RENOLD Synergy™

Strong. Powerful. Even Better Performance.



RENOLD

Superior Chain Technology

Renold Synergy Simply the best

Synergy was created to meet a specific requirement of our customers: Improved chain performance resulting in better value.

Synergy is the only true high-performance chain on the market. Engineers and maintenance professionals around the world endorse the wear resistance and exceptional working life of this remarkable chain technology.

And the best just got better...

New specially formulated lubricant has improved initial wear life by up to 50%. Renold Synergy should be lubricated as normal when in operation.

Available in British Standard sizes ranging from 06B to 24B in simplex, duplex and triplex construction.

Available in ANSI Standard sizes ranging from 35 to 160 in simplex, duplex and triplex construction.

Make your business more efficient. Contact your local Renold distributor to put Renold Synergy to work for you today.

Renold History Timeline



1880 Patented the bushed roller chain – the first in the world.



1912 Introduced unique end softened pins across full range of products for easy assembly/disassembly in the field.

1915 Introduced wide-waist link plates for maximum fatigue strength.

1917 Introduced tapered bushings, which maximize pin/bushing bearing area for improved break-in wear.



1981 Began cold extrusion of solid bushings – first to manufacture solid bushings/ solid rollers across full range of products.

2000 Launched Synergy® – the industry standard in wear life.





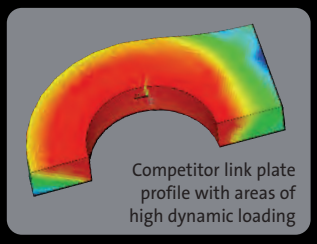
2004 Launched upgrade to Syno® – unmatched features and performance in maintenance-free chain.

2010 Introduced improved Synergy®

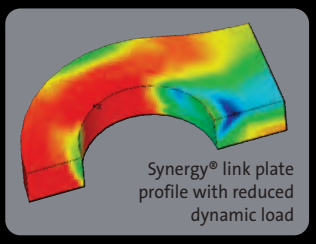
Renold Synergy Better performance in every detail

Improved fatigue resistance

Plate and connecting link design optimizes stress distribution and fatigue performance. Synergy® performs, on average, 30 percent better than other brands under repeated shock loading and continual heavy loads.



Competitor link plate profile with areas of high dynamic loading



Synergy® link plate profile with reduced dynamic load

Better wear resistance

Independent tests show Renold Synergy® performed up to six times better than the highest quality competitor's chain.

Built to perform

Each component of Renold Synergy® is engineered to perfection using cutting-edge design tools such as Finite Element Analysis (FEA). It all adds up to chain performance that exceeds the sum of its parts.

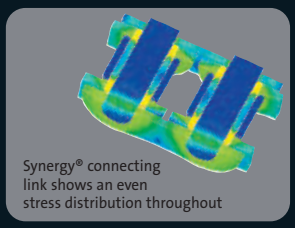


Renold Synergy Built to be better

- **Plate Shape** – wide waist profile for improved stress distribution; plate thickness maximised within the constraints of the Standard.
- **Bushes** – solid extruded bush provides improved roundness and strength compared to curled bushes. Profiled ends improve bearing area and extend wear life.
- **Hole Quality** – triple punch holing ensures controlled positional location of pin and bushing for even wear.
- **Interference Fits** – optimised to ensure maximize fatigue life.
- **Fatigue Resistance** – pre-stressed surfaces increase fatigue resistance.
- **Wear Resistance** – profiled components and special pin surface coating enhance wear resistance.
- **Connecting Link** – unique in design, allowing for a chain system with no component weaker than another.

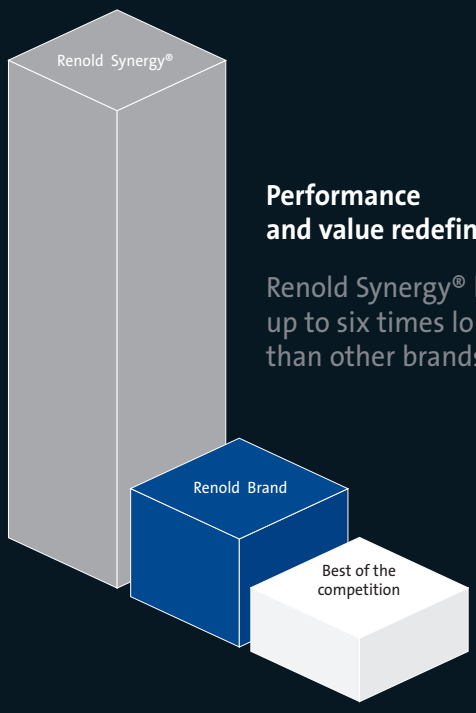


- **Exclusive!** Our unique end-softened pins cut to length quickly and cleanly using just one tool. Get up and running faster than ever before.
- Our platinum-coloured connecting links stand out against the black surface plates, so they're easy to identify and remove.
- Synergy®lasts longer and resists greater shock loads, making it the most reliable chain on the market.



Synergy® connecting link shows an even stress distribution throughout

Easy-to-use, slip-fit connecting links are cold worked after heat treatment to ensure even stress distribution throughout.



Performance and value redefined

Renold Synergy® lasts up to six times longer than other brands.

Renold Synergy Improving performance

Since 2000, Renold Synergy® has transformed the productivity and efficiency of all these industrial applications and more.

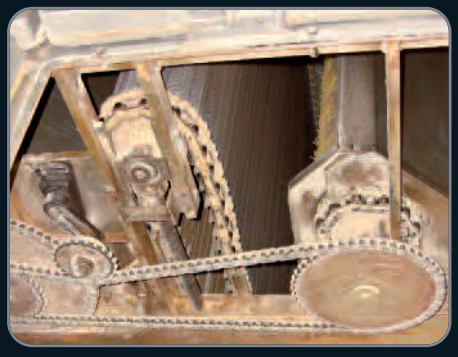
- Pharmaceutical
- Bottling
- Fruit Washing
- Iron & Steel
- Packaging
- Confectionary
- Tyre Manufacture
- Timber Processing
- Textiles
- Pipe Handling Conveyor
- Fibreglass Insulation
- Wood Board Processing
- Breeze Block Manufacturing
- Bakery
- Blast Freezer
- Wool Processing
- Furnace Conveyor
- Steel Crusher











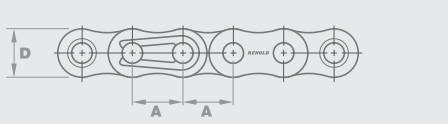


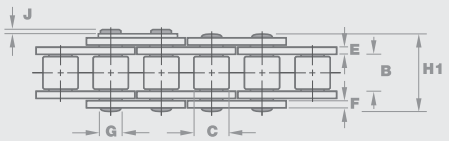


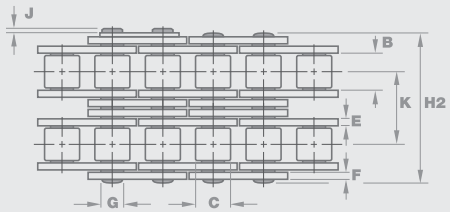


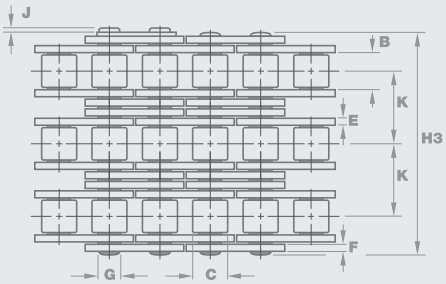
Renold Synergy® Roller Chain

European (BS) Standard / ISO 606










No.4


No. 26


No. 107


No. 12


No. 11

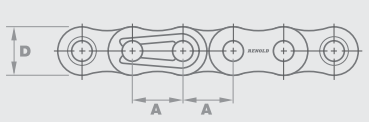

No. 30

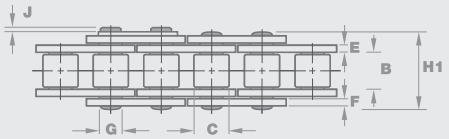
Chain Ref.		Technical Details (mm)													Connecting Links					
Renold Chain No.	ISO Ref.	Pitch (inch)	Pitch (mm)	Inside Width MIN	Roller Diam. MAX	Plate Height MAX	Plate Width Inner MAX	Plate Width Outer MAX	Pin Diam. MAX	Pin Length MAX	Conn. Link Extension MAX	Transverse Pitch NOM	ISO606 Tensile Strength (Newtons) MIN	Weight kg/m	No. 4	No. 107	No. 11	No. 26	No. 12	No. 30
European (BS) Standard - Simplex																				
		A	A	B	C	D	E	F	G	H1	J	K								
GY06B1*	06B-1	0.375	9.525	5.72	6.35	8.20	1.29	1.04	3.28	12.5	1.3	-	8900	0.39	✓	✓	-	✓	-	✓
GY08B1	08B-1	0.500	12.700	7.75	8.51	11.70	1.55	1.55	4.45	16.5	2.0	-	17800	0.70	✓	✓	-	✓	-	✓
111044	-	0.500	12.700	3.30	7.75	9.60	1.13	0.98	4.09	9.8	2.0	-	8900	0.30	✓	✓	-	✓	-	✓
111046	-	0.500	12.700	4.88	7.75	9.60	1.13	0.98	4.09	11.4	2.0	-	8900	0.35	✓	✓	-	✓	-	✓
110044	-	0.500	12.700	5.21	8.51	11.70	1.55	1.55	4.45	14.5	2.0	-	17800	0.70	✓	✓	-	✓	-	✓
GY10B1	10B-1	0.625	15.875	9.65	10.16	14.60	1.55	1.55	5.08	18.8	2.5	-	22200	0.96	✓	✓	-	✓	-	✓
110054	-	0.625	15.875	6.48	10.16	14.60	1.55	1.55	5.08	16.0	2.5	-	22200	0.81	✓	✓	-	✓	-	✓
GY12B1	12B-1	0.750	19.050	11.68	12.07	16.00	1.81	1.81	5.72	21.9	2.6	-	28900	1.22	✓	✓	-	✓	-	✓
GY16B1	16B-1	1.000	25.400	17.02	15.88	21.08	4.12	3.10	8.28	34.9	2.2	-	60000	2.80	✓	✓	-	✓	✓	-
GY20B1	20B-1	1.250	31.750	19.56	19.05	26.42	4.62	3.61	10.19	39.8	2.7	-	95000	3.85	✓	✓	-	✓	✓	-
GY24B1	24B-1	1.500	38.100	25.40	25.40	33.40	6.10	5.08	14.63	52.6	6.8	-	160000	7.45	✓	✓	✓	-	✓	-
European (BS) Standard - Duplex																				
		A	A	B	C	D	E	F	G	H2	J	K								
GY06B2*	06B-2	0.375	9.525	5.72	6.35	8.20	1.29	1.04	3.28	23.0	1.3	10.24	16900	0.78	✓	✓	-	✓	-	✓
GY08B2	08B-2	0.500	12.700	7.75	8.51	11.70	1.55	1.55	4.45	30.4	2.0	13.92	31100	1.38	✓	✓	-	✓	-	✓
GY10B2	10B-2	0.625	15.875	9.65	10.16	14.60	1.55	1.55	5.08	35.4	2.5	16.59	44500	1.69	✓	✓	-	✓	-	✓
GY12B2	12B-2	0.750	19.050	11.68	12.07	16.00	1.81	1.81	5.72	41.4	2.6	19.46	57800	2.42	✓	✓	-	✓	-	✓
GY16B2	16B-2	1.000	25.400	17.02	15.88	21.08	4.12	3.10	8.28	66.8	2.2	31.88	106000	5.50	✓	✓	-	✓	✓	-
GY20B2	20B-2	1.250	31.750	19.56	19.05	26.42	4.62	3.61	10.19	76.7	2.7	36.45	170000	7.80	✓	✓	-	✓	✓	-
GY24B2	24B-2	1.500	38.100	25.40	25.40	33.40	6.10	5.08	14.63	101.3	6.8	48.36	280000	14.80	✓	✓	✓	-	✓	-
European (BS) Standard - Triplex																				
		A	A	B	C	D	E	F	G	H3	J	K								
GY06B3*	06B-3	0.375	9.525	5.72	6.35	8.20	1.29	1.04	3.28	33.3	1.3	10.24	24900	1.11	✓	✓	-	✓	-	✓
GY08B3	08B-3	0.500	12.700	7.75	8.51	11.70	1.55	1.55	4.45	44.3	2.0	13.92	44500	2.06	✓	✓	-	✓	-	✓
GY10B3	10B-3	0.625	15.875	9.65	10.16	14.60	1.55	1.55	5.08	52.0	2.5	16.59	66700	2.54	✓	✓	-	✓	-	✓
GY12B3	12B-3	0.750	19.050	11.68	12.07	16.00	1.81	1.81	5.72	60.9	2.6	19.46	86700	3.59	✓	✓	-	✓	-	✓
GY16B3	16B-3	1.000	25.400	17.02	15.88	21.08	4.12	3.10	8.28	98.6	2.2	31.88	160000	8.15	✓	✓	-	✓	✓	-
GY20B3	20B-3	1.250	31.750	19.56	19.05	26.42	4.62	3.61	10.19	113.2	2.7	36.45	250000	11.65	✓	✓	-	✓	✓	-
GY24B3	24B-3	1.500	38.100	25.40	25.40	33.40	6.10	5.08	14.63	149.7	6.8	48.36	425000	22.25	✓	✓	✓	-	✓	-

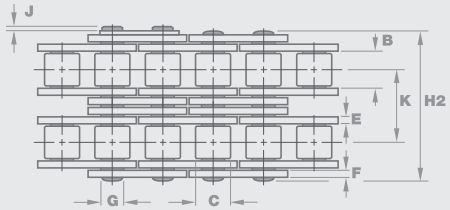
* Straight side plates

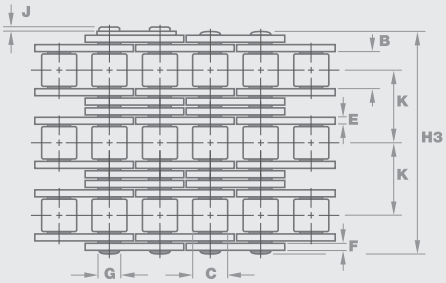
Renold Synergy® Roller Chain

ANSI Standard / ISO 606










No.4


No. 26


No. 107


No. 12


No. 11


No. 30

Chain Ref.		Technical Details (mm)													Connecting Links						
Renold Chain No.	ANSI Ref.	Pitch (inch)	Pitch (mm)	Inside Width MIN	Roller Diam. MAX	Plate Height MAX	Plate Width Inner MAX	Plate Width Outer MAX	Pin Diam. MAX	Pin Length MAX	Conn. Link Extension MAX	Transverse Pitch NOM	ISO606 Tensile Strength (Newtons) MIN	Weight kg/m	No. 4	No. 107	No. 11	No. 26	No. 58	No. 12	No. 30
ANSI Standard - Simplex																					
		A	A	B	C	D	E	F	G	H1	J	K									
GY35A1◊	35-1	0.375	9.525	4.68	5.08	8.60	1.29	1.29	3.59	12.0	1.7	-	7900	0.35	✓	✓	-	✓	-	✓	✓
GY40A1	40-1	0.500	12.700	7.85	7.92	11.20	1.55	1.55	3.97	16.4	2.1	-	13900	0.60	✓	✓	✓	✓	-	✓	✓
GY50A1	50-1	0.625	15.875	9.40	10.16	14.60	2.04	2.04	5.08	20.4	2.7	-	21800	1.00	✓	✓	✓	✓	-	✓	✓
GY60A1	60-1	0.750	19.050	12.57	11.91	17.50	2.45	2.45	5.94	25.3	2.6	-	31300	1.47	✓	✓	✓	✓	-	✓	✓
GY80A1	80-1	1.000	25.400	15.75	15.88	24.13	3.25	3.25	7.94	32.7	3.0	-	55600	2.80	✓	✓	✓	-	✓	✓	-
GY100A1	100-1	1.250	31.750	18.90	19.05	30.17	4.06	4.06	9.54	39.7	4.2	-	87000	4.20	✓	✓	✓	-	✓	✓	-
GY120A1	120-1	1.500	38.100	25.23	22.23	36.20	4.80	4.80	11.11	49.3	5.3	-	125000	5.70	✓	✓	✓	-	✓	✓	-
GY140A1	140-1	1.750	44.450	25.23	25.40	42.23	5.61	5.61	12.71	52.9	5.2	-	170000	7.80	✓	✓	✓	-	✓	✓	-
GY160A1	160-1	2.000	50.800	31.55	28.58	48.26	6.35	6.35	14.29	63.1	6.5	-	223000	10.40	✓	✓	✓	-	✓	✓	-
ANSI Standard - Duplex																					
		A	A	B	C	D	E	F	G	H2	J	K									
GY35A2◊	35-2	0.375	9.525	4.68	5.08	8.60	1.29	1.29	3.59	22.2	1.7	10.13	15800	0.62	✓	✓	-	✓	-	✓	✓
GY40A2	40-2	0.500	12.700	7.85	7.92	11.20	1.55	1.55	3.97	30.8	2.1	14.38	27800	1.20	✓	✓	✓	✓	-	✓	✓
GY50A2	50-2	0.625	15.875	9.40	10.16	14.60	2.04	2.04	5.08	38.4	2.7	18.11	43600	1.98	✓	✓	✓	✓	-	✓	✓
GY60A2	60-2	0.750	19.050	12.57	11.91	17.50	2.45	2.45	5.94	48.1	2.6	22.78	62600	2.91	✓	✓	✓	✓	-	✓	✓
GY80A2	80-2	1.000	25.400	15.75	15.88	24.13	3.25	3.25	7.94	61.9	3.0	29.29	111200	5.50	✓	✓	✓	-	✓	✓	-
GY100A2	100-2	1.250	31.750	18.90	19.05	30.17	4.06	4.06	9.54	75.4	4.2	35.76	174000	8.40	✓	✓	✓	-	✓	✓	-
GY120A2	120-2	1.500	38.100	25.23	22.23	36.20	4.80	4.80	11.11	94.7	5.3	45.44	250000	11.00	✓	✓	✓	-	✓	✓	-
GY140A2	140-2	1.750	44.450	25.23	25.40	42.23	5.61	5.61	12.71	101.8	5.2	48.87	340000	15.50	✓	✓	✓	-	✓	✓	-
GY160A2	160-2	2.000	50.800	31.55	28.58	48.26	6.35	6.35	14.29	121.6	6.5	58.55	446000	20.60	✓	✓	✓	-	✓	✓	-
ANSI Standard - Triplex																					
		A	A	B	C	D	E	F	G	H3	J	K									
GY35A3◊	35-3	0.375	9.525	4.68	5.08	8.60	1.29	1.29	3.59	32.2	1.7	10.13	23700	0.93	✓	✓	-	✓	-	✓	✓
GY40A3	40-3	0.500	12.700	7.85	7.92	11.20	1.55	1.55	3.97	45.1	2.1	14.38	41700	1.80	✓	✓	✓	✓	-	✓	✓
GY50A3	50-3	0.625	15.875	9.40	10.16	14.60	2.04	2.04	5.08	56.5	2.7	18.11	65400	2.96	✓	✓	✓	✓	-	✓	✓
GY60A3	60-3	0.750	19.050	12.57	11.91	17.50	2.45	2.45	5.94	70.9	2.6	22.78	93900	4.38	✓	✓	✓	✓	-	✓	✓
GY80A3	80-3	1.000	25.400	15.75	15.88	24.13	3.25	3.25	7.94	91.2	3.0	29.29	166800	8.30	✓	✓	✓	-	✓	✓	-
GY100A3	100-3	1.250	31.750	18.90	19.05	30.17	4.06	4.06	9.54	111.2	4.2	35.76	261000	12.60	✓	✓	✓	-	✓	✓	-
GY120A3	120-3	1.500	38.100	25.23	22.23	36.20	4.80	4.80	11.11	140.2	5.3	45.44	375000	16.70	✓	✓	✓	-	✓	✓	-
GY140A3	140-3	1.750	44.450	25.23	25.40	42.23	5.61	5.61	12.71	150.7	5.2	48.87	510000	23.10	✓	✓	✓	-	✓	✓	-
GY160A3	160-3	2.000	50.800	31.55	28.58	48.26	6.35	6.35	14.29	180.2	6.5	58.55	669000	31.00	✓	✓	✓	-	✓	✓	-

◊ Bush Chain

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www.renold.com

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