

Durability

... originates from a purpose-built sensor with robust design, with high up-time, with a diamond quality cuvette and with a truly professional support organisation.

Consistent quality, improved profitability, more flexibility and unique durability

FOSS has combined 50 years of experience in milk analysis with your expectations for the ideal on-line process control tool. The outcome is a dedicated solution with an on-line sensor and a PC-based controller software.

ProcesScanTM FT provides you with reliable analytical process Once you have reduced your batch-to-batch variation you can move data. The corresponding controller, ProcessTouch, transforms these data into corrective regulating actions ensuring that you meet your objectives.

On-line control - the key to quality

Your ability to standardise depends on your analytical tools:

- The faster the results, the sooner you can adjust the process
- The more accurate the results, the closer you can adjust to target values
- The more frequent the results, the better you can adjust for sudden variations in composition

Quality

... is based on products with high consistency, providing customer satisfaction and avoiding downgrading of end-products.

ProcesScan FT provides accurate information on composition in a product line every 20 - 30 seconds.

Such real-time data, combined with proper subsequent control, enable you to reduce variation between batches considerably.

On-line control - the key to profitability

target values closer to limits. Such reductions in safety margins - however small they may seem - can amount to several hundred thousands of dollars when you calculate the annual impact.

On-line control - the key to flexibility

On-line standardisation offers a flexibility that cannot be achieved in traditional batch processes. You:

- · Save the time and labour involved in post-standardisation
- Eliminate the inaccuracy from unrepresentative batch sampling
- Reduce your requirements for holding tank capacity
- Get higher production output and better product consistency

ProcesScan[™] FT - a real gem

Apart from a periodic exchange of liquids, ProcesScan FT does not require any operator intervention at all.

Thanks to a diamond cuvette and a very robust flow system, the sensor is totally integrated in all CIP routines.

Results and commands for remote control of the sensor are automatically exchanged via PLC highways or DDE link.

Proper performance is constantly monitored by built-in selfdiagnostic software.

Instant implementation - when you want it, where you want it

You can install ProcesScan FT right where you need it - at the control point.

The sensor is built to meet sanitary standards and withstand rough production environments. The cabinet is sealed according to IP65/NEMA 4 and designed to tolerate vibrations and large variations in humidity and temperature.

Calibration tasks are simple: FOSS offers transferable calibrations for a wide range of products and parameters. Local validation and adjustment is easily done.

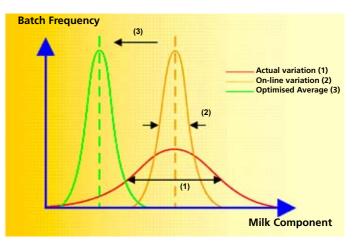
ProcesScan FT is equipped with a pipette for easy entry of calibration or pilot check samples. All results can be seen on the built-in display.

Examples of applications:

- Protein and Fat/Protein control in cheese milk
- Fat/Solids control in powder milk
- Fat/Solids control in condensed milk
- Fat and SnF control in market milk
- Fat and Protein control in milk for yoghurt and desserts
- Fat and Protein control in whey
- Protein/Solids control in WPC



ProcesScanTM FT



Using the ProcesScanTM / ProcesTouchTM, you operate with a lower variation in your standardised products, and, at the same time, optimise the average value.

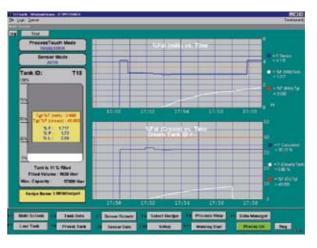
High uptime for continous process control

The heart of process control is always on duty. Should something unexpectedly happen between scheduled preventive maintenance, you can exchange entire modules yourself. Such modules are available on your doorstep shortly after you order them.

Our competent, global customer support organisation offers hot-line assistance (in English) and can - if needed - access your system directly via high speed VPN internet connection or modem.

Unsurpassed accuracy - unsurpassed performance

ProcesScan FT employs the state-of-the-art FTIR measuring principle. This principle provides determination of Fat, Protein,



ProcesScan[™] *provides real-time measurement and* ProcessTouchTM accumulates volumes and component values in the product milk tank.

Process Zera Pilot		Manual Calibration Error Log Pilot Chart				
	Dat	e & Time	Fat	Protein	Lactose	
12	6/4/59	11:01:44 AM	1.838	3.122	4.584	
13	6/4/19	11:02:14 AM	1.815	3.127	4.506	
14	6/4/59	11:02:44 AM	1.846	3.134	4.611	
15	6/4/59	11:03:15 AM	1.818	3.134	4.502	
16	6/4/59	11:03:45 AM	1.835	3.133	4.508	
17	6/4/59	11:04:16 AM	1.736	3.135	4.515	
18	6/4/59	11:04:46 AM	1.851	3.132	4,506	
19	6/4/55	11:05:17 AM	1.846	3.139	4.505	
20	6/4/59	11:05:40 AM	1.007	3.134	4.505	
21	6/4/59	11:06:18 AM	1.815	3.138	4,505	
22	6/4/55	11:05:49 AM	1.840	3.139	4.507	
23		11:07:20 AM		3.140	4.513	
24	6/4/59	11:07:50 AM	1.850	3.142	4,513	
Hode		Auto	Product			
Med P			Scennode	Nornal		
Sargi		-	Net Gear.	43		
Conits	6		Next Zerovel	ting: 100		

Windows-based operator interface with command icons and result options

Lactose, Solids and other components with a precision second to none. No other on-line concept measures protein as accurately as ProcesScan FT. The sensor is designed so that free air in the process line does not affect performance.

ProcessTouch[™] maximises profitability

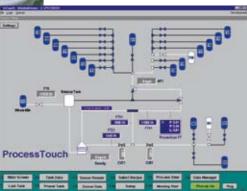
Reliable, real-time information about product composition is a prerequisite for optimal and cost-effective standardisation.

But it is the subsequent controlling actions that really make the difference between profit and loss. ProcessTouch™ provides for just that.

Flexibility

... derives from reducing the need for holding-tank capacity while increasing your production throughput.





The heart of the FOSS Standardising solution - the ProcessTouchTM - links the PSC and the PLC together

Dynamic overview of the process

Modular to match your requirements

ProcessTouch is PC-based software that transforms accurate ProcesScan FT data into intelligent regulation requests for your PLC, or as direct analogue outputs. It is based on InTouch from at the control point with information about flow rates, volumes Wonderware Corporation, and drivers are available for most and tank destinations. ProcessTouch continuously calculates PLC solutions.

ProcessTouch includes built-in modules ranging from simple data logging and management to very sophisticated regulation control of one or more parameters and flows.

Standardisation

Correct product composition may be achieved by either set-point or tank standardisation. ProcessTouch provides both options.

Simplicity in set-point standardisation

In set-point standardisation the regulation permanently controls one or more flows into a main stream to reach a given product composition at the control point.

Set-point regulation is easy to implement, but does not result in ultimate standardisation accuracy.

Tank standardisation - not too much, not too little

Tank standardisation combines measured product composition composition in the tank during filling and readjusts set-points accordingly. In this way you always compensate for the inevitable phases in which product composition is either above or below the desired set-point.

The tank-standardisation principle requires more input from the process, but it delivers, on the other hand, unique standardisation accuracy.

> ... begins with the reduction of safety margins and labour costs - resulting in first-grade production output.

Profitability



About FOSS

FOSS provides dedicated analytical solutions that ensure optimal production of food, agricultural, pharmaceutical and chemical products. FOSS solutions analyse and control your products during production - helping you to optimise both quality and profit.

Your partner for fast and reliable analysis, FOSS is unique in offering a range of dedicated solutions based on both indirect and reference methods. FOSS solutions provide analysis and control throughout the production process, from raw material to finished product and from routine analysis to at-line and in-line process control.

An established leader in the field of dedicated analytical solutions, FOSS is a privately-owned company employing over 1100 worldwide. FOSS has manufacturing and research and development facilities in Denmark, Sweden and the USA.

Solutions are sold and supported through FOSS sales and service companies in 21 countries and by more than 75 dedicated distributors.

FOSS

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ProcesScan FT[™] & ProcessTouch[™] for on-line process control

Capture more profit

Dedicated Analytical Solutions