



**RENOLD**  
**Synergy**

Strong.  
Powerful.  
**Even Better  
Performance.**

**RENOLD**

*Superior Technology*

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Start >>

# 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.

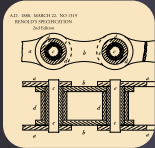




## And the best just got better...

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

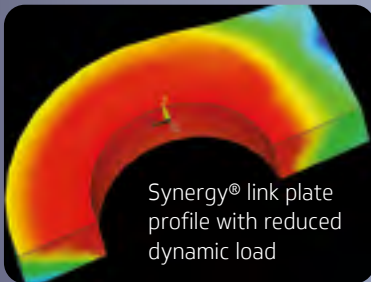
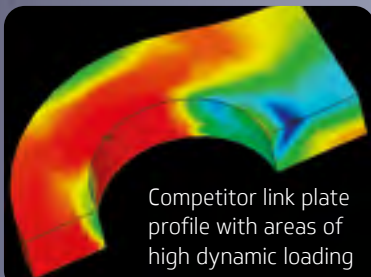
Plate and connecting link design optimizes stress distribution and fatigue performance. Synergy® performs, on average, 30 percent better than other brands under repeated shock loading and continual heavy loads.

### 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

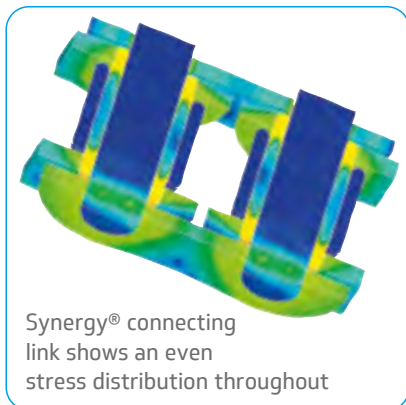
- **Plate Shape** – wide waist profile for improved stress distribution; plate thickness maximised within the constraints of the Standard.
- **Bushes** – solid extruded bush provides improved roundness and strength compared to curled bushes. Profiled ends improve bearing area and extend wear life.
- **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.

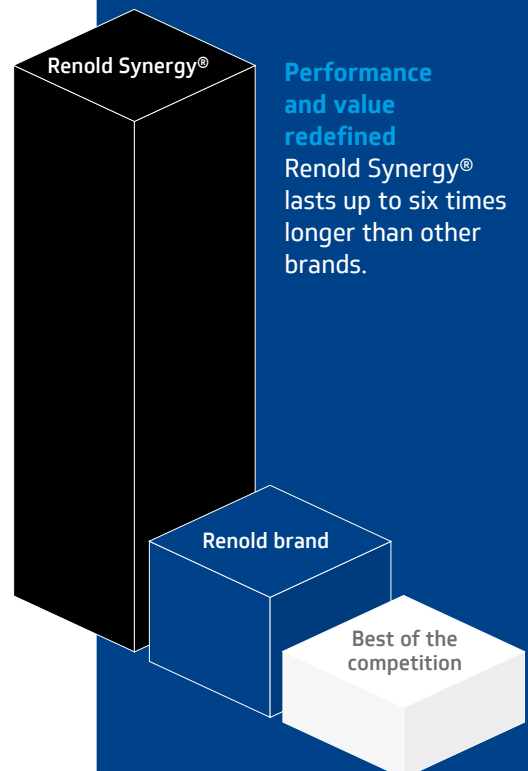
Our platinum-coloured connecting links stand out against the black surface plates, so they're easy to identify and remove.

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.



# Renold Synergy Improving performance

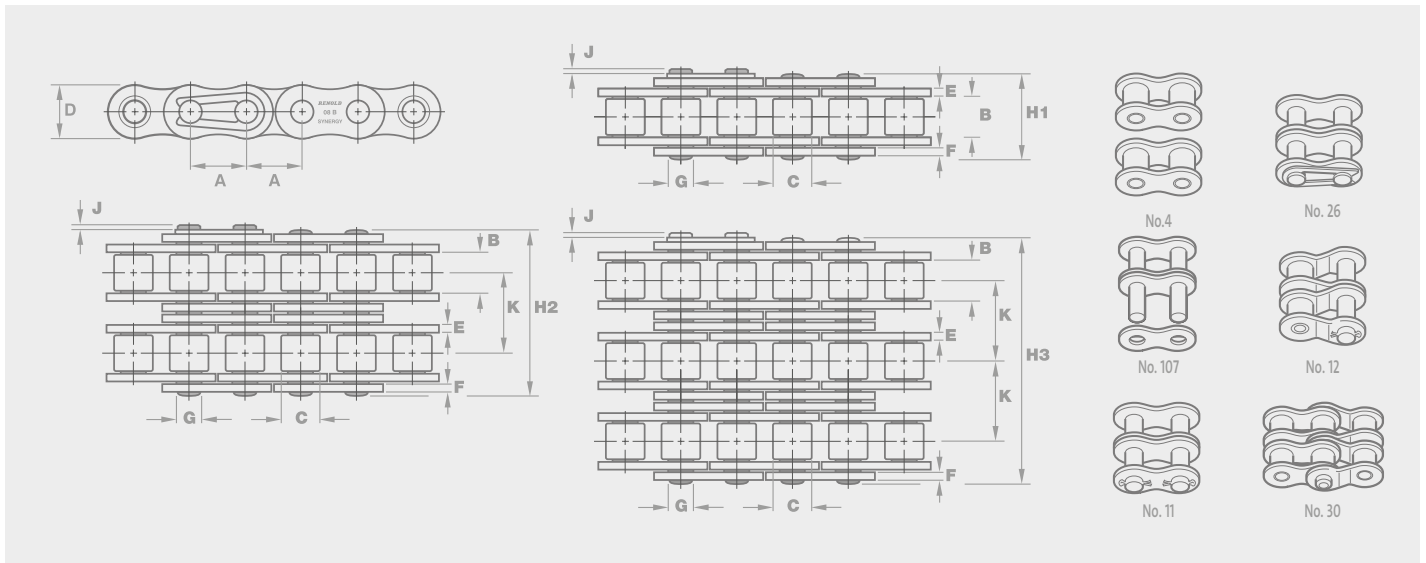
Since 2000, Renold Synergy® has transformed the productivity and efficiency of all these industrial applications and more.

- 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



Chain Ref.		Technical Details (mm)												Connecting Links	
Renold Chain No.	ISO Ref.	Pitch (inch)	Pitch (mm)	Inside Width	Roller Diam.	Plate Height	Plate Width Inner	Plate Width Outer	Pin Diam.	Pin Length	Conn. Link Extension	Transverse Pitch	ISO606 Tensile Strength (NEWTONS)	Weight	
					MIN	MAX	MAX	MAX	MAX	MAX	MAX	NOM	MIN	kg/m	

### 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	4 107 26 30
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	4 107 26 30
111044	-	0.500	12.700	3.30	7.75	9.60	1.13	0.98	4.09	9.8	2.0	-	8900	0.30	4 107 26 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	4 107 26 30
GY08B1NA	-	0.500	12.700	5.21	8.51	11.70	1.55	1.55	4.45	14.5	2.0	-	17800	0.70	4 107 26 30
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	4 107 26 30
GY10B1NA	-	0.625	15.875	6.48	10.16	14.60	1.55	1.55	5.08	16.0	2.5	-	22200	0.81	4 107 26 30
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	4 107 26 30
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	4 107 26 12
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	4 107 26 12
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	4 107 11 12

### 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	4 107 26 30
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	4 107 26 30
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	4 107 26 30
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	4 107 26 30
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	4 107 26 12
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	4 107 26 12
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	4 107 11 12

### European (BS) Standard - Triplex

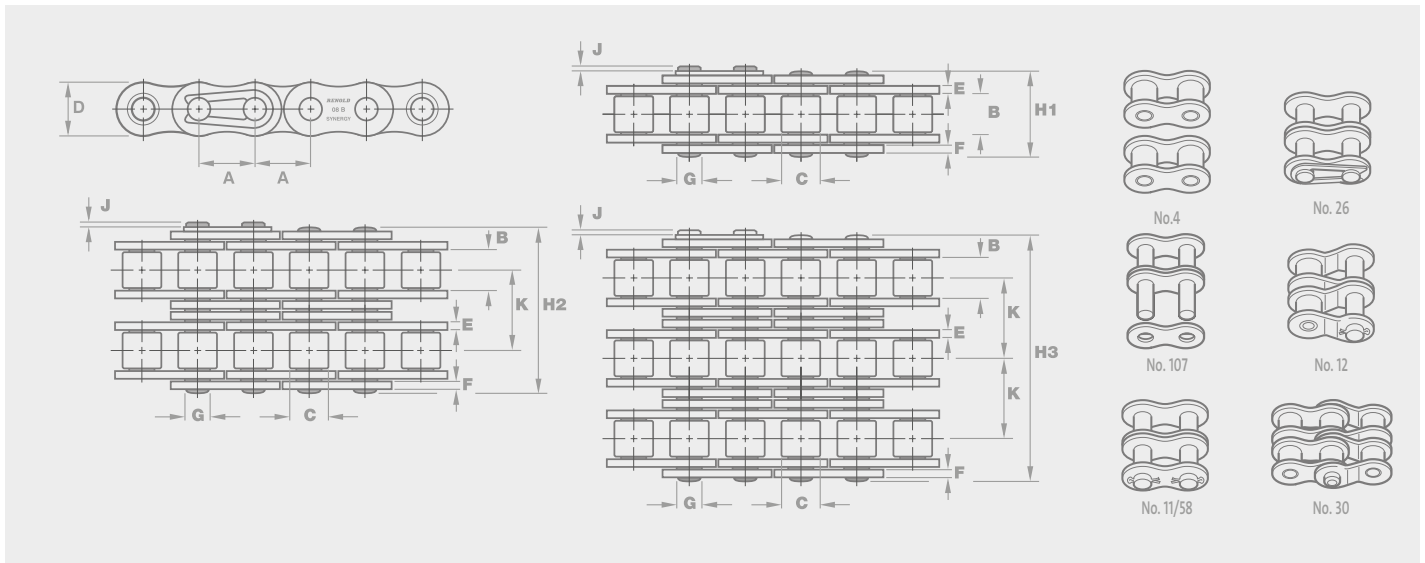
		A	A	B	C	D	E	F	G	H3	J	K			
GY06B3*	06B-3	0.375	9.525	5.72	6.35	8.20	1.29	1.04	3.28	33.3	1.3	10.24	24900	1.11	4 107 26 30
GY08B3	08B-3	0.500	12.700	7.75	8.51	11.70	1.55	1.55	4.45	44.3	2.0	13.92	44500	2.06	4 107 26 30
GY10B3	10B-3	0.625	15.875	9.65	10.16	14.60	1.55	1.55	5.08	52.0	2.5	16.59	66700	2.54	4 107 26 30
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	4 107 26 30
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	4 107 26 12
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	4 107 26 12
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	4 107 11 12

\* Straight side plates

For the use of roller or bush chains in lifting applications, it is necessary to specify this in the order to ensure the specific CE mark will be given.

# Renold Synergy® Roller Chain

## ANSI Standard / ISO 606



Chain Ref.		Technical Details (mm)											Connecting Links			
Renold Chain No.	ANSI Ref.	Pitch (inch)	Pitch (mm)	Inside Width	Roller Diam.	Plate Height	Plate Width Inner	Plate Width Outer	Pin Diam.	Pin Length	Conn. Link Extension	Transverse Pitch	ISO606 Tensile Strength (NEWTONS)	Weight kg/m		
					MIN	MAX	MAX	MAX	MAX	MAX	MAX	NOM	MIN			

### 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	4 107 26 12 30
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	4 107 11 26 12 30
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	4 107 11 26 12 30
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	4 107 11 26 12 30
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	4 107 11 58 12
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	4 107 11 58 12
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	4 107 11 58 12
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	4 107 11 58 12
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	4 107 11 58 12

### ANSI Standard - Duplex

		A	A	B	C	D	E	F	G	H1	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	4 107 26 12 30
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	4 107 11 26 12 30
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	4 107 11 26 12 30
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	4 107 11 26 12 30
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	4 107 11 58 12
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	4 107 11 58 12
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	4 107 11 58 12
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	4 107 11 58 12
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	4 107 11 58 12

### ANSI Standard - Triplex

		A	A	B	C	D	E	F	G	H1	J	K			
GY35A3	35-3	0.375	9.525	4.68	5.08	8.60	1.29	1.29	3.59	22.2	1.7	10.13	23700	0.93	4 107 26 12 30
GY40A3	40-3	0.500	12.700	7.85	7.92	11.20	1.55	1.55	3.97	30.8	2.1	14.38	41700	1.80	4 107 11 26 12 30
GY50A3	50-3	0.625	15.875	9.40	10.16	14.60	2.04	2.04	5.08	38.4	2.7	18.11	65400	2.96	4 107 11 26 12 30
GY60A3	60-3	0.750	19.050	12.57	11.91	17.50	2.45	2.45	5.94	48.1	2.6	22.78	93900	4.38	4 107 11 26 12 30
GY80A3	80-3	1.000	25.400	15.75	15.88	24.13	3.25	3.25	7.94	61.9	3.0	29.29	166800	8.30	4 107 11 58 12
GY100A3	100-3	1.250	31.750	18.90	19.05	30.17	4.06	4.06	9.54	75.4	4.2	35.76	261000	12.60	4 107 11 58 12
GY120A3	120-3	1.500	38.100	25.23	22.23	36.20	4.80	4.80	11.11	94.7	5.3	45.44	375000	16.70	4 107 11 58 12
GY140A3	140-3	1.750	44.450	25.23	25.40	42.23	5.61	5.61	12.71	101.8	5.2	48.87	510000	23.10	4 107 11 58 12
GY160A3	160-3	2.000	50.800	31.55	28.58	48.26	6.35	6.35	14.29	121.6	6.5	58.55	669000	31.00	4 107 11 58 12

◊ Bush Chain

For the use of roller or bush chains in lifting applications, it is necessary to specify this in the order to ensure the specific CE mark will be given.

For more information  
or to contact your  
local sales team go  
to [www.renold.com](http://www.renold.com)

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