



## Realtime cheese coagulation tracking and cutting time optimization

**CoaguTrack®** measures and tracks renneted milk consistency with unparalleled resolution and stability, enabling tight and consistent determination of cutting point on every batch. Its accuracy and reproducibility allow rapid and automatic setup of stored kinetics and endpoint data for repeat batches.

Development of curd firmness is the single most important variable for batch-to-batch consistency in cheese manufacturing. CoaguTrack accurately and reproducibly tracks **curd consistency**, and signals an objective endpoint for cutting time.

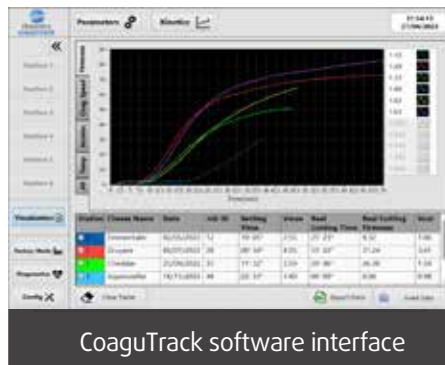
**Efficiency** starts with setting up a job. Being able to nail the proper firmness for all tanks or vats without cut-and-try tinkering means fastest turnover, without compromising end product quality.

Consistency tracking with accurate firmness measurement improves end-product quality; it helps prevent expensive errors and rejected batches, and improves **profitability**.

CoaguTrack helps optimize the cutting time, reduce product variability and eliminates scrap creating environmentally friendly and **sustainable** cheese making.



Inline firmness monitoring



CoaguTrack software interface



Integrated operator console

**Highest product consistency**  
Tighter firmness tracking enables cutting time optimization



**More efficient operations**  
Makes curd consistency a direct control of end product quality



**Reduced production costs**  
Prevents cutting time errors and resultant rejected batches



**Easy scalability**  
Saves and loads jobs for repeat batches



**Reduce Wastage & Increase Throughput**  
Operators report higher throughput



**Higher Operator Trust**  
Eliminates manual measurement



**Completely Automate**  
Full cheese making automation by eliminating subjective judgment and human error



**Data-driven Decisions**  
Tracks and traces every job



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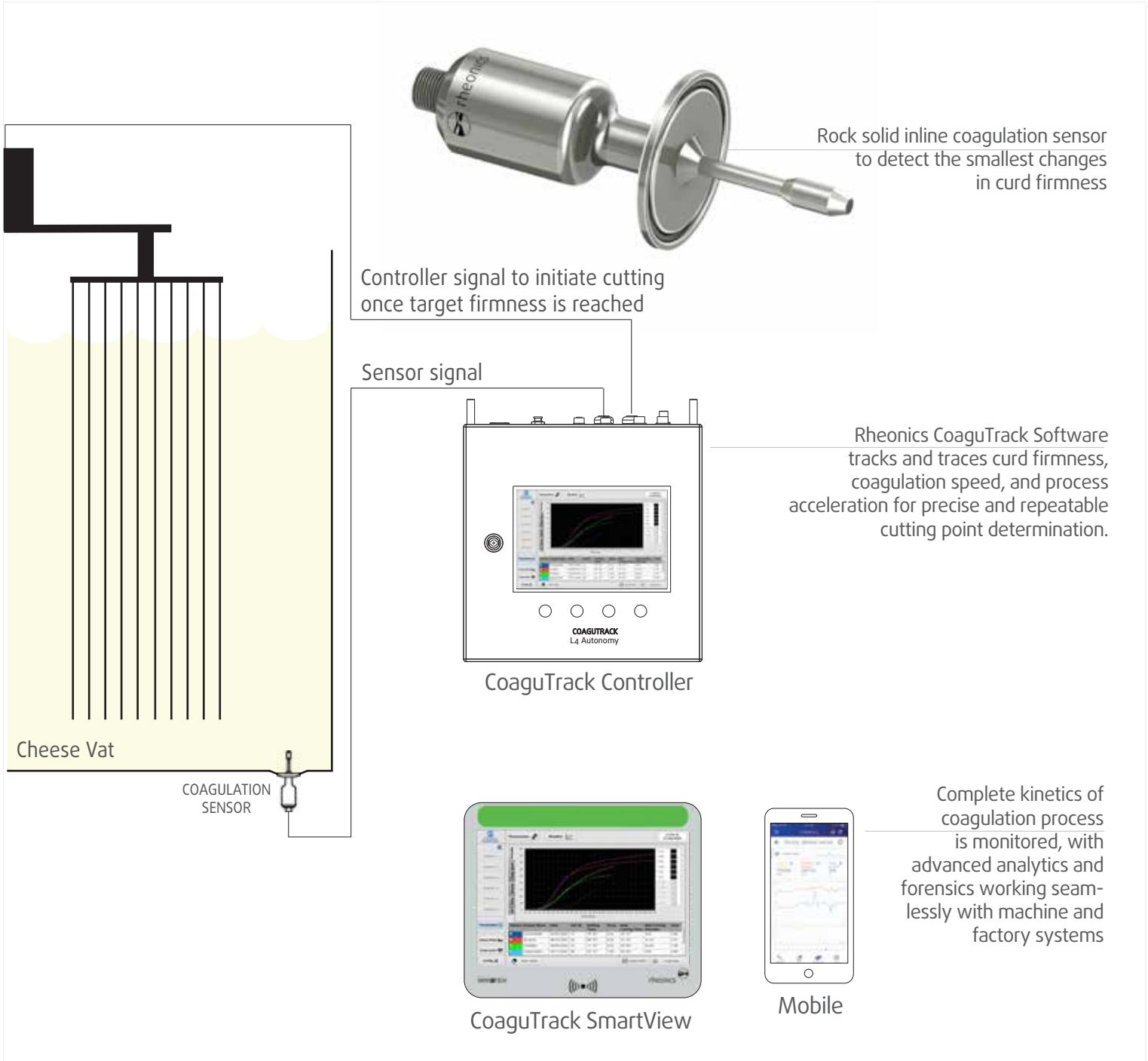
Cheese coagulation monitoring

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Cheese coagulation tracking  
and cutting time optimization

Automatic cutting point determination

Level 5 autonomy



## Add-Ons



Custom Time Method



Cutting Estimation



Automate Cutting



Thermal Monitoring



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## Operating modes of the system

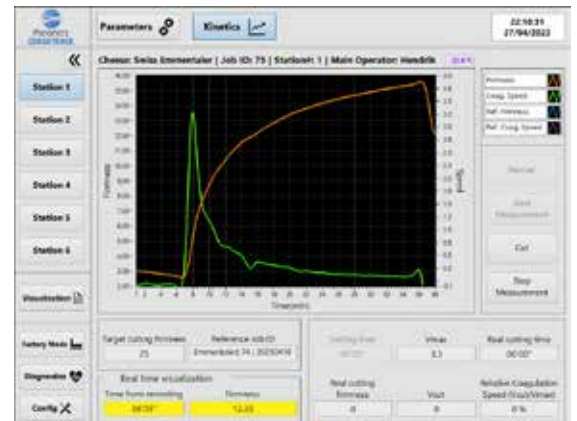
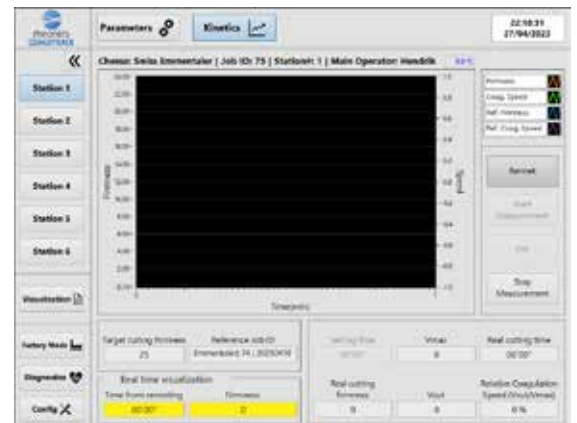
### Operator focused design

Two basic operating modes: Create new job or load a previous job.

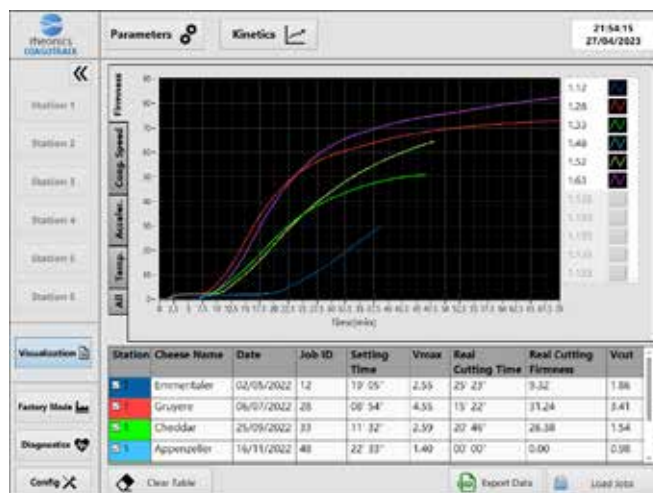
Create a new job by selecting a station, job descriptions, operator, cheese type and, if desired, a reference job upon which the new job will be based. Operational parameters are entered, including target cutting firmness, alarm to indicate cutting point has been reached, delay time between renneting and measurement start.



In "Kinetics" interface, coagulation tracking is started by pressing the Rennet or Start Measurement buttons, the latest is to avoid the rennet delay. When measurement starts, the graph displays the time history of firmness, speed, acceleration, temperature, as well as the firmness target value for curd cutting.



The firmness setpoints, cheese type, and other job details are stored in a job configuration file that can be exported as CSV files. Saved jobs can be loaded into the system to produce repeat batches. Running repeat batches becomes much simpler, eliminating trial and error, cutting time errors, and overall setup time.



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CoaguTrack has at its core a technologically superior, best-in-class coagulation sensor, the Rheonics SRV coagulation sensor. It uses patented and proprietary, ultra-stable resonator technology that adds up to the industry's most robust, repeatable and accurate sensor. The Rheonics SRV sensor is factory calibrated to NIST standards, requiring no re-calibration during its lifetime.

## Small form factor and easy installation

Fits in the palm of your hand; robust and zero maintenance

## All 316L stainless steel wetted parts

Hermetically sealed housing, no gaps or moving parts

## Accurate, repeatable, reproducible

Newtonian, non-Newtonian, single- and multi-phase fluids

## Wide range

Covers entire range of milk and curd consistencies

## Built-in fluid temperature measurement

For fast, reliable temperature monitoring



## Focus on cheese quality instead of measurement skills!

Achieve exceptional batch-to-batch consistency, dramatically reduce setup time, and optimize process turnaround time through reliable, automatic cutting time control.

- Robust, **maintenance free** coagulation monitoring sensor eliminates need for re-calibration
- Agile firmness tracking **reduces cutting-point errors** by providing objective endpoint
- Simple, **intuitive graphical interface**
- Tighter, more **accurate cutting time** and end product consistency control
- **Reduce setup time**
- Complete automation for **improved productivity and efficiency**

## Contact Information

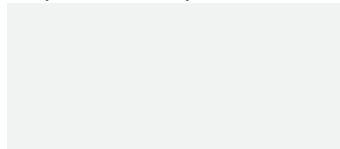
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