

The Self-Driving Factory

Laminar Runs Agile Sauce Factories

Laminar's self-driving technology retrofits into sauce manufacturing facilities to unlock hidden production capacity so you can produce more without killing your agility.



Recoup time from Clean-In-Place, convert into more bottles

- CIP overwash unnecessarily extends cleaning time and reduces available production time.
- More SKUs create more changeovers, rinse steps, and cleaning cycles.
- Product changeovers flush good product straight down the drain.

JOIN GLOBAL SAUCE MANUFACTURERS REDUCING UTILITIES AND GAINING AGILITY

15%

Time savings from CIP cycles

16%

Faster product changeovers

17%

Savings in water waste

23%

Reduction in chemical use

150K+

More cases expected to be produced per year with freed up capacity

T.Marzetti

Paul Liedtke

Sr. Director of Manufacturing Technology

"We've been making quality food products for over a century, and one thing that's kept us ahead is a willingness to invest in technology that actually moves the needle. **Laminar is a unique application of technology, it lets us optimize our cleaning processes in ways we couldn't before. We're piloting ML models and sensors now and already planning to scale, because the technology checks both boxes that matter most to us: sustainability and profitability.**"

RUN BOTH PROFITABLE AND SUSTAINABLE FACTORIES WITH LAMINAR



Faster CIP on Tanks, Fillers, and Pipes

End cycles the moment residue clears — not when a worst-case timer expires.



Chemical Use Reduction

Spend less on chemicals by running steps to clean-condition. Know when you're overdosing.



Water Waste Reduction

Reduce the water used during rinse steps by only running each rinse step only as long as needed.



Faster Product Changeovers

Recover product waste at both the tail and head of every batch transition and run faster changeovers.



Continuous Quality Monitoring

Flag batch deviations from spec continuously to avoid recalls and end-of-line quality fails.



Downtime & Batch Loss Prevention

Catch underwash instances before they become contamination events or costly batch losses.

Trusted By

KraftHeinz

WINLAND
FOODS

Unilever

BALDWIN
RICHARDSON
FOODS CO.

GehlFoods

Laminar CIP & Changeovers for Sauce Manufacturing

LAMINAR

LAMINAR PROCESS AWARE AUTOMATION

SENSE • REASON • ACT

01 SENSE



See Real-Time Fluid Conditions

Inline signals from Process Aware Sensors extract real-time liquid data. The platform measures what is actually happening in the pipe, every second, without taking samples or stopping the process.

02 REASON

Clean Achieved

Step Advance

Automate the Optimal Action

Process-Aware Modeling, grounded in chemistry, uses real-time compositional state and process condition to find the best probability for success on every cycle. The model evaluates the current state of the process against the optimal trajectory and computes what to do next.

03 ACT



Self-driving Takes Over

The platform turns collected process information into value with instant operational action via the PLC. It commands valves, steps, dosing, diversion, release, or correction — closing the loop in seconds rather than at the next scheduled batch review.

LAMINAR'S PROCESS-AWARE AI IS COMPRISED OF A FULL ML LIBRARY OF FOUNDATIONAL MODELS THAT MOVE THE INDUSTRY STANDARDS OF TODAY FORWARD.

READY TO DEPLOY FOUNDATIONAL ML MODELS

Self-Driving Clean-In-Place (CIP) Model

Automatically advances CIP steps when clean is achieved. Eliminates overwash and underwash instances. Reduces time spent on CIP cycles while meeting quality standards.

Self-Driving Product Changeover Model

Detects the exact product-to-product or product-water transition interface— reducing product loss at the tail and head of every run. Also reduces water and chemicals.

FULL ML MODEL LIBRARY

- Chemical Savings Models

Chemical Reclaim

Chemical Overdose

- Emulsification
- Underwash Detection
- Filtration

Process Aware Sensors



Clamps onto existing production lines, no plumbing changes. Laminar sensors read liquid conditions continuously and sends spectral data in real time to our Process Aware AI, without removing samples or stopping the process.

Process Aware AI



Our ready-to-deploy ML models are process-aware because they reason about the chemistry and condition of the fluid in the pipe, rather than against the static thresholds set during commissioning.

Process Aware Platform

Automation is active

Water savings >
1,140 gal
0 gal actualized
1,140 gal projected



Time savings >
3h 23s
0s actualized
3h 23s projected



Capabilities

- Total Savings Insights
- Inefficiency & Anomaly Detection
- Batch Records on Each Run & Line
- Trend Analysis for Savings Opportunities

Ready to save production time,
chemicals, and water?

Talk to our team today!

LAMINAR



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