

Rexnord Gear Manufacturing Services





Rexnord Gear Manufacturing Services Overview

Rexnord Gear Manufacturing Services is a full service supplier providing high-quality, custom precision spur & helical gearing and specialized gearboxes, serving the mining, energy, transit, construction, and industrial markets. Our custom solutions have helped customers for more than 60 years, demonstrating high performance and reliability on custom enclosed gear drives and loose precision gears with cost-effective solutions.

As your single source custom gear and gearbox manufacturer, Rexnord Gear Manufacturing Services can offer you reduced complexity and inventory, improved lead time and efficiency, and state-of-the-art technical support and engineering. We have the necessary equipment that you need, all in one place.

In-house heat treating, gear cutting and gear grinding capabilities and expertise ensure the highest level of precision is met for our customers' most demanding gear applications. In addition, Rexnord has a full complement of precision gearing process capabilities for machining, turning, milling, drilling, broaching, key seating, OD/ID grinding, and balancing. ISO-certified, build-to-print manufacturing provides high-quality gearing and specialized gearboxes.

Key features & benefits

Gear Milling, Hobbing & Turning

- Spur & helical gears to 80" length and 60" outer diameter

Heat Treating

- In-house heat treating with two state-of-the-art, industry leading heat treating machines
- Carburizing, hardening, tempering, annealing, nitriding, and induction hardening
- Box & pit furnaces up to 90" diameter

Gear Grinding

- Spur & helical gears to 64" face width and 138" outer diameter

Housing Machining

- Machining to 48" cube size

Inspection Equipment

- Verify 64" face width and 118" outer diameter to AGMA Q-15
 - Broaching, key seating and milling
 - Turning and CNC grinding

Exclusive agreement with leading enclosed drives design firm

Precision Gears

We have a full complement of process capabilities to make spur and helical gearing, including heat treatment, gear cutting and gear grinding, enabling us to produce precision gears completely in-house. All of our production processes are supported by full inspection capabilities to guarantee we are meeting the highest precision standards in the industry.

- External Gears: .787-78.74 in (20-2,000 mm)
- Internal Gears: .787-35.43 in (20-900 mm)
- Grinding up to 137.80 in (3,500 mm)
- AGMA Q-15 precision

Custom Enclosed Gear Drives

Rexnord is a manufacturer of custom planetary, parallel shaft and right angle gearboxes. We can help you from design, to building, testing, and shipment of complete gearboxes to meet your custom needs.

With access to world-class gearbox design experts for the mining, oilfield, wind and transit markets, we provide our customers with robust gearboxes that are able to meet even the most demanding challenges.

- Custom planetary, parallel shaft and right-angle gearboxes
- RPM capacity up to 2,500 mm³
- Torque capacity up to 9 metric tons
- Gearbox repair

Heat Treatment

Our in-house heat treating facility ensures uncompromising quality in meeting your metallurgical requirements. We have a full range of heat treat capabilities, including relieving, carburizing and hardening, quench and tempering, nitriding, carbonitriding, induction hardening, annealing, and stress.

- Carburize: 90 in diameter x 72 in deep (2,286 mm diameter x 1,828 mm deep)
- Induction: 12 in diameter x 42 in long (305 mm diameter x 1,067 mm long)
- Nitride: 36 in diameter x 42 in deep (914 mm diameter x 1,067 mm deep)
- Normalize, Quench, Temper: 39 in height x 30 in width x 48 in length (991 mm height x 762 mm width x 1,219 mm length)

Industries

- Construction
- Industrial
- Mining
- Oil & Gas
- Transit
- Wind

Capabilities

- Large Gear Inspection
- In-house Heat Treating
- Grind Burn Detection
- Gear Tooth Grinding
- Gear Hobbing
- Gear Shaping
- Gear Milling
- Gear Turning
- In-house Nitral Etch
- Broaching/Key Seating
- Balancing
- Super Finishing
- CNC Grinding

Certifications

- AGMA 15 capability
- ISO 9001:2008 certified





Rexnord Gear Manufacturing Services Capabilities Case Studies

WIND

Gear Regrind Saves Client Tens of Thousands in Replacement Costs

A manufacturer of precision wind turbine gearboxes needed help refurbishing a set of open internal gears for part of their line of wind turbine gear drives. They stressed that they needed gears that were only marginally damaged to be brought back in to specification for reuse, or they would have to be scrapped at a significant replacement cost. Rexnord Gear Manufacturing Services met with the customer to determine the required gear specifications, and how much the gears could be reground and still be usable. By taking the value-added steps to diagnose the problem and customize the solution, Rexnord Gear Manufacturing Services provided the client with the best quality products and service they needed, saving them tens of thousands of dollars in replacement gear costs.

Super Finishing Problem Solving and Customization Saves Client Thousands of Dollars

A precision wind turbine gearbox manufacturer needed help refurbishing a high speed pinion for part of the gear drive line for their wind turbine. The gear set was estimated to have a low remaining operating life and was due for replacement. It could be reconditioned and put back in service, or it would have to be scrapped at a significant replacement cost.

Rexnord Gear Manufacturing Services met with the customer to determine the gear specifications required and proposed an isotropic surface super finishing to remove high spots from the grinding process and even out the tooth profile for re use. By taking the value-added steps to diagnose the problem and customize the solution, Rexnord Gear Manufacturing Services provided the client with the best quality products and service they needed, saving them thousands of dollars in replacement gear costs.

On-Site Replacement Kits Result in High Customer Satisfaction

An OEM supporting many gearboxes in the field needed a part change-out due to a warranty contract. Rexnord Gear Manufacturing Services was able to produce the replacement gear and assemble bearings for on-site replacement. The final kits were packaged, crated and shipped to the customer at multiple locations, relieving them of the burden of this one-time assembly process and quickly raising their customer satisfaction level.

Precision Replacement Gear Helps Customer Meet On-Time Delivery

An independent aftermarket remanufacturing supplier to the wind industry was seeking gears made to their exact specifications with upgrades to the gear set design. Rexnord Gear Manufacturing Services was able to review the drawings, bundle and procure similar size forgings, produce the batch under a blanket order and release products to the customer for on-demand, on-time delivery per the customer's specific releases. Rexnord Gear Manufacturing Services was able to meet all the gearing requirements and provide stocking and logistics services to delight the customer.

Damaged Replacement Drawing and Reverse Engineering Bring Gearbox to Completion

A major gearbox remanufacturer had to scrap a gear from a damaged gearbox but did not have a replacement drawing for the gear to finish the build. Rexnord Gear Manufacturing Services was able to use a salvage gear to reverse engineer on its Gleason 3.5 meter (137.8 in) gear checker and produce a new replacement gear to exact specifications to help the customer finish building the gearbox. Rexnord Gear Manufacturing Services was able to use its technical knowledge base to satisfy the customer and their customer at the right timing and cost.

"Superfinishing gears is a great option for us to recondition the gears and use them again, providing a performance upgrade at the same time, and we are fortunate that your location is close to us so there is less chance of damage to the gears in shipping."

— Major wind gearbox OEM

MARINE

Problem Solving and High Precision Fill Need for Marine Propulsion Manufacturer

A manufacturer of heavy-duty commercial marine propulsion and thrusters needed help finding a set of open internal gears. It was part of the reduction gearing drive line for their thruster propellers. They stressed they needed gears that were more precise and reliable than those they previously purchased, which could not withstand the fast positioning and speed changes their application required. Rexnord Gear Manufacturing Services designed and provided the client with gears that had the precise cut they were looking for to enable movement and positioning of marine vessels in and out of ports. By taking the value-added steps to diagnose the problem and customize the solution, Rexnord Gear Manufacturing Services provided the best quality products and service needed.

EXTRUSION

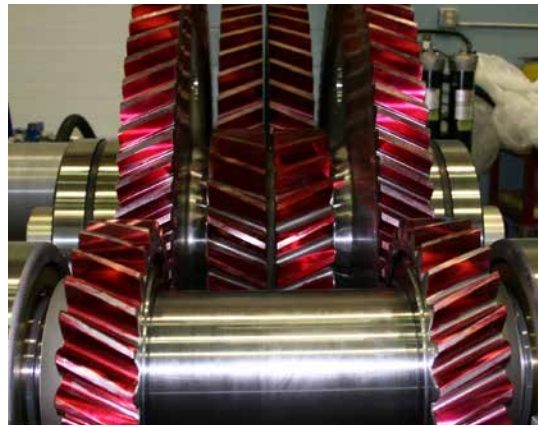
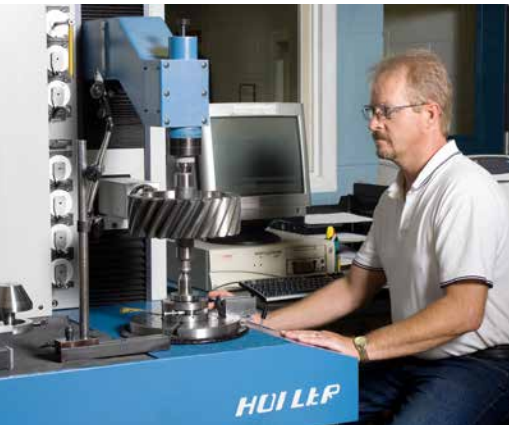
Project Partner from Design to Shipment

An extrusion table OEM required a gearbox with a capacity to handle a large amount of speed variability with an emphasis on protecting extruder screws. Unlike other industry applications that have steady output from their gearboxes, extrusion applications demand versatility, 24/7 service availability, reduction ratios of less than 2:1, and speeds of less than 1500 RPM. They were unable to find a suitable alternative with standardized gearboxes that are manufactured with a standard set of gear ratios to fit their twin screw type extruders. Working with the OEM engineering team, Rexnord Gear Manufacturing Services was able to design a custom gearbox with a reduction ratio that was specific to the extrusion table application. They did this with minimal turnaround and shipment lead-time that was in line with the customer's order timeline.

TRANSIT

Collaboration and Transit Expertise Lead to Long-Term Successful Partnership

A global, high quality gear manufacturer was looking for a partner to support its opportunities for North American transit projects that could satisfy the local content requirements. As a high quality gear manufacturer for rail gearboxes with state-of-the-art equipment, they looked at several gear service offerings that could provide consistent product quality, reliable delivery, and transparent communications to serve as an extension of their manufacturing capabilities. Rexnord Gear Manufacturing Services responded by providing the required manufacturing capabilities that mirrored the customer's in-house global capabilities, along with the transparent communication to allow a collaborative, partnering approach to delivering value to end customers. Rexnord Gear Manufacturing Services was able to work on the customer's timeline, enabling them to successfully regionalize the sourcing and manufacturing of product. By taking this collaborative approach, the mutual trust, confidence, and efficiencies that were gained have resulted in an almost exclusive relationship over many years and many successful projects of support.



Rexnord Gear Manufacturing Services Capabilities

Frequently Asked Questions

Questions

Answers

What are some of the typical, most **common industries** for Rexnord Gear Manufacturing Services?

Bridge & dam, construction, energy, mining, oil & gas, transit, wind, marine, and general industrial

What are some **common applications** for Rexnord Gear Manufacturing Services?

Top drives, draw-works, offshore elevating units, frac pumps, wheel drives, extruders, air compressors, wind turbines, centrifuges, thrust drives, subway propulsion, hydraulic motors, bridges and dams, mixing equipment, hoists, agricultural equipment, and various industrial applications

What are the **full service capabilities** of Rexnord Gear Manufacturing Services?

We manufacture high quality, custom precision spur and helical gearing and gearboxes. With our in-house heat treating, gear cutting and gear grinding capabilities, our experienced professionals ensure the highest level of precision is met for our customers' most demanding gear applications. We have expertise in precision tooth grinding, hobbing and shaping, broaching, key seating and milling, turning, CNC grinding, inspection, and balancing.

What is your **history**?

Rexnord Precision Gear Services was founded as the Merit Gear brand in 1951. Since then, we have continuously added equipment and capabilities that allow us to make gearing of the highest level quality. Over time, we evolved our scope of supply by adding increasing value and now include sub-assemblies in addition to complete assemblies.

Are there any **size restrictions** on custom orders?

We specialize in custom gearing solutions. Contact us at 844-410-GEAR (4327) or review our specifications on pages 7-8 to see our full capabilities.

Where are Rexnord Gear Manufacturing Services made?

Antigo, WI (USA), a few hours north of Rexnord Global Headquarters in Milwaukee, WI. We serve customers worldwide.

Questions	Answers
What are the advantages of Rexnord Gear Manufacturing Services over other brands?	As your single source, full-service provider of custom gear and gearboxes, Rexnord Precision Gear Services can offer you reduced complexity and inventory, improved lead time and efficiency, and competitive pricing. Our capabilities and offering are highly complementary to our core Falk product line.
Do you have any certifications ?	We are ISO 9001:2008 certified, and have AGMA 15 capability.
Where can I find more information on Rexnord Gear Manufacturing Services?	For more information, email Rex.CustGears@Rexnord.com or call 844-410-GEAR (4327).
What is the standard turnaround time for your services?	This varies depending on the scope of supply, size, and complexity of the part. However, for an example, for a moderately sized gear of about 36 inches OD, we can generally process in-house in about 5-7 weeks once we receive material.
Can you describe your available warranties ?	We offer a one-year warranty in which the products supplied will be free from material or workmanship defects. This period is one year from the date of shipment to the buyer, or a period of 2,000 hours use — whichever comes first.
Do you have any customer testimonials you can provide?	Yes, we have many longstanding customers, which indicates the level of service and support we consistently provide. Therefore, customer testimonials can be provided upon request. You can also refer to pages 4-5 for case studies and testimonials.
What are your inspection capabilities?	We have in-house coordinate measuring machines (CMM) and gear measuring machines that measure and document the requirements for a given product to meet the customer's needs. Our inspection capabilities enable us to consistently produce and deliver custom gear solutions that require high levels of precision and accuracy.
What are your gearbox design capabilities?	We design, manufacture, and assemble the complete custom drive. These can include parallel shaft, spur, helical, and planetary drives. Our experts ensure high-quality design of the gearbox per AGMA and ISO standards.
What other products and services does Rexnord provide?	Rexnord is a global industrial company that offers full-line solutions for Process & Motion Control industries. Rexnord Power Transmission keeps industry moving with a broad portfolio of products, including bearings, FlatTop conveying solutions, couplings, gearboxes and accessories, industrial chain, and PT drive components for a wide array of industries. For more information on our broad portfolio of products, services, and industry solutions, visit www.rexnord.com

To learn more about Rexnord Gear Manufacturing Services Capabilities, call 844-410-GEAR (4327), or email Rex.CustGears@Rexnord.com

All other inquiries: 866-REXNORD/866-739-6673 (toll-free within the U.S.) or 414-643-2366 (outside the U.S.)



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www.rexnord.com

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.

REXNORD

Rexnord Company Overview

Rexnord is a growth-oriented, multi-platform industrial company with leading market shares and highly trusted brands that serve a diverse array of global end markets.

Process & Motion Control

The Rexnord Process & Motion Control platform designs, manufactures, markets and services specified, highly engineered mechanical components used within complex systems where our customers' reliability requirements and the cost of failure or downtime are extremely high.

Water Management

The Rexnord Water Management platform designs, procures, manufactures and markets products that provide and enhance water quality, safety, flow control and conservation.