PROGNOST
INTELLIGENCE ON DUTY

UP! Detect

Move from reactive to predictive maintenance



Benefits for our customers

How is UP! Detect supporting the operation of my asset?

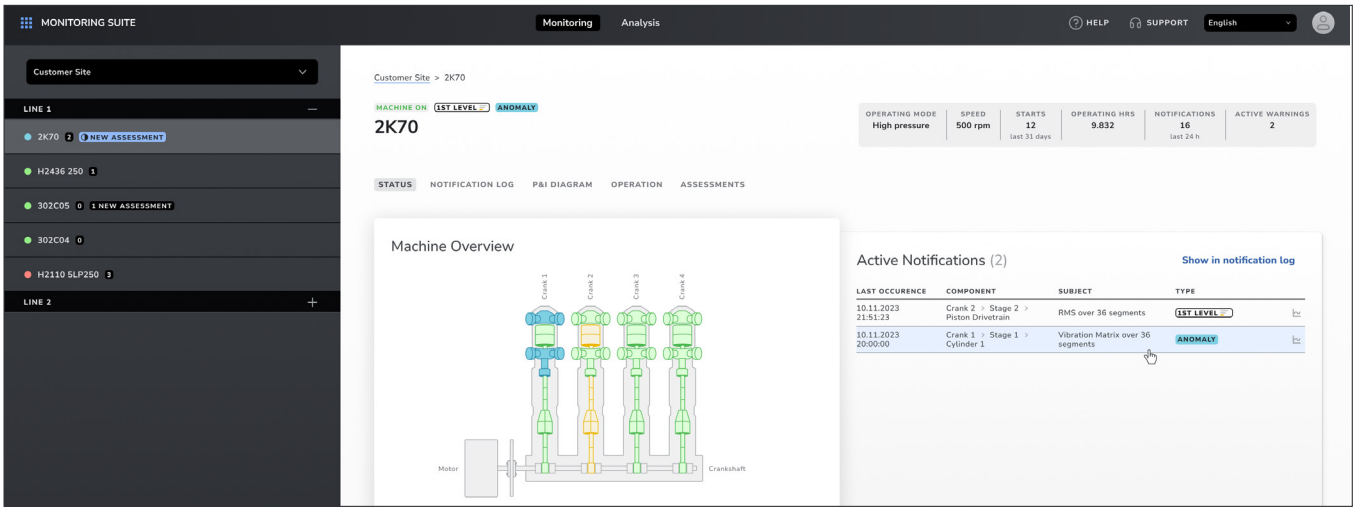


Maximized compressor availability
Identifying abnormal behavior early allows for addressing issues before they escalate, minimizing damage, downtime, and repair costs. The system offers automated action recommendations for quick resolution, enhancing reliability and longevity, and boosting operational efficiency.
Detect issues before they become failures

Lower maintenance costs
Extending the mean time between overhauls reduces maintenance frequency and costs. Optimizing maintenance strategies ensures effective resource use. Identifying good and bad performers within the fleet enables targeted improvements, reducing costs and maximizing overall fleet productivity.
Extend mean time between overhauls (MTBO)

Safe operation
Fewer surprises means fewer unplanned interventions. By catching developing issues before they become failures, operators can plan repairs at the right time instead of reacting under pressure, reducing risk to people and equipment while keeping the compressor running as intended.
Fewer surprises, safer operations

Optimize maintenance planning
Knowing what needs attention and when allows maintenance to be scheduled rather than reactive, enabling better coordination of parts, resources, and technicians. This approach minimizes disruption to other planned work, creating a smoother and more predictable maintenance workflow.
Smoother, more predictable workflows



UP! Detect

The solution to move from reactive to predictive maintenance

UP! Detect combines compressor expertise with cloud-based, modular monitoring to maximize the availability and efficiency of reciprocating compressors. Supporting both predictive and planned maintenance strategies, it uses AI-supported anomaly detection to identify developing issues early, before they lead to costly, unplanned downtime.

Key features included:

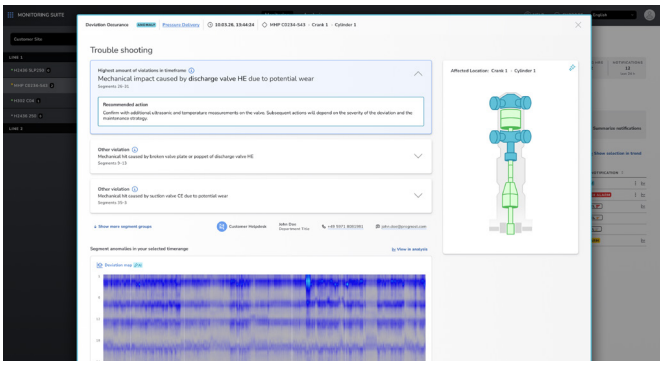
Failure-based alarms: Automated alerts recommend the right action for each specific component, so your team always knows exactly what to do and can respond quickly.

Automated anomaly detection: A neural network (AI/CNN) learns how your compressor normally runs and automatically flags any deviations - catching small issues early, before they turn into bigger problems.

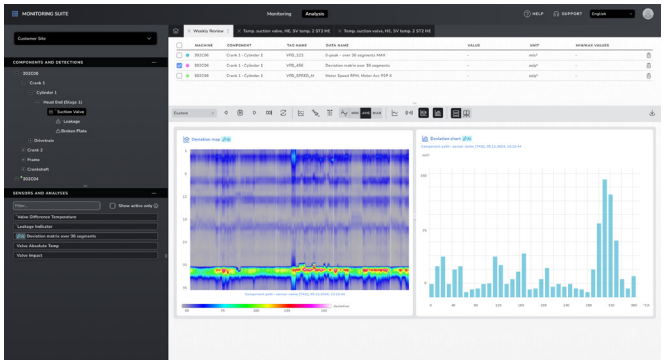
User-friendly condition monitoring: A simple, clear interface makes it easy for anyone on your team to check machine health and decide what to do next, no expert knowledge required.

Cloud-based access: View your performance data and trends anytime, from anywhere, so you always have the full picture at hand.

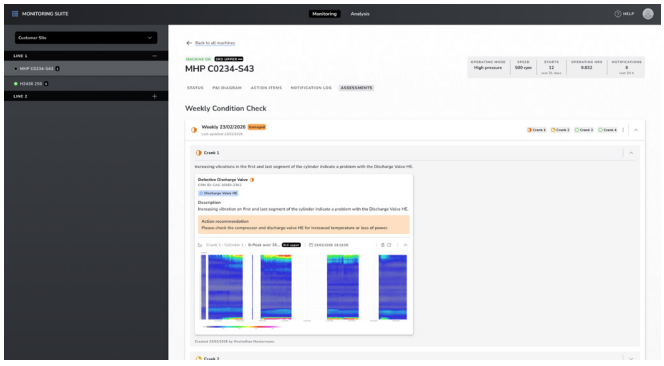
Data assessments: Our experts regularly review your data and share insights and recommendations, giving you extra peace of mind as part of your service agreement.



Failure-based alarms



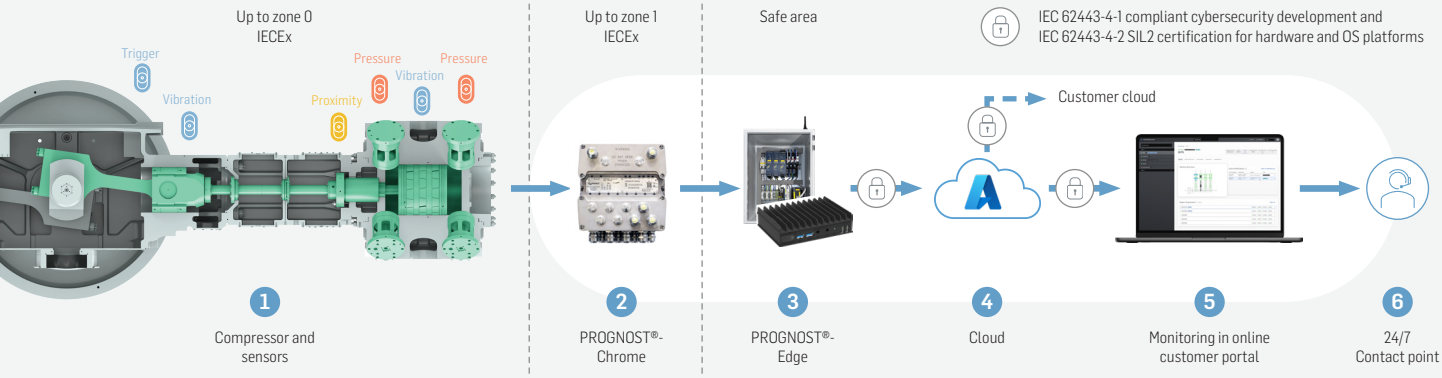
Automated anomaly detection



Expert Assessment

Architecture & coverage

From compressor to cloud



Unlock more insights with every sensor added

Start with the vibration base and expand as needed with proximity and pressure sensors. Each add-on increases the fault coverage, making it easier to identify specific failure causes.

	Vibration base	Proximity add-on	Pressure add-on	Complete
Cylinder				
Cylinder issues (general)	●●○	●●○	●●●	●●●
Contamination detection	●●○	●●●	●●○	●●●
Leakages	●○○	●○○	●●●	●●●
Overpressure	●○○	●○○	●●●	●●●
Compression overload	●○○	●○○	●●●	●●●
Valve impact	●○○	●○○	●●●	●●●
Piston drivetrain				
Piston drivetrain issues (general)	●●○	●●●	●●○	●●●
Rider band wear	●○○	●●●	●○○	●●●
Piston rod movement	●○○	●●●	●○○	●●●
Piston drivetrain overload	●○○	●○○	●●●	●●●
Crosshead pin underlubrication	●○○	●○○	●●●	●●●
Piston rod nut & rod looseness	●○○	●●○	●●●	●●●

●○○ / ●●○ / ●●● Diagnostic confidence

Cybersecurity

Secure and certified

To use UP! Detect, a cloud connection is required for continuous data updates, ensuring smooth and efficient operations.

The platform is developed following IEC 62443-4-1 compliant cybersecurity development practices, and is certified to IEC 62443-4-2 SIL2 for its hardware and OS platforms, meeting the highest security standards.

UP! Detect supports only outbound connections and features a specially secured and configured operating system, along with a defense-in-depth design that offers multi-layered security measures.

Cybersecurity and data safety is a top priority for Burckhardt Compression

- Developed following IEC 62443-4-1
- Certified to IEC 62443-4-2 SIL2 for the HW & OS
- Encrypted outbound connection to the cloud
- Over-the-air updates: firmware, software and security updates
- A wide range of sensors is available, including trigger, vibration, proximity, and pressure sensors, with optional temperature measurement.
- 11 channels per PROGNOST®-Chrome
- Up to 4 x PROGNOST®-Chrome connectable via 1 x PROGNOST®-Edge to the cloud

Visualization

One interface, full analytics depth.

UP! Detect combines advanced analytics with an intuitive interface to identify abnormalities early and help prevent costly failures. Operators can compare trends across machines and gain a clear view of performance over time.

Key features include 36-segment analysis (O-Peak, RMS, and Heatmaps), automated or manual threshold settings, and raw vibration data snapshots for detailed diagnostics.

With optional pressure and proximity sensors, UP! Detect provides PV diagrams and detects failure modes such as leakage, overpressure, contamination, piston rod issues, and rider band wear. Automated alarm recommendations, email notifications, and our monthly Expert Assessment support fast issue resolution and proactive maintenance.

UP! Detect delivers comprehensive condition monitoring and anomaly detection to maximize reliability, performance, and equipment lifetime.



From p-V diagram via 36 segment analysis to expert assessment

PROGNOST®-Chrome

Advanced remote IO system for hazardous areas

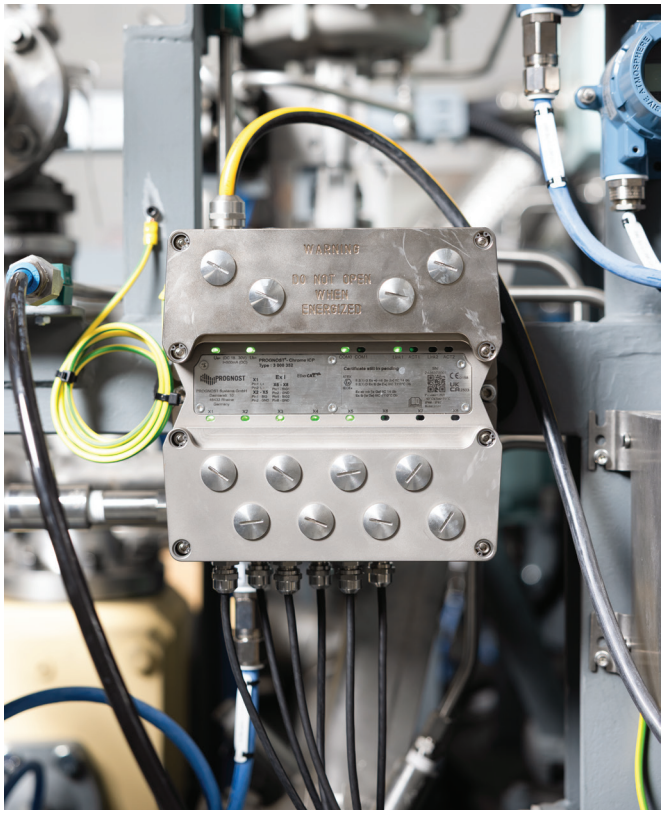
Designed for hazardous zones (1/21 or 2/22), PROGNOST®-Chrome is a state-of-the-art remote IO system made for hazardous areas (zones 1/21 or 2/22). It safely connects signals from sensors in very dangerous zones (0/20) to monitoring units in safe areas. It can send up to 11 safe signals using the EtherCAT system, ensuring smooth connections with short cables.

The input module connects up to 11 safe signals directly. The EtherCAT system combines and digitizes these signals, sending the data through a four-wire bus cable to the controller. It processes analog signals from sensors, converts them to digital data, and transmits them using the real-time EtherCAT system.

Technical features:

- Robust housing made of aluminium electroplated
- Ex-Area certified & integrated isolation amplifier
- Fully potted, high vibration resistance, no condensation in the module
- Connected via EtherCAT to PROGNOST®-Edge
- Ambient temperature range -40 °C to +70 °C





PROGNOST®-Edge

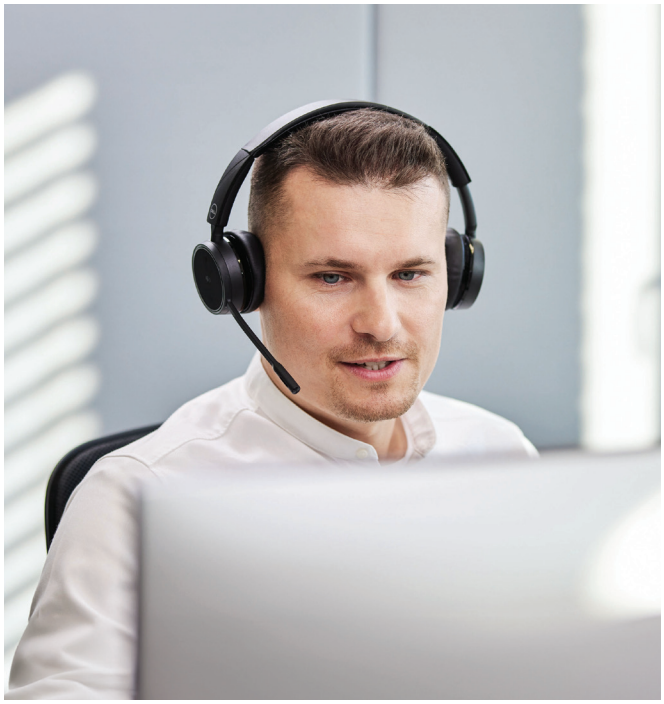
Your link to optimize your compressor

PROGNOST®-Edge is a crucial component of UP! Detect, acting as a real-time data collector for vital compressor information. It transmits this data to the cloud for comprehensive analysis.

With the pre-installed PROGNOST®-Edge, you can connect to the cloud effortlessly, ensuring real-time data access and proactive service. Our dedicated Burckhardt Compression customer support team is here to guide you through a smooth and seamless integration process.

Technical features:

- Housing 300 mm x 400 mm x 210 mm (WxHxD) including PROGNOST®-Edge & optional GSM-modem
- Redundant 24V power supply for PROGNOST®-Chrome, PROGNOST®-Edge & GSM-modem
- Cloud connection via customer network or GSM-modem (SIM-card)
- Collects data from PLC over OPC UA (client) sends data to Azure IoTHub
- TLS encrypted data transfer outgoing only (port 443)
- Ambient temperature range: -20°C to +50°C



Customer support

Always here for you

Need a helping hand? Our Burckhardt Compression support team is available round the clock, ready to tap into your compressor's real-time data and help resolve any issues swiftly.

Our dedicated hotline is always on standby, providing you with efficient assistance on-demand whenever and wherever you need it. By accessing your compressor's real-time data, we ensure quick and effective issue resolution, keeping your operations running smoothly.

Our on-demand services offer additional support designed to boost your compressor's uptime and efficiency:

- **24/7 issue management**
  We're here to swiftly register your issues and connect you with the right expert, ensuring fast and effective troubleshooting when it matters most.
- **On-demand machine diagnostic support**
  Whether remote assistance is sufficient or additional support is required, our global service organization ensures that the right expertise is available to help you address operational challenges quickly and efficiently.

With UP! Detect, you're equipped for success with continuous support and advanced services.

Customer support add-on

Monthly assessment with 10/5 tech support

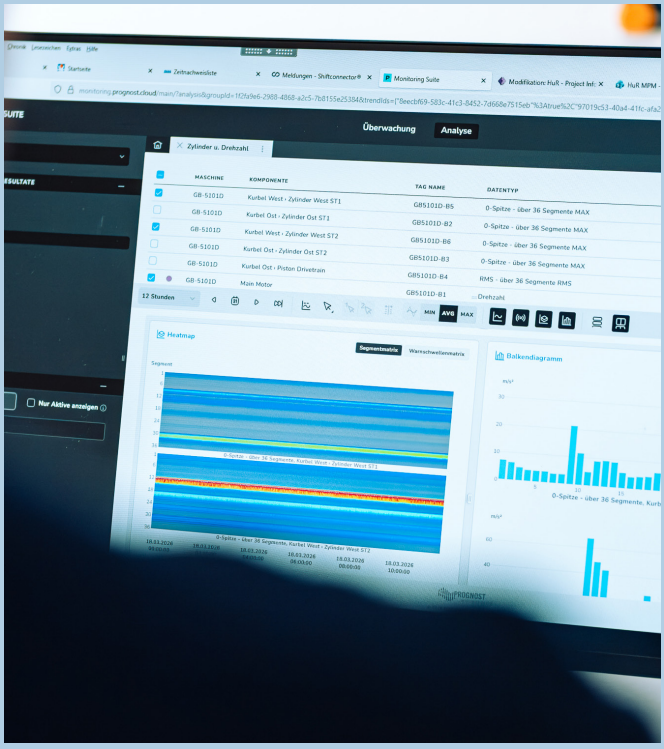
Stay ahead with expert advice

Gain direct access to our technical support experts for alarm validation, condition assessment, and prioritized assistance. During the monthly assessment, our machine diagnostic experts review recorded events, anomalies, alarms, and long-term trends, providing an independent evaluation of your equipment's condition.

The assessment report summarizes key findings and includes practical recommendations to support maintenance planning and operational decision-making. By combining expert knowledge with condition monitoring data, the service helps identify potential issues early, improve asset availability, and increase confidence in maintenance decisions.

- Monthly expert assessment of machine condition
- Review of anomalies including threshold optimization
- Long-term trend analysis to identify issues early
- 10/5 technical support and expert guidance
- Actionable maintenance recommendations
- Improved maintenance planning and availability
- Greater confidence in condition monitoring results

Expert insights that help you make confident maintenance decisions and maximize asset reliability.



PROGNOST
INTELLIGENCE ON DUTY

UP! Solutions

Data and people for your compressor's success

Combining leading compressor knowledge and monitoring expertise through Burckhardt Compression, UP! Solutions are setting new levels in asset management optimization.

UP! Solutions are boosting the performance, reliability, and efficiency of your rotating equipment.

Enjoy the benefits of maximized uptime and significant cost savings with a range of digital products designed by the industry experts to enable the optimal operation of reciprocating equipment.

Embrace the future of productivity with Burckhardt Compression digital technologies.



PROGNOST Systems GmbH
Daimlerstr. 10
48432 Rheine (Germany)
Tel.: +49 – 5971 – 80 81 90
info@prognost.com
www.prognost.com

Burckhardt Compression AG
Franz-Burckhardt-Strasse
58404 Winterthur (Switzerland)
Tel.: +41 – 52 261 – 55 00
info@burckhardtcompression.com
www.burckhardtcompression.com

Brochure UP! Detect
08/2026 – ALL content is subject to change without notice.