



The Smart Compressed Air System

Compressed Air Reasoner Pack

Are your compressed air systems operating at peak performance? Compressed air systems are often referred to as “The 4th Utility”, because they are one of the largest consumers of electricity across major facilities. Comprehensive monitoring and maintenance are critical to ensure reliable, efficient operation.

Analytics Improve Efficiency

Transform your compressed air system into a Smart system with the Compressed Air Reasoner Pack- which provides the sophisticated analytics to detect faults, improve efficiency and prevent maintenance problems in compressed air system components and controls.

Driving Asset Performance Management (APM), the Smart Compressed Air System analytics continuously monitor operating parameters to recognize patterns, identify issues and determine their causes.

Additionally, the Reasoner Pack recommends the right corrective actions to optimize efficiency and increase performance. The system analyzes your energy costs and alerts you to non-optimal performance.

KPIs, Anytime Anywhere

Always have critical compressed air system information at your fingertips with Key Performance Indicators (KPIs) and analytic results available anytime, anywhere you are.

Not only are you armed with the right performance and status information, you also have system interaction data and can trend this information on demand and collaborate on the solution.

Resolve Issues Quickly

Aggregated asset and fleet health displays intelligently alert you to a current condition or predictive issue, drawing your attention to the most critical information.

With advanced notifications and condition-based actions, your operators can take the right actions on state, probable cause and alarm severity, automatically prioritized to indicate processes or equipment in trouble.

With a Smart Compressed Air System, you don't have to guess what is wrong with your equipment. Let your assets tell you what they need!

Features

- Smart monitoring and analysis of compressed air system components and controls
- Analytics identify probable causes and recommend corrective action
- No hardware or maintenance costs
- Decision support when you need it – on smartphones and tablets

Benefits

- Decrease compressed air system energy and maintenance costs up to 50%
- Improve uptime and comfort
- Increase operational efficiency up to 40% with faster resolution
- Enhance decision making and collaboration with Notes, KPIs and Tasks – for the right actions

Fault Detection In Action



Up to 50% Savings Opportunity

Can You Detect Failure?

The Smart Compressed Air System Advanced Fault Detection and Diagnostics watch your entire system and internal interactions. Here are just a few examples for compressed air systems:

Subsystems

- Prime Movers or Motors
- Air System Controls
- Supply and Demand Analysis
- Air Inlet Filters
- Separators
- Cooling and Intercooling
- Dryers
- Compressed Air Filtration
- Heat Recovery
- Pressure and Flow Controllers
- Air Distribution Systems
- Leakage
- ... and more

Over 100 checks are continuously conducted across your compressed air systems.

Fault Detection Input Requirements	
Compressor Subsystem	Input Criteria
Blow-off Valve	Valve Position Present Value
Bypass Valve	Valve Position Present Value
Cooling Water Supply	Temperature Present Value Temperature Setpoint
Discharge Air	Pressure Present Value Pressure Setpoint Pressure Loaded Setpoint Pressure Unloaded Setpoint Actual Cubic Feet Per Minute Present Value Standard Cubic Feet Per Minute Present Value
Dry	Discharge Air Dew Point Present Value
Dryer	Heater Amp Preset Value Heater Status Present Value Purge Status Present Value Differential Pressure Present Value Entering Air Present Value Leaving Air Present Value
Filter	Differential Pressure Preset Value Entering Air Present Value Leaving Air Present Value
Flow	Actual Cubic Feet Per Minute Present Value Standard Cubic Feet Per Minute Present Value
Inlet Valve	Valve Position Present Value
Inlet Butterfly Valve	Valve Position Present Value
Inlet Guide Valve	Valve Position Present Value
Line	Pressure Present Value
Load	Status Present Value
Motor	AMP Present Value kW Present Value Speed Present Value Status Present Value
Oil	Temperature Present Value

Get Connected

The Compressed Air System Reasoner Pack can connect and gather data from hundreds of equipment types, supporting 200+ protocols. The pack detects and predicts issues based on the equipment type, regardless of equipment manufacturer/vendor.

The diagnostics and advanced analytics cover many different types of compressed air systems, including Positive-Displacement (Reciprocating and Rotary) and Dynamic (both Centrifugal and Axial).



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