




American
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Institute

7F-0003



DIAMOND SERIES PRODUCT GUIDE

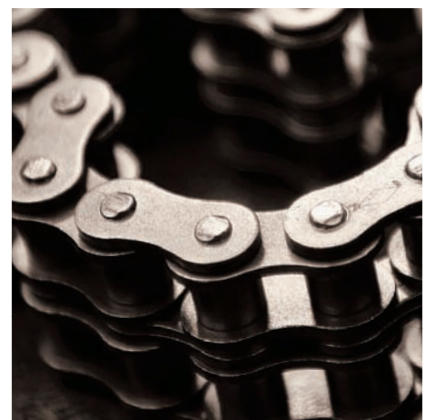
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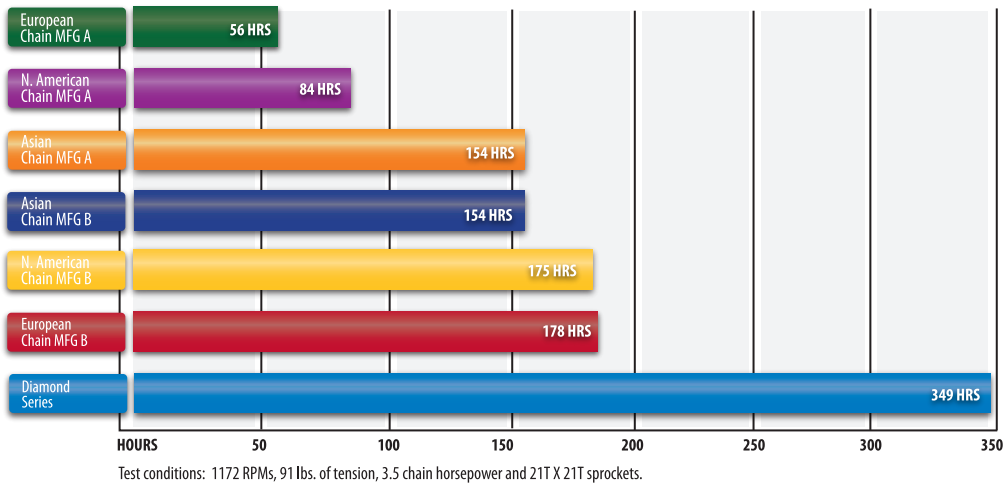
NOTHING OUTLASTS A DIAMOND®



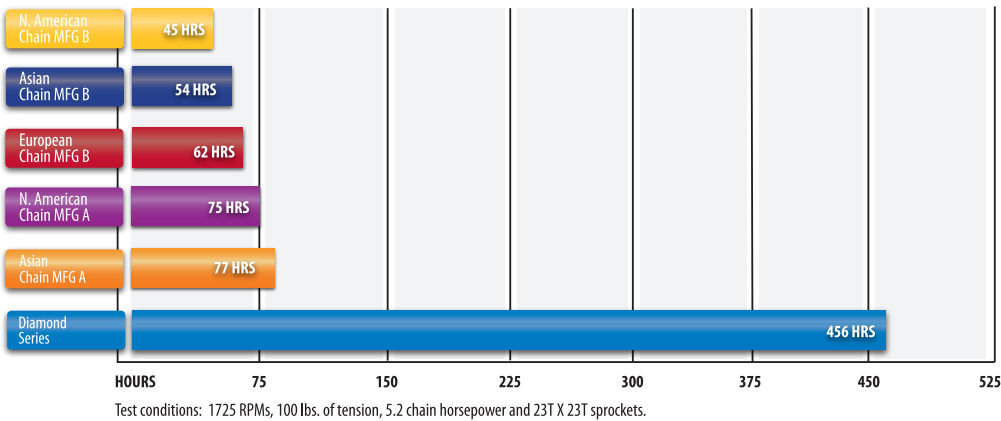
DIAMOND CHAIN ACCELERATED WEAR TESTING

As the global expert in the design and manufacturing of roller chain, and presented with the challenge of taking the guesswork out of selecting the right roller chain, Diamond Chain has partnered with an independent test lab to assess the performance of Diamond Chain products versus those of the competition. The results speak for themselves.

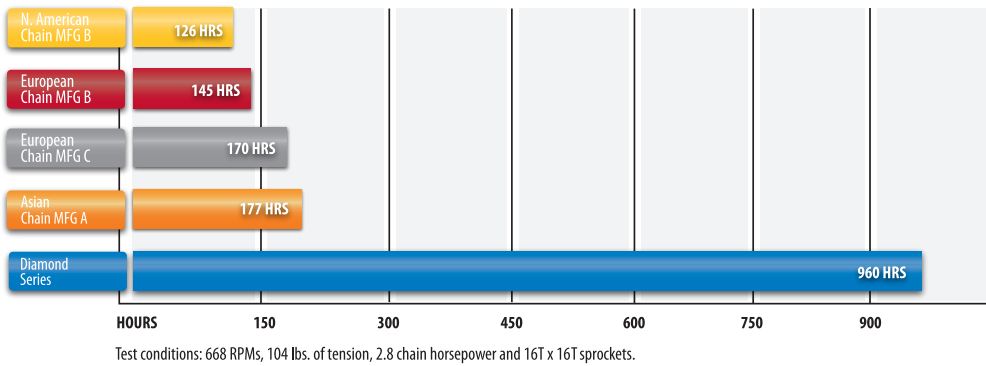
ASME/ANSI 50 CHAIN ACCELERATED WEAR TESTING



ASME/ANSI 60 CHAIN ACCELERATED WEAR TESTING



ASME/ANSI 80 CHAIN ACCELERATED WEAR TESTING



These tests were performed by Diamond Chain using protocols and methodology that were reviewed, verified, and approved by an independent third party.

CHAIN COMPONENTS

SPRING CLIP CONNECTING LINK

Spring clip connecting links come packaged with slip-fit cover linkplates. The cover linkplate is held in place by a spring clip, split at one end to permit easy installation and removal. This style of connecting link is standard for up to ANSI 60 chains. Press-fit cover linkplates are also available and are recommended for heavy duty applications.



BUSHED CENTER LINKPLATE CONNECTING LINK (BCL)

This connecting link is standard for all press-fit multiple strand chains of ANSI 50 and larger. The bushings are press fit in the centerplate pitch holes and slip-fit on the pins. The BCL cover linkplate is press fit on the pins.



ROLLER LINK

Standard for all sizes of roller chain, these links are furnished as complete assemblies. The bushings are press fit into each of the linkplates.



FOUR-PITCH PRESS-FIT OFFSET LINK ASSEMBLY

For Multiple Strand Chain Only

The pins of this assembly are press fit into the offset links. A four-pitch length permits the use of BCL connecting links on either end, giving maximum capacity to the chain assembly.



RIVETED CONNECTING LINK

Riveted connecting links are available for all roller chain sizes. This connecting link is press-fit on the pins. Pins should be riveted or peened on the ends once the cover linkplate is in place.



BOTTLED CONNECTING LINK

This connecting link is available in either a press-fit or slip-fit construction and is standard on ANSI 80 and larger. Press-fit connecting links are recommended for heavy duty applications and press-fit cover linkplates are standard on multiple strand oil field chain.



TWO-PITCH OFFSET LINK

For Single Strand Chain Only

This link is available for all sizes of single strand chain and consists of an offset link and roller link assembled together. This link's pin is press fit in the offset linkplates and is riveted for a secure fit. The press-fit construction of this assembly greatly increases its structural rigidity, reliability, and durability. For these reasons, the two-pitch offset assembly is recommended over a single-pitch offset link.



SINGLE-PITCH OFFSET LINK

This link is packaged unassembled with one slip-fit pin. One end of the connecting pin is milled flat to prevent the pin from turning in the linkplate.



Did You Know?

Spring clips should be installed with the closed (solid) end toward the direction of chain travel.

SELECTING THE RIGHT CHAIN FOR YOUR APPLICATION

When selecting roller chain for a drive system, it is important to understand the difference between tensile strength and working load. Tensile strength is a measurement of the static load required to break a chain while working load is the amount of force exerted on a chain by a drive system. Roller chains with equal tensile strengths can have significantly different working loads as there is no consistent relationship between these two measurements. Tensile strength should not be used as an indication of a chain's quality or as a substitute for allowable working load.

CALCULATING ALLOWABLE WORKING LOAD

Allowable working load can be calculated using one of the following equations. Note that the load or tension applied to a chain in service should never exceed 1/6th of the minimum ultimate tensile strength. For chains utilizing slip-fit connecting links, and/or offset links, the load should not exceed 1/9th of the MUTS. A chain that is loaded above 50% of the MUTS value will be permanently damaged after only one cycle.

$$\text{Load/Chain Pull} = \frac{\text{Horsepower to be Transmitted} \times 33000}{\text{Speed of Chain (feet/minute)}}$$

$$\text{Load/Chain Pull} = \frac{\text{Horsepower to be Transmitted} \times 39600}{\text{Pitch of chains (inches)} \times \text{Number of Teeth on Sprocket} \times \text{Speed of Sprocket (rev/min)}}$$

$$\text{Load/Chain Pull} = \frac{\text{Horsepower to be Transmitted} \times 126050}{\text{Pitch of Diameter of Sprocket (inches)} \times \text{Speed of Sprocket (rev/min)}}$$

ADDITIONAL TERMINOLOGY:







- Average ultimate tensile strength is the load required for a sample of chains to break.
- Minimum ultimate tensile strength, or MUTS, is the static load required for a single chain to break.
- Ultimate tensile strength is the maximum load a single chain will withstand before breaking.

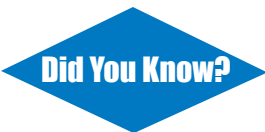
ORDERING ROLLER CHAIN

When ordering roller chain, include information on chain size, length of chain or number of pitches, and construction style – riveted or cottered. For multiple strand chain, the construction must be specified – press-fit or slip-fit construction. When ordering attachment chain, attachment and attachment spacing must be specified.

NOTE: All chains are furnished with connecting links unassembled unless otherwise specified.

The following are examples of configurations in which chains can be supplied.

<p>If a specific length of chain is not required, order a stock length. Standard lengths are 10 feet, 50 feet, and 100 feet. One extra connecting link is furnished with every 5 feet of ANSI 25 through 50 riveted chain.</p>	
<p>For a specific length of chain, the length should be given in number of pitches. The connecting link should be included in this number.</p>	
<p>When an odd number of pitches are required for an endless length, indicate whether a single-pitch offset or two-pitch offset link is needed.</p>	
<p>When chain requires two connecting links to attach the ends to other pieces of equipment, the chain should be ordered as "x" number of pitches including connecting link each end.</p>	
<p>If the chain does not require connecting links, it may be specified as "x" pitches long roller link each end. Odd number pitch lengths are preferable, even number pitch lengths will require an offset link.</p>	
<p>Chain may be ordered as "x" pitches endless. Indicate whether they are to be riveted endless (permanent connection), or connected with a connecting link (detachable).</p>	
<p>Chain length should always be the complete length, including any connecting or offset links required. If anything other than a connecting link is required, please specify.</p>	



The left-hand digit in the two-digit part number denotes the number of 1/8" segments in the pitch. For example, ANSI 80 chain would be 8 segments of 1/8" for a total of 1".

CHAIN ASSEMBLY AND DISASSEMBLY TOOLS

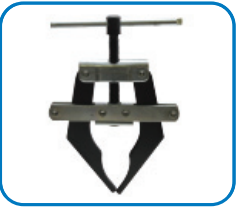
CONNECTING TOOLS



CT35

CONNECTING TOOL - SMALL

For use with ANSI 35 through 60H roller chain.



CT80

CONNECTING TOOL - LARGE

For use with ANSI 80 through 240 single strand chain and most conveyor and engineered chains with a width of 5/8" or wider between the inside links. For multi-strand chains, a second connecting tool will aid in the alignment of the chain.



CT80-CABLE

CABLE CONNECTING TOOL - LARGE

For use with ANSI 80 through 240 single strand, multi-strand and double-pitch chain, and most conveyor and engineered chains with a width of 5/8" or wider between the inside links. This tool holds the ends of a chain together during the connection process.

PIN EXTRACTOR TOOLS



PE113

PIN EXTRACTOR - SMALL

For use with ANSI 25 through 60H roller chain.



PE135

PIN EXTRACTOR - LARGE

For use with ANSI 80 through 100H roller chain.



PERE157

PIN EXTRACTOR - EXTRA LARGE

For use with ANSI 120 through 160 roller chain.

USING THE ASSEMBLY AND DISASSEMBLY TOOLS

CONNECTING TOOLS

CT35 & CT80

Hook the two arms of the connecting tool onto each end of the chain. Turn the screw clockwise to bring the two ends of chain towards each other. Insert the connecting link and complete assembly. *Note: This tool is not made to stretch chain but to hold chain in place for assembly.*

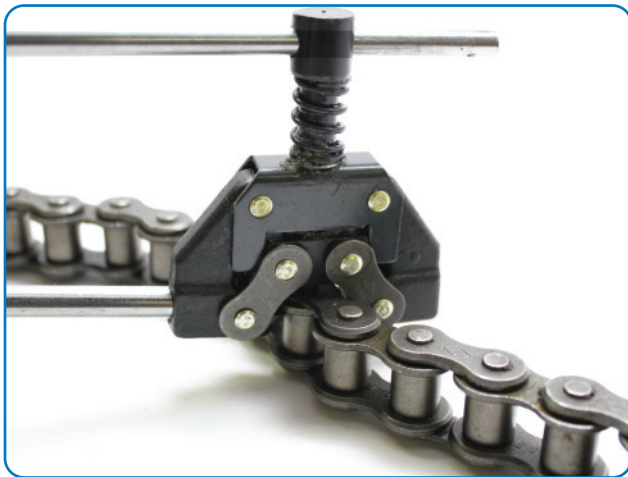
CT80-CABLE

Place the hooks of the connecting tool on the rollers past the link or links to be removed or replaced. The slack in the cable should be taken up with a wrench until the chain between the hooks is relieved of tension. This will allow for the removal of the link with a roller chain pin extractor. A new master or replacement link can then be inserted. The cable can then be released with the lock lever and the tool can be removed.

PIN EXTRACTORS

PE113, PE135 & PERE157

It is recommended that the "side-mashed" or "spun" pin heads be ground flush to the pin linkplate prior to pin extraction to ensure that the chain bushing will not be damaged. Place the jaws of the tool over the roller with the push-out pin centered on the chain pin. Tighten down by turning the top handle clockwise until the chain pin loosens, driving it partially through the linkplate. Follow the same procedure on the other pin. Return to the original pin and force completely through the pin linkplate. Do the same on second pin, freeing linkplate from the pins. Remove disassembled pin link from the chain.



WARNING

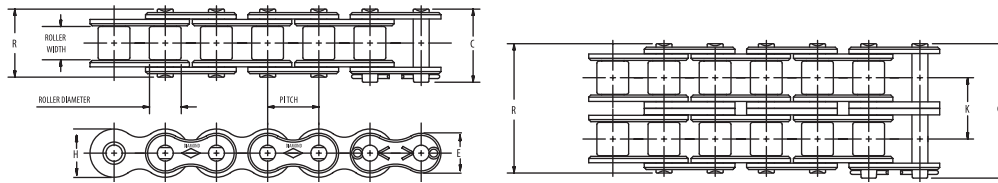
WHEN ASSEMBLING OR DISASSEMBLING CHAIN:

- ALWAYS SHUT OFF POWER AND LOCK OUT GEARS AND SPROCKETS BEFORE ATTEMPTING TO REMOVE OR INSTALL CHAINS.
- ALWAYS USE SAFETY GLASSES TO PROTECT YOUR EYES.
- WEAR PROTECTIVE CLOTHING, GLOVES, AND SAFETY SHOES.
- SUPPORT THE CHAIN TO PREVENT UNCONTROLLED MOVEMENT OF CHAIN AND PARTS.
- TOOLS SHOULD BE IN GOOD CONDITION AND PROPERLY USED.
- TOOLS ARE NOT MADE TO SUPPORT TOTAL WEIGHT OF CHAIN, ONLY TO TAKE UP SLACK.
- NEVER USE EXTENSION ON HANDLE WHICH COULD OVERLOAD DEVICE AND CAUSE POSSIBLE INJURY.
- DO NOT ATTEMPT TO CONNECT OR DISCONNECT CHAIN UNLESS YOU KNOW THE CHAIN CONSTRUCTION, INCLUDING THE CORRECT DIRECTION FOR PIN/RIVET REMOVAL OR INSERTION.

ASME/ANSI SERIES CHAIN

SINGLE AND MULTI-STRAND

These chains are built to ASME /ANSI B29.1 standards for dimensions, interoperability, and sprocket fit and exceed the established standards for tensile strength.



Dimensions in Inches

ASME/ANSI Number	Pitch Inches	Roller Width	Roller Diameter	Pin Diameter	Link Plate Thickness	C	R	K	Pounds Per Foot	Average Tensile Strength	E**	H**
25	1/4	1/8	*.130	.090	.030	0.37	0.34	....	0.08	875	0.205	0.238
25-2	1/4	1/8	*.130	.090	.030	0.63	0.59	0.252	0.16	1750	0.205	0.238
25-3	1/4	1/8	*.130	.090	.030	0.88	0.84	0.252	0.25	2625	0.205	0.238
35	3/8	3/16	*.200	.141	.050	0.56	0.50	....	0.21	2100	0.308	0.356
35-2	3/8	3/16	*.200	.141	.050	0.96	0.90	0.399	0.45	4200	0.308	0.356
35-3	3/8	3/16	*.200	.141	.050	1.36	1.31	0.399	0.68	6300	0.308	0.356
35-4	3/8	3/16	*.200	.141	.050	1.76	1.70	0.399	0.91	8400	0.308	0.356
35-5	3/8	3/16	*.200	.141	.050	2.16	2.11	0.399	1.14	10500	0.308	0.356
35-6	3/8	3/16	*.200	.141	.050	2.57	2.51	0.399	1.37	12600	0.308	0.356
40	1/2	5/16	.312	.156	.060	0.72	0.67	....	0.41	4000	0.410	0.475
40-2	1/2	5/16	.312	.156	.060	1.29	1.24	0.566	0.80	8000	0.410	0.475
40-3	1/2	5/16	.312	.156	.060	1.85	1.80	0.566	1.20	12000	0.410	0.475
40-4	1/2	5/16	.312	.156	.060	2.42	2.37	0.566	1.60	16000	0.410	0.475
40-6	1/2	5/16	.312	.156	.060	3.56	3.51	0.566	2.42	24000	0.410	0.475
41	1/2	1/4	.306	.141	.050	0.65	0.57	....	0.26	2400	0.310	0.383
50	5/8	3/8	.400	.200	.080	0.89	0.83	....	0.70	6600	0.512	0.594
50-2	5/8	3/8	.400	.200	.080	1.60	1.55	0.713	1.40	13200	0.512	0.594
50-3	5/8	3/8	.400	.200	.080	2.31	2.26	0.713	2.09	19800	0.512	0.594
50-4	5/8	3/8	.400	.200	.080	3.03	2.97	0.713	2.78	26400	0.512	0.594
50-5	5/8	3/8	.400	.200	.080	3.75	3.69	0.713	3.47	33000	0.512	0.594
50-6	5/8	3/8	.400	.200	.080	4.46	4.40	0.713	4.17	39600	0.512	0.594
50-8	5/8	3/8	.400	.200	.080	5.89	5.83	0.713	5.56	52800	0.512	0.594
50-10	5/8	3/8	.400	.200	.080	7.32	7.26	0.713	6.93	66000	0.512	0.594
60	3/4	1/2	.469	.234	.094	1.11	1.04	....	0.99	8500	0.615	0.713
60-2	3/4	1/2	.469	.234	.094	2.01	1.94	0.897	1.95	17000	0.615	0.713
60-3	3/4	1/2	.469	.234	.094	2.91	2.84	0.897	2.88	25500	0.615	0.713
60-4	3/4	1/2	.469	.234	.094	3.81	3.74	0.897	3.90	34000	0.615	0.713
60-5	3/4	1/2	.469	.234	.094	4.71	4.64	0.897	4.97	42500	0.615	0.713
60-6	3/4	1/2	.469	.234	.094	5.60	5.53	0.897	5.96	51000	0.615	0.713
60-8	3/4	1/2	.469	.234	.094	7.40	7.33	0.897	7.94	68000	0.615	0.713
60-10	3/4	1/2	.469	.234	.094	9.19	9.12	0.897	9.92	85000	0.615	0.713
80	1	5/8	.625	.312	.125	1.44	1.32	....	1.73	14500	0.820	0.950
80-2	1	5/8	.625	.312	.125	2.59	2.47	1.153	3.37	29000	0.820	0.950

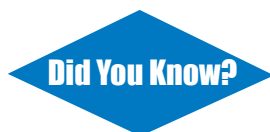
Note: ASME/ANSI 60 and larger chains are available as cottered or riveted type design.

Multi-strand chains are available with slip-fit (standard) or press-fit center plates.

*Chains are rollerless – dimension shown is bushing diameter.

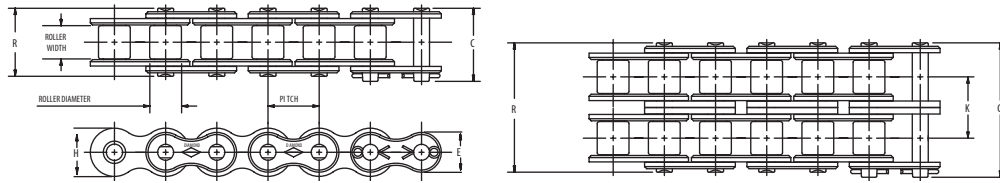
** Maximum values are shown.

Chart continues on next page.



Diamond series chains have been made in Indianapolis, Indiana since 1890.

ASME/ANSI SERIES CHAIN



Dimensions in Inches

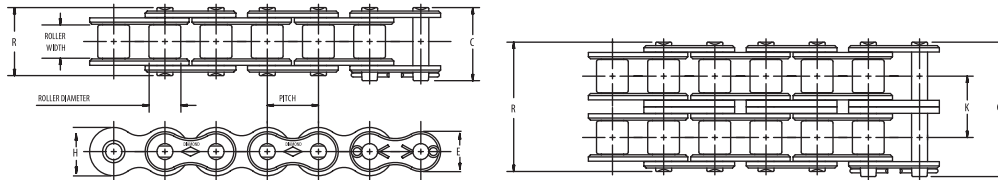
ASME/ANSI Number	Pitch Inches	Roller Width	Roller Diameter	Pin Diameter	Link Plate Thickness	C	R	K	Pounds Per Foot	Average Tensile Strength	E**	H**
80-3	1	5/8	.625	.312	.125	3.74	3.62	1.153	5.02	43500	0.820	0.950
80-4	1	5/8	.625	.312	.125	4.90	4.79	1.153	6.73	58000	0.820	0.950
80-5	1	5/8	.625	.312	.125	6.06	5.94	1.153	8.40	72500	0.820	0.950
80-6	1	5/8	.625	.312	.125	7.22	7.10	1.153	10.07	87000	0.820	0.950
80-8	1	5/8	.625	.312	.125	9.53	9.40	1.153	13.41	116000	0.820	0.950
100	1 1/4	3/4	.750	.375	.156	1.73	1.61	....	2.51	24000	1.025	1.188
100-2	1 1/4	3/4	.750	.375	.156	3.14	3.02	1.408	4.91	48000	1.025	1.188
100-3	1 1/4	3/4	.750	.375	.156	4.56	4.43	1.408	7.40	72000	1.025	1.188
100-4	1 1/4	3/4	.750	.375	.156	5.97	5.84	1.408	9.80	96000	1.025	1.188
100-5	1 1/4	3/4	.750	.375	.156	7.38	7.25	1.408	12.20	120000	1.025	1.188
100-6	1 1/4	3/4	.750	.375	.156	8.78	8.66	1.408	14.60	144000	1.025	1.188
100-8	1 1/4	3/4	.750	.375	.156	11.60	11.48	1.408	19.40	192000	1.025	1.188
120	1 1/2	1	.875	.437	.187	2.14	2.00	....	3.69	34000	1.230	1.425
120-2	1 1/2	1	.875	.437	.187	3.93	3.79	1.408	7.35	68000	1.230	1.425
120-3	1 1/2	1	.875	.437	.187	5.72	5.58	1.408	11.10	102000	1.230	1.425
120-4	1 1/2	1	.875	.437	.187	7.52	7.38	1.408	14.70	136000	1.230	1.425
120-5	1 1/2	1	.875	.437	.187	9.31	9.17	1.408	18.43	170000	1.230	1.425
120-6	1 1/2	1	.875	.437	.187	11.10	10.96	1.408	22.11	204000	1.230	1.425
120-8	1 1/2	1	.875	.437	.187	14.68	14.54	1.408	29.47	272000	1.230	1.425
120-10	1 1/2	1	.875	.437	.187	18.26	18.12	1.408	36.83	340000	1.230	1.425
140	1 3/4	1	1.000	.500	.219	2.31	2.14	....	5.00	46000	1.435	1.663
140-2	1 3/4	1	1.000	.500	.219	4.24	4.07	1.924	9.65	92000	1.435	1.663
140-3	1 3/4	1	1.000	.500	.219	6.16	6.00	1.924	14.30	138000	1.435	1.663
140-4	1 3/4	1	1.000	.500	.219	8.09	7.93	1.924	18.95	184000	1.435	1.663
140-6	1 3/4	1	1.000	.500	.219	11.94	11.78	1.924	28.25	276000	1.435	1.663
160	2	1 1/4	1.125	.562	.250	2.73	2.54	....	6.53	58000	1.640	1.900
160-2	2	1 1/4	1.125	.562	.250	5.04	4.85	2.305	12.83	116000	1.640	1.900
160-3	2	1 1/4	1.125	.562	.250	7.35	7.16	2.305	19.03	174000	1.640	1.900
160-4	2	1 1/4	1.125	.562	.250	9.66	9.47	2.305	25.60	232000	1.640	1.900
160-6	2	1 1/4	1.125	.562	.250	14.27	14.09	2.305	37.78	348000	1.640	1.900
180	2 1/4	1 13/32	1.406	.687	.281	3.15	2.88	....	9.06	76000	1.845	2.138
180-2	2 1/4	1 13/32	1.406	.687	.281	5.75	5.48	2.592	17.67	152000	1.845	2.138
180-3	2 1/4	1 13/32	1.406	.687	.281	8.34	8.07	2.592	26.20	228000	1.845	2.138
200	2 1/2	1 1/2	1.562	.781	.312	3.44	3.12	....	10.65	95000	2.050	2.375
200-2	2 1/2	1 1/2	1.562	.781	.312	6.26	5.94	2.817	21.50	190000	2.050	2.375
200-3	2 1/2	1 1/2	1.562	.781	.312	9.08	8.76	2.817	32.30	285000	2.050	2.375
200-4	2 1/2	1 1/2	1.562	.781	.312	11.90	11.58	2.817	42.90	380000	2.050	2.375
200-6	2 1/2	1 1/2	1.562	.781	.312	17.52	17.21	2.817	64.50	570000	2.050	2.375
240	3	1 7/8	1.875	.937	.375	4.32	3.83	....	17.03	157600	2.422	2.806
240-2	3	1 7/8	1.875	.937	.375	7.77	7.27	3.458	33.44	315200	2.422	2.806
240-3	3	1 7/8	1.875	.937	.375	11.23	10.73	3.458	49.77	472800	2.422	2.806

** Maximum values are shown.

HEAVY SERIES CHAIN

SINGLE AND MULTI-STRAND

Diamond heavy series chains are built to ASME/ANSI B29.1 standards and feature linkplates that are 1/32" thicker than standard series linkplates. Heavy series chains are intended for applications subjected to heavy shock loads, abrupt starts and stops, and forward and reverse travel.



Dimensions in Inches

ASME/ANSI Number	Pitch Inches	Roller Width	Roller Diameter	Pin Diameter	Link Plate Thickness	C	R	K	Pounds Per Foot	Average Tensile Strength	E*	H*
60H	3/4	1/2	.469	.234	.125	1.24	1.17	....	1.18	8500	.615	.713
60H-2	3/4	1/2	.469	.234	.125	2.27	2.20	1.028	2.33	17000	.615	.713
60H-3	3/4	1/2	.469	.234	.125	3.31	3.24	1.028	3.47	25500	.615	.713
60H-4	3/4	1/2	.469	.234	.125	4.34	4.26	1.028	4.61	34000	.615	.713
80H	1	5/8	.625	.312	.156	1.57	1.45	....	2.02	14500	.820	.950
80H-2	1	5/8	.625	.312	.156	2.84	2.72	1.283	3.93	29000	.820	.950
80H-3	1	5/8	.625	.312	.156	4.14	4.02	1.283	5.92	43500	.820	.950
80H-4	1	5/8	.625	.312	.156	5.42	5.30	1.283	7.87	58000	.820	.950
100H	1 1/4	3/4	.750	.375	.187	1.86	1.74	....	2.82	24000	1.025	1.188
100H-2	1 1/4	3/4	.750	.375	.187	3.41	3.28	1.54	5.58	48000	1.025	1.188
100H-3	1 1/4	3/4	.750	.375	.187	4.95	4.82	1.54	8.32	72000	1.025	1.188
100H-4	1 1/4	3/4	.750	.375	.187	6.49	6.30	1.54	11.04	96000	1.025	1.188
120H	1 1/2	1	.875	.437	.219	2.27	2.13	....	4.08	34000	1.230	1.425
120H-2	1 1/2	1	.875	.437	.219	4.20	4.60	1.924	8.04	68000	1.230	1.425
120H-3	1 1/2	1	.875	.437	.219	6.13	5.99	1.924	11.99	102000	1.230	1.425
120H-4	1 1/2	1	.875	.437	.219	8.06	7.92	1.924	15.94	136000	1.230	1.425
120H-6	1 1/2	1	.875	.437	.219	11.91	11.77	1.924	23.84	204000	1.230	1.425
140H	1 3/4	1	1.000	.500	.250	2.44	2.28	....	5.40	46000	1.435	1.663
140H-2	1 3/4	1	1.000	.500	.250	4.50	4.34	2.055	10.65	92000	1.435	1.663
140H-3	1 3/4	1	1.000	.500	.250	6.56	6.39	2.055	15.90	138000	1.435	1.663
140H-4	1 3/4	1	1.000	.500	.250	8.62	8.45	2.055	21.10	184000	1.435	1.663
160H	2	1 1/4	1.125	.562	.281	2.86	2.68	....	7.03	58000	1.640	1.900
160H-2	2	1 1/4	1.125	.562	.281	5.30	5.12	2.436	13.88	116000	1.640	1.900
160H-3	2	1 1/4	1.125	.562	.281	7.75	7.56	2.436	20.68	174000	1.640	1.900
160H-4	2	1 1/4	1.125	.562	.281	10.17	10.00	2.436	27.62	232000	1.640	1.900
180H	2 1/4	1 13/32	1.406	.687	.312	3.28	3.01	....	9.59	76000	1.845	2.138
180H-2	2 1/4	1 13/32	1.406	.687	.312	6.00	5.73	2.723	18.86	152000	1.845	2.138
180H-3	2 1/4	1 13/32	1.406	.687	.312	8.73	8.46	2.723	28.14	228000	1.845	2.138
200H	2 1/2	1 1/2	1.562	.781	.375	3.71	3.39	....	13.38	110000	2.050	2.375
200H-2	2 1/2	1 1/2	1.562	.781	.375	6.79	6.48	3.083	26.38	220000	2.050	2.375
200H-3	2 1/2	1 1/2	1.562	.781	.375	9.88	9.56	3.083	40.85	330000	2.050	2.375
240H	3	1 7/8	1.875	.937	.500	4.85	4.35	....	21.08	157600	2.422	2.806

Note: ASME/ANSI 60 and larger chains are available as cottered or riveted type design.

Multi-strand chains are available with slip-fit (standard) or press-fit center plates.

* Maximum values are shown.

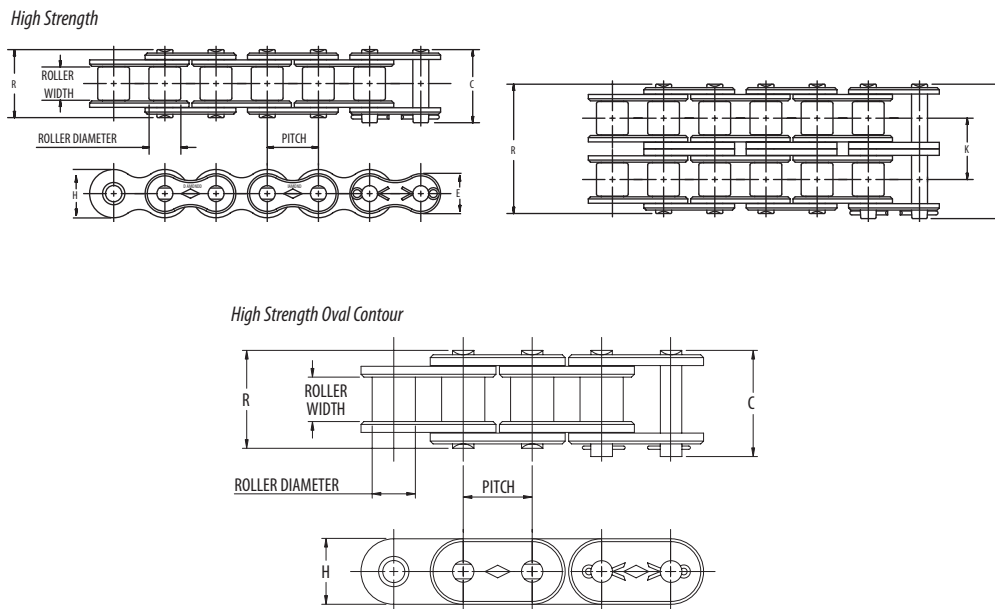
HIGH STRENGTH SERIES CHAIN

Diamond high strength chains are built to ASME/ANSI B29.1 standards and are intended for applications subjected to heavy loads or lifting. In addition to the high strength series, Diamond Chain also manufactures hoist chain and rollerless lift chain for heavy loads or lifting applications.

HIGH STRENGTH AND HIGH STRENGTH OVAL CONTOUR DRIVE CHAINS

Diamond high strength (HS) and high strength oval contour (HSOC) chains are built to ASME/ANSI B29.1 standards. These chains feature through-hardened, medium carbon alloy steel pins for higher working load capacity and additional resistance versus standard heavy series drive chains in heavy load and pulsating applications. High strength oval contour drive chains feature medium carbon alloy steel pins and full oval contour pin linkplates and roller linkplates for maximum plate rigidity in high load applications.

Offset links and slip-fit connecting links are not recommended for high strength or lift chain applications.



Dimensions in Inches

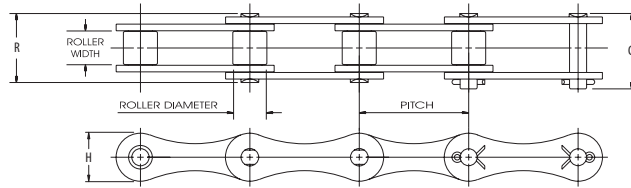
ASME/ANSI Number	Pitch Inches	Roller Width	Roller Diameter	Pin Diameter	Link Plate Thickness	C	R	K	Pounds Per Foot	Average Tensile Strength	E*	H*
60HS	3/4	1/2	.469	.234	.125	1.24	1.17	....	1.18	12000	.615	.713
60HSOC	3/4	1/2	.469	.234	.125	1.24	1.17	....	1.42	12000	.713	.713
80HS	1	5/8	.625	.312	.156	1.57	1.45	....	2.02	21000	.820	.950
80HSOC	1	5/8	.625	.312	.156	1.57	1.45	....	2.38	21000	.950	.950
100HS	1 1/4	3/4	.750	.375	.187	1.86	1.74	....	2.82	30000	1.025	1.188
100HSOC	1 1/4	3/4	.750	.375	.187	1.86	1.74	....	3.29	30000	1.188	1.188
120HS	1 1/2	1	.875	.437	.219	2.27	2.13	....	4.08	41000	1.230	1.425
140HS	1 3/4	1	1.000	.500	.250	2.44	2.28	....	5.40	56000	1.435	1.663
160HS	2	1 1/4	1.125	.562	.281	2.86	2.68	....	7.03	70000	1.640	1.900
180HS	2 1/4	1 13/32	1.406	.687	.312	3.28	3.01	....	9.59	95000	1.845	2.138
200HS	2 1/2	1 1/2	1.562	.781	.375	3.71	3.39	....	13.75	136000	2.050	2.375
200HS-2	2 1/2	1 1/2	1.562	.781	.375	6.79	6.48	3.083	26.38	270000	2.050	2.375
200HS-3	2 1/2	1 1/2	1.562	.781	.375	9.88	9.56	3.083	40.85	405000	2.050	2.375
240HS	3	1 7/8	1.875	.937	.500	4.85	4.35	....	21.08	157600	2.422	2.806

* Maximum values are shown.

DOUBLE-PITCH ROLLER CHAIN

DOUBLE-PITCH POWER TRANSMISSION ROLLER CHAIN

Diamond Chain double-pitch power transmission chains are built to ASME/ANSI B29.3 standards, have figure-eight style linkplates, and a pitch twice that of the standard series chains. Typical uses for these chains include light load drives commonly found in agricultural applications.



Dimensions in Inches

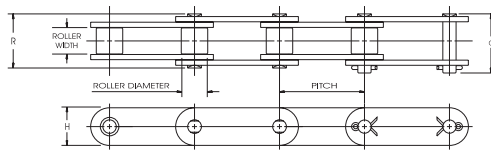
ASME/ANSI Number	Pitch Inches	Roller Width	Roller Diameter	Pin Diameter	Link Plate Thickness	C	R	Pounds Per Foot	Average Tensile Strength	H*
2040	1	5/16	0.312	0.156	0.060	0.76	0.68	0.28	3700	0.475
2050	1 1/4	3/8	0.400	0.200	0.080	0.92	0.84	0.52	6100	0.594
2060	1 1/2	1/2	0.469	0.234	0.094	1.11	1.05	0.72	8500	0.712
2080	2	5/8	0.625	0.312	0.125	1.44	1.32	1.13	14500	0.950

* Nominal values are shown.

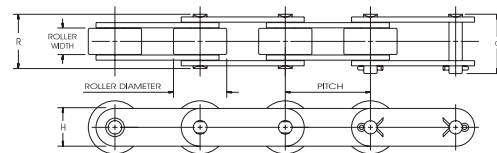
DOUBLE-PITCH CONVEYOR ROLLER CHAIN

Diamond Chain double-pitch conveyor chains are built to ASME/ANSI B29.4 standards, have oval contour linkplates, and can be produced with either standard or oversized rollers. These chains are used in conveyor applications where loads are low and speeds are moderate and can be produced with a variety of attachments.

STANDARD ROLLERS



OVERSIZED ROLLERS



Dimensions in Inches

ASME/ANSI Number	Pitch Inches	Roller Width	Roller Diameter	Pin Diameter	Link Plate Thickness	C	R	Pounds Per Foot	Average Tensile Strength	H*
C2040	1	1/3	0.312	0.156	0.060	0.76	0.68	0.34	3125	0.475
C2050	1 1/4	3/8	0.400	0.200	0.080	0.92	0.84	0.58	4880	0.594
C2060H	1 1/2	1/2	0.469	0.234	0.125	1.25	1.18	1.05	7030	0.712
C2080H	2	5/8	0.625	0.312	0.156	1.57	1.45	1.4	12500	0.95
C2100H	2 1/2	3/4	0.750	0.375	0.187	1.86	1.74	2.48	24000	1.187
C2120H	3	1	0.875	0.437	0.219	2.27	2.13	3.60	34000	1.425
C2160H	4	1 1/4	1.125	0.562	0.281	2.86	2.68	6.18	58000	1.9

* Nominal values are shown.

OVERSIZED ROLLERS

Dimensions in Inches

ASME/ANSI Number	Pitch Inches	Roller Width	Roller Diameter	Pin Diameter	Link Plate Thickness	C	R	Pounds Per Foot	Average Tensile Strength	H*
C2042	1	1/3	0.625	0.156	0.060	0.76	0.68	0.5	3125	0.475
C2052	1 1/4	3/8	0.750	0.200	0.080	0.92	0.84	0.81	4880	0.594
C2062H	1 1/2	1/2	0.875	0.234	0.125	1.25	1.18	1.42	7030	0.712
C2082H	2	5/8	1.125	0.312	0.156	1.57	1.45	2.13	14500	0.95
C2102H	2 1/2	3/4	1.562	0.375	0.187	1.86	1.74	3.51	24000	1.187
C2122H	3	1	1.750	0.437	0.219	2.27	2.13	5.48	34000	1.425
C2162H	4	1 1/4	2.250	0.562	0.281	2.86	2.68	9.34	58000	1.9

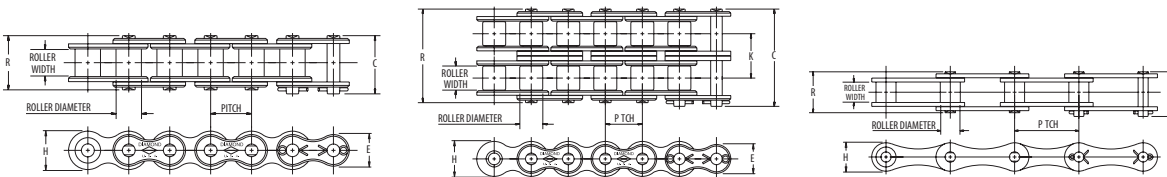
* Nominal values are shown.

MAINTENANCE FREE CHAIN

Diamond maintenance free chains are intended for applications where regular lubrication is not possible or practical.

DURALUBE® CHAIN

The DURALUBE series features a one-piece powdered metal bushing and roller combination lubricated under vacuum to provide supplemental lubrication between regularly scheduled inspection and maintenance.



Dimensions in Inches

ASME/ANSI Number	Pitch Inches	Roller Width	Roller Diameter	Pin Diameter	Link Plate Thickness	C	R	K	Pounds Per Foot	Average Tensile Strength	Maximum Chain Speed	E*	H*
40-DL	1/2	5/16	.312	.156	.060	0.72	0.67	....	0.40	3300	1300 ft/min	.410	.475
40-2-DL	1/2	5/16	.312	.156	.060	1.29	1.24	0.566	0.81	6600	1300 ft/min	.410	.475
50-DL	5/8	3/8	.400	.200	.080	0.89	0.83	....	0.65	5200	1000 ft/min	.512	.594
50-2-DL	5/8	3/8	.400	.200	.080	1.60	1.55	0.713	1.27	10400	1000 ft/min	.512	.594
60-DL	3/4	1/2	.469	.234	.094	1.11	1.04	....	0.95	7400	850 ft/min	.615	.713
60-2-DL	3/4	1/2	.469	.234	.094	2.01	1.94	0.897	1.85	14800	850 ft/min	.615	.713
80-DL	1	5/8	.625	.312	.125	1.44	1.32	....	1.60	13000	650 ft/min	.820	.950
2040-DL	1	5/16	.312	.156	.060	0.76	0.68	....	0.30	3300	600 ft/min	....	.475
2050-DL	1 1/4	3/8	.400	.200	.080	0.92	0.84	....	0.47	5200	600 ft/min	....	.594
2060-DL	1 1/2	1/2	.469	.234	.094	1.11	1.05	....	0.70	7400	600 ft/min	....	.712

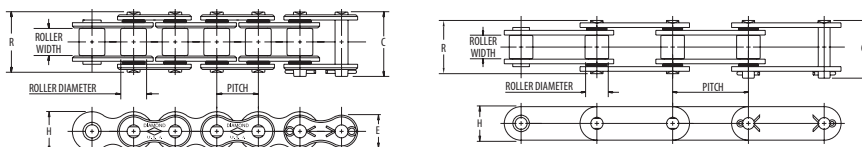
Note: Due to the nature of DURALUBE drive chain construction, note maximum speed limitations.

Ambient temperature should not exceed 120° Fahrenheit.

* Maximum values are shown.

RING LEADER® O-RING DRIVE CHAIN

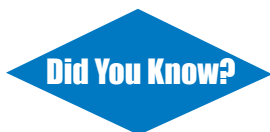
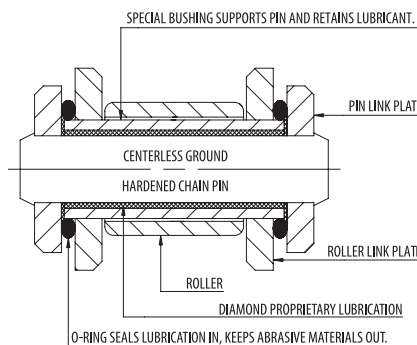
The RING LEADER o-ring series is designed for applications where regular lubrication is not possible. These chains are constructed with gaskets that seal in Diamond Chain proprietary lubricant and keep contaminants out.



Dimensions in Inches

ASME/ANSI Number	Pitch Inches	Roller Width	Roller Diameter	Pin Diameter	Link Plate Thickness	C	R	Pounds Per Foot	Average Tensile Strength	E*	H*
50 XLO	5/8	3/8	.400	.200	.080	0.95	0.89	0.72	6500	.512	.594
50H XLO	5/8	3/8	.400	.214	.094	1.02	0.96	0.93	9300	.512	.594
60 XLO	3/4	1/2	.469	.234	.094	1.21	1.13	1.01	7700	.615	.713
80 XLO	1	5/8	.625	.312	.125	1.51	1.41	1.77	13500	.820	.950
100 XLO	1 1/4	3/4	.750	.375	.156	1.83	1.74	2.55	22000	1.025	1.188
120 XLO	1 1/2	1	.875	.437	.187	2.24	2.12	3.76	30000	1.230	1.425
140 XLO	1 3/4	1	1.000	.500	.219	2.49	2.35	5.10	42000	1.435	1.663
160 XLO	2	1 1/4	1.125	.562	.250	2.96	2.82	6.66	52000	1.640	1.800
C2050 XLO	1 1/4	3/8	.400	.200	.080	0.95	0.89	0.59	6500	....	.594
C2060H XLO	1 1/2	1/2	.469	.234	.125	1.27	1.21	1.17	7700	....	.712

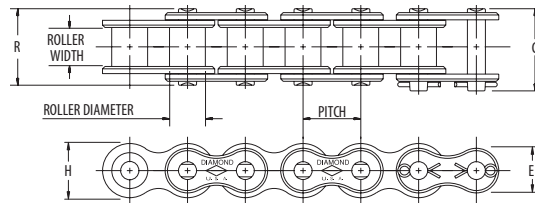
*Maximum values are shown.



RING LEADER o-ring chain can routinely operate in ambient temperatures up to 150°F. For higher temperatures, special o-rings can be substituted, allowing operation in temperatures of 400°F or greater.

DUST STOPPER™ DRIVE CHAIN

The Dust Stopper series combines the maintenance-free benefits of the DURALUBE series with the advanced protection from contaminants of Diamond's RING LEADER o-ring series.



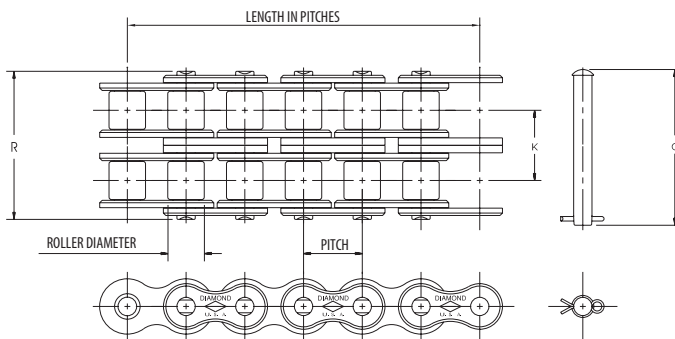
Dimensions in Inches

ASME/ANSI Number	Pitch Inches	Roller Width	Roller Diameter	Pin Diameter	Link Plate Thickness	C	R	Pounds Per Foot	Average Tensile Strength	Max. Speed ft/min	E*	H*
40 XDLO	1/2	5/16	.312	.156	.060	0.78	0.73	0.43	3300	1300 ft/min	0.410	0.475
50 XDLO	5/8	3/8	.400	.200	.080	0.95	0.59	0.68	5200	1000 ft/min	0.512	0.594
60 XDLO	3/4	1/2	.469	.234	.094	1.21	1.13	0.95	7400	850 ft/min	0.615	0.713
80 XDLO	1	5/8	.625	.312	.125	1.51	1.41	1.59	13000	650 ft/min	0.820	0.950

Note: Due to the nature of DURALUBE drive chain construction, note maximum speed limitations. Ambient temperature should not exceed 120° Fahrenheit.

COUPLING CHAIN

Diamond coupling chains are designed to work in concert with drive couplings to provide near-seamless power transmission.



Dimensions in Inches

ASME/ANSI Number	Pitch Inches	Roller Width	Roller Diameter	C	R	K	Length Pitches	Pounds Per Foot
D4012	0.5	0.312	0.312	1.297	1.24	0.566	12	0.41
D4016	0.5	0.312	0.312	1.297	1.24	0.566	16	0.55
D5016	5/8	0.375	0.400	1.592	1.55	0.713	16	1.12
D5018	5/8	0.375	0.400	1.592	1.55	0.713	18	1.26
D6018	3/4	0.500	0.469	1.980	1.94	0.897	18	2.16
D6020	3/4	0.500	0.469	1.980	1.94	0.897	20	2.40
D6022	3/4	0.500	0.469	1.980	1.94	0.897	22	2.64
D8018	1	0.625	0.625	2.567	2.47	1.153	18	5.00
D8020	1	0.625	0.625	2.567	2.47	1.153	20	5.56
D10018	1 1/4	0.750	0.750	3.162	3.02	1.408	18	9.24
D10020	1 1/4	0.750	0.750	3.162	3.02	1.408	20	10.30
D12018	1 1/2	1.000	0.875	3.977	3.79	1.789	18	16.20
D12022	1 1/2	1.000	0.875	3.977	3.79	1.789	22	19.80

ADDITIONAL PRODUCTS

In addition to the items featured in this catalog, the Diamond Chain Company also manufactures these chains:

AGRICULTURE ROLLER CHAIN

A full assortment of agricultural attachments for use with Diamond standard ASME/ANSI roller chain.

ATTACHMENT ROLLER CHAIN

Single and double-pitch roller chains can be assembled with attachments or extended pins.

BRITISH STANDARD ROLLER CHAIN

A full assortment of 05B simplex through 48B triplex British Standard chains manufactured to the International Standards Organization dimensions (ISO 606, BS 228, DIN 8187) for dimensions, interoperability, and sprocket fit.

CORROSION/MOISTURE RESISTANT ROLLER CHAIN

A full line of corrosion/moisture resistant chains for use in environments where chains are exposed to humidity or corrosive agents. These chains are available in stainless steel, nickel plated, or with Diamond Chain's proprietary anti-corrosive exterior (ACE®) which features a two stage zinc-nickel and non-hexavalent chromium coating. Standard attachments are also available.

FLEXIBLE CHAIN

POWER CURVE CHAIN

Manufactured using a pin that is both smaller in diameter and slightly longer than its standard series equivalent. The design allows for extra clearance between the pin and the bushing and lateral deviations in overall chain width.

TUF-FLEX CHAIN

Designed to handle shaft or sprocket misalignment more than lateral turns, up to four inches of lateral displacement in every four feet of chain length, and up to eight degrees of axial twist. Ideal for heavy-duty construction machinery applications.

HIGH STRENGTH/LIFT CHAIN

HOIST CHAIN

Dimensionally identical to standard series chains but also incorporate pins produced from medium carbon alloy steel, through-hardened to give chains higher working load capacity and additional resistance to fatigue.

ROLLERLESS LIFT CHAIN

Designed for tension linkages where frequent articulation requires the increased bearing area of roller chain. Rollerless lift chains are dimensionally identical to standard series chains but are produced without rollers.

INFINITY SERIES CHAIN

Includes ANSI 25 through 160 and ISO 05B through 048B, single and multi-strand roller chain in carbon and stainless steel.

NON-STANDARD CHAIN

Designed prior to adoption of ASME/ANSI standards and available as special order products.

ADDITIONAL PRODUCTS

OIL AND GAS ROLLER CHAIN

A full assortment of API (American Petroleum Institute) certified multi-strand roller chain and coiled tubing injector kits that meet the requirements of Specification 7F are available. Diamond Chain also produces a narrow width 1 ½ inch pitch and 2 ½ inch pitch chain for use on older rig setups.

OVEN PIN ROLLER CHAIN

Built with Diamond standard series 60 pitch ANSI chain and available with bendable or breakaway carrier pins and many different pin extensions, including the high temperature PEEK™ tip. Oven pin chains are also available with Diamond's RING LEADER O-ring chain.

POWERSPORTS CHAIN

Designed to meet the individual needs of the powersports enthusiast for ATVs, go-karts, motorcycles, snowmobiles, and more. Multi-Service chains, DURALUBE chains and Ring Leader O-ring chains each offer specific functional advantages for your application.

SAPPHIRE SERIES CHAIN

Available in ANSI 25 through 240 and ISO 05B through 032B. Includes single and multi-strand, heavy series, and solutions for specialized applications.

SPECIALTY/MADE-TO-ORDER ATTACHMENTS

Diamond Chain can produce specialty and made-to-order attachments for any application.

Not sure which roller chain is right for your application?

Diamond Chain offers the Diamond, Infinity, and Sapphire series. These product lines have been designed to maximize service life and uptime while minimizing cost. To find out which product series is the right solution for your application, contact the Diamond Chain engineering team at 1-800-872-4246 or send an email to applicationengineering@diamondchain.com.

CONVERSION CHART


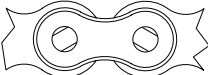

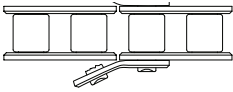
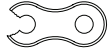

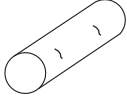
PITCHES-TO-FEET

CHAIN SIZE	PITCH (INCH)	PITCHES PER FOOT	PITCH (DECIMAL)
47		81.3559	0.147
25	1/4	48	0.250
35	3/8	32	0.375
40 - 41	1/2	24	0.500
50	5/8	19.2	0.625
60	3/4	16	0.750
80	1	12	1.000
100	1 1/4	9.6	1.250
120	1 1/2	8	1.500
140	1 3/4	6.857	1.750
160	2	6	2.000
180	2 1/4	5.333	2.250
200	2 1/2	4.8	2.500
240	3	4	3.000

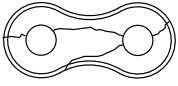
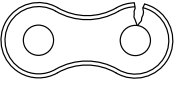
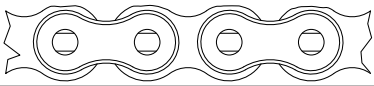
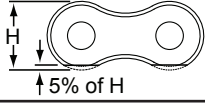
To convert pitches to feet follow this simple formula:
(Pitches divided by numbers of pitches per foot = feet)

Example: 84 pitches of #160 chain =
84 divided by 6 (pitch per foot) = 14 ft

TROUBLESHOOTING GUIDE

CONDITION/SYMPTOM	POSSIBLE CAUSE	WHAT TO DO
Tight Joints 	Dirt or foreign material in chain joints. Inadequate lubrication. Misalignment. Internal corrosion or rust. Overload bends pins or spreads roller linkplates.	Clean and re-lubricate chain. Replace chain. Re-establish proper lubrication. Replace sprockets and chain if needed. Realign sprockets. Replace chain. Eliminate cause of corrosion or protect chain. Replace chain. Eliminate cause of overload.
Rusted Chain	Exposed to moisture. Water in lubricant. Inadequate lubrication.	Replace chain. Protect from moisture. Change lubricant. Protect lubrication system from water. Replace chain. Provide or re-establish proper lubrication. Replace chain if needed.
Turned Pins 	Overload. Inadequate lubrication.	Replace chain. Eliminate cause of overload. Replace chain. Re-establish proper lubrication.
Enlarged Holes 	Overload.	Replace chain. Eliminate cause of overload.
Broken Pins Broken Linkplates  	Extreme Overload.	Replace chain. Replace sprockets if indicated. Eliminate cause of overload or redesign drive for larger pitch chain.
Broken, Cracked, or Deformed Rollers 	Speed too high. Sprockets too small. Chain riding too high on sprocket teeth.	Replace chain. Reduce speed. Replace chain. Use larger sprockets, or possibly redesign drive for smaller pitch chain. Replace chain. Re-tension chain more often.
Pin Galling 	Speed or load too high. Inadequate lubrication.	Reduce speed or load. Possibly redesign drive for smaller pitch chain. Provide or re-establish proper lubrication.
Chain Climbs Sprocket Teeth	Excess chain slack. Excessive chain wear. Excessive sprocket wear. Excessive overload.	Re-tension chain. Replace and re-tension chain. Replace sprockets and chain. Replace chain. Eliminate cause of overload.

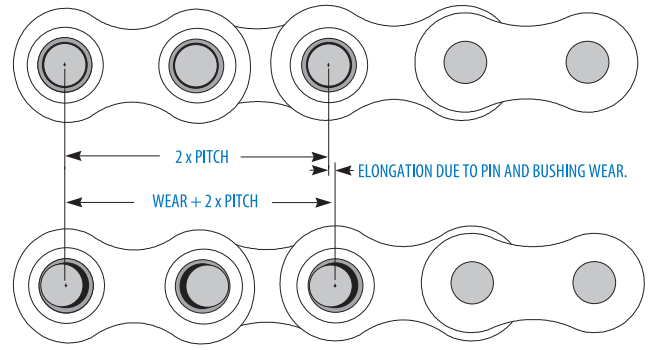
TROUBLESHOOTING GUIDE

CONDITION/SYMPTOM	POSSIBLE CAUSE	WHAT TO DO
Missing or Broken Cotters	Cotters installed improperly. Vibration. Excessively high speed.	Install new cotters per manufacturer's instructions. Replace chain. Reduce vibration. Use larger sprockets. Replace chain. Reduce speed. Redesign drive for smaller pitch chain.
Exposed Chain Surfaces Corroded or Pitted	Exposure to corrosive environment.	Replace chain. Protect from hostile environment.
Cracked Linkplates (Stress Corrosion)	Exposure to corrosive environment combined with stress from press fit linkplates.	Replace chain. Protect from hostile environment.
		
Cracked Linkplates (Fatigue)	Load is greater than chain's dynamic capacity.	Replace chain. Reduce dynamic loading or redesign drive for larger chain.
		
Battered Linkplate Edges	Chain striking an obstruction.	Replace chain. Eliminate interference.
		
Worn Linkplate Contours	Chain rubbing on casing, guide, or obstruction.	Replace chain if 5% or more of height worn away. Re-tension chain. Eliminate interference.
		
Excessive Noise	Chain striking an obstruction. Loose casing or shaft mounts. Excess chain slack. Excessive sprocket wear. Sprocket misalignment. Inadequate lubrication. Chain pitch too large Too few sprocket teeth.	Replace chain. Eliminate interference. Tighten fasteners. Re-tension chain. Replace and re-tension chain. Replace chain and sprockets, if needed. Realign sprockets. Replace chain if needed. Re-establish proper lubrication. Redesign drive for smaller pitch chain. Check to see if larger sprockets can be used. If not, redesign drive.
Wear on Inside of Roller Linkplates and One Side of Sprockets	Sprocket misalignment.	Replace sprockets and chain if needed. Realign drive. Re-tension chain.
Chain Clings to Sprocket	Excessive sprocket wear. Sprocket misalignment.	Replace sprockets and chain. Replace sprockets and chain if needed. Realign sprockets.

ROLLER CHAIN WEAR

Chain does not “stretch” – elongation is caused when material is removed from the pins and bushings.

The individual joints in a roller chain articulate as they enter and exit the sprockets. This articulation results in wear on the pins and bushings. As material is worn away from these surfaces, the chain will gradually elongate.



ELONGATION CONTROL

Elongation is normal and may be minimized through proper lubrication and drive maintenance. The rate of wear is dependent upon the load and the amount of bearing area between pin and bushing, the material and surface condition of the bearing surfaces, the adequacy of lubrication, and the frequency and degree of articulation between pins and bushings. The latter is determined by the quantity of sprockets in the drive, their speeds, the number of teeth, and the length of the chain in pitches.

CHECK CHAIN WEAR

Roller chains should be replaced when worn (elongated beyond 3%) or when the chain rollers begin to “ride high” near the tips of the teeth on relatively large sprockets. Do not connect or splice a new section to a worn chain. Do not continue to run a chain worn in excess of 3% (or less in some applications), the chain will not engage the sprockets properly and increased damage to the sprockets may occur.

Chain Wear Elongation Limits							
ANSI Chain No.	Chain Pitch		Measured Length				
			Pitches	Nominal		At 3% Wear	
				INCH	MM	INCH	MM
25	.250	6.35	48	12.00	305	12.375	314
35	.375	9.52	32	12.00	305	12.375	314
41	.500	12.70	24	12.00	305	12.375	314
40	.500	12.70	24	12.00	305	12.375	314
50	.625	15.88	20	12.50	318	12.875	327
60	.750	19.05	16	12.00	305	12.375	314
80	1.000	25.40	12	12.00	305	12.375	314
100	1.250	31.75	20	25.00	635	25.750	654
120	1.500	38.10	16	24.00	610	24.719	628
140	1.750	44.45	14	24.50	622	25.250	641
160	2.000	50.80	12	24.00	610	24.719	628
180	2.250	57.15	12	27.00	686	27.812	706
200	2.500	63.50	10	25.00	635	25.750	654
240	3.000	76.20	8	24.00	610	24.719	628

For additional chain wear gauges, please contact The Diamond Chain Company at marketing@diamondchain.com.

HOW TO MEASURE CHAIN WEAR

- 1) As a safety precaution, shut off power and lock out gears and sprockets before attempting to measure chain wear.
- 2) Determine the pitch of the chain. This is typically stamped on the outer linkplates of the chain. It can also be determined by measuring the distance from the center of one pin to the center of the next pin. Refer to the Diamond Chain product catalog for a list of ANSI standard chain models and correlating pitch measurements or visit www.diamondchain.com.
- 3) For reliable linear measurement, a taut span of chain must be used. Using slack chain will result in inaccurate measurements.
- 4) Choose either a 1.5% or 3% wear elongation limit to check your span of chain. Each percentage correlates to a different side of the scale. The maximum allowable wear elongation is typically 3% for most industrial applications, depending upon sprocket design. In drives having fixed center distances, chains running in parallel, or where smoother operation is required, chain wear should be limited to approximately 1.5%.

Example: Using ASME/ANSI 60 roller chain, 13 pitches would measure 9.75 inches for nominal length (13 pitches x .75 pitch).

A maximum wear calculation of 3% would be 1.03 x 9.75 or 10.0425 inches. A maximum wear calculation of 1.5% would be 1.015 x 9.75 or 9.896 inches.

- 5) Refer to the table on the wear gauge for the number of pitches to inspect. The more pitches (pins) included in the measurement provides the truer representation of the average amount of wear distributed throughout the chain.

Example: For ASME/ANSI 60 roller chain, 13 pitches will be measured.

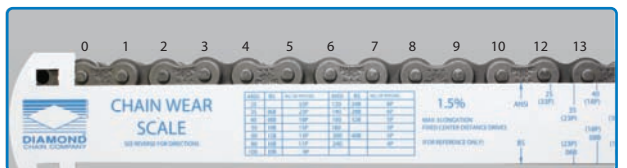
ANSI	BS	NO. OF PITCHES	ANSI	BS	NO. OF PITCHES
25		33P	120	24B	8P
35	06B	23P	140	28B	6P
40	08B	18P	160	32B	5P
50	10B	15P	180		5P
60	12B	13P	200	40B	5P
80	16B	11P	240		4P
100	20B	9P			

- 6) Place the inside corner of the wear scale around one pin, using that pin as "0," or your starting point.



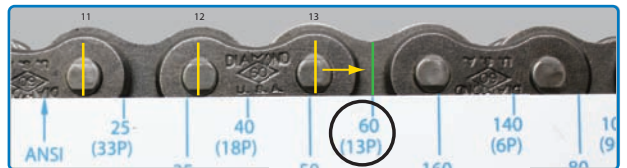
- 7) Starting at "0," count the number of pins/pitches to be measured for your chain's length.

Example: Count from 0 to 13 for ASME/ANSI 60 roller chain.



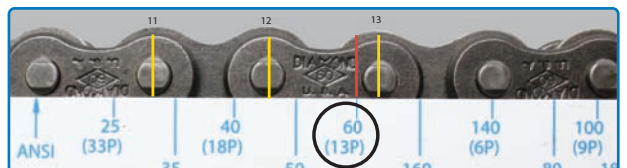
- 8) If the center of the indicated pin does not reach the wear line for the corresponding chain size, the chain has not reached the wear limit.

Example: For ASME/ANSI 60 roller chain, if the center of the 13th pin does not reach the # 60 wear mark, the chain remains usable.



- 9) If the center of the indicated pin is at or beyond the indicated line, the chain is worn to the wear limit (1.5% or 3%, depending on the scale used) and should be replaced.

Example: For ASME/ANSI 60 roller chain, if the center of the 13th pin reaches or exceeds the # 60 wear mark, the chain should be replaced.



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