



Conveyor Chain

Making chain in Australia since 1947; worldwide since 1879



RENOLD
Australia

*Industrial Chain & Mechanical
Power Transmission Specialists*

Renold Australia

Australian Made Manufacturing



Experience

Renold has been designing and manufacturing chain in Australia since 1947, overseas since 1879.

Today you'll find Renold's Australian Made Conveyor Chain in industries such as agriculture (including sugar cane milling), construction, mining, steel, wood processing, transportation, logistics and food & beverage processing.



Local manufacture

With Renold, customers can enjoy the best of both worlds. The very latest in international technology combined with technical support and the fast turnaround and delivery only local manufacture can achieve.

British Standard Conveyor Chains

Renold conveyor chains are made in standard breaking loads from 6000 lbf to 100,000 lbf with a wide choice of pitches and attachments.

Made to order Conveyor Chains

Renold can manufacture virtually any type of conveyor chain according to specific requirements, including heavier chains up to 500,000 lbf for specialised applications, such as for steel, cement mills, sugar mills, mining, agricultural and food & processing.



Quality Certifications

Renold Australia is certified to the following:

ISO 9001

Quality Assurance

ISO 14001

Environmental systems and practices

ISO 45001

Health and Safety systems and practices



ISO 9001
ISO 14001
ISO 45001
BUREAU VERITAS
Certification



Renold Australia

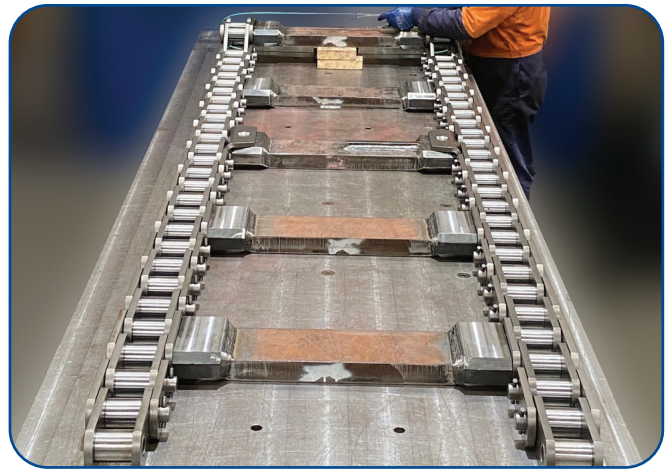
Australian Made Manufacturing

Local manufacturing

Renold has a large factory in Melbourne and a distribution network throughout Australia, New Zealand and South East Asia.

Technical advice, applications engineering, installation support and preventive maintenance monitoring, as well as extensive stocking, are readily available.

Renold invests heavily in new technology and equipment.



Large Conveyor Chain Assembly

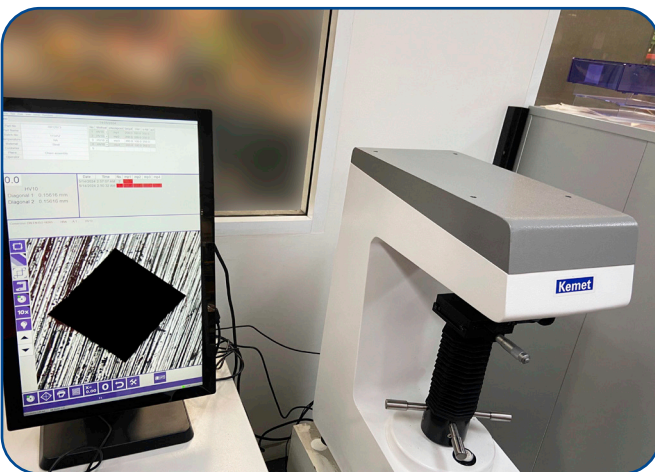


Vertical Machining Centre



CNC Lathe

Advanced Technology



Quality testing

Renold has 170+ years of experience in chain design. Renold conveyor chain is designed to achieve the optimum balance between material properties, bearing areas and chain weight, assuring customers of dimensional consistency, long term performance and value for money.

Renold employs a team of experienced engineers to manage its own product development inhouse, allowing it to easily modify products when needed in order to meet customers' individual requirements. Using 3D modelling, Renold can select, design, cost and quote quickly for special chains or customised features.

Scan the QR Code to view Renold's Corporate Video →



Renold Australia

Conveyor Chain Examples



Renold Australia

Sprockets

Manufactured to suit

Renold Australia manufactures a comprehensive range of special design sprockets to suit all applications, as well as carrying stocks of standard sprockets.

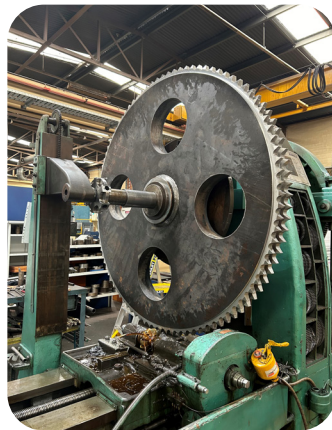
Special sprockets can be manufactured in special materials or formats up to 2m diameter, to suit specific applications in harsh or difficult drive situations, such as:

- Sprockets incorporating shafts
- Welded or detachable hubs with removable teeth
- Shear pin devices fitted
- Combination sprockets (two or more sprockets combined having different pitch sizes and numbers of teeth)
- Sprockets in two or more sections, ie, split sprockets or segmental sprockets
- Standard conveyor sprockets are available in pitch sizes of 38mm to 500mm
- Standard transmission sprockets are available in pitch sizes from $\frac{3}{8}$ " to 2"

Products manufactured in the Melbourne factory



Plastic Sprocket / shaft assembly, 420mm diameter



Teeth being cut for 1.93m diameter sprocket



1.75m diameter sprocket with 8 bolted teeth segments to facilitate teeth replacement



0.8m diameter sprocket with sideplate supports for WH150 chain

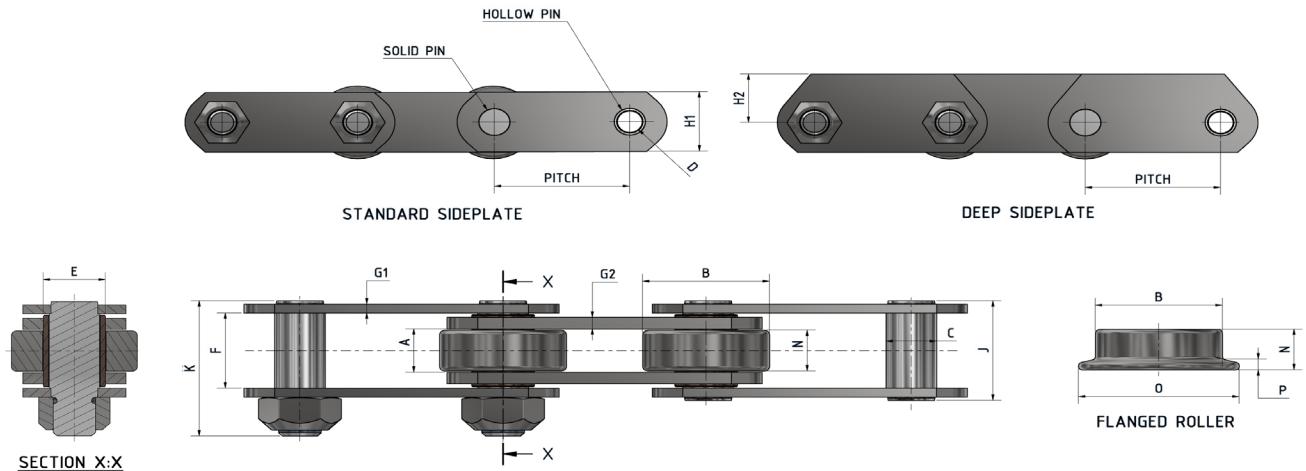
Renold Australia

British Style Conveyor Chain

* Available with bolted, circlip & rivet connectors

PERFORMANCE FEATURES:

- High strength alloy steel sideplates.
- Breaking loads exceed the minimum international standards.
- Fatigue life is improved by maintaining precise fits and tolerances.
- Bush protrusion through the chain side plate maintains precise clearances between the chain's inner and outer links, reducing wear and allowing space for lubricant penetration.
- Chain and sprocket lives are optimised by the rigid control of pitch accuracy with outer sideplate pitch compensation, resulting in excellent gearing and lower friction.
- Sherardising available as an option.



Hollow Bearing Pin

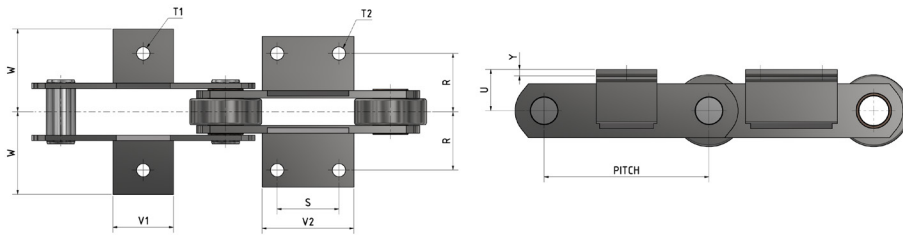
Chain Series	Ultimate Tensile Strength (kN)	DIMENSIONS IN MILLIMETRES														
		Pitch mm (Min-Max)	Inner width	Pin dia	Hollow pin bore (min)	Bush dia	Roller dia	Roller width	Flange dia	Flange width	Inner width Outer	Outer Sideplate thickness	Inner Sideplate thickness	Sideplate depth	Deep sideplate height	Overall width
			A	C	D	E	B	N	O	P	F	G1	G2	H1	H2	J
6,000lb	27	50.8-152.4	15.0	14.0	10.1	18.0	31.7	14.00	41.3	3.0	26.0	3.7	3.7	26.1	25.4	36.5
12,000lb	54	76.2-228.6	19.0	19.0	13.2	23.6	47.6	17.8	60.3	3.8	32.5	3.7	5.0	38.9	31.7	44.0
24,000lb	107	88.9-304.8	25.4	26.9	20.1	33.2	66.7	24.1	85.7	6.3	43.0	5.0	7.1	51.0	44.4	57.0
36,000lb	160	127.0-457.2	38.1	31.7	22.9	38.1	88.9	36.8	114.3	8.0	59.4	8.0	10.0	65.4	57.4	80.0

Solid Bearing Pin

Chain Series	Ultimate Tensile Strength (kN)	DIMENSIONS IN MILLIMETRES														
		Pitch mm (Min-Max)	Inner width	Pin dia	Bush dia	Roller dia	Roller width	Flange dia	Flange width	Inside width outer	Outer sideplate thickness	Inner sideplate thickness	Sideplate depth	Deep sideplate height	Overall width	Bolted connect pin width
			A	C	E	B	N	O	P	F	G1	G2	H1	H2	J	K
7,500lb	33	50.8-152.4	15.0	14.0	18.0	31.7	14.0	41.3	3.0	26.0	3.7	3.7	26.1	25.4	38.0	48.5
15,000lb	67	76.2-228.6	19.0	19.0	23.6	47.6	17.8	60.3	3.8	32.5	3.7	5.0	38.9	31.7	46.0	59.0
30,000lb	134	88.9-304.8	25.4	26.9	33.2	66.7	24.1	85.7	6.3	43.0	5.0	7.1	51.0	44.4	60.0	76.0
45,000lb	200	127.0-457.2	38.1	31.7	38.1	88.9	36.8	114.3	8.0	60.0	8.0	10.0	65.4	57.4	82.8	102.4
60,000lb	267	127.0-457.2	38.1	23.0	38.1	88.9	36.8	114.3	8.0	60.0	8.0	10.0	65.4	57.4	82.8	100.6
85,000lb	378	152.4-609.6	38.1	28.5	38.1	88.9	36.8	114.3	8.0	65.5	10.0	12.0	65.4	57.4	92.5	111.5
100,000lb	445	152.4-609.6	38.1	31.7	44.4	88.9	36.8	114.3	8.0	65.5	10.0	12.0	65.4	57.4	92.5	111.5

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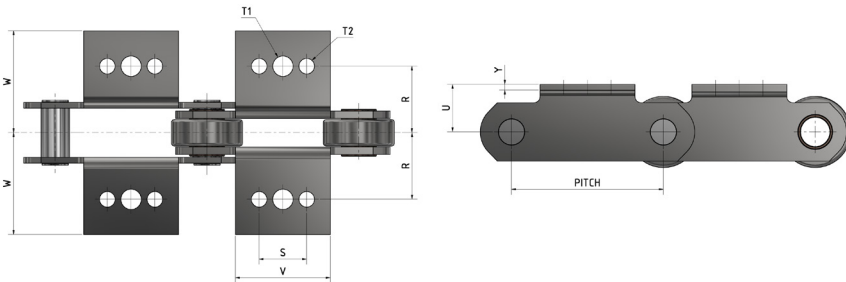
British Style Conveyor Chain 'K' Attachments



'K1' and 'K2' Welded Attachments

Chain Series	Ultimate Tensile Strength (kN)	DIMENSIONS IN MILLIMETRES									
		Pitch (mm)	Transverse Pitch	Hole Centres	K1 Hole Dia.	K2 Hole Dia.	Attachment Height	K1 Attach Width	K2 Attach Width	Overall Width	Attachment Thickness
			R	S	T1	T2	U	V1	V2	W	Y
24,000 / 30,000 lbs	107 / 134	101.6	54.0	31.8	15.5	12.3	38.1	56.0	56.0	76.7	6.0
		152.4	54.0	57.1	15.5	12.3	38.1	56.0	85.0	76.7	6.0
		203.2	54.0	88.9	15.5	12.3	38.1	56.0	127.0	76.7	6.0
		254.0	54.0	133.3	15.5	12.3	38.1	56.0	168.0	76.7	6.0
		304.8	54.0	190.5	15.5	12.3	38.1	56.0	228.0	76.7	6.0
36,000 / 45,000 / 60,000 lbs	160 / 200 / 267	152.4	73.0	38.1	17.0	14.0	50.8	70.0	70.0	104.0	10.0
		203.2	73.0	63.5	17.0	14.0	50.8	70.0	120.7	104.0	10.0
		254.0	73.0	114.3	17.0	14.0	50.8	70.0	171.5	104.0	10.0
		304.8	73.0	165.1	17.0	14.0	50.8	70.0	223.0	104.0	10.0
85,000 / 100,000 lb	378 / 445	152.4	85.7	44.6	20.0	20.0	57.2	88.9	89.0	118.0	10.0
		304.8	85.7	165.0	20.0	20.0	57.2	88.9	225.0	118.0	10.0

** Attachments can be supplied on one or both sides of chain.



K3 Integral Attachments

Chain Series	Ultimate Tensile Strength (kN)	DIMENSIONS IN MILLIMETRES								
		Pitch (mm)	Trans. Pitch	Hole Centres	Centre Hole Dia.	Outside Hole Dia.	Attach Height	Attach Width	Overall Width	Att Thick.
			R	S	T1	T2	U	V	W	Y
6,000 / 7,500 lb	27 / 33	76.2	38.1	22.2	10.5	9.2	19.0	43.0	57.5	3.7
		101.6	38.1	31.8	10.5	9.2	19.0	63.5	57.5	3.7
		152.4	38.1	57.2	10.5	9.2	19.0	114.5	57.5	3.7
12,000 / 15,000 lb	54 / 67	76.2	44.4	31.8	13.8	10.6	31.7	63.5	68.0	3.7 & 5.0
		101.6	44.4	31.8	13.8	10.6	31.7	63.5	68.0	3.7 & 5.0
		152.4	44.4	57.2	13.8	10.6	31.7	114.5	68.0	3.7 & 5.0

** Attachments can be supplied on one or both sides of chain.

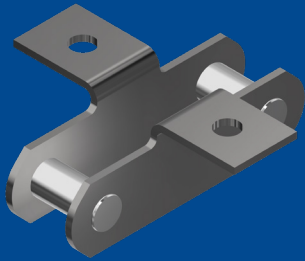
Sherardising Chain

As an improved option to zinc plating, Renold can offer an in-house diffused zinc coating process. This is popular in food processing applications to provide a protective coating in corrosive environments or where aggressive cleaning products are used.

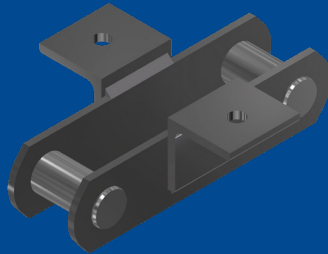
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Connectors and Attachment types

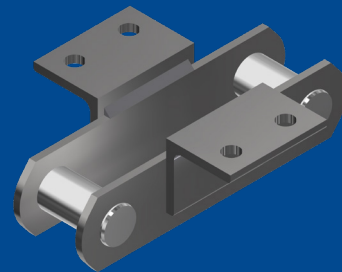
K1 Integral



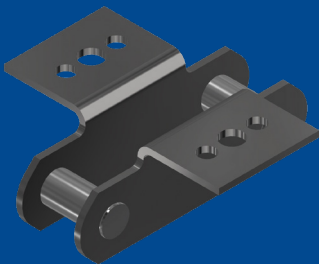
K1 Welded



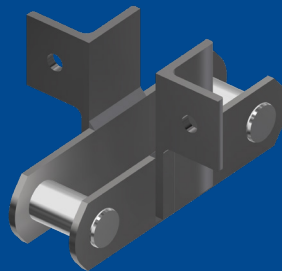
K2 Welded



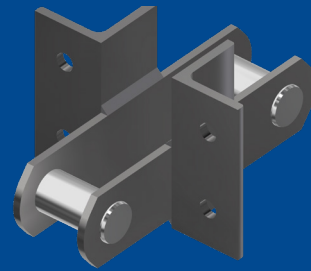
K3 Integral



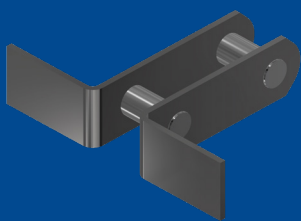
F1 Welded



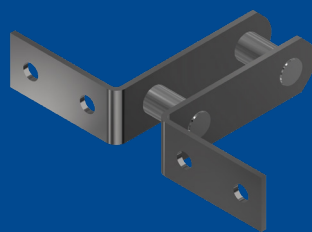
F2 Welded



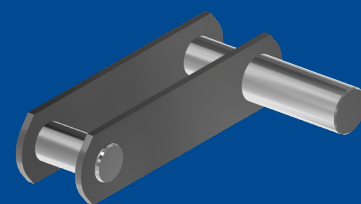
LO Integral



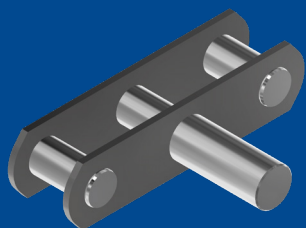
L2 Integral



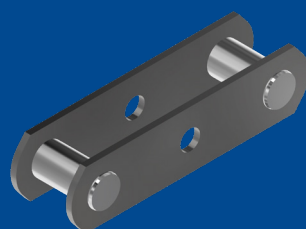
**Spigot Pin through
Hollow Bearing Pin**



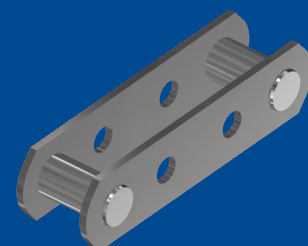
**Spigot Pin through
Link Plates**



Single Holed Link Plate



Double Holed Link Plate



Chain Maintenance

Chain Condition

Determining whether a conveyor chain is suitable for continued operation depends on a number of variables including:

- Pitch extension (wear of pin OD and/or bush ID) which can effect gearing on sprockets.
- Roller wear (OD and/or ID).
- Bush and Pin wear in relation to their effective hardened case depths.
- Sideplate wear and/or corrosion.
- Overall chain wear and/or cracking which may reduce chain strength.

Renold offers a condition monitoring service involving inspection of a section of chain, analysis of components, and providing a report covering observations and a recommendation for remaining chain life.

This can be arranged by adding some short lengths of chain at the time of placing a chain order with Renold.

These extra lengths will allow replacement of sections removed from the in-service chain to be used for condition monitoring analysis.

Installation and Maintenance Schedule

- It is recommended that new sprockets are installed when fitting a new chain.
- Ensure chain is properly aligned on sprockets and engages and releases freely.
- Ensure chain articulates freely and runs smoothly.
- Ensure take-up is properly adjusted.
- Ensure any attachments are securely fitted.
- Ensure all connecting links are properly installed.

A typical maintenance schedule is laid out below. This should be adapted to suit each specific application, based on local conditions and duty cycle.

EVERY WEEK OR AS DETERMINED NECESSARY

- Check lubrication and lubricate if necessary.
- Purge any grease galleries to prevent grease solidifying.
- Check for smooth running and that all attachments are secure with no impact or rubbing on sideplates.
- Check chain engages and releases from sprockets freely.
- Check all rollers rotate smoothly and none are seized.

FIRST MONTH'S RUNNING AND THEN EVERY 3 MONTHS

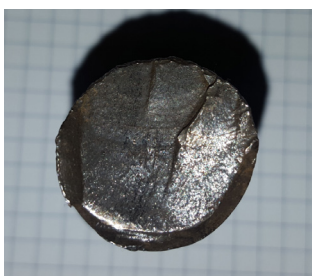
- Check chain take-up and adjust if necessary.
- Check for unusual wear and/or rubbing and identify cause and rectify.



Fluorescent magnetic particle inspection of crack in hollow pin



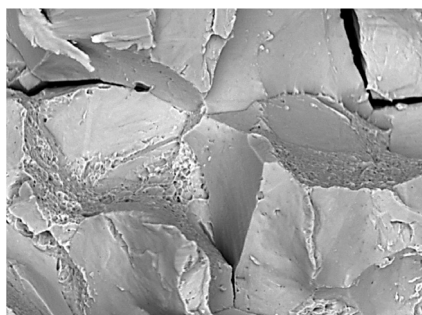
Deep Pitting Corrosion on unloaded side of pin



Pin fracture face



Chain samples with light surface corrosion



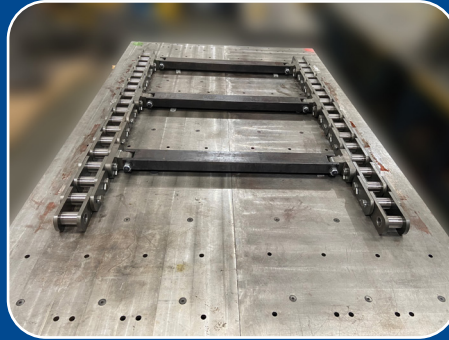
Electron microscope photograph of the fracture surface showing intergranular cracking consistent with overload fracture of high hardness steel



Wear on loaded side of pin



Dye penetrant testing for potential cracking

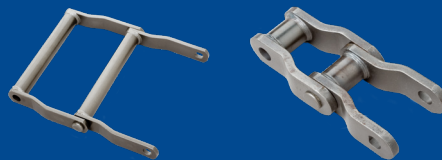


Mining Industry

Renold has been supplying chains and power transmission products to the mining industry for over 100 years where reliability and machine uptime are critical to productivity, profitability, and safety.

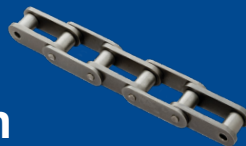
The Melbourne factory provides the ability to meet specific needs through innovative and customised solutions such as special coatings and materials designed to increase machine uptime.

Welded Steel Chain



Welded Steel chains are available with heat-treated pins for moderate environments or with all heat-treated parts for the toughest applications. Pins are press fitted into accurate sidebar holes and machine-welded barrels ensure high quality and dimensional control.

81X Conveyor Chain



Renold's 81X Conveyor Chains have the strength, wear life and dimensional accuracy to withstand severe impact and abrasion.

OTHER INDUSTRIES SUPPLIED INCLUDE:

- Sugar Mills / Harvesting
- Abattoirs
- Food & Beverage
- Agriculture
- Construction Machinery
- Transportation
- Aluminium Processing & other Metals
- Energy
- Steel Mill
- Wood Processing
- Wastewater
- Bakery

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Enquiries

Customer:	Date:.....
Quantity:..... Part no:.....	Manufacturer:.....
Roller Type Diam:..... (or)	Bush Type:.....
Material type: Carbon/Stainless Steel/Other alloy:.....	
Normal working load:.....	Maximum load:.....
Minimum breaking strength (UTS):.....	
Chain speed:.....	No of teeth on driving sprocket:.....

Application Details

Brief description of conveyor type (Horizontal/vertical etc):.....

Material conveyed:.....

Conditions, clean/abrasive/corrosive/wet/dry. Operating temperature:.....C°

Lubrication: None/oil/other.....

Impact/shock loads:.....

If replacing existing chain, how long did original last:.....

Reason for requiring replacement:.....

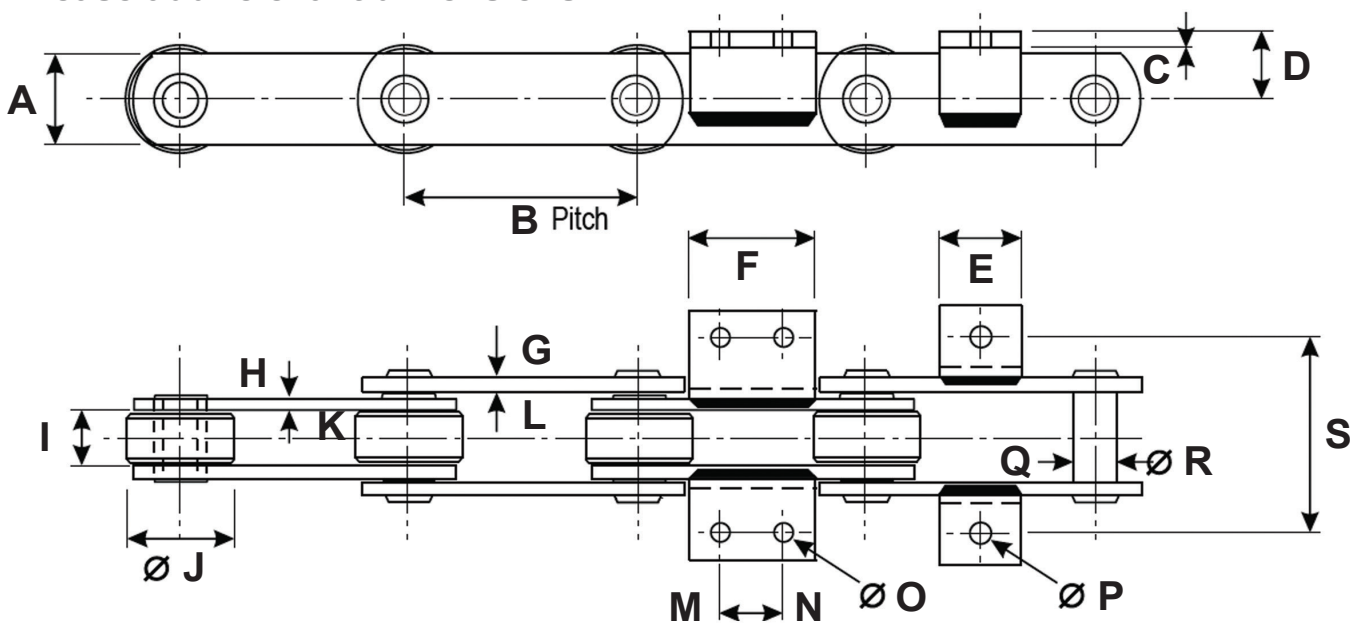
Is the same chain required:.....

Any other features or applicable data: (Previous price/delivery required etc).....

.....

.....

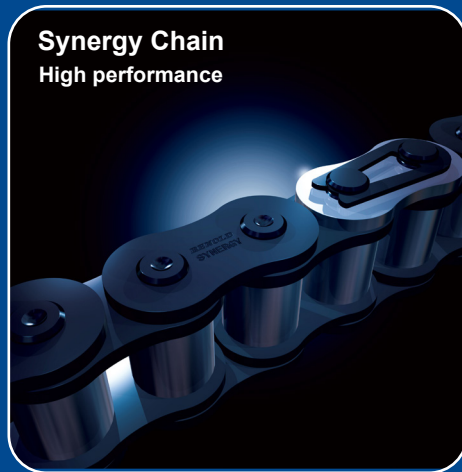
Please add relevant dimensions



This form can be filled in online by scanning this QR Code.

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Other Renold Products - Transmission Chain



- * Superior wear life
- * Outstanding fatigue resistance



- * Self-lubricating chain
- * Food industry approved lubricant



- * Superior corrosion resistant coating will not chip or peel, hexavalent chrome-free
- * Alternative choice to stainless steel chain



- * Dependable performance
- * Wide waist plate / wedge rivet



- * Manufactured in-house
- * Extensive product line



- * Suitable for high speed or heavy load applications



- * Any type of standard or special attachments
- * Large assembly facility with design engineers in Melbourne



- * Used in food processing and high corrosion environments



- * Used in the transfer and transporting of delicate goods

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Other Renold Products - Torque Transmission

Gears



JPM Gearbox



Planetary Gearbox



Spiral Bevel Gearbox



Shaft Mounted SMX



Helical / Worm Gear Units

Clutches and backstops



Sprag/Coupling assembly



Sprag Clutch



Back stop



Trapped roller - Freewheels



Ball bearing Freewheels

Hydraulics



DC Power Packs



Orbital Motors



Gear Pumps



Axial Piston Pumps



Hydraulic Power and Control Unit

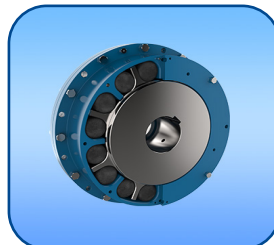
Couplings



Pinflex Coupling



PM Coupling



RB/RBI Coupling

Brakes



SIME brakes

Shakers



Vibratory Shaker Drives

Spindles



Gearflex Coupling



Hydrastart Coupling

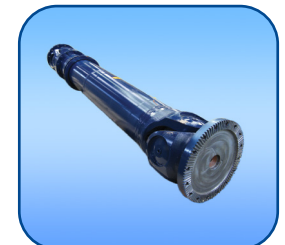


HTB-GS Coupling



Mill Spindles

Universal Joint



Universal Joint

Renold Australia

Safety warning

Outer Link: for high speed drives or drives operating in arduous conditions a properly riveted outer link (no 107) must always be used for optimum security. The use of other connectors and cranked links (no 12 and no 30) must always be restricted to light duty, non-critical applications, in drives where an odd number of pitches is absolutely unavoidable. Wherever possible, drives should have sufficient overall adjustment to ensure the use of an even number of pitches throughout the useful life of the chain.

A cranked link joint should only be used as a last resort.

Health and Safety at work

In the interests of safety, customers are reminded that when purchasing any technical product for use at work (or otherwise), any additional or up-to-date information and guidance, which it has not been possible to include in the publication, should be obtained by you from your local sales office in relation to the suitability and the safe and proper use of the product.

Chain performance

The performance levels and tolerances of our product stated in this brochure (including without limitation, serviceability, wear life, resistance to fatigue, corrosion protection) have been verified in a programme of testing and quality control in accordance with Renold, independent and/or standard recommendations.

No representations or warranties are given that our product shall meet the stated performance levels or tolerance for any given application outside the performance levels and tolerances for the product's own specific application and environment.

Guidance notes

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Illustrations - the illustrations used in this brochure represent the type of product described but the goods supplied may vary in some detail from those illustrated.

Specifications - The right is reserved to make modifications to the product to meet manufacturing conditions and/or developments (for example in design or materials).

Renold - Product can be supplied by Renold companies or representatives around the world on the standard terms and conditions of sale of the company or representative from which the product is purchased.

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* Sales representatives



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Industrial Chain & Mechanical
Power Transmission Specialists