



#### SALTED BUTTER

The ProSpect computes the Fat, Moisture and Salt composition in the butter stream, updating the PLC every 30 sec. The PLC uses this information to make continuous adjustments to the moisture and salt addition in the butter churn. Using the information supplied by the ProSpect analyser and manipulating the critical set points on the churn you can control the fat and salt levels.

#### UNSALTED BUTTER

After computing the Fat and Moisture composition in the butter stream, the ProSpect updates the information in the PLC every 30 sec. The PLC uses the information to make continuous adjustments to the moisture addition in the butter churn. Using the information supplied by the ProSpect analyser and manipulating the critical set points on the churn you can control the fat levels.



#### CHEESE STANDARDISATION

After computing the Total Solids, Protein and Fat composition in recombined milk stream, the analyser updates the information in the PLC every 30 sec. The PLC uses this information to make continuous adjustments to the process system's ration valve and cream addition valve. By using the information supplied by the ProSpect analyser and manipulating the critical set points, you can control the Protein and Total Solid levels.



#### MOZZARELLA CHEESE

The ProSpect determines the Fat, Moisture and Salt composition of the cheese updating the PLC every 30 sec. The PLC uses the information to make continuous adjustments to the process set points, and by doing so allows you to control the final product to tighter variances.



#### ALSO AVAILABLE: MILK STANDARDISATION

Milk Protein Concentrate; Whey Protein Concentrate; Whey Protein Isolate. The ProSpect determines the Total Solids, Protein and Fat composition of the concentrate stream updating the PLC every 30 sec. The PLC uses the information from the ProSpect analyser to make continuous adjustments to the Ultrafiltration machine's ratio and diafiltration set points. By using the information supplied by the ProSpect analyser and manipulating the critical set points on the UF machine you can control the Protein and Total Solid Levels.

#### SUPPORT

Whilst you're going to be free of routine maintenance, our annual on-site Scheduled Preventative Maintenance will ensure your in-line analyser continues to operate within specification and serves to detect any potential issues proactively. Whilst we don't expect you to experience any problems, annual Scheduled Preventative Maintenance ensures no surprises and no interruptions to your process.

#### REMOTE DIAGNOSTICS

If network access is available in your processing plant you can take advantage of the remote diagnostic and monitoring capabilities of the ProSpect analyser. Our online Technical Support can configure, monitor and update your ProSpect Analyser and calibrations without disrupting your process.

#### ProSpect Analytical Technology

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# IN-LINE PROCESS CONTROL

# RAMP UP YOUR PROFIT WITH IN-LINE PROCESS CONTROL

## DESIGNED WITH THE DAIRY INDUSTRY IN MIND

The ProSpect has been specifically designed for the dairy industry by Filtration Engineering Company Inc. Uniquely, the ProSpect analyser brings real-time control of production to milk-based process lines utilising the strengths of Transmission based Near-Infrared Analysis. With Real-time product composition information and control manufacturer's can optimise production, quality and formula management.

## WE REALLY KNOW YOUR PROCESS SYSTEMS

We are the designers and manufacturers of the ProSpect analyser, and have been leading the world in filtration solutions

for dairy manufacturers since 1982. We've spent our life designing and developing filtration solutions for dairy manufacturers, so it's only natural for us to bring you the ability to continuously monitor and control constituent flow and concentrations. Would you trust your process control to anyone else?

## IN-LINE STANDARDISATION

The ProSpect delivers you a level of speed and accuracy in standardisation unacheivable with traditional laboratory testing.

The ProSpect analyser is calibrated to the laboratory method, ensuring accuracy, but removing the representative sample issues, delays and costs associated with post-batch standardisation. With it's in-line position, the ProSpect analyser

automatically and continuously maintains one or more flows to control your correct product composition/ recipe.

## OPTIMUM UPTIME, THANKS TO EASY MAINTENANCE

Unlike alternative solutions, the ProSpect analyser requires very little maintenance. The sanitary flow cell is integrated into CIP routines and doesn't need to be removed for inspection or calibration.

Since the ProSpect analyser operates in-line there is no product waste during sampling and it is cleaned with the same chemicals as your process system.

The ProSpect analyser requires very little routine maintenance ensuring your continual process control and giving you very high uptime. Scheduled Preventative Maintenance is only required annually.

## THE PROSPECT ADVANTAGE

- Designed by Process Specialists
- Simple operation with intuitive interface
- Real-time multi-constituent analysis
- Superior, Transmission based Near-Infrared Analysis
- Seamlessly integrates to existing PLC/ Control Platform
- Designed for CIP
- Minimal downtime during installation
- Minimal on-going maintenance
- Very low cost of ownership

## EASY TO INSTALL

The ProSpect analyser is easily installed adjacent to your process system and with little downtime. Fibre optic cables are installed directly into your process line in a specially designed hygenic stainless steel flow cell.

The ProSpect analyser also seamlessly integrates into existing PLC/ Control Platforms in operation throughout the plant. Speedy implementation is easily achieved thanks to the pre-loaded calibrations that require only a small amount of localisation.

## ROBUST DESIGN

Specifically designed for the process environment, the ProSpect analyser is enclosed in a hygenic stainless steel NEMA 4 sealed cabinet. With our company history steeped in process system design and manufacture we have been sure to design an analyser that tolerates everything a harsh process environment can throw at it including: vibrations, humidity and temperature fluctuations.

## SIMPLE TO OPERATE

The completely automated analyser continuously compares multiple constituents and their concentration against production parameters, feeding required information to the Process

Operator and to the integrated process control.

## TRUE TRANSMISSION BASED NEAR INFRARED ANALYSIS FOR UNSURPASSED ACCURACY

At the heart of the ProSpect Analyser is the Near-Infrared Spectrometer using an ultra high resolution diode array detector to deliver continuous, accurate analysis in transmittance mode. Transmission NIR has long been recognised as superior for in-line liquid analysis requiring high accuracy.

## CALIBRATIONS

We have developed calibrations for a wide range of products such as: MPC, WPC, skim milk, butter and cheese. To ensure a speedy implementation the ProSpect is pre-calibrated for multiple constituents including Fat, Protein, Lactose and Total Solids.

## BETTER PROCESS CONTROL EQUATES TO INCREASED PROFIT

With immediate, accurate information about your blending and product composition you can adjust your processes to maintain your product consistency, reducing product giveaway, out-of-spec products and safety margins.



**PROSPECT**  
ANALYTICAL TECHNOLOGY

