AI FOR SURFACE TREATMENT

QMULUS

SCADA-COMPARABLE FEATURES

LEVEL 4
ERP

PRODUCTION LOGS
Access all loads and processes from detailed views of single processes to multiple process comparisons with Chart Recorder.

MAINTENANCE CALENDAR
Plan, manage, and track maintenance tasks with calendar scheduling, job grouping, and detailed reporting.

ERP INTEGRATION
Integrate with your ERP system for streamlined data flow, enhanced efficiency, and maximized operational productivity.

LOAD PLANNING
Streamline planning and optimize throughput, including prioritization, with integrated order management for efficient shop order handling.

LEVEL 3
PRODUCTION PLANNING

RECIPE BUILDER
Create, edit, and manage recipes for Nitrex nitriding furnaces and Protherm or other brand controllers, ensuring precise treatment control.

PARTS
Manage part properties, attributes, and treatment data for efficient part handling and treatment process management.

MATERIALS
Calculate heat treatment parameters from steel grades, with predefined or customizable materials for flexible options.

SPC
Use insights and statistics derived from quality data to enhance quality, efficiency, productivity, and overall process performance.

LEVEL 2
SUPERVISORY

LIVE APP
View furnace status, running recipes, active alarms, and job charts in real-time.

REMOTE CONTROL
Mirror asset controller interface, enabling job management, recipe adjustments, and real-time monitoring functionalities.

SHOP LAYOUT
Visualize heat treatment operations, detailing zones, asset arrangements, and providing real-time updates on charge cars.

LEVEL 1
CONTROL

RTU & PLC

CONTROLLERS - PROTHERM

LEVEL 0
FIELD LEVEL

SENSOR & ACTUATOR

PROBES - NITROCAB

ANALYZERS - H2SMART

BEYOND SCADA >

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BEYOND SCADA – THE COMPLETE SUITE

ASSET MANAGEMENT
Gain a comprehensive overview of all company assets, with centrally stored asset files for easy access.

SIMULATORS
Design and optimize recipes to expedite the development of carburizing, nitriding, and nitrocarburizing processes.

SELF-SERVICE DASHBOARDS
Design personalized dashboards and generate insightful reports for enhanced data visualization.

ANOMALY DETECTION
Identify patterns, irregularities, and pinpoint deviations from desired results.

PERFORMANCE DASHBOARD
Access insights into consumables and other plant and asset performance indicators.

ML PROTOTYPING
Develop enhanced models to replace real-world, physical testing in production environments.

PRODUCTION STATISTICS
Gain insights and ratings for individual processes, with convenient multi-process comparisons.

QUALITY CERTIFICATE
Audit process values, manage quality results, validate compliance with specifications, and automatically create certificates and reports.

ALARM STATISTICS
Track and analyze alarms within a specified period for comprehensive statistical insights.

STATISTICAL PROCESS CONTROL
Examine quality results and adjust production parameters based on quality statistics to optimize and harmonize production.

HISTORY & TRENDS
Explore aggregated, derived, and calculated load values for every operation on the selected asset.

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