SHARE THE SAVE:
Falk Renew Restores Ceramic Plant Gear Drive for One Fifth the Cost

Challenge
A multinational building materials and ceramics manufacturer needed to replace a reducer on its ball mill due to excessive gear wear.

- The plant needed to have an economical spare on hand.
- A replacement unit from the current Chinese OEM had a six month lead time.

Rexnord Solution
The manufacturer chose Falk Renew®, an offering within Rexnord Industrial Services™, to engineer a solution. Falk Renew used integrated design and manufacturing expertise to restore, rather than replace, the reducer.

- **Access to all original engineering drawings for Falk® and Rexnord® branded gear drives** ensured a rebuild to original factory specifications.
- **Expert machining capabilities** allowed the internal components to be precisely cut to OEM requirements and effortlessly assembled, resulting in a like-new gear drive that fit the exact profile of the plant’s existing application.
- **No unscheduled or excessive downtime** was incurred.
- Falk Renew also provided **specialized predictive maintenance services**, which assisted the plant in managing its assets by providing significant advance notice of decreased performance.

Rexnord Solutions and Savings in Action
By choosing the Rexnord solution, the customer experienced:

- **Shortened lead time.** The reducer was repaired within six weeks, as opposed to the six months required to order a new OEM unit.
- **A renewed gear drive.** The drive was restored to original Falk design specifications with a new warranty.

Why Purchase a Spare?
Many operations purchase spare components for mission critical processes and equipment. The availability of a spare provides significant advantages with return on investment (ROI) based on:

- **Product Costs:** risk mitigation through minimization or elimination of unscheduled downtime.
- **Labor Savings:** ease of retrofit and installation time savings.
- **Total Cost of Ownership:** life cycle performance consistency and confidence with like-for-like replacement.

Cost Analysis

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<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Current Solution</td>
<td>$305,689</td>
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<tr>
<td>Rexnord Solution</td>
<td>$59,622</td>
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<tr>
<td><strong>Total Savings</strong></td>
<td><strong>$246,067</strong></td>
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Total Savings: $246,067
Rexnord Industrial Services covers any potential challenge throughout the life of your gear drive or system. From installation and commissioning to predictive maintenance and repairs, Rexnord Industrial Services delivers the resources you need, when you need them.

Why Choose Falk Renew to Repair your Gear Reducer?

Rexnord Industrial Services:
Preventive Maintenance (PM)
- Lubrication system
- Cooling systems
- Breathers & oil filters
- Seals for leaks
- Lubrication levels & integrity
- Gear teeth for unusual wear
- Foundation & input/output shaft alignment
- Bearing and coupling lubrication & alignment

Predictive Maintenance (PdM)
- Noise analysis
- Data logging
- Strain gauging
- Thermal analysis
- Vibration analysis
- Systems assessment
- Lubrication analysis
- Bore scope check
- Gear tooth contact check
- Remote monitoring

Falk Renew:
- Custom drives
- Spares programs
- Logistics options
- Onsite repairs
- Repair & remanufacture
- Upgrade & re-rate
- Parts programs
- Drive assembly & troubleshooting training

Original Parts:
- Falk OEM Gear Drive expertise and design records
- OEM-quality gearing with OEM warranty
- Extensive inventory and flexible manufacturing for rapid lead times
- Surplus gearing programs for operational assurance

Before After
Features and Benefits

All bearings are always replaced with only high-quality, Tier 1 bearings.

All gearing is analyzed using Magnetic Particle Inspection to find any subsurface cracks that could cause a future failure.

All seals are replaced with original or better quality based on improvements in seal materials.

Housings are chemically dipped or sandblasted to prevent future failures caused by debris in the lubricant.

Exterior of the gear reducer is repainted to original Falk or customer specification.

Ground gears and pinions are made to AGMA 13 standard or better depending on the application.

New gearing is made to original OEM specification (Falk or other gear manufacturers) for material and tooth hardness.

Because of the detailed analysis and quality workmanship and parts Falk Renew uses when repairing your gear reducer, we also offer the best standard warranty of any repair centers in North America:

- Remanufactured gear reducer: 3-year warranty
- Repaired gear reducer: 18-month warranty
- Bearing and seal replacement: 1-year warranty (upon request)

Options:
- Long-term storage preparation
- Failure analysis
- Housing pressure test

All units receive a no-load spin and oil pressure test with a 7 micron filter to prevent debris from entering the lubricant.