




PRODUCT DATA SHEET

AdvanceGuard® 365

Continuous Cooling System Monitoring Platform
Real-Time Chemistry Visibility for Compressor Cooling Systems

AdvanceGuard® 365 gives operators continuous, year-round visibility into the condition of circulating compressor coolant without interrupting normal operation. The system mounts directly to the existing cooling loop and draws a representative side-stream sample through a nitrogen-blanketed monitoring circuit, helping identify coolant degradation, scale buildup, corrosion activity, glycol breakdown, and inhibitor depletion before damage occurs.

 CONTINUOUS MONITORING Real-time and near real-time tracking of circulating coolant chemistry 365 days per year.	 NITROGEN BLANKETED Preserves low-oxygen, low-ORP conditions for representative system readings.	 CLOUD REPORTING Telemetry sends data to a cloud platform for operator and Chem Advances review.	 EARLY WARNING Detects chemistry drift before corrosion, scale, or coolant failure creates downtime.
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MONITORING CAPABILITIES

System Type	Compressor Cooling Loop
Sample Method	Nitrogen-Blanketed Side Stream
pH	Flow-Through Probe
ORP	Low-Oxygen Chemistry Tracking
Conductivity	Ionic Contamination Indicator
Temperature	Continuous Measurement
Glycol / Contaminants	NIR Sensor Detection
Reporting	Cloud Telemetry Platform

APPLICATION INFORMATION

- ▶ **Installs directly** on the existing circulating coolant loop.
- ▶ **Draws a representative sample** through a side-stream monitoring circuit.
- ▶ **Sensor chamber** supports pH, ORP, conductivity, temperature and NIR measurements.
- ▶ **Sampling intervals** are configurable to fit the operating profile of each installation.
- ▶ **Telemetry reporting** provides shared visibility for operators and Chem Advances personnel.
- ▶ **Safety controls** include pressure regulation, flow alarms, level alarms and relief protection.

PLATFORM CONFIGURATION

AdvanceGuard® 365 is configured for fixed compressor installations where continuous coolant chemistry awareness supports reliability, predictive maintenance, and reduced unplanned downtime.

SENSORS

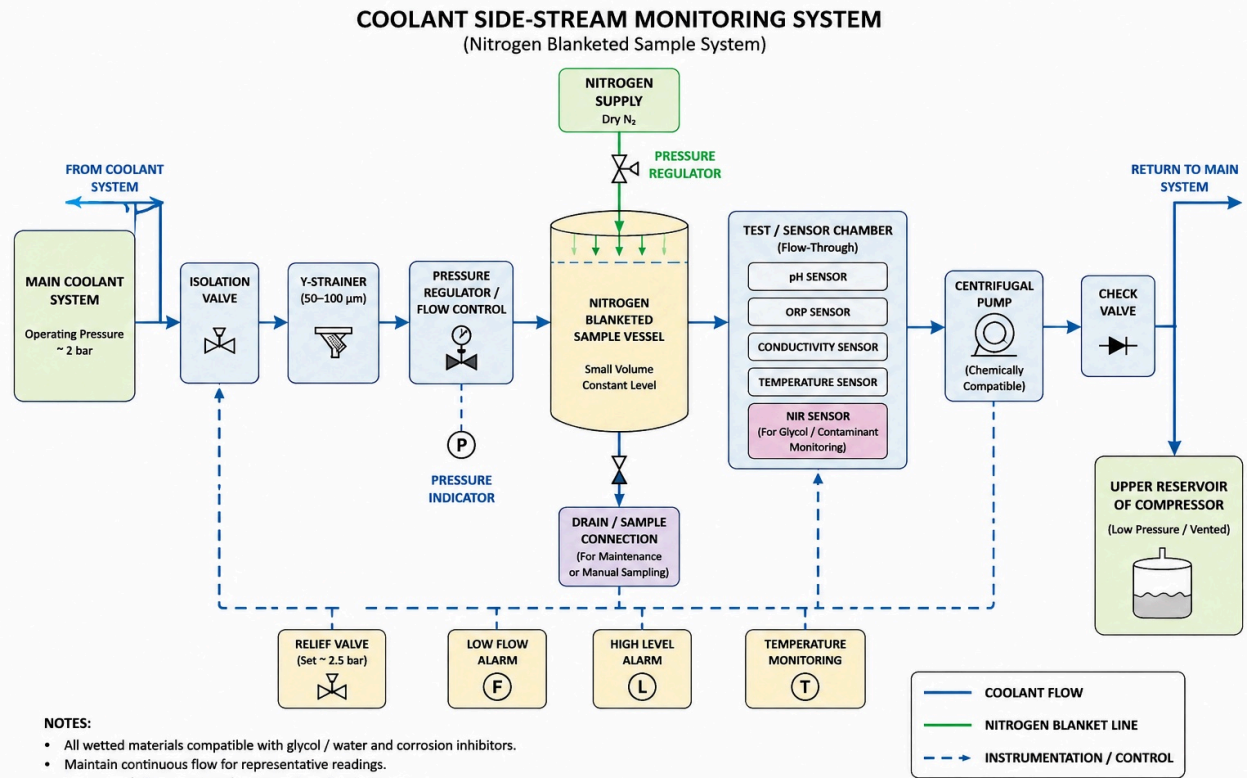
TELEMETRY

CLOUD

HANDLING & SAFETY

AdvanceGuard® 365 is an industrial monitoring system installed on operating cooling equipment. Installation, service, and operation should be performed only by qualified personnel using appropriate site safety procedures.

NITROGEN-BLANKETED SIDE-STREAM MONITORING CIRCUIT



REPRESENTATIVE SAMPLING

A side-stream sample is drawn from the circulating loop while nitrogen blanketing limits atmospheric oxygen intrusion that can shift ORP and chemistry readings.

CONTINUOUS DATA COLLECTION

Flow-through analytical probes track pH, ORP, conductivity, temperature, glycol response and contamination indicators without interrupting compressor operation.

ACTIONABLE REPORTING

Data is transmitted by telemetry to a cloud reporting platform where operators and Chem Advances can review trends and emerging conditions.

WHY ADVANCEGUARD® 365?

EARLY CORROSION DETECTION

Monitor pH and ORP trends that may indicate loss of corrosion control before metal loss accelerates.

GLYCOL DEGRADATION MONITORING

NIR-based monitoring helps identify glycol breakdown, contamination, and chemistry changes that may go unnoticed between manual samples.

INHIBITOR PERFORMANCE VISIBILITY

Continuous chemistry data supports proactive decisions when inhibitor depletion or chemistry drift begins to develop.

RELIABILITY IMPACT

REDUCED MANUAL SAMPLING GAPS

Continuous and configurable sampling reduces the risk of missing fast-developing problems between routine laboratory samples.

IMPROVED MAINTENANCE PLANNING

Trend visibility supports data-driven decisions for coolant service, cleaning, inhibitor treatment, and system inspection.

LOWER DOWNTIME RISK

Early warning of chemistry changes helps prevent scale, corrosion, heat transfer loss, and compressor cooling system failure.