

# MANUAL CLEANING INSIGHTS

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**WORLD CONGRESS**  
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# KEYS TO FOOD PLANT'S SUCCESS

## Food manufacturers need:

- Consistent, effective cleaning to help ensure food safety and quality
- A program built to drive cost savings and consistency in hygiene standards

**Consistent Hygiene Standards**



**Efficiency**

Water and resource consumption



**Food Safety & Quality**

Microbiological results





# MANUAL CLEANING CHALLENGES

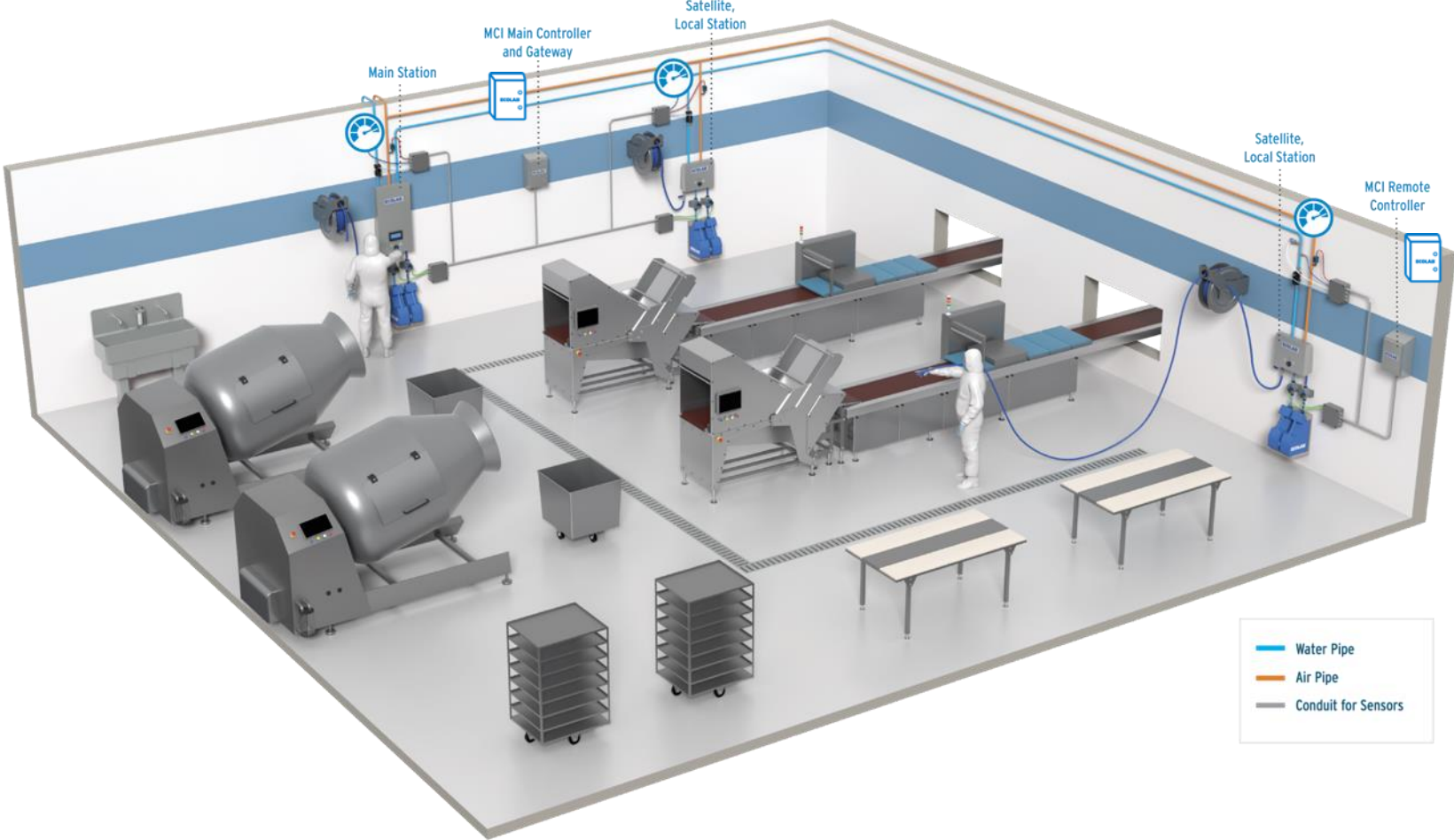
- ❗ Non-standardized processes
- ❗ Supervision resource constraints
- ❗ Continuous employee turnover
- ❗ Time limitations



# SETUP

## Critical parameters

-  Time
-  Water
-  Chemistry
-  Air



## How MCI works



Sensors



MCI Controller



Cellular Network



Microsoft Azure Cloud



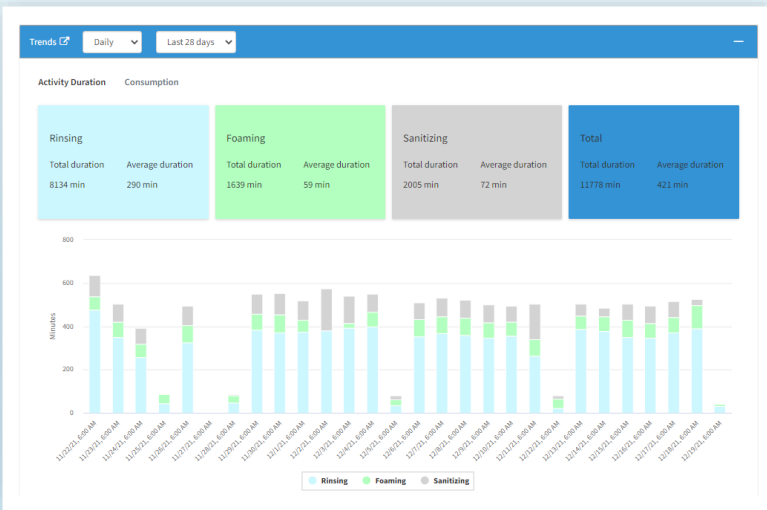
MCI Online Dashboard

*Ecolab Proprietary*

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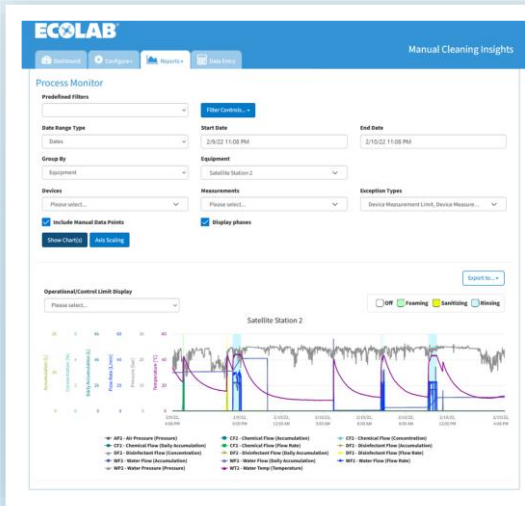
# 24/7 VISIBILITY INTO MANUAL C&D PROCESSES

## MCI Dashboard



- Activity duration, resource usage and consumption
- Exception log and recommendations
- Trend analysis

## Process Monitor



- Visualize each parameter within C&D activities
- Details of exceptions for root cause analysis

## Daily Insights Report



- Location and severity of exceptions
- Automatically generated every 24 hours

## Email Exception Notifications

From: 3D TRASAR Insights <noreply@ecolab.com>  
 Sent: Thursday, April 28, 2022 6:42 PM  
 To: Nilfisk San outside of CL  
 Subject: Manual Cleaning Insights

Exception detected: 4/28/2022 6:41:39 PM  
 Severity: Critical  
 Equipment: Nilfisk Sanitizer  
 Actual Value(s):  
 • Concentration: **0.41 %**

Control Limit(s): 0.06 % | 0.24 %  
 Operating Limit(s): 0.09 % | 0.21 %  
 Triggering Condition(s): Above Maximum Control Limit, Below Minimum Control Limit

The Nilfisk Sanitizer Concentration is outside the required range. The target concentration is 0.06 - 0.24% Equipment Sanitizer, or 50 - 200 ppm Active Chlorine for Food Contact Surfaces. For reference, the Operational Limits for this measurement are set to 0.09 - 0.21% Equipment Sanitizer, or 75 - 175 ppm Active Chlorine.

Recommendation: Ensure the chemical suction tube remains in the liquid; Ensure there are no kinks in the chemical tubing; Ensure the correct metering tip is used

<https://3dtrasarinsights.ecolab.com>

- Real-time alerts help manage issues as they arise

# BETTER CLEANING INSIGHTS MEAN BETTER CLEANING OUTCOMES

## MCI helps:

- ✓ Verify cleaning and disinfection activities
- ✓ Save money by reducing re-cleaning to help promote on-time production starts
- ✓ Improve efficiency by identifying suboptimal resource usage
- ✓ Save time by standardizing and verifying procedures
- ✓ Ensure product consistency and quality
- ✓ Improve sustainability profile



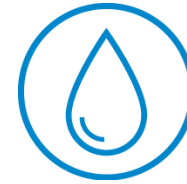
# MAKE SURE IT'S CLEAN FROM START TO FINISH



**Achieve consistent,  
effective cleaning**



**Ensure food safety  
and quality**



**Optimize cost savings  
while minimizing waste**



Visit our booth to follow-up on our approach to Manual Cleaning Insights. **Ecolab 31.2.**

