Plantweb Optics Analytics Pump Analytics



Plantweb Optics Analytics Pump Template is a ready-to-use software component that allows users to monitor, manage, analyze, and create visibility on the performance of pumps. It encapsulates years of expertise and process knowledge to preemptively alert operators about problems that could lead to costly shutdowns. It offers a wide range of features including:

- Real-time KPIs with efficiency monitoring
- Early warnings when pumps are operating outside normal operations
- Ability to add predictive models with machine learning
- Ability to scale up to enterprise-wide pump monitoring

Top 5 Addressed Challenges

- 1. Detect or predict pump performance gaps before they escalate
- 2. Assess performance in real-time against manufacturer performance curves
- 3. Eliminate unplanned pump shutdowns
- 4. Capture and share knowledge and expertise
- 5. Provide online guidance of corrective actions during abnormal conditions according to best practices





Plantweb Optics Analytics' Pump Analytics calculates thermodynamic-based equipment performance using industry standard calculations to determine KPIs and metrics that can be compared to design and baseline to determine deviations from design diagnostics for your pumps. Specific key performance indicators combined with clear graphical operating plots show exactly where the pump is currently operating versus expected or design condition. Combining performance data with machinery condition, protection and prediction diagnostics help improve the reliability of your pumps.

Furthermore, you can use the Optics Analytics application to add predictive models and root cause analysis for performance gaps and abnormal conditions.

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 hybrid predictive models
- Embedded performance curves to identify recurrent mechanical dysfunctions like distance to surge, and performance baselines
- Ability to connect to and integrate other asset health information including vibration

Proactive Maintenance

- Prediction and detection of abnormal conditions combined with the ability to add automatic root cause identification
- Online support with pertinent corrective actions
- Enforce best practices for corrective actions using Workflow engine

Intuitive Visualization

- Thick clients, web dashboards, integration with third party systems
- Intuitive role-based HMIs with summary overviews and drill-down capabilities
- Statistical reporting dashboards

"A ready-to-use software component with highly valuable knowledge insights"

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