



OUR INNOVATION MOVES

Falk V-Class Gear Drives

REDEFINING RELIABILITY



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Redefining Reliability

Modern industry requires a reliable gear drive to maximize productivity, increase uptime and enhance safety. The Falk V-Class® Gear Drive is designed for precisely that – and with the addition of the Rexnord Smart Condition Monitoring System, is redefining reliability.

The Smart Condition Monitoring System puts information in context, enabling you to focus on outcomes. So teams know what action to take and when. Manufacturers gain the ability to replace time-consuming, hands-on equipment inspections with digital technology that enhances team safety, extends asset life, and lowers inventory and operating costs.

Falk V-Class Specifications Overview

- Right angle or parallel shaft options for most applications
- Heavy-duty ductile iron housing withstands shock loads
- Horizontally split housing allows easy disassembly/assembly for maintenance
- Superior thermal performance
- Exclusive Magnum no-leak seal design
- Rugged gear design for longer life



Falk V-Class

Ratios: 1.25 to 160:1

Torque: Up to 9M lb-in (up to 1,016 kNm)

- 36 sizes
- Solid or hollow output shafts



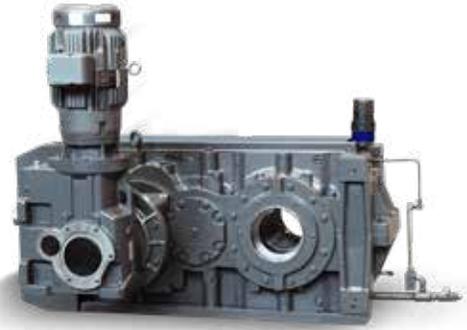
Rexnord Smart Condition Monitoring System

- Increase uptime – Early warning systems catch potential issues before they stop production
- Improve productivity – Eliminating costs of unnecessary and route-based maintenance
- Enhance safety – Enable your team to monitor equipment health from a distance rather than trying to reach difficult locations



DuraPlate® Cooling System

- Integral, self-contained system simplifies installation and minimizes risk of damage
- Powered by shaft-driven pump and fan for high reliability; no need for additional motors
- Requires no electricity, saving time and enabling easy installation
- Requires no cooling water, simplifying installation and conserving a limited resource
- Stainless steel design prevents corrosion and provides superior durability
- Other cooling options available to suit a vast range of ambient conditions and application requirements



Inching Drive Option

- Reliable power – Falk® Ultramite® Gearmotors provide reliable power and unmatched performance
- Compact design – Integrally mounted to the main gear drive unit, the inching drive is coupled via an overrunning clutch
- Automatic engage/disengage – For operator convenience, the inching drive automatically engages in inching operation and disengages when the main motor is operating
- Ready availability – Standardized product offering allows for ready availability
- Safety – Optional speed switch and backstop to ensure safe operation



Falk V-Class Alignment Free

The Falk V-Class Alignment Free option allows for easy installation of shaft mounted gear drives, reducing labor time and the risk of improper alignment of motor and gear drive, thus protecting bearings, couplings and other motor and drive components against potential damage or premature wear.



**SMART
CONDITION
MONITORING
SYSTEM**

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. When the system detects abnormal conditions, it sends alerts to a local visual indicator, your control system and the Rexnord Connect Portal, with context to guide your team on what action to take and when.



The Smart Condition Monitoring System offers **four 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 cloud-based notification of abnormalities. All four models communicate gearbox condition status through:

- Included Andon light
- Industrial communications card supporting EtherNet/IP™, Modbus® TCP/IP and PROFINET®
- Rexnord Connect Portal (1150 only)
- Optional local display

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

MODEL 1020 – Adds monitoring of 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.

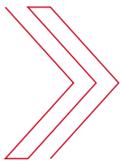
MODEL 1050 – Provides comprehensive condition monitoring and reporting, including vibration diagnostics, operating speed and motor current—further enhancing uptime, productivity and safety.

MODEL 1150 – Connects to 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.

Smart Condition Monitoring System – Series 1000

	Model 1010	Model 1020	Model 1050	Model 1150
Measurements / Alarms				
Oil – relative humidity, oxidation, aging, life remaining, oil level	–	Y	Y	Y
Oil sump temperature	Y	Y	Y	Y
Vibration	Y*	–	Y	Y
Speed	–	Y	Y	Y
Motor current	–	–	Y	Y
Notifications / Communications				
Local status indication	Y	Y	Y	Y
LAN connectivity to PLC/DCS	Y	Y	Y	Y
Enterprise-wide data access via Rexnord Connect Portal • System updates • System monitoring • Email notifications	–	–	–	Y

* Overall vibration



Add smart monitoring, increase productivity

With the Smart Condition Monitoring System for Falk Gear Drives, get real-time, **easy-to-understand alerts** to avoid issues – **at a fraction of the cost of unplanned downtime.**



The table below shows how easy it is to understand measurements and alerts from the Smart Condition Monitoring System.



✓ Vibration Sensors

- Placed in two key locations to detect:
- Misalignment
 - Bearing issues
 - Gear mesh issues

✓ Motor Current

✓ Gear Speeds

✓ Ambient Temperature

✓ Oil Monitoring

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

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	in/sec	Inspect – elevated gearbox vibration	Shut down – excessive gearbox vibration, inspect/repair
Gear Mesh Vibration Alert	in/sec	Gear mesh likely source of elevated vibration; inspect and repair if needed	Shut down and inspect gear mesh; repair if needed
Shaft Alignment Alert	in/sec	Shaft alignment likely source of elevated vibration; inspect and repair if needed	Shut down and inspect shaft alignment; repair if needed
Bearing Vibration Alert	in/sec	Bearing likely source of elevated vibration; inspect and repair if needed	Shut down and inspect bearing; repair if needed
Loss of Connection to the Cloud Alert	N/A	Cloud Connection Lost – inspect for Ethernet or cellular connectivity; if no problem found, call for service	N/A



When uptime matters, trust the Falk V-Class.

Solid, dependable, proven, and backed by an industry-leading 3-year warranty, this drive really delivers the difference. Whether your business is coal, hard rock mining, energy, grain, cement and aggregate, or pulp and paper, the Falk V-Class will handle your most rigorous production needs.

Designed to maximize uptime and profitability

- Horizontal split housing allows easy disassembly/assembly for maintenance of bearings and gearing
- Removable, adjustable feet allow drop-in replacement or custom transition bases for current product lines, and easily adapt for replacement of competitor drives and different shaft centerline heights
- Base-mounted units can be repaired in place
- Multiple oil ports allow fast, easy oil changes and easy addition of optional oil servicing and monitoring accessories
- Steel shims for easily adjustable bearing settings
- Easily replaceable and adjustable lip seals help reduce downtime
- Optional Smart Condition Monitoring System Model 1050 offers comprehensive drive monitoring
- Optional Smart Condition Monitoring System Model 1150 combines the Model 1050 sensors with the Rexnord cloud-based portal for anytime access to insights

Steadfast dependability in demanding conditions

- Magnum seals have an exclusive, no-leak design with a purgeable grease chamber, and a contact seal that eliminate oil leaks while keeping dirt out
- Radial and axial bush seals with drainback eliminate oil leaks and prevent contact between surfaces
- Larger, stronger, spherical and tapered roller bearings handle heavier loads for greater torque
- Cast-in oil dams keep bearings lubricated and cool for reliable operation
- Proven heat-resistant Viton® and nitrile lip seals last longer
- Steel shims ensure bearing settings are maintained for long life
- Optional Smart Condition Monitoring System Model 1050 offers comprehensive drive monitoring
- Optional Smart Condition Monitoring System Model 1150 combines the Model 1050 sensors with the Rexnord cloud-based portal for anytime access to insights

More torque capacity to handle the heaviest loads

- 25° pressure angle gear teeth provide superior strength and durability
- Case-hardened and ground gears provide greater strength and minimize wear
- Optimized bevel and helical tooth forms deliver smooth torque transmission by ensuring full contact under load
- Proprietary peened gear teeth provide greater strength and longer life
- Highest quality gear sets up to AGMA Class 12 for exceptional durability
- Heavy-duty ductile iron housing withstands shock loads

Quiet drive train for noise-sensitive areas

- Noise reduction helps enhance workplace safety
- Significantly quieter than comparable gear drives

Runs cooler for a longer operating life

- Cooling fins on the housing reduce oil temperature
- Proprietary oil feed passages in the housing improve lubrication and provide optimal cooling
- Optional Smart Condition Monitoring System Model 1020 improves productivity and enhances safety by reducing the need for oil sampling and manual inspections, and freeing maintenance personnel for other critical tasks
- Optional DuraPlate patent-pending cooling system controls oil temperatures in the most extreme conditions
- Computational Fluid Dynamics (CFD) engineering provides optimal thermal dissipation



Born to lead. Built to last.

Unprecedented design and test procedures

We dedicated more than 150,000 engineering hours designing the Falk V-Class to be the most dependable gear drive ever built. Then, we put it through the most rigorous testing any drive has ever faced. The Falk V-Class triumphed, exceeding expectations across the board, with proven, unsurpassed reliability and performance in the toughest applications.

Superior thermal performance

Cooler thermal performance assists in extended operating life. Cooler running oil increases film thickness, durability and reliability. An 18 degrees Fahrenheit (F) (10 C) decrease in temperature generally doubles the service life of a lubricant. Falk V-Class thermal ratings are based upon 180 F sump temperature instead of the AGMA standard of 200 F, running 20 F cooler.

Delivery when you need it

As the world leader in gear drives, we have the depth and breadth of experience necessary to help you reach the level you need to compete. From delivery and installation, to maintenance and service – when you need us, we're there. Our commitment to your success is why we developed the Falk V-Class, a drive so superior it excels under the most demanding conditions in the most extreme environments, every day.

Torque range	52,000 – 9,117,000 lb-in (5,900 – 1,030,000 Nm)	
Horsepower range	15 – 25,000 hp (11 – 18,650 kW)	
Ratio ranges	Parallel shaft	Single reduction 1.25 – 5.0
		Double reduction 5.0 – 28.0
		Triple reduction 28.0 – 160.0
	Right angle	Double reduction 6.3 – 12.5
Triple reduction 2.5 – 125.0		
		Quadruple reduction 140 – 710

Backed by a world of resources

Our worldwide network of service providers ensures you receive fast response and greater parts availability no matter the day or time. This comprehensive support network, combined with our industry leading, 3-year warranty, is our assurance that the Falk V-Class will be everything you've asked for and more.

A Good Name in Industry just got better

For 125 years, Falk has provided high-quality, durable drives for heavy-duty industrial use around the world. We're known for revolutionizing the industry. We stand committed to providing customers with the drives they need to succeed. This dedication is why the Falk name has come to be synonymous with reliability, durability and trust.



ALL AROUND
THE GLOBE,

CUSTOMERS TRUST
OUR PROVEN BRANDS.

WHY CHOOSE REXNORD?

When it comes to providing highly engineered products that improve productivity and efficiency for industrial applications worldwide, Rexnord is the most reliable in the industry. Commitment to customer satisfaction and superior value extend across every business function.

Delivering Lowest Total Cost of Ownership

The highest quality products are designed to help prevent equipment downtime and increase productivity and dependable operation.

Valuable Expertise

An extensive product offering is accompanied by global sales specialists, customer service and maintenance support teams, available anytime.

Solutions to Enhance Ease of Doing Business

Commitment to operational excellence ensures the right products at the right place at the right time.