLab is installed between the AfiMilk MPC and milk line at each milking point and measures the composition of the milk each cow gives. AfiLab's continuous data collection provides vital information and key performance indicators to enhance the decision-making by dairy managers. The data is utilized to detect the animals requiring attention while also providing on-line milking alerts.

### Additional Features and Benefits

**Treatment cost reduction:** The In-Line Milk Lab focuses on unhealthy cows only, saving expensive treatment costs.

**Support for operators making decisions in real-time:** AfiMilk MPC control panel serves as an interface between the operator and the AfiFarm dairy farm management software, presenting relevant information regarding the cow being milked.

**AfiMilk MCS Real-Time Milk Classification Service:** A breakthrough solution for enhancing milk value and significantly improving cheese production and yields. The In-line Milk Lab facilitates milk supply chain optimization, providing higher value to milk processors and allowing premium prices for farmers.

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