



RENOLD **Synergy™**

Strong. Powerful. Even Better Performance.



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

Available in British Standard sizes ranging from 06B to 24B 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.



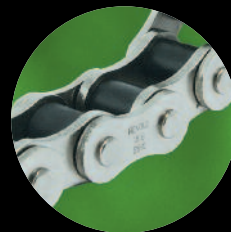
1915 Introduced wide-waist link plates for maximum fatigue strength.

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

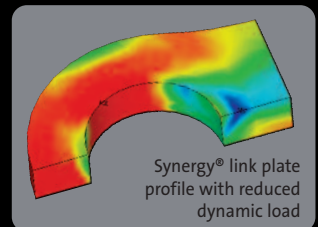
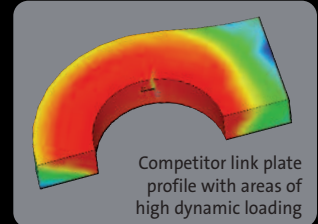
Plate and connecting link design optimizes stress distribution and fatigue performance. Synergy® performs, on average, 30 percent better than other brands under repeated shock loading and continual heavy loads.

Better wear resistance

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

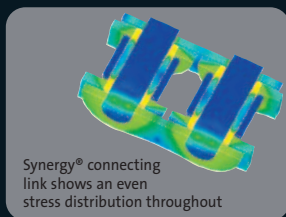
Built to perform

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.



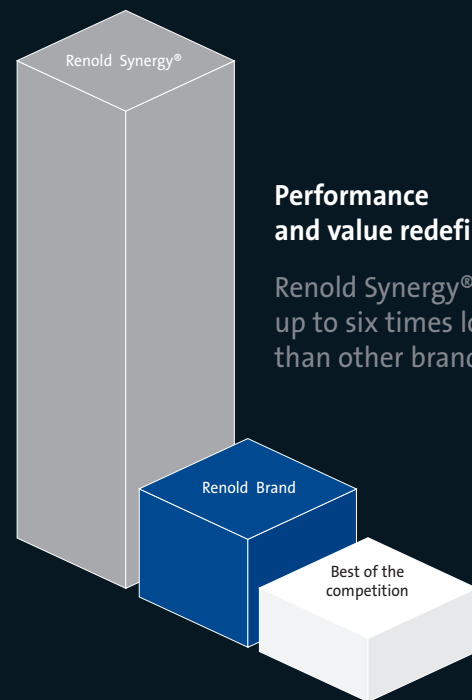
Renold Synergy Built to be better

- **Plate Shape** – wide waist profile for improved stress distribution; plate thickness maximized 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** – optimized 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-colored 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

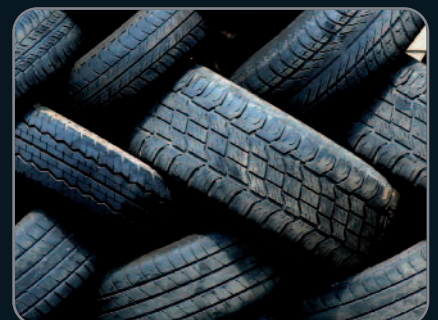
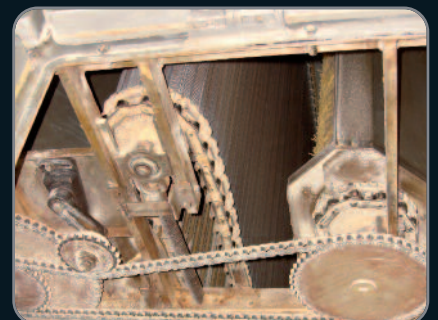
Easy-to-use, slip-fit connecting links are cold worked after heat treatment to ensure even stress distribution throughout.



Renold Synergy Improving performance

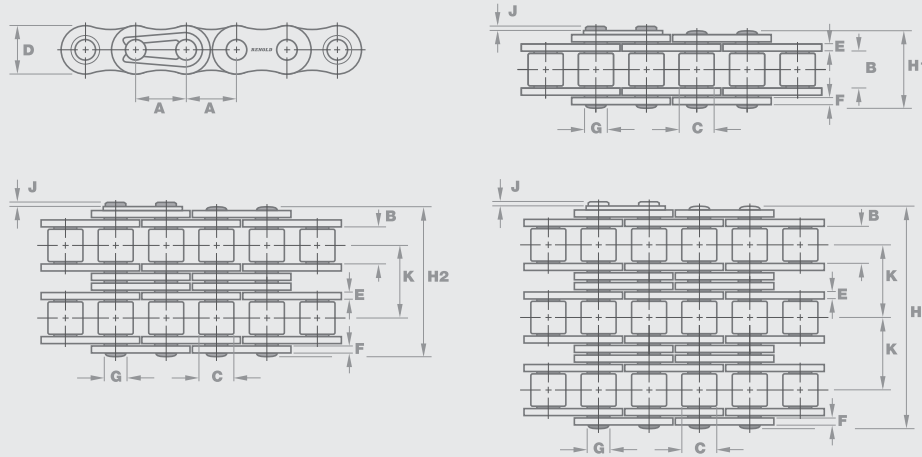
Since 2000, Renold Synergy® has transformed the productivity and efficiency of all these industrial applications and more.

- **Pharmaceutical**
- **Bottling**
- **Fruit Washing**
- **Iron & Steel**
- **Packaging**
- **Confectionary**
- **Tire 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

ANSI Standard / ISO 606



Chain Ref.		Technical Details (Dimensions are in inches unless otherwise indicated)												
Chain No.	Renold No.	Pitch	Inside Width Max	Roller Diam Max	Plate Height Max	Inner Plate Thick Max	Outer Plate Thick Max	Pin Diam Max	Pin Length Max	Conn Link Exten Max	Trans Pitch	Tensile Strength Min [†]	Rated Working Load	Weight

ANSI Standard - SINGLE STRAND

		A	B	C	D	E	F	G	H	J	K	Lbs	Lbs	Lbs/Ft
*35SYN	129037	0.375	0.184	0.200	0.356	0.050	0.050	0.141	0.472	0.043	—	1,760	480	0.23
40SYN	119047	0.500	0.309	0.312	0.475	0.060	0.060	0.156	0.646	0.055	—	3,125	810	0.40
50SYN	119057	0.625	0.370	0.400	0.594	0.080	0.080	0.200	0.803	0.043	—	4,880	1,400	0.67
60SYN	119067	0.750	0.495	0.469	0.713	0.094	0.094	0.235	0.996	0.043	—	7,030	1,950	0.98
80SYN	119087	1.000	0.620	0.625	0.950	0.125	0.125	0.313	1.287	0.118	—	12,500	3,300	1.88
100SYN	119107	1.250	0.744	0.750	1.188	0.156	0.156	0.375	1.563	0.165	—	19,530	5,060	2.81
120SYN	119127	1.500	0.993	0.875	1.425	0.187	0.187	0.437	1.941	0.209	—	28,125	6,800	3.82
140SYN	119147	1.750	0.993	1.000	1.663	0.219	0.219	0.500	2.083	0.205	—	38,280	9,000	5.23
160SYN	119167	2.000	1.242	1.125	1.900	0.250	0.250	0.563	2.484	0.256	—	50,000	11,900	6.97

ANSI Standard - DOUBLE STRAND

		A	B	C	D	E	F	G	H	J	K	Lbs	Lbs	Lbs/Ft
*35-2SYN	125037	0.375	0.184	0.200	0.356	0.050	0.050	0.141	0.874	0.043	0.399	3,520	810	0.47
40-2SYN	115047	0.500	0.309	0.312	0.475	0.060	0.060	0.156	1.213	0.055	0.566	6,250	1,370	0.80
50-2SYN	115057	0.625	0.370	0.400	0.594	0.080	0.080	0.200	1.512	0.043	0.713	9,760	2,380	1.34
60-2SYN	115067	0.750	0.495	0.469	0.713	0.094	0.094	0.235	1.894	0.043	0.897	14,060	3,315	1.98
80-2SYN	115087	1.000	0.620	0.625	0.950	0.125	0.125	0.313	2.437	0.118	1.153	25,000	5,610	3.69
100-2SYN	115107	1.250	0.744	0.750	1.188	0.156	0.156	0.375	2.968	0.165	1.408	39,060	8,600	5.63
120-2SYN	115127	1.500	0.993	0.875	1.425	0.187	0.187	0.437	3.728	0.209	1.789	56,250	11,560	7.37
140-2SYN	115147	1.750	0.993	1.000	1.663	0.219	0.219	0.500	4.008	0.205	1.924	76,560	15,300	10.39
160-2SYN	115167	2.000	1.242	1.125	1.900	0.250	0.250	0.563	4.787	0.256	2.305	100,000	20,230	13.80

ANSI Standard - TRIPLE STRAND

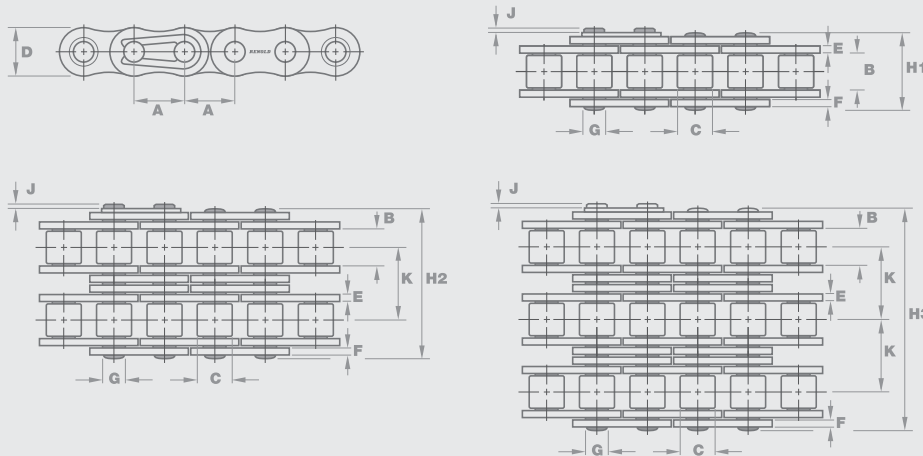
		A	B	C	D	E	F	G	H	J	K	Lbs	Lbs	Lbs/Ft
*35-3SYN	127037	0.375	0.184	0.200	0.356	0.050	0.050	0.141	1.268	0.043	0.399	5,280	1,200	0.70
40-3SYN	117047	0.500	0.309	0.312	0.475	0.060	0.060	0.156	1.776	0.055	0.566	9,375	2,025	1.21
50-3SYN	117057	0.625	0.370	0.400	0.594	0.080	0.080	0.200	2.224	0.043	0.713	14,640	3,500	2.01
60-3SYN	117067	0.750	0.495	0.469	0.713	0.094	0.094	0.235	2.791	0.043	0.897	21,090	4,875	2.97
80-3SYN	117087	1.000	0.620	0.625	0.950	0.125	0.125	0.313	3.591	0.118	1.153	37,500	8,250	5.56
100-3SYN	117107	1.250	0.744	0.750	1.188	0.156	0.156	0.375	4.381	0.165	1.408	58,590	12,650	8.44
120-3SYN	117127	1.500	0.993	0.875	1.425	0.187	0.187	0.437	5.524	0.209	1.789	84,375	17,000	11.19
140-3SYN	117147	1.750	0.993	1.000	1.663	0.219	0.219	0.500	5.938	0.205	1.924	114,840	22,500	15.48
160-3SYN	117167	2.000	1.242	1.125	1.900	0.250	0.250	0.563	7.100	0.256	2.305	150,000	29,750	20.77

⁹ Rollerless Chain

[†]Renold Synergy far exceeds the ISO606 minimum tensile strength requirement, but Renold Jeffrey does not consider this to be a useful indicator of the key chain performance areas: wear and fatigue.

Renold Synergy® Roller Chain

European (BS) Standard / ISO 606



Chain Ref.		Technical Details (Dimensions are in inches unless otherwise indicated)												
Chain No.	Renold No.	Pitch	Inside Width Max	Roller Diam Max	Plate Height Max	Inner Plate Thick Max	Outer Plate Thick Max	Pin Diam Max	Pin Length Max	Conn Link Exten Max	Trans Pitch	Tensile Strength Min†	Rated Working Load	Weight

European (BS) Standard - SINGLE STRAND

		A	B	C	D	E	F	G	H	J	K	Lbs	Lbs	Lbs/Ft
06BSYN	110038	0.375	0.225	0.250	0.325	0.051	0.041	0.129	0.493	0.051	—	2,001	395	0.26
08BSYN	110046	0.500	0.305	0.335	0.465	0.061	0.061	0.175	0.650	0.059	—	4,001	700	0.47
10BSYN	110056	0.625	0.380	0.400	0.580	0.061	0.061	0.200	0.741	0.051	—	4,991	1,100	0.62
12BSYN	110066	0.750	0.460	0.475	0.635	0.071	0.071	0.225	0.863	0.043	—	6,497	1,575	0.80
16BSYN	110088	1.000	0.670	0.625	0.830	0.162	0.122	0.326	1.375	0.087	—	13,488	2,810	1.88
20BSYN	110106	1.250	0.770	0.750	1.040	0.182	0.142	0.401	1.568	0.106	—	21,356	4,370	2.58
24BSYN	110127	1.500	1.000	1.000	1.315	0.240	0.200	0.576	2.072	0.268	—	35,968	6,130	5.00

European (BS) Standard - DOUBLE STRAND

		A	B	C	D	E	F	G	H	J	K	Lbs	Lbs	Lbs/Ft
06B-2SYN	114038	0.375	0.225	0.250	0.325	0.051	0.041	0.129	0.906	0.051	0.403	3,799	670	0.50
08B-2SYN	114046	0.500	0.305	0.335	0.465	0.061	0.061	0.175	1.198	0.059	0.548	6,991	1,185	0.93
10B-2SYN	114056	0.625	0.380	0.400	0.580	0.061	0.061	0.200	1.395	0.051	0.653	10,004	1,870	1.21
12B-2SYN	114066	0.750	0.460	0.475	0.635	0.071	0.071	0.225	1.631	0.043	0.766	12,993	2,680	1.61
16B-2SYN	114088	1.000	0.670	0.625	0.830	0.162	0.122	0.326	2.632	0.087	1.255	23,829	4,780	3.69
20B-2SYN	114106	1.250	0.770	0.750	1.040	0.182	0.142	0.401	3.022	0.106	1.435	38,216	7,430	5.23
24B-2SYN	114127	1.500	1.000	1.000	1.315	0.240	0.200	0.576	3.991	0.268	1.904	62,944	10,270	9.92

European (BS) Standard - TRIPLE STRAND

		A	B	C	D	E	F	G	H	J	K	Lbs	Lbs	Lbs/Ft
06B-3SYN	116038	0.375	0.225	0.250	0.325	0.051	0.041	0.129	1.312	0.051	0.403	5,598	1,000	0.74
08B-3SYN	116046	0.500	0.305	0.335	0.465	0.061	0.061	0.175	1.745	0.059	0.548	10,004	1,750	1.38
10B-3SYN	116056	0.625	0.380	0.400	0.580	0.061	0.061	0.200	2.049	0.051	0.653	14,994	2,750	1.70
12B-3SYN	116066	0.750	0.460	0.475	0.635	0.071	0.071	0.225	2.399	0.043	0.766	19,490	3,930	2.41
16B-3SYN	116088	1.000	0.670	0.625	0.830	0.162	0.122	0.326	3.885	0.087	1.255	35,968	7,025	5.46
20B-3SYN	116106	1.250	0.770	0.750	1.040	0.182	0.142	0.401	4.460	0.106	1.435	56,200	10,925	7.81
24B-3SYN	116127	1.500	1.000	1.000	1.315	0.240	0.200	0.576	5.898	0.268	1.904	95,540	15,100	14.92

° Rollerless Chain

†Renold Synergy far exceeds the ISO606 minimum tensile strength requirement, but Renold Jeffrey does not consider this to be a useful indicator of the key chain performance areas: wear and fatigue.

*For more information
or to contact your
local sales team go to*

www.renoldjeffrey.com

Corporate Headquarters

2307 Maden Drive
Morristown, TN 37813

Tel: (423) 586-1951

Tel: (800) 251-9012

Fax: (423) 581-2399

sales@renoldjeffrey.com

*In accordance with the policy of Renold
to continually improve its products, the
specifications in this publication are subject
to change without notice.*

For terms and conditions of sale, contact Renold.

© Renold Power Transmission 2012.

Ref: REN60 / US / 07.12



Want to find out more?

Scan this QR code with your smartphone.

No QR reader? Simply download one from your app store.

**RENOLD
JEFFREY**
Advancing Chain Technology

www.renoldjeffrey.com