# Serving The Food Industry





www.renold.com

# Renold Unique quality and safety



### Leading edge technology

Renold provides practical cost effective solutions, with a commitment of value through quality. This is achieved by continuous investment in people, process technology and manufacturing.

### **Consistent reliability**

Renold's 100 years of experience in the design and manufacture of power transmission products, to the highest specifications, with proven performance in diverse industries worldwide, underwrites the guaranteed quality and the assurance of reliability.

### **Package solutions**

One stop for your drive systems, including roller and conveyor chain, gears, motors, couplings, variators and fabricated bases.

#### Service excellence and care

Renold offers a unique level of service excellence and customer care. Our experienced applications engineers will select the optimum solution with the aid of the latest computer and design technology. Renold is the name for service, care and peace of mind.

### Special solutions and innovations

Renold is recognised throughout the industry for its capability to create specific solutions to customers' unique requirements. International companies and industries from steel to food processing, escalators to textile machinery have chosen Renold to solve their problems.

### Local and international availability

The Renold organisation stretches world-wide.

- 18 National Sales Companies
- Over 70 Overseas Distributors offering the comprehensive Renold range of power transmission products.

# Chain for food processing applications

One of the largest and most diverse industries imaginable, the processing, manufacturing and packaging of the world's food products delivers challenges to engineers looking to meet tough productivity targets. This requires first

class technical support and the right product for the job.

Renold offers the most comprehensive range of chain products designed for the food industry and works with many of the leading international brand names that we encounter every day.

Chain aimed at reducing maintenance, delivering high levels of resistance to wear, fatigue and corrosion and keeping your production levels at their highest; that's our speciality!



Switch to Renold to avoid corrosion in food applications





# Renold has the answers

Renold helps you to avoid costly downtime. Renold equals accuracy and precision. Renold provides a whole range of chain solutions.

# Renold Synergy

- High performance, long lasting roller chain
- Unbeatable wear and fatigue resistance
- Virtually dry-to-the-touch
- Easy to handle and install





Synerg

#### Renold Syno

- The leading maintenance free chain range
- Does not require relubrication
- Dry-to-the-touch
- Used worldwide in food industry



# Renold takes care of everything



Hydro-Service Superior corrosion resistance



Stainless Steel Tried and tested



Klik-Top Tough and easy to install



Attachment chain Widest variety, anything you need



Lubrication options Food industry-approved options available

# Renold has options, whatever your application environment!

Conditions	The Chain Solution	
Washdown	Syno PB Syno SS Stainless steel chain	Hydro-Service chain Nickel plated chain Polymer bushed conveyor chain
Corrosive conditions - Mild (pH between 5 and 7)	Syno NP <sup>34</sup> Syno SS <sup>34</sup> Stainless Steel <sup>1345</sup> Sterilizer chain <sup>1345</sup>	Polymer bushed conveyor chain <sup>34</sup> Hydro-Service chain <sup>3</sup> Nickel Plated <sup>34</sup>
Corrosive conditions - High (pH below 5 and above 7; temperatures above 60°c)	Nickel Plated	Stainless Steel <sup>2</sup>
Cannot lubricate	Syno NP Syno SS	Syno PB
Direct contact with food	Stainless steel	Syno SS
High shock loads	Standard roller chain Standard conveyor chain	Engineering class chain
Heavy loads	Standard conveyor chain	Renold Synergy
Temperature: Hot or Cold (Between -40°C and 180°C. Above 180°C special lubrication would be required)	Stainless steel Syno SS Sterilizer chain	Standard conveyor chain Engineering class chain
High humidity	Stainless steel Hydro-Service	Sterilizer chain
High speed	Standard roller chain Double Pitch roller chain	Can feeder chain
Vertical system	Standard roller chain	Engineering class chain
Indexing / moulding applications	Standard roller chain	Apron chain
High Abrasion	Sovereign	

1 = Suitable for temperatures over 60°C (stainless steel and sterilizer chain)
2 = Suitable for highly corrosive conditions of more than 60°C (stainless steel)

- 4 = Suitable for environments associated with pitting or crevice corrosion such as salt water, moderately high temperatures or a pH of 3 5
- 3 = Suitable for environments associated with general corrosion
- 5 = Suitable for environments associated with galvanic corrosion

# Food industry

# Gears, clutches and couplings



### **HC** series

State of the art heavy duty helical and bevel/helical units using case hardened and ground gears throughout, 14 sizes to 1000kW (1340HP).

- Motorised and speed reducer types for all applications
- Wide ratio range gives speeds to match the design demand
- Variable mounting options allows design flexibility



# WM series

WM Series is available with imperial 4" - 9" centres and metric 100mm - 200mm centres, with ratios of 5:1 to 70:1 as a single reduction unit and 75:1 to 4900:1 as a double reduction. Foot, flange and shaft mounted types available.

- Heavy duty version for demanding applications
- Unique Holroyd tooth form for high efficiency and product life
- Integral sprag clutch holdback for safe running



# Carter gear

Hydrostatic variable speed drive units up to 37kW.

- Proven reliability in hazardous environments
- Electronic pneumatic and manual controls allowing design flexibility
- 27:1 stepless speed range with high speed holding accuracies
- Accurate speed holding



## **TW** series

Rugged gear unit for arduous application 10" to 28" (nominal 254mm to 710mm) centre distance available as single and double reduction units with power supply to 1361kW (1824HP).

- Variety of unit types enables flexibility in design mounting
- Unique Holroyd tooth form provides high efficiency and long product life
- Foot, flange and shaft mounted versions for all mounting options
- Heavy duty design suitable for high torque applications



### **PM series**

This series of gear units is available as a single worm unit - type PW, helical/worm unit - type PH and a helical/bevel/helical unit - type PB.

The range offers the ultimate in versatility and durability with a modern compact design allowing direct mounting of standard IEC and NEMA motors.

Torque capacities range up to 12,000Nm with gear ratios from 5:1 to 333:1 and if combined with other Renold Gear products, ratios of up to 23000:1 can be achieved.

- Motorised and speed reducer types for all applications
- Variable mounting options allows design flexibility
- Robust construction suitable for heavy duty applications
- Optional protection for hostile environments
- Long life synthetic lubricated



### Hydrastart

Fluid soft start couplings available in many sizes and types up to 700kW (950HP) capacity.

- Flexible couplings and vee pulley designs as standard for design flexibility
- Soft start allowing the motor to accelerate unloaded
- Reduces motor size and drive package cost
- Delay fill version extending acceleration time and further reducing start-up torque



## Pinflex

A robust general purpose pin/buffer coupling providing reliable, fail-safe transmission of torque and misalignment capability.

- Steel half bodies, strong yet compact
- Polyurethane buffers, reliable/flexible and temperature resistant
- Torsionally flexible and shock absorbing, extending machine life



# Sprag Clutch

Sprag clutches are the solution for back stopping, indexing and over-running applications. The no-backlash design gives positive connection between driver and driven components. Torque capacities of over 800,000 Nm are available with bore sizes of 500mm.

Epoxy paint is available for gearboxes used in food processing environments

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