

# Rail Technology. Global Solutions



- Couplings
- Gearboxes
- Components

**RENOLD**  
*Engineering for Life*

# Global Rail Technology Solutions

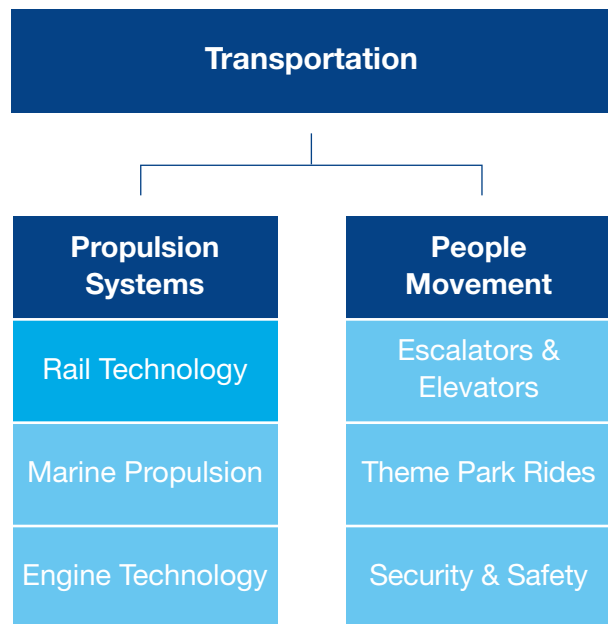
Renold is a global engineering group with over 130 years of experience in the design and manufacture of high-quality power transmission products and application-specific solutions.

Application knowledge and engineering expertise, together with global manufacturing and service, ensures that Renold is your ideal partner – whatever your industry need. It is this unique industry experience gained in demanding global environments that makes the vital difference.

Our skilled engineers work closely with customers to provide a wide range of solutions for critical, real-life applications. Solutions that are proven to stand the test of time – that is why we believe in the principle: ‘Engineering for Life’.

## Renold is focused on servicing 9 key industry sectors

- Transportation
- Mining & Quarrying
- Material Handling
- Manufactured Products
- Food & Drink
- Energy
- Environmental
- Construction Machinery
- Agriculture, Forestry & Fishing



# Engineering For Life



Rail Gearbox



High Misalignment Gear Couplings



Rail components



Torsionally flexible couplings

# Design & Development



## → Application Knowledge

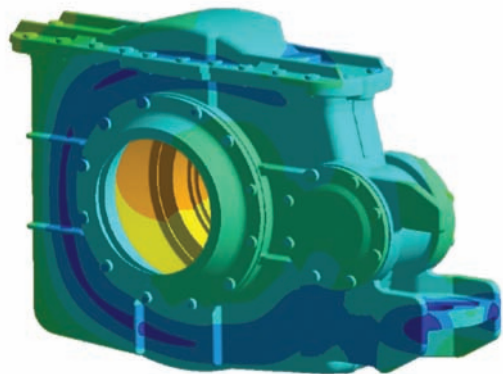
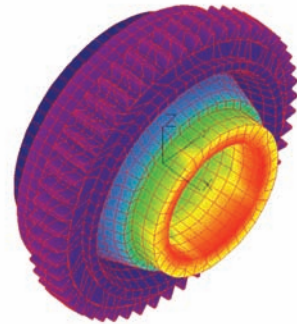
As the global demand for efficient public transportation continues to increase, Renold has demonstrated its extensive knowledge in the design and manufacture of gearboxes and couplings for use by the leading manufacturers of locomotives, mass transit rail vehicles and maintenance operators.

## → Parametric Design

Renold's industry-recognized engineers design systems using the latest Solid 3-D Parametric Design Technology, which provides the ability to modify certain key design parameters, along with the automatic update of the design model.

## → Finite Element Analysis

Renold also uses finite element analysis in conjunction with 3-D solid modeling of critical components to guarantee that stress levels are within acceptable limits ensuring safe operation and long life.



# Manufacturing & Assembly



## → Materials

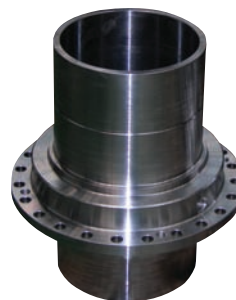
By specifying only the highest quality alloy steels and utilizing in-house carburized heat treatment, Renold ensures a hard, deep case on teeth together with a strong core material ensuring long wear-life.

## → Quality Control

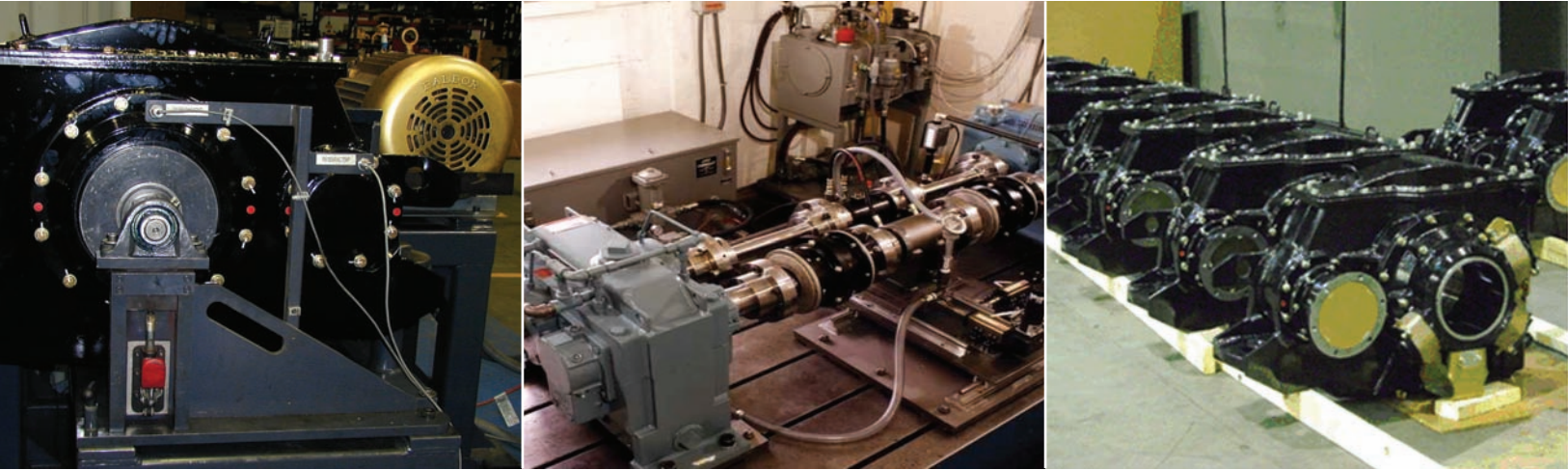
All mass transit components have total traceability with complete material certification. In-process control and hold-points ensure all critical dimensions are within specification with each key part serialized and dimensions recorded.

## → Manufacturing

To provide a superior service, state-of-the-art CNC manufacturing equipment in dedicated cell manufacturing is based in strategic geographical locations.



# Validation & Testing



## → Inspection

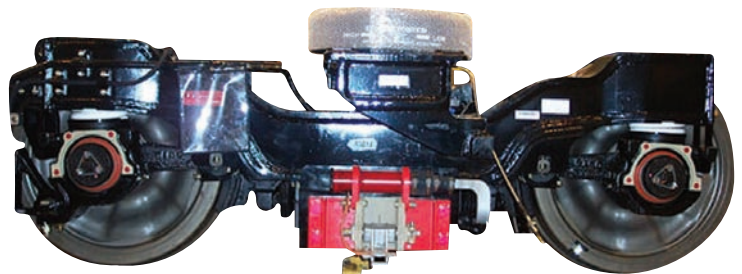
Renold performs final inspection to a pre-approved sampling plan, undertaken in a strictly controlled environment. Inspections of couplings in service for several years have indicated tooth wear lives of approximately 10 million miles (16 million kilometers).

## → Testing

Renold has testing capability that can simulate various duty cycles to meet customer-testing requirements. Renold is ISO 9001 certified and has more than 30,000 pieces in operation worldwide.

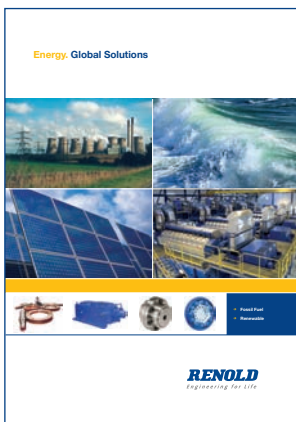
## → Global Installations

Renold's worldwide installations include Australia, Brazil, Czech Republic, Korea, Malaysia, Mexico, Singapore, Taiwan and the United Kingdom, with primary projects located in the United States.



# Key Industry Sectors

Renold products and services are utilised in a wide range of applications highlighted in the key industry sector brochures, available to download from [www.renold.com](http://www.renold.com)



## RENOLD

A global power transmission group serving global markets through an international network.

For your local Renold sales and service location visit [www.renold.com](http://www.renold.com)

**Superior Technology. Global Expertise.**

[www.renold.com](http://www.renold.com)



BROMT/10.11/E  
A Business of Renold Power Transmission Ltd.

**RENOLD**  
*Engineering for Life*