

Plantweb Optics Analytics Heat Exchanger Analytics



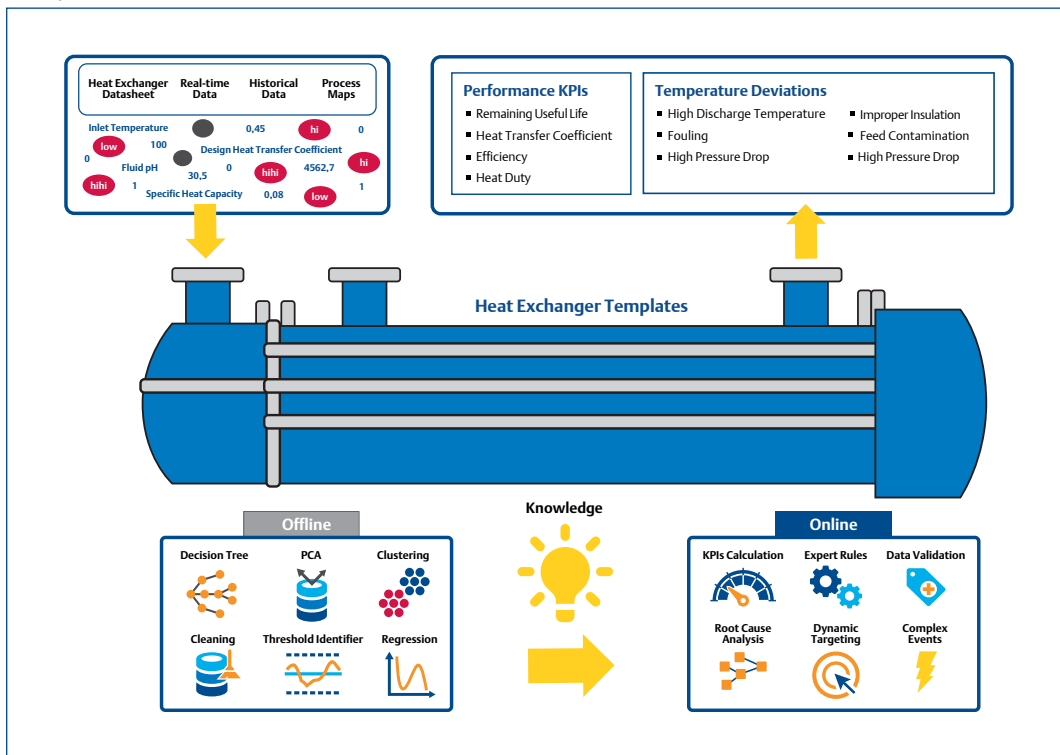
Plantweb Optics Analytics Heat Exchanger Template is a ready-to-use software component that allows users to supervise and manage the performance of Heat Exchangers. It embeds years of expertise and process knowledge to preemptively alert operators about possible problems and prevent costly Shutdowns.

It offers multiple features including:

- Real-time KPI calculations with performance monitoring
- Root-cause analysis capabilities for performance gaps
- Added functionality through predictive models with machine learning
- Ability to scale up to hundreds of assets and users

Top 5 Challenges

1. Proactively detect / predict Heat Exchanger low performance.
2. Monitor Heat Exchanger performance in real-time.
3. Real-time prediction of remaining useful life to prevent unplanned shutdowns.
4. Capture and share knowledge and expertise.
5. Provide actionable knowledge for immediate resolution of performance gaps.



Plantweb Optics Analytics Heat Exchanger template applies thermodynamic models in real-time to handle most well-known heat exchanger operational challenges. Using industry standard calculations, the template determines KPIs and metrics. Then, it compares the calculations to a baseline or design to determine deviations.

These specific key performance indicators allow you to:

- Get early indication of heat exchanger fouling by comparing current performance with baseline
- Quickly recognize when heating requirements change
- Identify potential instrument problems, pinpoint degradation sources, and evaluate the effectiveness of cost improvement actions
- Understand financial impact of performance deviations

Plantweb Optics Analytics Features & Capabilities

Fast & Scalable Deployment

- Compliant with ISA 95 equipment hierarchy model.
- Object-oriented design and inheritance of classes' definition, properties, methods, and templates.
- Graphical environment based on drag, drop, and connect.

Performance Management

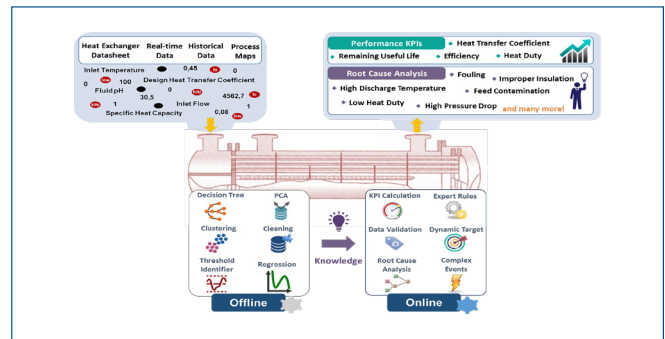
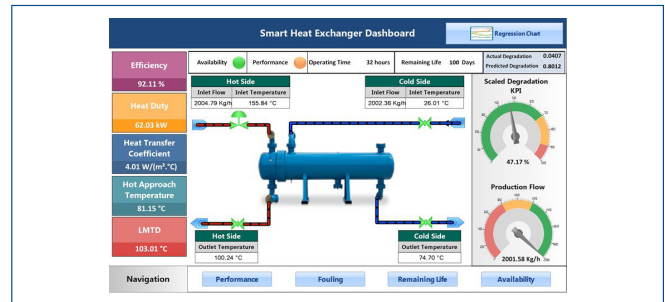
- Ability to add generic advanced expert rules including patterns recognition and predictive models.
- Embedded performance calculations to identify performance targets and recurrent problems.
- Root Cause Analysis to help find and mitigate the impact of deviations

Proactive Maintenance

- Prediction and detection of abnormal conditions combined with the ability to add automatic root-cause identification.
- Online support with pertinent corrective actions.
- Estimation of the Heat Exchanger remaining useful life based on online modeling of the fouling factor.

Intuitive Visualization

- Intuitive role-based HMIs with summary overviews and drill-down capabilities, designed in compliance with the three-click rule.



“Ready-to-use software component with highly valuable knowledge insights”

©2020, Emerson. All rights reserved.

The Emerson logo is a trademark and service mark of Emerson Electric Co. All other marks are the property of their respective owners.

The contents of this publication are presented for informational purposes only, and while diligent efforts were made to ensure their accuracy, they are not to be construed as warranties or guarantees, express or implied, regarding the products or services described herein or their use or applicability. All sales are governed by our terms and conditions, which are available on request. We reserve the right to modify or improve the designs or specifications of our products at any time without notice.

Contact Us

🌐 www.emerson.com/contactus

