

# **Smart Condition Monitoring System**



Download the most up-to-date version at rexnord.com/documentation

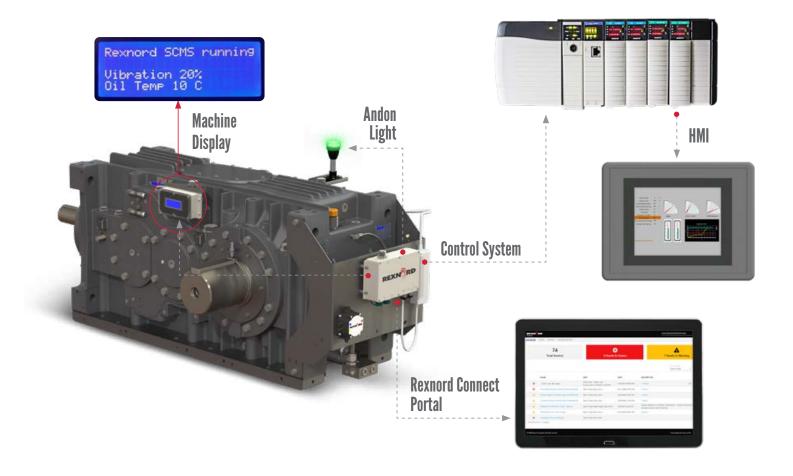


Finally, a scalable system to address YOUR current priorities and budget, while extending the life of your assets. Our Smart Condition Monitoring System uses proprietary algorithms to continuously compare sensor data against models of healthy drive operating conditions. Under abnormal conditions, contextual alerts are sent to a local visual indicator, your control system and the Rexnord Connect Portal so your team knows what action to take and when.

Improve Productivity — Prioritize limited resources based on 24/7 data monitoring, not time-based routes.

Increase Uptime — Early warning system to avoid unplanned downtime, for example "water in oil" detection.

Enhance Safety — Allow personnel to see the health of your equipment from a distance rather than trying to reach difficult locations.



### **SCALABLE SOLUTIONS** -

The Smart Condition Monitoring System for Falk A+Plus, Y-Unit, and V-Class Gear Drives offers **three easy-to-deploy levels of monitoring**, available on a sliding scale to match manufacturers' priorities and budgets. These levels range from continuous monitoring of overall gear drive vibration and temperature, all the way up to comprehensive oil quality and drive specific vibration analysis. *All three models communicate gearbox condition status through*:

- Included Andon light
- Industrial communications card supporting EtherNet/IP™, Modbus® TCP/IP and PROFINET®
- Rexnord Connect Portal (wired Ethernet with optional cellular connectivity)
- Optional local display



**MODEL 1010** — Monitors vibration and temperature, improving uptime by detecting potential issues before they shut down critical processes.

**MODEL 1020** — Monitors oil quality, level, temperature and water content, enhancing productivity and safety by reducing the need for oil sampling and manual inspections, and freeing maintenance personnel for other critical tasks.

**MODEL 1050** — Provides comprehensive condition monitoring and reporting, including vibration diagnostics, operating speed and motor current — further enhancing uptime, productivity and safety.



**REXNORD CONNECT PORTAL** — The Rexnord cloud-based portal for anytime/anywhere access to asset condition insights, valuable analytics, and email alerts at enterprise scale. Real-time analytics ensure your team knows what action to take and when.

### **MODEL COMPARISON** -

For Falk A+Plus, Y-Unit, and V-Class Gear Drives

Smart Condition Monitoring System — Series 1000	Model 1010	Model 1020	Model 1050
Measurements/Alarms			
Oil — relative humidity, oxidation, aging, life remaining, oil level	_	Υ	Υ
Oil sump temperature	Υ	Υ	Υ
Overall vibration	Υ	_	Υ
Vibration — misalignment, bearing, and gear mesh frequencies	_	_	Υ
Speed	_	Υ	Υ
Motor current	_	_	Υ
Notifications / Communications			
Local status indication	Υ	Υ	Υ
PLC/DCS connectivity via LAN	Υ	Υ	Υ
Rexnord Connect Portal via LAN	Υ	Υ	Υ
Rexnord Connect Portal via cellular	Model 1110 Includes same measurements and notifications as 1010 + cellular capabilities	Model 1120 Includes same measurements and notifications as 1020 + cellular capabilities	Model 1150 Includes same measurements and notifications as 1050 + cellular capabilities

# **MEASUREMENTS**

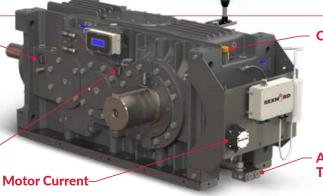
With the Smart
Condition Monitoring
System, get real-time,
easy-to-understand
alerts to avoid issues —
at a fraction of the cost
of unplanned downtime.

### **Vibration Sensors**

Placed in two key locations to detect:

- Misalignment
- Bearing issues
- Gear mesh issues

**Gear Speeds** 



# Oil Monitoring

- Water content
- Oil oxidation
- Oil temperature
- Oil life remaining
- Critically low oil alert

Ambient Temperature

### **UNIVERSAL KITS** \_

Harmonize your data, alerts, and notifications in one location with the Rexnord Smart Condition Monitoring System Universal Kit. Choose from two Universal Kits designed to work with any large gear drive. These kits allow for a single solution overseeing all the gear drives within the facility.

Installation instructions can be found on **rexnord.com** or emailing **Connect.Support@Rexnord.com** to verify compatibility.

**MODEL 1010** — Monitors vibration and temperature, improving uptime by detecting potential issues before they shut down critical processes.

MODEL 1030 — Adds monitoring of oil quality, temperature and water content, enhancing productivity and safety by reducing the need for oil sampling and manual inspections, and freeing maintenance personnel for other critical tasks.

## MODEL COMPARISON \_\_\_\_\_

For Universal Kits

Smart Condition Monitoring System — Series 1000	Model 1010	Model 1030
Measurements / Alarms		
Oil — relative humidity, oxidation, aging, life remaining	_	Y
Oil level	_	_
Oil sump temperature	Υ	Υ
Overall vibration	Υ	Υ
Vibration — misalignment, bearing, and gear mesh frequencies	_	_
Speed	_	_
Motor current	_	_
Notifications / Communications		
Local status indication	Υ	Υ
PLC/DCS connectivity via LAN	Υ	Y
Rexnord Connect Portal via LAN	Υ	Υ
Rexnord Connect Portal via cellular	Model 1110 Includes same measurements and notifications as 1010 + cellular capabilities	Model 1130 Includes same measurements and notifications as 1030 + cellular capabilities

# NOTIFICATIONS \_\_\_\_\_

Display Name	Units	Action for Warning Alert	Action for Severe Alert
Oil Quality Alert	Hours	Schedule oil change soon	Shut down — change oil immediately
Oil Relative Humidity Alert	0-100%	Dewater or change oil/replace breather (oil relative humidity high)	Shut down — dewater or change oil/ replace breather before operating (excessive oil relative humidity)
Severe Low Oil Alert	Binary (on/off)	N/A	Shut down — add oil immediately
Sump Temp Alert	F or C	Inspect/review operation — elevated oil temperature	Shut down — excessive oil temperature
Overall Vibration Alert	%	Inspect — elevated gearbox vibration	Shut down — excessive gearbox vibration, inspect/repair
Gear Mesh Vibration Alert	%	Gear mesh likely source of elevated vibration; inspect and repair if needed	Shut down and inspect gear mesh; repair if needed
Shaft Alignment Alert	%	Shaft alignment likely source of elevated vibration; inspect and repair if needed	Shut down and inspect shaft alignment; repair if needed
Bearing Vibration Alert	%	Bearing likely source of elevated vibration; inspect and repair if needed	Shut down and inspect bearing; repair if needed



