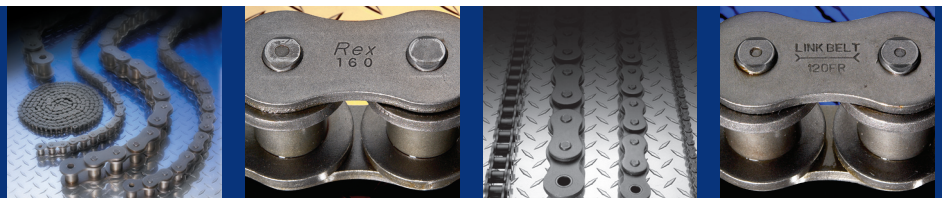
Drive and Conveyor Chains Catalog

REXNORD



Rexnord and Link-Belt Roller Chains

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Link-Belt and Rexnord Roller Chains

Drives

Standard roller chain is broadly used in power transmission applications ranging from general industrial applications to demanding oil field service to operation in such specialized areas as food processing and heavy construction equipment.

Single and multiple standard roller chains, available in many sizes, meet most drive requirements. Specifications are shown on pages B-1 through B-3.

Double-pitch drive chains frequently prove the economical choice for slower speed drives on relatively long centers. For details, see page B-6.

Modifications of these chains, developed for special operating conditions, are described below.

Corrosion resistance—Standard roller chain made of stainless steel provides excellent performance in applications requiring high resistance to corrosive attack. See page B-7.



Standard roller chain/single strand



Standard roller chain/multiple strand



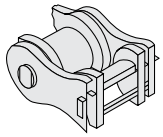
Double-pitch drive chain



Shock resistance - Link-Belt SU and Rexnord Heavy "H" series roller chain provides additional capacity to withstand intermittent shock loading. Features include improved fatigue resistance, thicker sidebars, and heat-treated pins. See page B-4.



Extra clearance - Trans-Flex® chain is designed for severe duty applications, such as in transit mixers, crawler drives, and other uses requiring delivery of full power despite recurrent sprocket misalignment. See page B-6.



ULTR-O-LIFE™ O-ring roller chain[1] - Uses square cross sectional O-rings to seal in special lube while sealing out dirt, moisture and other contaminants. Available in 5/8" thru 1 1/4" pitch single pitch series. Runs on standard ANSI sprockets. See page B-8.



Side bow roller chain[1] - Extra clearance chain with ability to flex and twist. Ideal for use on curved conveyors or to transmit power under misaligned sprocket conditions. Available in 3/8" to 1" single pitch. See page D-15.



Block chain[1] - Used in light load, low speed conveyors. Consisting of block links (solid or laminated) and link plates joined by pins, all block chains are 1" pitch and vary in width of block from 3/16" to 1/2". See page D-16.



REDI-LUBE™ chain[1] - Self-lubricating, heavy walled, oil-impregnated, sintered steel bushings replace bushing and roller of standard ANSI chain. Available in single and double-pitch. Full range of standard attachments also available. See page D-9.



Hollow pin chain[1] - The versatile conveyor chain. Constructed with special pin links which have hollow pins assembled in the pin plates. This unique design allows easy insertion of cross rods or attachments to preassembled chain at desired spacings. Attachments can be repositioned without removing chain from conveyor. It is available in single and double-pitch with or without Carrier Rollers. Full line of standard attachments available. See page D-11.

Conveyors

Standard and double-pitch conveyor chains are available with a selection of attachments to accommodate slats, angles, rollers, crossroads, and other conveying devices. See pages D-3 through D-8.

Restricted lubrication

Double-pitch roller chain with large-diameter rollers combines smooth, quiet operation and long life. This modification proves particularly useful in applications requiring minimum lubrication or where conditions make lubrication difficult. See page D-6.





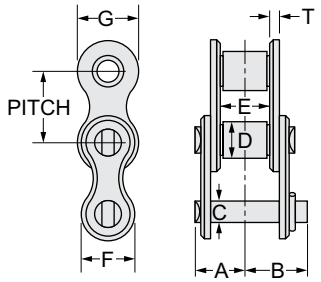


[1] Available only in Link-Belt Brand

Dimensions and other engineering data are subject to change. Certified specifications of ordered product furnished upon request.

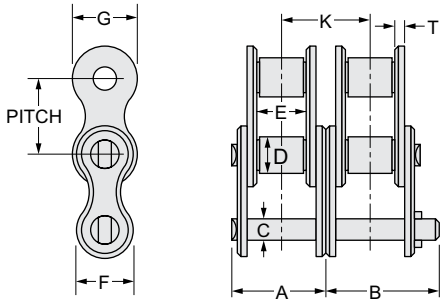
Link-Belt and Rexnord Drive Chains

Standard roller chains



Single Strand

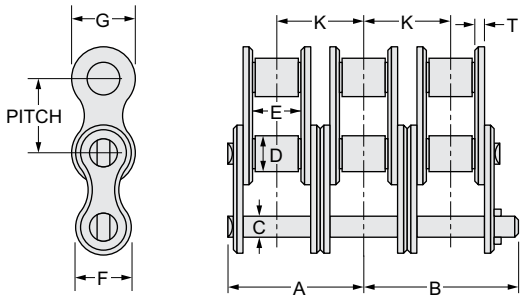
Chain Number	Chain pitch, inches	Average Ultimate strength, pounds	Min. ANSI UTS, pounds	Weight per foot, pounds	Dimensions, inches								Page references	
					A	B	C	D	E	F	G	T	HP ratings	Sprocket data
25 Δ	.250	940	781	.08	.15	.19	.090	.130	.13	.20	.23	.03	C- 9	C-10
35 Δ	.375	2,100	1,758	.22	.24	.31	.141	.200	.19	.31	.35	.05	C-11	C-12
40 Δ	.500	3,700	3,125	.39	.32	.38	.156	.313	.31	.41	.47	.06	C-13	C-14
41 Δ	.500	2,000	1,500	.27	.27	.32	.141	.306	.25	.32	.38	.05	C-15	C-16
50 Δ	.625	6,100	4,882	.70	.41	.48	.200	.400	.38	.52	.59	.08	C-17	C-18
60	.750	8,500	7,030	1.02	.50	.60	.234	.469	.50	.60	.71	.09	C-19	C-20
80	1.000	14,500	12,500	1.67	.63	.74	.312	.625	.63	.75	.91	.13	C-21	C-22
100	1.250	26,000	19,530	2.72	.76	.89	.375	.750	.75	.97	1.13	.16	C-23	C-24
120	1.500	36,500	28,125	3.72	.96	1.13	.438	.875	1.00	1.13	1.38	.19	C-25	C-26
140	1.750	48,500	38,280	4.69	1.02	1.21	.500	1.000	1.00	1.31	1.56	.22	C-27	C-28
160	2.000	68,000	50,000	6.12	1.23	1.41	.563	1.125	1.25	1.56	1.81	.25	C-29	C-30
180	2.250	86,000	63,280	9.06	1.39	1.56	.688	1.406	1.41	1.85	2.14	.28	C-31	C-32
200	2.500	100,000	78,125	10.9	1.54	1.89	.781	1.563	1.50	1.94	2.31	.31	C-33	C-34
240	3.000	152,200	112,500	16.4	1.85	2.20	.938	1.875	1.88	2.44	2.81	.38	C-35	C-36



Double Strand

Chain Number	Chain pitch, inches	Average Ultimate strength, pounds	Min. ANSI UTS, pounds	Weight per foot, pounds	Dimensions, inches									Page references	
					A	B	C	D	E	F	G	K	T	HP ratings	Sprocket data
35-2 Δ	.375	4,200	3,516	.42	.45	.50	.141	.200 ▲	.19	.31	.35	.399	.05	C-11	C-12
40-2 Δ	.500	7,400	6,250	.79	.60	.67	.156	.313	.31	.41	.47	.566	.06	C-13	C-14
50-2 Δ	.625	12,200	9,764	1.39	.76	.83	.200	.400	.38	.52	.59	.713	.08	C-17	C-18
60-2	.750	17,000	14,060	2.00	.95	1.05	.234	.469	.50	.60	.71	.897	.09	C-19	C-20
80-2	1.000	29,000	25,000	3.31	1.21	1.30	.312	.625	.63	.75	.91	1.153	.13	C-21	C-22
100-2	1.250	52,000	39,060	5.19	1.46	1.59	.375	.750	.75	.97	1.13	1.408	.16	C-23	C-24
120-2	1.500	73,000	56,250	7.38	1.84	2.02	.438	.875	1.00	1.13	1.38	1.789	.19	C-25	C-26
140-2	1.750	97,000	76,560	9.25	1.98	2.17	.500	1.000	1.00	1.31	1.56	1.924	.22	C-27	C-28
160-2	2.000	136,000	100,000	12.5	2.38	2.56	.563	1.125	1.25	1.56	1.81	2.305	.25	C-29	C-30
180-2	2.250	172,000	126,560	17.6	2.69	2.86	.688	1.406	1.41	1.85	2.14	2.592	.28	C-31	C-32
200-2	2.500	200,000	156,250	21.0	2.96	3.31	.781	1.563	1.50	1.94	2.31	2.817	.31	C-33	C-34
240-2	3.000	304,400	225,000	32.2	3.58	3.93	.938	1.875	1.88	2.44	2.81	3.458	.38	C-35	C-36

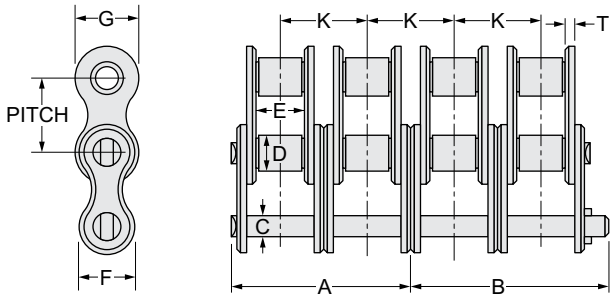
Δ Available only in riveted construction. All other sizes may be furnished cottered or riveted.
▲Bushing diameter. Chain is rollerless.



Triple Strand

Fig. 6446

Chain Number	Chain pitch, inches	Average Ultimate strength, pounds	Min. ANSI UTS, pounds	Weight per foot, pounds	Dimensions, inches									Page references	
					A	B	C	D	E	F	G	K	T	HP ratings	Sprocket data
35-3	.375	6,300	5,274	.62	.63	.70	.141	.200 ▲	.19	.31	.35	.399	.05	C-11	C-12
40-3 Δ	.500	11,100	9,375	1.18	.89	.95	.156	.313	.31	.41	.47	.566	.06	C-13	C-14
50-3 Δ	.625	18,300	14,646	2.09	1.12	1.19	.200	.400	.38	.52	.59	.713	.08	C-17	C-18
60-3	.750	25,500	21,090	3.00	1.40	1.50	.234	.469	.50	.60	.71	.897	.09	C-19	C-20
80-3	1.000	43,500	37,500	4.97	1.78	1.87	.312	.625	.63	.75	.91	1.153	.13	C-21	C-22
100-3	1.250	78,000	58,590	7.67	2.16	2.29	.375	.750	.75	.97	1.13	1.408	.16	C-23	C-24
120-3	1.500	109,500	84,375	11.0	2.74	2.91	.438	.875	1.00	1.13	1.38	1.789	.19	C-25	C-26
140-3	1.750	145,500	114,840	13.8	2.94	3.13	.500	1.000	1.00	1.31	1.56	1.924	.22	C-27	C-28
160-3	2.000	204,000	150,000	18.6	3.52	3.71	.563	1.125	1.25	1.56	1.81	2.305	.25	C-29	C-30
180-3	2.250	258,000	189,840	26.9	3.98	4.15	.688	1.406	1.41	1.85	2.14	2.592	.28	C-31	C-32
200-3	2.500	300,000	234,375	31.5	4.38	4.73	.781	1.563	1.50	1.94	2.31	2.817	.31	C-33	C-34
240-3	3.000	456,600	337,500	49.4	5.31	5.75	.938	1.875	1.88	2.44	2.81	3.458	.38	C-35	C-36



Quadruple Strand

Fig. 6447

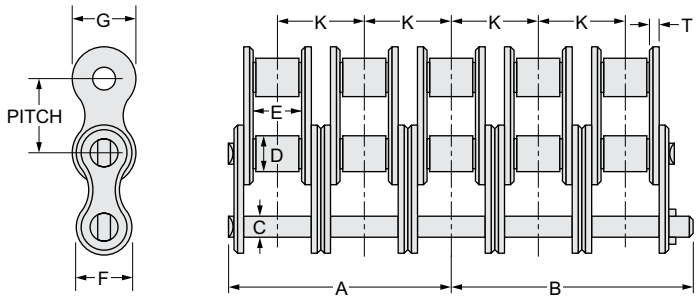
Chain Number	Chain pitch, inches	Average Ultimate strength, pounds	Min. ANSI UTS, pounds	Weight per foot, pounds	Dimensions, inches									Page references	
					A	B	C	D	E	F	G	K	T	HP ratings	Sprocket data
35-4 Δ	.375	8,400	7,032	.82	.78	.91	.141	.200 ▲	.19	.31	.35	.399	.05	C-11	C-12
40-4 Δ	.500	14,800	12,500	1.57	1.17	1.23	.156	.313	.31	.41	.47	.566	.06	C-13	C-14
50-4 Δ	.625	24,400	19,528	2.76	1.48	1.54	.200	.400	.38	.52	.59	.713	.08	C-17	C-18
60-4	.750	34,000	28,120	3.83	1.84	1.95	.234	.469	.50	.60	.71	.897	.09	C-19	C-20
80-4	1.000	58,000	50,000	6.76	2.35	2.44	.312	.625	.63	.75	.91	1.153	.13	C-21	C-22
100-4	1.250	104,000	78,120	10.1	2.86	2.99	.375	.750	.75	.97	1.13	1.408	.16	C-23	C-24
120-4	1.500	146,000	112,500	14.7	3.63	3.81	.438	.875	1.00	1.13	1.38	1.789	.19	C-25	C-26
140-4	1.750	194,000	153,120	18.4	3.90	4.09	.500	1.000	1.00	1.31	1.56	1.924	.22	C-27	C-28
160-4	2.000	272,000	200,000	24.8	4.67	4.86	.563	1.125	1.25	1.56	1.81	2.305	.25	C-29	C-30
180-4	2.250	344,000	253,120	35.8	5.28	5.45	.688	1.406	1.41	1.85	2.14	2.592	.28	C-31	C-32
200-4	2.500	400,000	312,500	43.2	5.80	6.14	.781	1.563	1.50	1.94	2.31	2.817	.31	C-33	C-34
240-4	3.000	608,800	450,000	65.7	7.04	7.38	.938	1.875	1.88	2.44	2.81	3.458	.38	C-35	C-36

Δ Available only in riveted construction. All other sizes may be furnished cottered or riveted.
▲Bushing diameter. Chain is rollerless.

Dimensions and other engineering data are subject to change. Certified specifications of ordered product furnished upon request.

Link-Belt and Rexnord Drive Chains

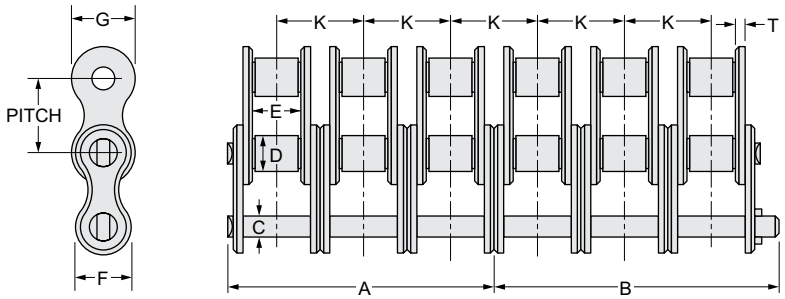
Standard roller chains



Quintuple Strand

Fig. 6448

Chain Number	Chain pitch, inches	Average Ultimate strength, pounds	Min. ANSI UTS, pounds	Weight per foot, pounds	Dimensions, inches									Page references	
					A	B	C	D	E	F	G	K	T	HP ratings	Sprocket data
35-5 Δ	.375	10,500	8,790	1.06	1.03	1.11	.141	.200 ▲	.19	.31	.35	.399	.05	C-11	C-12
40-5 Δ	.500	18,500	15,625	1.97	1.45	1.52	.156	.313	.31	.41	.47	.566	.06	C-13	C-14
50-5 Δ	.625	30,500	24,410	3.15	1.84	1.90	.200	.400	.38	.52	.59	.713	.08	C-17	C-18
60-5	.750	42,500	35,150	5.02	2.30	2.40	.234	.469	.50	.60	.71	.897	.09	C-19	C-20
80-5	1.000	72,500	62,500	8.21	2.92	3.03	.313	.625	.63	.75	.91	1.153	.13	C-21	C-22
100-5	1.250	130,000	97,650	12.7	3.56	3.69	.375	.750	.75	.97	1.13	1.408	.16	C-23	C-24
120-5	1.500	182,500	140,625	18.4	4.52	4.70	.438	.875	1.00	1.13	1.38	1.789	.19	C-25	C-26
140-5	1.750	242,500	191,400	22.9	4.86	5.05	.500	1.000	1.00	1.31	1.56	1.924	.22	C-27	C-28
160-5	2.000	340,000	250,000	31.9	5.82	6.00	.563	1.125	1.25	1.56	1.81	2.305	.25	C-29	C-30
180-5	2.250	430,000	316,400	44.7	6.57	6.74	.688	1.406	1.41	1.85	2.14	2.592	.28	C-31	C-32
200-5	2.500	500,000	390,625	53.9	7.22	7.56	.781	1.563	1.50	1.94	2.31	2.817	.31	C-33	C-34
240-5	3.000	761,000	562,500	82.0	8.76	9.11	.938	1.875	1.88	2.44	2.81	3.458	.38	C-35	C-36



Sextuple Strand

Fig. 6449

Chain Number	Chain pitch, inches	Average Ultimate strength, pounds	Min. ANSI UTS, pounds	Weight per foot, pounds	Dimensions, inches									Page references	
					A	B	C	D	E	F	G	K	T	HP ratings	Sprocket data
35-6 Δ	.375	12,600	10,548	1.27	1.23	1.31	.141	.200 ▲	.19	.31	.35	.399	.05	C-11	C-12
40-6 Δ	.500	22,200	18,750	2.36	1.73	1.80	.156	.313	.31	.41	.47	.566	.06	C-13	C-14
50-6 Δ	.625	36,600	29,292	3.77	2.19	2.25	.200	.400	.38	.52	.59	.713	.08	C-17	C-18
60-6	.750	51,000	42,180	6.02	2.75	2.85	.234	.469	.50	.60	.71	.897	.09	C-19	C-20
80-6	1.000	87,000	75,000	9.84	3.50	3.61	.313	.625	.63	.75	.91	1.153	.13	C-21	C-22
100-6	1.250	156,000	117,180	15.2	4.26	4.39	.375	.750	.75	.97	1.13	1.408	.16	C-23	C-24
120-6	1.500	219,000	168,750	22.0	5.42	5.59	.438	.875	1.00	1.13	1.38	1.789	.19	C-25	C-26
140-6	1.750	291,000	229,680	27.4	5.82	6.01	.500	1.000	1.00	1.31	1.56	1.924	.22	C-27	C-28
160-6	2.000	408,000	300,000	38.3	6.97	7.15	.563	1.125	1.25	1.56	1.81	2.305	.25	C-29	C-30
180-6	2.250	516,000	379,680	53.6	7.87	8.04	.688	1.406	1.41	1.85	2.14	2.592	.28	C-31	C-32
200-6	2.500	600,000	468,750	64.6	8.64	8.98	.781	1.563	1.50	1.94	2.31	2.817	.31	C-33	C-34
240-6	3.000	913,200	675,000	98.4	10.50	10.84	.938	1.875	1.88	2.44	2.81	3.458	.38	C-35	C-36

Δ Available only in riveted construction. All other sizes may be furnished cottered or riveted.
▲Bushing diameter. Chain is rollerless.
Minimum order quantities may be required in some parts.

SU (Super Ultimate) and H (Heavy) Series Chains

Link-Belt SU and Rexnord H series chains differ from standard roller chains in sidebar thickness and in pin material and heat treatment. The combination of increased sidebar thickness and high hardness alloy through hardened pins results in greater average ultimate tensile strength ratings for the SU and H series chains. The SU and H chains are capable of withstanding higher operating and intermittent shock loading without reduction of pin-bushing wear life.

Multiple width SU and H series chains are available.

SU and H series single strand roller chains operate on standard series roller chain sprockets. However, multiple strand heavy series chains require sprockets with rows of teeth with wider spacing to accommodate the thicker chain sidebars. See page B-5.

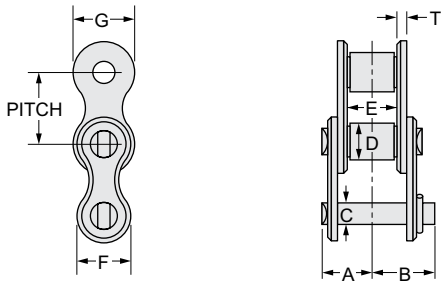


Fig. 6453

SU series

Chain Number		Chain pitch, inches	Average Ultimate strength, pounds	Joint bearing area, square inches	Weight per foot, pounds	Dimensions, inches								Page references
Link-Belt	Rexnord					A	B	C	D	E	F	G	T	Sprocket data
60HΔ	60HΔ	.750	8,500	.176	1.23	.56	.65	.234	.469	.50	.60	.69	.13	C-20
80SU	80H	1.000	17,500	.295	1.95	.69	.81	.313	.625	.63	.75	.91	.16	C-22
100SU	100H	1.250	29,000	.427	2.84	.83	.95	.375	.750	.75	.97	1.13	.19	C-24
120SU	120H	1.500	41,000	.636	4.14	1.02	1.19	.438	.875	1.00	1.13	1.38	.22	C-26
140SU	140H	1.750	56,000	.759	5.17	1.08	1.27	.500	1.000	1.00	1.31	1.56	.25	C-28
160SU	160H	2.000	70,000	1.028	6.92	1.29	1.47	.563	1.125	1.16	1.56	1.81	.28	C-30
180SU	180H	2.250	95,000	1.413	9.54	1.45	1.62	.688	1.406	1.41	1.85	2.14	.31	C-32
264■	64S	2.500	135,000	2.023	12.45	1.674	2.018	.875	1.562	1.50	2.05	2.38	.38	C-34

Δ Case hardened pin. 60
■ Replaces 250S and runs on 200 sprockets. Have dimensions certified for installation purposes.

Dimensions and other engineering data are subject to change. Certified specifications of ordered product furnished upon request.

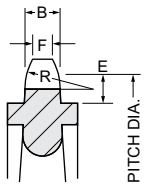
Sprocket Tooth Profile - Heavy Series Roller Chain

Single strand heavy series roller chain can be used with ANSI standard series roller chain sprockets of corresponding pitch. However, multiple strand heavy series roller chain **cannot** be used with the standard series sprockets, because of the extra thickness of link plates on the heavy series. Sprockets for multiple strand heavy series roller chain must be made to order.

Single Strand

Dimensions, inches					
Chain No.	**Pitch**	**B**	**E**	**F**	**R**
60H	.750	0.459	0.375	0.272	0.796
80SU	1.000	0.575	0.500	0.325	1.062
100SU	1.250	0.692	0.625	0.380	1.327
120SU	1.500	0.924	0.750	0.549	1.593
140SU	1.750	0.924	0.875	0.487	1.858
160SU	2.000	1.156	1.000	0.656	2.124
180SU	2.250	1.301	1.125	0.740	2.392
264	2.500	1.389	1.250	0.764	2.654

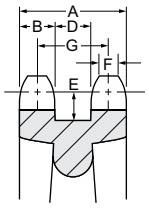
SINGLE



Double Strand

Dimensions, inches							
Chain No.	**Pitch**	**A**	**B**	**D**	**E**	**F**	**G**
60H-2	.750	1.471	0.444	0.583	0.375	0.257	1.027
80SU-2	1.000	1.839	0.556	0.727	0.500	0.306	1.283
100SU-2	1.250	2.210	0.670	0.870	0.625	0.358	1.540
120SU-2	1.500	2.820	0.894	1.032	0.750	0.519	1.926
140SU-2	1.750	2.949	0.894	1.161	0.875	0.457	2.055
160SU-2	2.000	3.555	1.119	1.317	1.000	0.619	2.436
180SU-2	2.250	4.248	1.259	1.730	1.125	0.700	2.989
264-2	2.500	4.426	1.344	1.738	1.250	0.719	3.082

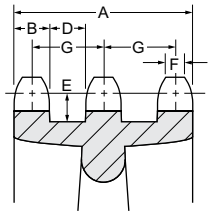
DOUBLE



Triple Strand

Dimensions, inches							
Chain No.	**Pitch**	**A**	**B**	**D**	**E**	**F**	**G**
60H-3	.750	2.498	0.444	0.583	0.375	0.257	1.027
80SU-3	1.750	3.122	0.556	0.727	0.500	0.306	1.283
100SU-3	1.250	3.750	0.670	0.870	0.625	0.358	1.540
120SU-3	1.500	4.746	0.894	1.032	0.750	0.519	1.926
140SU-3	1.750	5.004	0.894	1.161	0.875	0.457	2.055
160SU-3	2.000	5.991	1.119	1.317	1.000	0.619	2.436
180SU-3	2.250	7.237	1.259	1.730	1.125	0.700	2.989
264-3	2.500	7.508	1.344	1.738	1.250	0.719	3.082

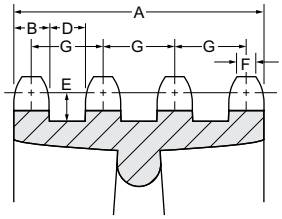
TRIPLE



Quadruple Strand

Dimensions, inches							
Chain No.	**Pitch**	**A**	**B**	**D**	**E**	**F**	**G**
60H-4	.750	3.499	0.418	0.609	0.375	0.231	1.027
80SU-4	1.000	4.375	0.526	0.757	0.500	0.276	1.283
100SU-4	1.250	5.253	0.633	0.907	0.625	0.321	1.540
120SU-4	1.500	6.626	0.848	1.078	0.750	0.473	1.926
140SU-4	1.750	7.013	0.848	1.207	0.875	0.411	2.055
160SU-4	2.000	8.371	1.063	1.373	1.000	0.563	2.436
180SU-4	2.250	10.170	1.203	1.786	1.125	0.640	2.989
264-4	2.500	10.524	1.278	1.804	1.250	0.653	3.082

QUADRUPLE



Link-Belt and Rexnord Drive Chains

Double-pitch drive chains

Double-pitch drive chains are dimensionally identical to standard roller chains of the same strength, except for pitch length, which is “doubled”. With only one-half the number of pins, bushings , and rollers, double-pitch chains are lighter and more economical than standard roller chains and are ideal for slow and moderate speed applications, particularly when shaft centers are relatively long.

Sprockets for double-pitch drive chains are normally furnished with two times the number of teeth required to contact the chain. As illustrated at right, the relationship between chain pitch and roller diameter results in adequate space for a second set of teeth, which substantially increases sprocket life.

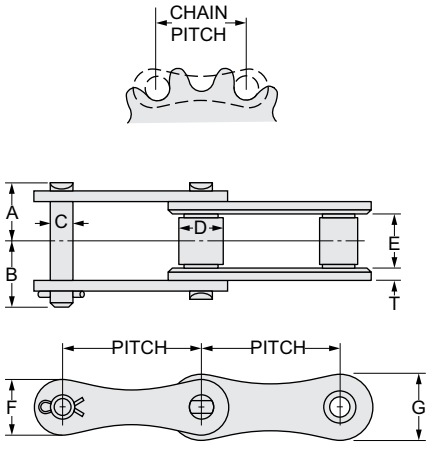


Fig. 7031

Chain Number	Chain pitch, inches	Average Ultimate strength, pounds	Min. ANSI UTS, pounds	Weight per foot, pounds	Dimensions, inches								Page references	
					A	B	C	D	E	F	G	T	HP ratings	Sprocket data
2040 Δ	1.000	3,900	.068	.28	.32	.38	.156	.313	.31	.39	.45	.06	C-37	C-38
2050 Δ	1.250	6,300	.108	.41	.41	.48	.200	.400	.38	.48	.55	.08	C-39	C-40
2060	1.500	8,500	.162	.65	.50	.60	.234	.469	.50	.60	.71	.09	C-41	C-42
2060 H	1.500	8,500	.176	.79	.56	.64	.234	.469	.50	.60	.71	.13	C-41	C-42
2080	2.000	16,000	.275	1.10	.63	.74	.313	.625	.63	.75	.91	.13	C-43	C-44

Δ Available only in riveted construction. All other sizes may be furnished cottered or riveted.

Extra Clearance Chains

Trans-Flex® straight-sidebar, extra-clearance roller chain is specially designed for severe service on transit mixers and on crawler drives for shovels and cranes. Trans-Flex roller chain permits twist of 8° and sidebend of 4" per 4-foot length. It delivers full power despite recurrent sprocket misalignment. Trans-Flex chain operates on standard roller chain sprockets.

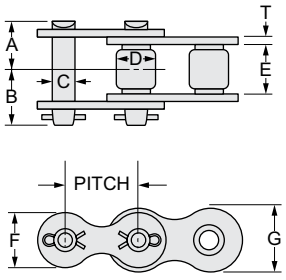


Fig. 8618C

Chain Number	Chain pitch, inches	Average Ultimate strength, pounds	Min. ANSI UTS, pounds	Weight per foot, pounds	Dimensions, inches								Page references	
					A	B	C	D	E	F	G	T	HP ratings	Sprocket data
140TF	1.750	48,500	.726	5.13	1.02	1.21	.500	1.000	1.00	1.43	1.56	.22	C-27	C-28
160TF	2.000	68,000	.991	6.70	1.23	1.41	.563	1.125	1.25	1.64	1.81	.25	C-29	C-30
160SU TF	2.000	70,000▲	1.028	7.40	1.29	1.47	.563	1.125	1.25	1.64	1.81	.28	C-31	C-32

Cottered chains standard. Riveted construction can be furnished.
Horsepower ratings for flex-joint chains are 75% of the values shown in the rating tables.
▲Higher strength due to thru-hardened pins and side bars of heavier section.

Dimensions and other engineering data are subject to change. Certified specifications of ordered product furnished upon request.

Link-Belt and Rexnord Drive Chains
Corrosion resistant chains

Stainless Steel Chains: Stainless steel chain sideplates are manufactured from AISI Type 300 chrome nickel stainless steel, with pins, bushings and rollers manufactured from AISI Type 400 stainless steel providing a balanced combination of wear, corrosion and heat resistance adequate for most operating conditions.

Where increased corrosion, wear and/or heat resistance is required, chains may be custom designed and manufactured with components made from other grades of stainless steel compatible with the specific operating conditions.

Plated Chains: Standard carbon steel chain, assembled from parts individually plated with nickel, zinc or chrome, can be furnished to provide improved corrosion and/or wear characteristics compared to a standard, unprotected carbon steel chain. *Assembled carbon steel chains should not be plated because component failure may occur*.

Sprockets: Standard carbon steel sprockets may be suitable for many applications; however, sprockets can be made from a variety of corrosion-resistant materials to suit application conditions. They are manufactured to the same applicable standards and dimensions as sprockets for standard precision roller chains.

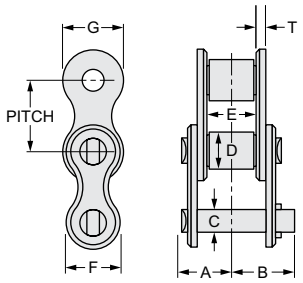


Fig. 6453

Stainless Steel

Chain Number	Chain pitch, inches	Average Ultimate strength, pounds	Min. ANSI UTS, pounds	Weight per foot, pounds	Dimensions, inches								Page references	
					A	B	C	D	E	F	G	T	HP ratings	Sprocket data
25 SS Δ	.250	650	.017	.10	.15	.19	.091	.130 ▲	.13	.20	.23	.03	C-09	C-10
35 SS Δ	.375	1,550	.041	.22	.24	.27	.141	.200 ▲	.19	.31	.34	.05	C-11	C-12
40 SS Δ	.500	2,800	.068	.40	.32	.38	.156	.313	.31	.41	.45	.06	C-13	C-14
41 SS Δ	.500	1,550	.049	.27	.27	.32	.141	.306	.25	.32	.38	.05	C-15	C-16
50 SS Δ	.625	5,000	.108	.66	.41	.48	.200	.400	.38	.52	.59	.08	C-17	C-18
60 SS	.750	7,000	.162	1.03	.50	.60	.234	.469	.50	.60	.71	.09	C-19	C-20
80 SN	1.000	12,000	.275	1.70	.63	.74	.313	.625	.63	.75	.91	.13	C-21	C-22
100 SN	1.250	18,750	.401	2.82	.76	.89	.375	.750	.75	.97	1.13	.16	C-23	C-24

Δ Available only in riveted construction. All other sizes may be furnished cottered or riveted.
▲ Bushing diameter, chain is rollerless.
Horsepower ratings for stainless steel chains, when lubricated and operated at normal temperatures, are 25% of the values shown in the rating tables. See Table 3, page C-7.
Carbon Steel sprockets. Sprockets made from corrosion-resistant materials can be furnished on order.

Link-Belt ULTR-O-LIFE O-Ring Chain

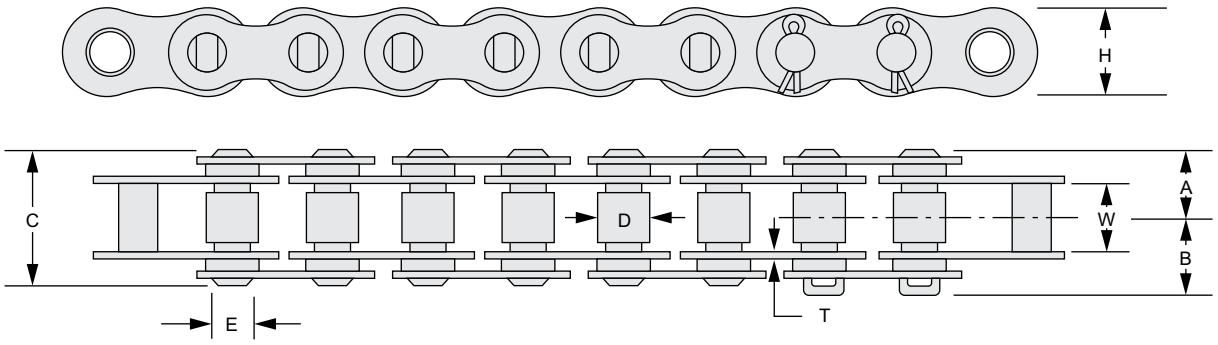
Link-Belt ULTR-O-LIFE™ O-ring chain is built for applications where relubrication is nearly impossible or where contaminants are excessive resulting in frequent and costly maintenance.

Construction:

Link-Belt O-ring chain uses O-rings to seal in special lubricants protecting the pin/bushing area virtually eliminating the need for relubrication. The O-rings seal out dirt, moisture and other contaminants offering the ultimate protection against accelerated wear.

Advantages:

Link-Belt O-ring chain is easily maintained lasting three to ten times longer than standard series roller chains. Productivity and overall chain economy is dramatically increased while life-cycle costs are decreased. O-ring chains provide greater wear resistance, superior toughness and better operating performance in addition to enhancing equipment maintainability.



Chain Number	Dimensions, inches										
	Pitch	Roller Bushing		Riv. End to Center Line	Conn.End to Overall Center Line	Overall Width	Link Height	Plate Thickness	Pin Diameter	Minimum Ultimate Strength	Aver. Wt. Per Foot
		Width	Diam.								
		W	D	A	B	C	H	T	E	Lbs.	Lbs.
50-OR	0.625	0.38	0.40	0.47	0.55	0.94	0.59	0.08	0.20	4,882	0.71
60-OR	0.750	0.50	0.47	0.56	0.66	1.13	0.70	0.09	0.23	7,030	1.07
80-OR	1.000	0.63	0.63	0.72	0.81	1.44	0.95	0.13	0.31	12,500	1.8
100-OR	1.250	0.75	0.75	0.86	0.98	1.70	1.16	0.16	0.38	19,530	2.0

Dimensions and other engineering data are subject to change. Certified specifications of ordered product furnished upon request.

Drive Engineering
Engineering recommendations

Several drive selections can usually be made for a given application. Consideration of life expectancy, space, speed, cost and similar factors often suggest the better selection.

Use the following recommendations as a guide when selecting roller chain drives.

Horsepower ratings The horsepower ratings listed on pages C-9 to C-35 apply directly to lubricated, single strand, standard and heavy series roller chains. Multiple strand chains are selected from the same rating tables by applying the factors in Table 2, page C-7. Stainless steel chain and other variations of standard roller chain are also selected from the rating tables by applying the appropriate material or design variation factor from Table 3, page C-7.

Chain pitch Use the smallest pitch chain that will handle the horsepower and load requirements. Single strand chains satisfy most requirements and are usually more economical. Use small pitch multiple strand chains for high speed drives or when quietness is desirable. This permits a larger number of teeth in the driver sprocket and results in smoother drive operation.

Number of teeth for small sprockets The recommended minimum number of teeth for the small sprocket varies with operating conditions. The recommended minimums are:

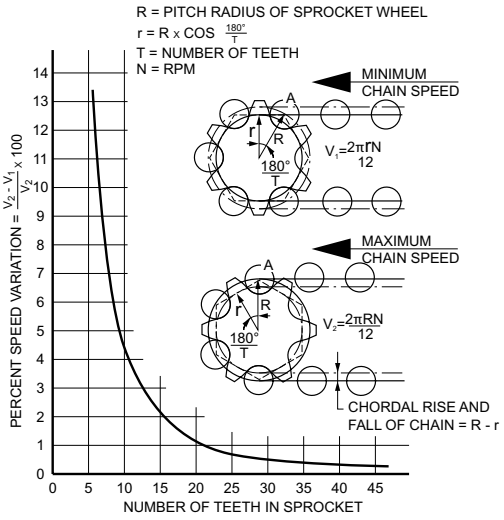
Very slow speed drives..... 12 teeth
Slow speed drives..... 17 teeth
Moderate speed drives..... 21 teeth
High speed drives..... 25 teeth

Hardened teeth It is good practice to harden sprockets with 25 teeth or less when applied to:

Very low speed, heavily loaded drives
High speed drives
Large ratio drives
Abrasive or corrosive conditions

For additional information, consult Rexnord.

Chart A Variations in chain speed due to chordal action



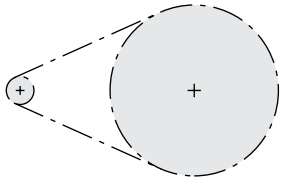
Chordal action The rise and fall of each pitch of chain as it engages a sprocket is termed chordal action and causes repeated chain speed variations. As illustrated by chart A, chordal action and speed variation decrease as the number of teeth in the small sprocket is increased. Chordal action becomes negligible when 25 or more teeth are used and results in smoother drive operation.

Quietness Speed and horsepower usually determine chain pitch. When quietness is essential, select a smaller pitch, wider chain and a driver sprocket with at least 25 teeth.

Number of teeth for large sprockets The number of teeth in the large sprocket has an appreciable effect on the amount of joint wear (or pitch elongation) that can be accommodated by the chain before it tends to jump or ride over the teeth. This is illustrated by Chart B. Generally, a roller chain has reached its useful wear life when the elongation per pitch is in the range of 2% to 3% of pitch. As show in the chart, this would result in a maximum of 65-100 teeth for the large sprocket. This suggested maximum can be exceeded by making a more conservative chain selection.

When space limits the diameter of the large sprocket, it may be necessary to select a smaller pitch, multiple strand chain to provide a sufficient number of teeth for the small sprocket.

Drive ratio The drive ratio is determined by the speeds of the driving and driven shafts. Properly engineered, drives with ratios up to 10:1 will perform satisfactorily. However, double-reduction drives with smaller ratios have better operating characteristics and are often more economical than a large ratio, single-reduction drive.

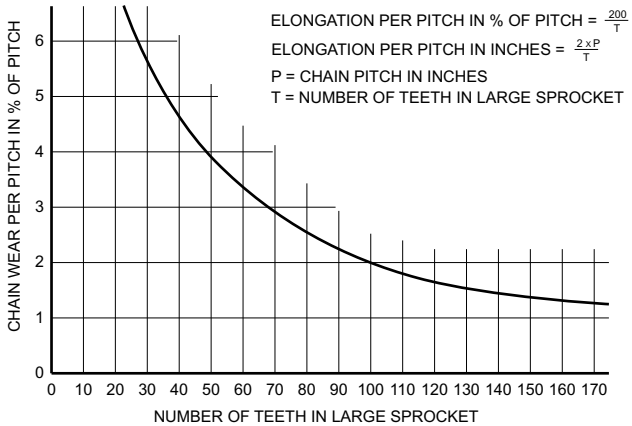


7:1 RATIO



7:1 RATIO
(TWO DRIVES)

Chart B Variations in useful chain life based on pitch elongation and number of teeth in large sprocket



Select relatively large diameter sprockets for 1:1 and 2:1 ratio drives, especially if required to operate on horizontal centers. This will assure adequate distance between the two spans of chain and prevent them from striking as wear accumulates. This is particularly important for drives on long, fixed centers with the slack chain span on top.

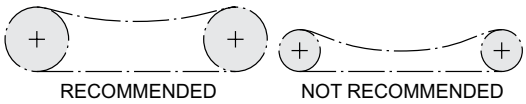


Fig. 6459

Small pitch, multiple strand chains are generally more economical for large ratio drives on minimum centers. Large pitch, single strand chains are usually most economical for small ratio drives on long centers.

Center distance Sprocket centers must be more than 1/2 the sum of the sprocket outside diameters to avoid tooth interference.

A suggested minimum center distance would equal the diameter of the large sprocket plus half the diameter of the small sprocket. Drives so proportioned also assure the minimum suggested chain wrap of 120° on the small sprocket.

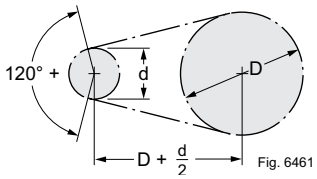
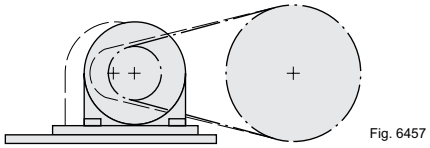


Fig. 6461

Chain tension To obtain maximum chain life, make provisions to maintain proper chain tension. Make an initial adjustment after approximately the first 100 hours of operation to remove slack caused by initial elongation. Thereafter, the frequency of periodic adjustments is governed by operating conditions.


Fig. 6457

The simplest method of adjusting chain tension is to provide for movement of one shaft. This method is commonly used for drives operating from electric motors or internal combustion engines since they can be mounted on adjustable baseplates or slide rails.

For fixed center drives, chain tension may be maintained by an automatic or manually adjusted chain tightener. Manually operated chain tighteners must be frequently checked for proper adjustment.

The idler sprocket should have a minimum of 17 teeth and should be located adjacent to the driving sprocket so that at least 3 teeth are in full engagement with the non-load-carrying span of chain.

If possible, provide enough adjustment of the chain tightener to permit removal of two pitches of chain.

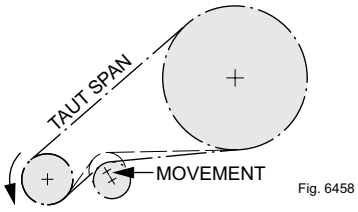


Fig. 6458

Typical drive arrangements using chain tighteners are shown in the preferred drive arrangements below.

Offset links may be used to adjust chain length when other means are not available. Single-pitch offset links and two-pitch offset assemblies can be supplied. Offset assemblies are recommended for high speed or heavily loaded drives.

Chain tension should be carefully maintained when the following operating conditions exist:

Fixed centers
Vertical or near vertical centers
Shock or pulsating loads
Reversals in direction of rotation

Chain length When possible use a chain length with an even number of pitches to eliminate the need for an offset link

Fixed centers When sprocket centers cannot be adjusted, make a conservative drive selection by using a larger service factor than indicated. Also, provide good lubrication.

Low speed drives Ratings are not shown in the horsepower tables for extremely low speeds. For operation at these speeds, select drives on a chain strength basis. The ratio of ultimate chain strength to working load should be at least 6:1.

Drives that operate at varying speeds such as power take-off drives from a torque converter, from an engine with a multi-speed gear transmission, or from a constant horsepower, variable speed electric motor, should be selected on a chain strength basis. The ratio of ultimate strength to maximum peak load should not be less than 6:1. The selection should be checked against the horsepower table for sufficient rating at the normal operating speed.

Drives operating from variable speed, variable horsepower electric motors should be selected to meet the maximum load requirements. In selecting the chain pitch, consideration must be given to the range of speeds involved.

Preferred drive arrangements The drive arrangements illustrated below are desirable for optimum life of the drive. The preferred direction of rotation is indicated for each arrangement, although arrangements A, B and C will operate satisfactorily in either direction.

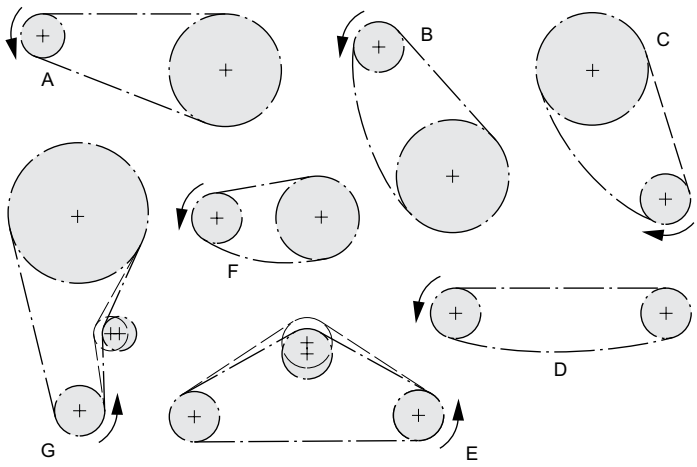


Fig. 6455

Dimensions and other engineering data are subject to change. Certified specifications of ordered product furnished upon request.

Drive Engineering

Other arrangements These arrangements are not generally recommended but they will give satisfactory service if carefully attended and chain tension is accurately maintained.

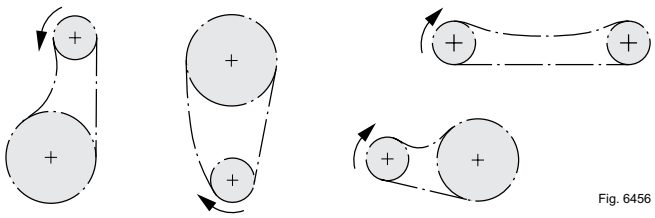


Fig. 6456

Operating conditions The service factors listed in Table 1 page C-7 are for normal operating conditions. Increase these service factors to compensate for any of the following conditions:

Heavy starting loads
Frequent starts and stops
Lubrication inferior to method recommended
Short or fixed centers
Vertical centers, particularly if the small sprocket is in the low position
Two or more driven shafts
Periodic load variation in a single revolution
Reversals of drive rotation
Inertia strains
Large ratios

Lubrication Adequate lubrication is necessary for optimum drive life. A general guide to the recommended method of lubrication is indicated in the horsepower rating tables. These recommendations are based primarily on chain speed. For complete lubrication data, refer to pages C-45 and C-46.

Useful formulas Formulas for calculating horsepower, torque, chain speed, working load and similar values are given on page H-1.

Drive selection procedure

Although horsepower and speed are the prime considerations for selecting a drive, the following information is also necessary:

Source of power
Horsepower to be transmitted
Size and speed of driving shaft
Driven equipment
Size and speed of driven shaft
Approximate center distance between shafts
Relative position of shafts
Space limitations

With this information the selection procedure is as follows:

Establish the service factor Select a service factor from Table 1, page C-7, to compensate for the loads imposed on the chain by the type of input power and the type of equipment to be driven. If the exact driven equipment is not listed, use the factor for equipment with similar operting characteristics. Increase the service factor, if necessary, in accordance with the instructions under “Operating Conditions” above.

Establish the material or design variation factor When a variation of standard roller chain is being selected (such as stainless steel chain for corrosion resistance), refer to Table 3 on page C-7 and determine the appropriate variation factor. This factor compensates for either the design or material difference so that a selection can be made from the standard roller chain rating table.

Calculate the equivalent horsepower Multiply the horsepower to be transmitted by the service factor (and by the variation factor, if applicable). This product is the equivalent horsepower or the value on which the chain selection is based.

Select a trial chain Standard roller chains are most commonly used and are selected from Chart C, page C-5. Single strand chains satisfy most drive requirements; however, multiple strand chains are often required for high speed drives, where space limits sprocket diameters, or where horsepower requirements exceed the capacity of single strand chains.

Double-pitch chains are often used for slow speed, comparatively low horsepower drives on long centers. Use Chart D, page C-6, to make a trial chain selection.

To make a tentative chain selection, project a horizontal line from the horsepower scale and a vertical line from the speed scale based on the equivalent horsepower and the RPM of the small sprocket. The area in which the two lines intersect indicates the probable chain requirement.

It is often desirable to evaluate selections based on the next smaller or next larger chain size, especially if the point of intersection is near the border of an area.

Determine the number of teeth for the small sprocket The ratings in the horsepower tables apply to single strand chains.

If a single strand standard roller chain or a double-pitch roller chain has been tentatively selected, refer directly to the horsepower rating table for the trial chain (see pages C-9 to C-43). In the column corresponding to the RPM of the small sprocket, find the rating nearest to the equivalent horsepower. Follow this line horizontally to the left to find the number of teeth required for the small sprocket.

If a single multiple strand trial chain has been selected, the required rating per strand must be determined in order to use the rating tables. The required table rating per strand is calculated by dividing the equivalent horsepower by the appropriate multiple strand factor from Table 2, page C-7.

Now, refer to the horsepower rating table for the trial chain. In the column corresponding to the RPM of the small sprocket, find the rating nearest to the required rating per strand just calculated. Follow this line horizontally to the left to find the number of teeth for the small sprocket.

Check the small sprocket Check the bore capacity of the sprocket selected, making sure it will accommodate the driving shaft. If the initial selection does not have adequate bore capacity, use a sprocket with larger number of teeth, or select a drive using the next larger pitch of chain.

Determine the drive ratio Divide the speed of the faster turning shaft by the speed of the slower turning shaft.

Determine the number of teeth for the large sprocket Multiply the drive ration by the number of teeth in the small sprocket.

If the drive is to operate in a restricted location, check the sprocket radii against the space limitation. Radial clearance required for each sprocket is equal to one-half the sum of its pitch diameter and the chain pitch. Encased drives require an additional 3" radial clearance. If sufficient space is not available, consider a smaller pitch, multiple strand drive.

Calculate exact center distance and chain length Formulas for these calculations are on page C-8.

Lubrication The methods of lubrication shown in the horsepower rating tables are based primarily on chain speed; however, the relative position of driving and driven shafts often influence the method of lubrication. Recommendations and complete lubrication information are given on pages C-45 and C-46.

Drive selection example

Problem
Select a roller chain drive for the following conditions:

Source of power	Gearmotor
Horsepower to be transmitted	10 HP
Size of driving shaft	2.438" diameter
Speed of driving shaft	100 RPM
Driven equipment	Bucket elevator uniformly fed
Size of driven shaft	2.938" diameter
Speed of driven shaft	42 RPM
Approximate center distance	24.00"
Relative position of shafts	On same horizontal plane
Space limitations	None

Solution

Service factor The service factor listed in Table 1 on page C-7 for a uniformly fed bucket elevator driven by a gearmotor is 1.0.

Material or design variation factor Since the listed conditions do not indicate the need for a variation in chain material or design, select a standard roller chain. Therefore, a variation factor does not apply.

Equivalent horsepower The equivalent horsepower equals: 10 x 1.0 = 10 HP

Trial Chain From Chart C, page C-5, note that the intersection of the 100 RPM vertical line and the 10 HP horizontal line falls in the area for No. 100 chain. Thus, the trial chain is No. 100 single strand.

Small sprocket In the No. 100 rating table, page C-23, the 100 RPM column lists 10.3 horsepower which corresponds closely to the equivalent horsepower of 10 required for this application. This rating is for single strand chain when used with a 17-tooth sprocket.

Check the small sprocket As shown in the rating table, the maximum bore of a 17-tooth No. 100 sprocket is larger than the 2.438" bore required; therefore, the selection is satisfactory. Stock sprockets are readily available and are often more economical.

Drive ratio The drive ratio equals:

$$\frac{100\ \text{RPM}}{42\ \text{RPM}} = 2.38\ \text{to}\ 1$$

Number of teeth in large sprocket The number of teeth in the large sprocket equals: 2.38 x 17 = 40.4 teeth. Use a 40-tooth sprocket.

Center distance and chain length Using the formula on page C-8, calculate the chain length as follows:

$$A = \frac{15.932\text{-}6.803}{2 \times 24} = .19000$$

From Table 4, page C-8, select the next higher listed value of .19081 for A. Corresponding factors for B, C and D are 1.9633, .4389, and .5611, respectively. The chain length in pitches equals:

$$\frac{1.9633 \times 24}{1.25} + (.4389 \times 17) + (.5611 \times 40) \times 1.25 = 67.601$$

Use 68 pitches, which is the nearest even number.

Calculate the exact center distance, using 68 pitches:

$$E = \frac{68 - (.4389 \times 17) - (.5611 \times 40) \times 1.25}{1.9633} = 24.254"$$

Lubrication The No. 100 rating table specifies Type B bath or disc lubrication. For lubrication and bathing details, see pages C-45 to C-46.

The drive selected for this application consists of:

17-tooth No. 100 driving sprocket
40-tooth No. 100 driven sprocket
68 pitches of No. 100 roller chain for 24.254” shaft centers, and an oil-retaining casing for oil bath lubrication.

Dimensions and other engineering data are subject to change. Certified specifications of ordered product furnished upon request.

Drive Engineering Chart

Chart C Trail selection of standard roller chains

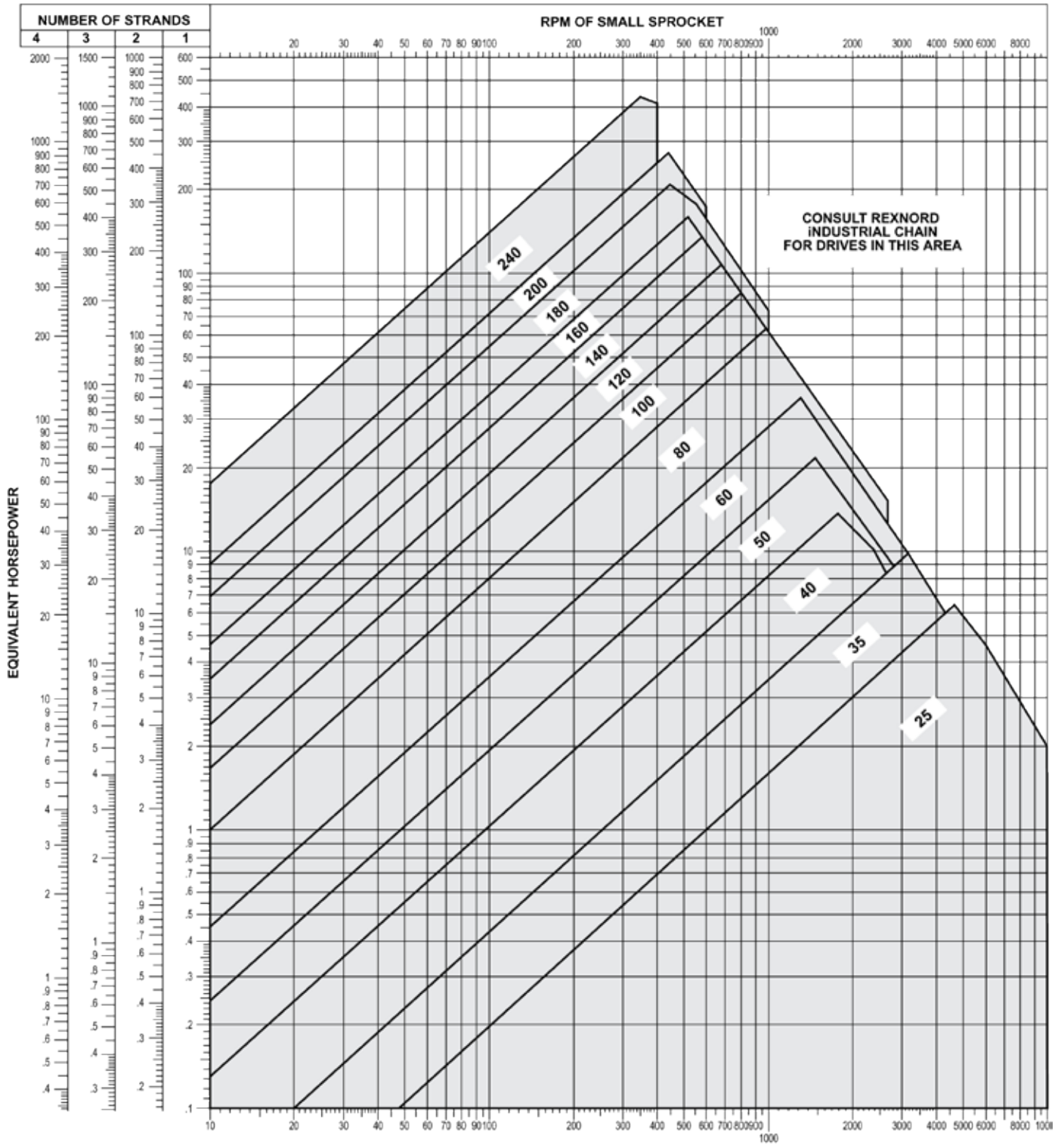
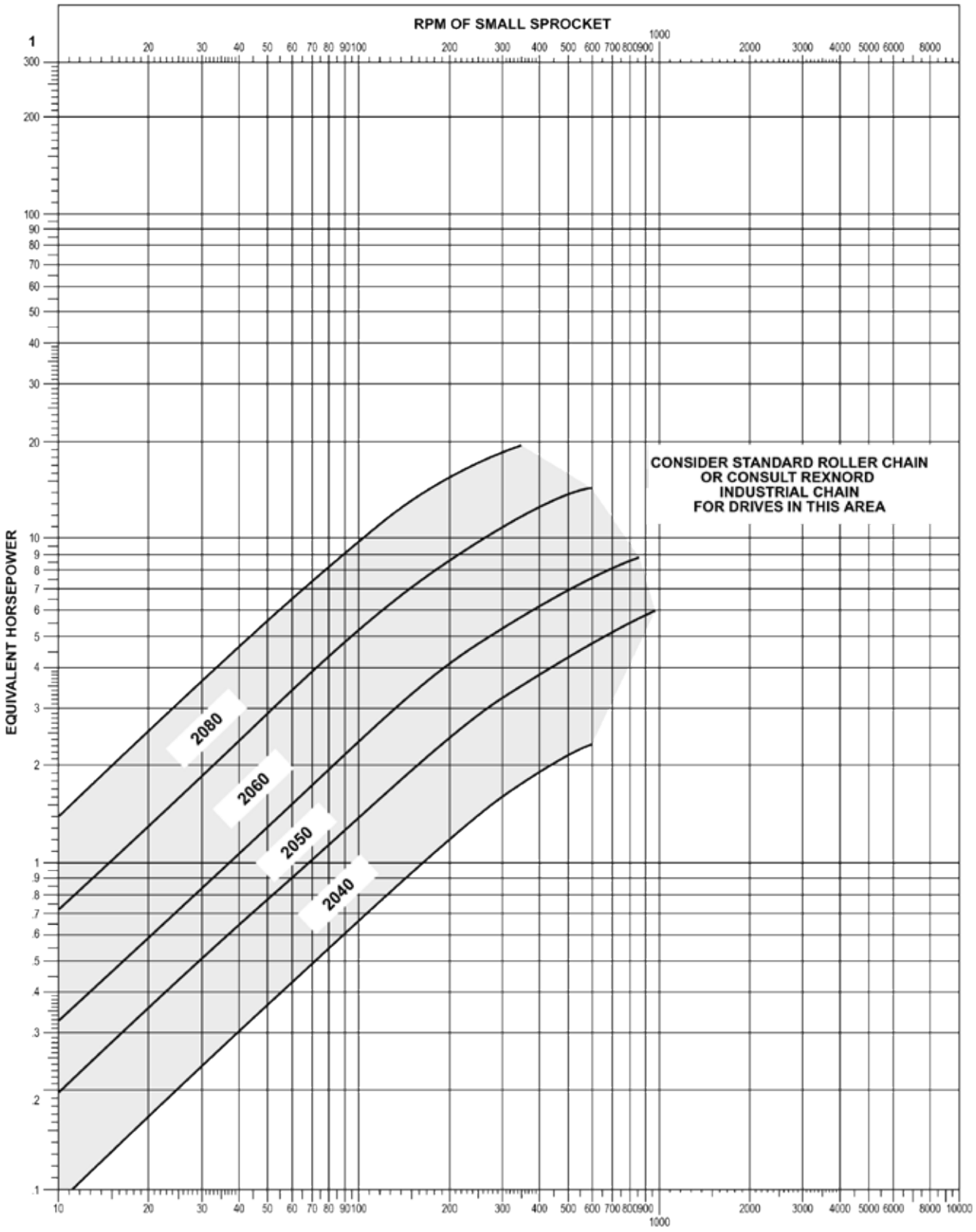


Chart D Trial selection of double-pitch roller chains



Dimensions and other engineering data are subject to change. Certified specifications of ordered product furnished upon request.

Drive Engineering

Table 1 Service factors

Driven equipment		Service factors		
		Input power		
		Internal combustion engine with hydraulic drive	Electric motor or turbine	Internal combustion engine with mechanical drive
Agitators, liquid stock		1.0	1.0	1.2
Beaters		1.2	1.3	1.4
Blowers, centrifugal		1.0	1.0	1.2
Boat propellers		1.4	1.5	1.7
Compressors				
centrifugal		1.2	1.3	1.4
reciprocating, 3 or more cylinders		1.2	1.3	1.4
reciprocating, singular, 2 cylinders		1.4	1.5	1.7
Conveyors				
uniformly loaded or fed		1.0	1.0	1.2
not uniformly loaded or fed		1.2	1.3	1.4
reciprocating		1.4	1.5	1.7
Cookers, cereal		1.0	1.0	1.2
Crushers		1.4	1.5	1.7
Elevators, bucket				
uniformly loaded or fed		1.0	1.0	1.2
not uniformly loaded or fed		1.2	1.3	1.4
Fans, centrifugal		1.0	1.0	1.2
Feeders				
rotary table		1.0	1.0	1.2
apron, belt, screw, rotary vane		1.2	1.3	1.4
reciprocating		1.4	1.5	1.7
Generators		1.0	1.0	1.2
Grinders		1.2	1.3	1.4
Hoists		1.2	1.3	1.4
Kettles, brew		1.0	1.0	1.2
Kilns and dryers, rotary		1.2	1.3	1.4
Lineshafts				
light or normal service		1.0	1.0	1.2
heavy service		1.2	1.3	1.4
Machinery				
uniform load, nonreversing		1.0	1.0	1.2
moderate pulsating load, nonreversing		1.2	1.3	1.4
severe impact or variable load, reversing		1.4	1.5	1.7
Mills				
ball, pebble and tube		1.2	1.3	1.4
hammer, rolling		1.4	1.5	1.7
Pumps				
centrifugal		1.0	1.0	1.2
reciprocating, 3 or more cylinders		1.2	1.3	1.4
Screens, rotary, uniformly fed		1.2	1.3	1.4
Basis for service factors:	Uniform load	1.0	1.0	1.2
	Moderate shock load	1.2	1.3	1.4
	Heavy shock load	1.4	1.5	1.7

Table 2 Multiple strand factors

Number of strands	Multiple strand factor
2	1.7
3	2.5
4	3.3
5	4.1
6	5.0
7 or more	Consult Rexnord

Table 3 Material or design variation factors

Type of chain	Variation factor	Speed limitations
Trans-Flex®	1.00	-
Stainless steel	4.00*	Limit to slower operating speeds.

* Assuming good lubrication; otherwise, make a conservative selection by using a larger factor, or consult Rexnord.

Chain length and center distance computations

A center distance equal to the diameter of the large sprocket plus one-half the diameter of the small sprocket is the suggested minimum for average applications.

An even number of pitches is desirable. However, if an odd number of pitches is required, offset links are provided.

These symbols are used for the following formulas:

e = desired sprocket centers in inches
E = exact sprocket centers in inches
g = pitch diameter of small sprocket in inches
G = pitch diameter of large sprocket in inches
N = actual length of chain in pitches
P = chain pitch in inches
t = number of teeth in small sprocket
T = number of teeth in large sprocket

To determine the sprocket centers and chain length of a given drive, calculate factor A using the formula:

$$A = \frac{G-g}{2\,e}$$

Refer to Table 4 and select factors B, C and D corresponding to value A or the next higher value.

The number of pitches in the chain equals the sum of the pitches between sprockets and the pitches around the sprockets, or

$$\text{Number of pitches} = \frac{B\,e}{P} + C\,t + D\,T$$

The chain length should equal an even number of pitches so that the chain will couple without the use of an offset link. Therefore, select an even whole number nearest to the calculated number of pitches. Using this value as N, the exact sprocket centers is found by the following formula:

$$E = \frac{(N - C\,t - D\,T)\,P}{B}$$

Table 4 Factors for sprocket centers and chain length

A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D
.00000	2.0000	.5000	.5000	.19937	1.9598	.4361	.5639	.39073	1.8410	.3722	.6278	.56641	1.6483	.3083	.6917
.00436	2.0000	.4986	.5014	.20364	1.9581	.4347	.5653	.39474	1.8376	.3708	.6292	.57000	1.6433	.3069	.6931
.00873	1.9999	.4972	.5028	.20791	1.9563	.4333	.5667	.39875	1.8341	.3694	.6306	.57358	1.6383	.3056	.6944
.01309	1.9998	.4958	.5042	.21218	1.9545	.4319	.5681	.40275	1.8306	.3681	.6319	.57715	1.6333	.3042	.6958
.01745	1.9997	.4944	.5056	.21644	1.9526	.4306	.5694	.40674	1.8271	.3667	.6333	.58070	1.6282	.3028	.6972
.02181	1.9995	.4931	.5069	.22070	1.9507	.4292	.5708	.41072	1.8235	.3653	.6347	.58425	1.6231	.3014	.6986
.02618	1.9993	.4917	.5083	.22495	1.9487	.4278	.5722	.41469	1.8199	.3639	.6361	.58779	1.6180	.3000	.7000
.03054	1.9991	.4903	.5097	.22920	1.9468	.4264	.5736	.41866	1.8163	.3625	.6375	.59131	1.6129	.2986	.7014
.03490	1.9988	.4889	.5111	.23345	1.9447	.4250	.5750	.42262	1.8126	.3611	.6389	.59482	1.6077	.2972	.7028
.03926	1.9985	.4875	.5125	.23769	1.9427	.4236	.5764	.42657	1.8089	.3597	.6403	.59832	1.6025	.2958	.7042
.04362	1.9981	.4861	.5139	.24192	1.9406	.4222	.5778	.43051	1.8052	.3583	.6417	.60182	1.5973	.2944	.7056
.04798	1.9977	.4847	.5153	.24615	1.9385	.4208	.5792	.43445	1.8014	.3569	.6431	.60529	1.5920	.22931	.7069
.05234	1.9973	.4833	.5167	.25038	1.9363	.4194	.5806	.43837	1.7976	.3556	.6444	.60876	1.5867	.2917	.7083
.05669	1.9968	.4819	.5181	.25460	1.9341	.4181	.5819	.44229	1.7937	.3542	.6458	.61222	1.5814	.2903	.7097
.06105	1.9963	.4806	.5194	.25882	1.9319	.4167	.5833	.44620	1.7899	.3528	.6472	.61566	1.5760	.2889	.7111
.06540	1.9957	.4792	.5208	.26303	1.9296	.4153	.5847	.45010	1.7860	.3514	.6486	.61909	1.5706	.2875	.7125
.06976	1.9951	.4778	.5222	.26724	1.9273	.4139	.5861	.45399	1.7820	.3500	.6500	.62251	1.5652	.2861	.7139
.07411	1.9945	.4764	.5236	.27144	1.9249	.4125	.5875	.45787	1.7780	.3486	.6514	.62592	1.5598	.2847	.7153
.07846	1.9938	.4750	.5250	.27564	1.9225	.4111	.5889	.46175	1.7740	.3472	.6528	.62932	1.5543	.2833	.7167
.08281	1.9931	.4736	.5264	.27983	1.9201	.4097	.5903	.46561	1.7700	.3458	.6542	.63271	1.5488	.2819	.7181
.08716	1.9924	.4722	.5278	.28402	1.9176	.4083	.5917	.46947	1.7659	.3444	.6556	.63608	1.5432	.2806	.7194
.09150	1.9916	.4708	.5292	.28820	1.9151	.4069	.5875	.47332	1.7618	.3431	.6569	.63944	1.5377	.2792	.7208
.09585	1.9908	.4694	.5306	.29237	1.9126	.4056	.5944	.47716	1.7576	.3417	.6583	.64279	1.5321	.2778	.7222
.10019	1.9899	.4681	.5319	.29654	1.9100	.4042	.5958	.48099	1.7535	.3403	.6597	.64612	1.5265	.2764	.7236
.10453	1.9890	.4667	.5333	.30071	1.9074	.4028	.5972	.48481	1.7492	.3389	.6611	.64945	1.5208	.2750	.7250
.10887	1.9881	.4653	.5347	.30486	1.9048	.4014	.5986	.48862	1.7450	.3375	.6625	.65276	1.5151	.2736	.7264
.11320	1.9871	.4639	.5361	.30902	1.9021	.4000	.6000	.49242	1.7407	.3361	.6639	.65606	1.5094	.2722	.7278
.11754	1.9861	.4625	.5375	.31316	1.8994	.3986	.6014	.49622	1.7364	.3347	.6653	.65935	1.5037	.2708	.7292
.12187	1.9851	.4611	.5389	.31730	1.8966	.3972	.6028	.50000	1.7321	.333	.6667	.66262	1.4979	.2694	.7306
.12620	1.9840	.4597	.5403	.32144	1.8939	.3958	.6042	.50377	1.7277	.3319	.6681	.66588	1.4921	.2681	.7319
.13053	1.9829	.4583	.5417	.32557	1.8910	.3944	.6056	.50754	1.7233	.3306	.6694	.66913	1.4863	.2667	.7333
.13485	1.9817	.4569	.5431	.32969	1.8882	.3931	.6069	.51129	1.7188	.3292	.6708	.67237	1.4804	.2653	.7347
.13917	1.9805	.4556	.5444	.33381	1.8853	.3917	.6083	.51504	1.7143	.3278	.6722	.67559	1.4746	.2639	.7361
.14349	1.9793	.4542	.5458	.33792	1.8824	.3903	.6097	.51877	1.7098	.3264	.6736	.67880	1.4686	.2625	.7375
.14781	1.9780	.4528	.5472	.34202	1.8794	.3889	.6111	.52250	1.7053	.3250	.6750	.68200	1.4627	.2611	.7389
.15212	1.9767	.4514	.5486	.34612	1.8764	.3875	.6125	.52621	1.7007	.3236	.6764	.68518	1.4567	.2597	.7403
.15643	1.9754	.4500	.5500	.35021	1.8733	.3861	.6139	.52992	1.6961	.3222	.6778	.68835	1.4507	.2583	.7417
.16074	1.9740	.4486	.5514	.35429	1.8703	.3847	.6153	.53361	1.6915	.3208	.6792	.69151	1.4447	.2569	.7431
.16505	1.9726	.4472	.5528	.35837	1.8672	.3833	.6167	.53730	1.6868	.3194	.6806	.69466	1.4387	.2556	.7444
.16935	1.9711	.4458	.5542	.36244	1.8640	.3819	.6181	.54097	1.6821	.3181	.6819	.69779	1.4326	.2542	.7458
.17365	1.9696	.4444	.5556	.36650	1.8608	.3806	.6194	.54464	1.6773	.3167	.6833	.70091	1.4265	.2528	.7472
.17794	1.9681	.4431	.5569	.37056	1.8576	.3792	.6208	.54829	1.6726	.3153	.6847	.70401	1.4204	.2514	.7486
.18224	1.9665	.4417	.5583	.37461	1.8544	.3778	.6222	.55194	1.6678	.3139	.6861	.70711	1.4142	.2500	.7500
.18652	1.9649	.4403	.5597	.37865	1.8511	.3764	.6236	.55557	1.6629	.3125	.6875				
.19081	1.9633	.4389	.5611	.38268	1.8478	.3750	.6250	.55919	1.6581	.3111	.6889				
.19509	1.9616	.4375	.5625	.38671	1.8444	.3736	.6264	.56280	1.6532	.3097	.6903				

Dimensions and other engineering data are subject to change. Certified specifications of ordered product furnished upon request.

Drive Engineering
No. 25 chain .250" pitch

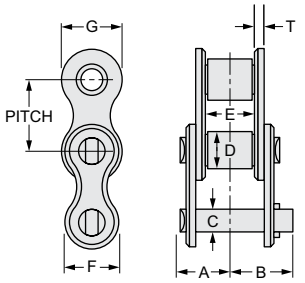


Fig. 6453

Specifications and dimensions

Chain Number	Average Ultimate strength, pounds	Joint bearing area sq. in.	Weight per foot, pounds	Dimensions, inches							
				A	B	C	D	E	F	G	T
25	940	.017	.08	.15	.19	.090	.130 Δ	.13	.20	.23	.03

Available only in riveted construction. All other sizes may be furnished cottered or riveted.
Δ Bushing Diameter. Chain is rollerless.

Ratings

Number of teeth, in small sprocket	Maximum bore inches	Horsepower for single strand chain ▲ RPM of small sprocket																			
		100	500	900	1200	1800	2500	3000	3500	4000	4500	5000	5500	6000	6500	7000	7500	8000	8500	9000	10000
11	.313	0.05	0.23	0.39	0.50	0.73	0.98	1.15	1.32	1.38	1.16	0.99	0.86	0.75	0.67	0.60	0.54	0.49	0.45	0.41	0.35
12	.375	0.06	0.25	0.43	0.55	0.80	1.07	1.26	1.45	1.57	1.32	1.12	0.97	0.86	0.76	0.68	0.61	0.56	0.51	0.47	0.40
13	.438	0.06	0.27	0.47	0.60	0.87	1.17	1.38	1.58	1.77	1.49	1.27	1.10	0.96	0.86	0.77	0.69	0.63	0.57	0.53	0.45
14	.563	0.07	0.30	0.50	0.65	0.94	1.27	1.49	1.71	1.93	1.66	1.42	1.23	1.08	0.96	0.86	0.77	0.70	0.64	0.59	0.50
15	.563	0.08	0.32	0.54	0.70	1.01	1.36	1.61	1.85	2.08	1.84	1.57	1.36	1.20	1.06	0.95	0.86	0.78	0.71	0.65	0.56
16	.563	0.08	0.34	0.58	0.76	1.09	1.46	1.72	1.98	2.23	2.03	1.73	1.50	1.32	1.17	1.05	0.94	0.86	0.78	0.72	0.61
17	.625	0.09	0.37	0.62	0.81	1.16	1.56	1.84	2.11	2.38	2.22	1.90	1.64	1.44	1.28	1.14	1.03	0.94	0.86	0.79	0.67
18	.750	0.09	0.39	0.66	0.86	1.24	1.66	1.96	2.25	2.53	2.42	2.07	1.79	1.57	1.39	1.25	1.12	1.02	0.93	0.86	0.73
19	.813	0.10	0.41	0.70	0.91	1.31	1.76	2.07	2.38	2.69	2.62	2.24	1.94	1.70	1.51	1.35	1.22	1.11	1.01	0.93	0.79
20	.875	0.10	0.44	0.74	0.96	1.38	1.86	2.19	2.52	2.84	2.83	2.42	2.10	1.84	1.63	1.46	1.32	1.20	1.09	1.00	0.86
21	.875	0.11	0.46	0.78	1.01	1.46	1.96	2.31	2.66	2.99	3.05	2.60	2.26	1.98	1.76	1.57	1.42	1.29	1.17	1.08	0.92
22	.938	0.11	0.48	0.82	1.07	1.53	2.06	2.43	2.79	3.15	3.27	2.79	2.42	2.12	1.88	1.69	1.52	1.38	1.26	1.16	0.99
23	1.000	0.12	0.51	0.86	1.12	1.61	2.16	2.55	2.93	3.30	3.50	2.98	2.59	2.27	2.01	1.80	1.62	1.47	1.35	1.24	1.06
24	1.063	0.13	0.53	0.90	1.17	1.69	2.27	2.67	3.07	3.46	3.73	3.18	2.76	2.42	2.15	1.92	1.73	1.57	1.44	1.32	1.12
25	1.188	0.13	0.56	0.94	1.22	1.76	2.37	2.79	3.21	3.61	3.96	3.38	2.93	2.57	2.28	2.04	1.84	1.67	1.53	1.40	1.20
28	1.250	0.15	0.63	1.07	1.38	1.99	2.68	3.15	3.62	4.09	4.54	4.01	3.47	3.05	2.70	2.42	2.18	1.98	1.81	1.66	1.42
30	1.313	0.16	0.68	1.15	1.49	2.15	2.88	3.40	3.90	4.40	4.89	4.45	3.85	3.38	3.00	2.68	2.42	2.20	2.01	1.84	1.57
32	1.500	0.17	0.73	1.23	1.60	2.30	3.09	3.64	4.18	4.72	5.25	4.90	4.25	3.73	3.30	2.96	2.67	2.42	2.21	2.03	1.73
35	1.688	0.19	0.80	1.36	1.76	2.53	3.41	4.01	4.61	5.20	5.78	5.60	4.86	4.26	3.78	3.38	3.05	2.77	2.53	2.32	1.98
40	1.875	0.22	0.92	1.57	2.03	2.93	3.93	4.64	5.32	6.00	6.68	6.85	5.93	5.21	4.62	4.13	3.73	3.38	3.09	2.83	2.42
Lubrication type ■		**A**		**B**							**C**										

▲ Ratings are based on a service factor of 1. For a complete list of service factors, refer to Table 1, page C-7.
The ratings listed above apply directly to lubricated, single strand, standard roller chains.
To select chains that vary in design or material from standard roller chain, use the factors in Table 3, page C-7.

■ Type A: Manual or drip (Maximum chain speed 500 FPM)]
Type B: Bath or disc (Maximum chain speed 3500 FPM)
Type C: Forced (pump)

No. 25 sprockets .250" pitch

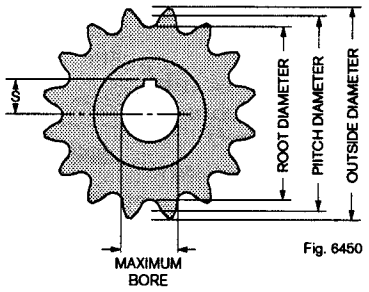


Fig. 6450

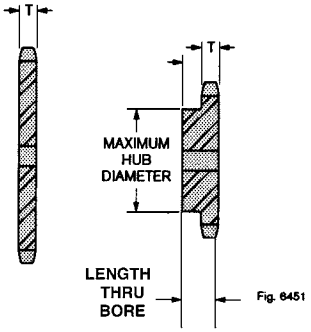


Fig. 6451

Dimensions

Type A Type B

Number of teeth	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ	Maximum hub and groove diameter, inches	Maximum bore with standard keyseat, inches ▲	S max., inches	Number of teeth	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ	Number of teeth	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ
8	.653	.523	.754	.31	.250	.125	46	3.664	3.805	3.534	84	6.686	6.556	6.832
9	.731	.601	.837	.41	.250	.125	47	3.743	3.885	3.613	85	6.766	6.636	6.911
10	.809	.679	.919	.48	.250	.125	48	3.823	3.964	3.693	86	6.845	6.715	6.991
11	.887	.757	1.002	.56	.313	.156	49	3.902	4.044	3.772	87	6.925	6.795	7.070
12	.966	.836	1.083	.64	.375	.219	50	3.982	4.124	3.852	88	7.004	6.874	7.150
13	1.045	.915	1.167	.73	.438	.219	51	4.061	4.203	3.931	89	7.084	6.954	7.230
14	1.124	.994	1.246	.81	.563	.313	52	4.141	4.283	4.011	90	7.164	7.034	7.309
15	1.203	1.073	1.326	.89	.563	.328	53	4.220	4.363	4.090	91	7.243	7.113	7.389
16	1.282	1.152	1.407	.97	.563	.344	54	4.300	4.442	4.170	92	7.323	7.193	7.468
17	1.361	1.231	1.487	1.06	.625	.375	55	4.379	4.522	4.249	93	7.402	7.272	7.548
18	1.440	1.310	1.568	1.13	.750	.469	56	4.459	4.602	4.329	94	7.482	7.352	7.628
19	1.519	1.389	1.648	1.22	.813	.500	57	4.538	4.681	4.408	95	7.561	7.431	7.707
20	1.598	1.468	1.729	1.30	.875	.531	58	4.618	4.761	4.488	96	7.641	7.511	7.787
21	1.678	1.548	1.809	1.38	.875	.563	59	4.697	4.841	4.567	97	7.720	7.590	7.866
22	1.757	1.627	1.889	1.45	.938	.594	60	4.777	4.920	4.647	98	7.800	7.670	7.946
23	1.836	1.706	1.969	1.53	1.000	.625	61	4.857	4.727	5.000	99	7.880	7.750	8.026
24	1.915	1.785	2.049	1.61	1.063	.656	62	4.936	4.806	5.080	100	7.959	7.829	8.105
25	1.995	1.865	2.129	1.69	1.188	.719	63	5.016	4.886	5.159	101	8.039	7.882	8.185
26	2.074	1.944	2.209	1.77	1.250	.734	64	5.095	4.965	5.239	102	8.118	7.962	8.264
27	2.154	2.024	2.289	1.86	1.250	.750	65	5.175	5.045	5.319	103	8.198	8.042	8.344
28	2.233	2.103	2.389	1.94	1.250	.766	66	5.254	5.124	5.398	104	8.277	8.121	8.424
29	2.312	2.182	2.449	2.02	1.250	.781	67	5.334	5.204	5.478	105	8.357	8.201	8.503
30	2.392	2.262	2.529	2.09	1.313	.813	68	5.413	5.283	5.558	106	8.437	8.280	8.583
31	2.471	2.341	2.609	2.19	1.375	.844	69	5.493	5.363	5.637	107	8.516	8.360	8.662
32	2.551	2.421	2.688	2.25	1.500	.938	70	5.572	5.442	5.717	108	8.596	8.439	8.742
33	2.630	2.500	2.768	2.34	1.563	.969	71	5.652	5.522	5.796	109	8.675	8.519	8.822
34	2.710	2.580	2.848	2.41	1.625	1.000	72	5.732	5.602	5.876	110	8.755	8.599	8.901
35	2.789	2.659	2.928	2.48	1.688	1.031	73	5.811	5.681	5.956	111	8.834	8.678	8.981
36	2.869	2.739	3.008	2.58	1.750	1.063	74	5.891	5.761	6.035	112	8.914	8.758	9.060
37	2.948	2.818	3.087	2.66	1.750	1.094	75	5.970	5.840	6.115	113	8.994	8.837	9.140
38	3.028	2.898	3.167	2.73	1.813	1.156	76	6.050	5.920	6.195	114	9.073	8.917	9.220
39	3.107	2.977	3.247	2.81	1.813	1.172	77	6.129	5.999	6.274	115	9.153	8.996	9.299
40	3.187	3.057	3.327	2.89	1.875	1.188	78	6.209	6.079	6.354	116	9.232	9.076	9.379
41	3.266	3.136	3.406	2.97	1.938	1.219	79	6.288	6.158	6.433	117	9.312	9.156	9.458
42	3.346	3.216	3.486	3.05	2.000	1.250	80	6.368	6.238	6.513	118	9.391	9.235	9.538
43	3.425	3.295	3.566	3.13	2.125	1.313	81	6.448	6.318	6.593	119	9.471	9.315	9.618
44	3.505	3.375	3.646	3.20	2.188	1.344	82	6.527	6.397	6.672	120	9.550	9.394	9.697
45	3.584	3.454	3.725	3.30	2.250	1.375	83	6.607	6.477	6.752	Larger sizes available			

Hub length thru bore

Sprocket type	Number of teeth	Length thru bore, inches
B	8 to 19	.50
	20 to 35	.63
	36 to 73	.75
	74 to 100	.88

Recommended standard bore tolerances, keyseat dimensions, eccentricity tolerances, and similar data, page G-2.

Δ Non-functional dimension that may vary with the type of cutter used.

▲Based on maximum hub diameter.

Tooth dimensions

T = .110" + .000", –.007"

Dimensions and other engineering data are subject to change. Certified specifications of ordered product furnished upon request.

Drive Engineering
No. 35 chain .375" pitch

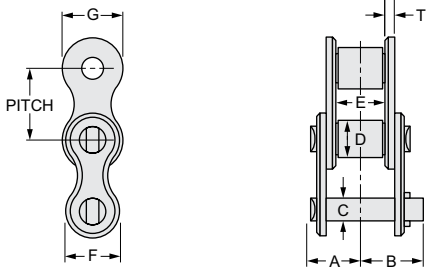


Fig. 6453

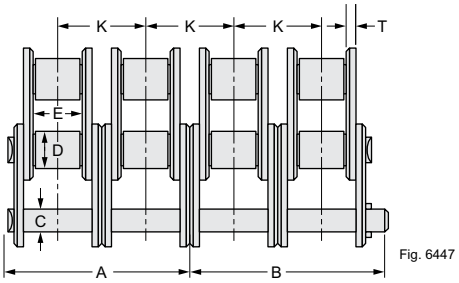


Fig. 6447

Specifications and dimensions

Chain Number	Chain width, number of strands	Average Ultimate strength, pounds	Joint bearing area sq. in.	Weight per foot, pounds	Dimensions, inches								
					A	B	C	D	E	F	G	K	T
35	Single	2,100	.041	.22	.24	.31	.141	.200Δ	.19	.31	.35	.399	.05
35-2	Double	4,200	.082	.42	.45	.50	.141	.200Δ	.19	.31	.35	.399	.05
35-3	Triple	6,450	.123	.62	.63	.70	.141	.200Δ	.19	.31	.35	.399	.05
35-4	Quadruple	8,600	.164	.82	.78	.91	.141	.200Δ	.19	.31	.35	.399	.05
35-5	Quintuple	10,750	.205	1.06	1.03	1.11	.141	.200Δ	.19	.31	.35	.399	.05
35-6	Sextuple	12,900	.246	1.27	1.23	1.31	.141	.200Δ	.19	.31	.35	.399	.05

Available only in riveted construction.
Δ Bushing Diameter. Chain is rollerless.

Ratings

Number of teeth, in small sprocket	Maximum bore inches	Horsepower for single strand chain ▲ RPM of small sprocket																			
		100	500	900	1200	1800	2500	3000	3500	4000	4500	5000	5500	6000	6500	7000	7500	8000	8500	9000	10000
11	.563	0.18	0.77	1.31	1.70	2.45	3.30	2.94	2.33	1.91	1.60	1.37	1.18	1.04	0.92	0.82	0.74	0.67	0.62	0.57	0.48
12	.625	0.20	0.85	1.44	1.87	2.70	3.62	3.35	2.66	2.17	1.82	1.56	1.35	1.18	1.05	0.94	0.85	0.77	0.70	0.64	0.55
13	.688	0.22	0.93	1.57	2.04	2.94	3.95	3.77	3.00	2.45	2.05	1.75	1.52	1.33	1.18	1.06	0.95	0.87	0.79	0.73	0.62
14	.813	0.24	1.01	1.71	2.21	3.18	4.28	4.22	3.35	2.74	2.30	1.96	1.70	1.49	1.32	1.18	1.07	0.97	0.88	0.81	0.69
15	.875	0.25	1.08	1.84	2.38	3.43	4.61	4.68	3.71	3.04	2.55	2.17	1.88	1.65	1.47	1.31	1.18	1.07	0.98	0.90	0.77
16	.938	0.27	1.16	1.97	2.55	3.68	4.94	5.15	4.09	3.35	2.81	2.40	2.08	1.82	1.62	1.45	1.30	1.18	1.08	0.99	0.85
17	1.063	0.29	1.24	2.10	2.73	3.93	5.28	5.64	4.48	3.67	3.07	2.62	2.27	2.00	1.77	1.58	1.43	1.30	1.18	1.09	0.93
18	1.188	0.31	1.32	2.24	2.90	4.18	5.61	6.15	4.88	3.99	3.35	2.86	2.48	2.17	1.93	1.73	1.56	1.41	1.29	1.18	1.01
19	1.250	0.33	1.40	2.37	3.07	4.43	5.95	6.67	5.29	4.33	3.63	3.10	2.69	2.36	2.09	1.87	1.69	1.53	1.40	1.28	1.10
20	1.313	0.35	1.48	2.51	3.25	4.68	6.29	7.20	5.72	4.68	3.92	3.35	2.90	2.55	2.26	2.02	1.82	1.65	1.51	1.39	1.18
21	1.438	0.37	1.56	2.64	3.42	4.93	6.63	7.75	6.15	5.03	4.22	3.60	3.12	2.74	2.43	2.17	1.96	1.78	1.62	1.49	1.27
22	1.563	0.38	1.64	2.78	3.60	5.19	6.97	8.21	6.59	5.40	4.52	3.86	3.35	2.94	2.61	2.33	2.10	1.91	1.74	1.60	1.37
23	1.688	0.40	1.72	2.92	3.78	5.44	7.31	8.62	7.05	5.77	4.83	4.13	3.58	3.14	2.79	2.49	2.25	2.04	1.86	1.71	1.46
24	1.750	0.42	1.80	3.05	3.96	5.70	7.66	9.02	7.51	6.15	5.15	4.40	3.81	3.35	2.97	2.66	2.40	2.17	1.99	1.82	1.56
25	1.813	0.44	1.88	3.19	4.13	5.95	8.00	9.43	7.99	6.54	5.48	4.68	4.05	3.56	3.16	2.82	2.55	2.31	2.11	1.94	1.65
28	2.125	0.50	2.12	3.61	4.67	6.73	9.05	10.7	9.47	7.75	6.49	5.55	4.81	4.22	3.74	3.35	3.02	2.74	2.50	2.30	1.96
30	2.281	0.54	2.29	3.89	5.03	7.25	9.74	11.5	10.5	8.59	7.20	6.15	5.33	4.68	4.15	3.71	3.35	3.04	2.77	2.55	2.17
32	2.500	0.58	2.45	4.17	5.40	7.77	10.4	12.3	11.6	9.47	7.93	6.77	5.87	5.15	4.57	4.09	3.69	3.35	3.06	2.81	0
35	2.781	0.64	2.70	4.59	5.95	8.56	11.5	13.6	13.2	10.8	9.08	7.75	6.72	5.90	5.23	4.68	4.22	3.83	3.50	3.21	0
40	3.250	0.73	3.12	5.30	6.87	9.89	13.3	15.7	16.2	13.2	11.1	9.47	8.21	7.20	6.39	5.72	5.15	4.68	0	-	-
Lubrication type ■		A	B				C														

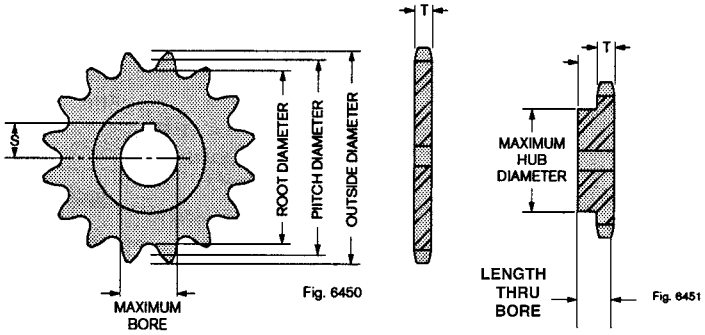
▲ Ratings are based on a service factor of 1. For a complete list of service factors, refer to Table 1, page C-7.
The ratings listed above apply directly to lubricated, single strand, standard roller chains.
For multiple strand chains, apply the factors shown in the table at right. To select chains that vary in design or material from standard roller chain, use the factors in Table 3, page C-7.

■ Type A: Manual or drip (Maximum chain speed 370 FPM)
Type B: Bath or disc (Maximum chain speed 2800 FPM)
Type C: Forced (pump)

Multiple strand factors

Number of strands	Multiple strand factor
2	1.7
3	2.5
4	3.3
5	4.1
6	5.0
7 or more	Consult Rexnord

No. 35 sprockets .375" pitch



Type A Type B

Dimensions

Number of teeth	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ	Maximum hub and groove diameter, inches	Maximum bore with standard keyseat, inches ▲	S max., inches	Number of teeth	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ	Number of teeth	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ
8	.980	.780	1.130	.50	.250	.125	46	5.495	5.295	5.708	84	10.029	9.829	10.247
9	1.096	.896	1.255	.63	.375	.250	47	5.614	5.414	5.827	85	10.148	9.948	10.367
10	1.214	1.014	1.379	.75	.500	.313	48	5.734	5.534	5.946	86	10.268	10.086	10.486
11	1.331	1.131	1.502	.86	.563	.344	49	5.853	5.653	6.066	87	10.387	10.187	10.606
12	1.449	1.249	1.625	.98	.625	.406	50	5.972	5.772	6.186	88	10.506	10.306	10.725
13	1.567	1.367	1.746	1.11	.688	.438	51	6.091	5.891	6.305	89	10.626	10.426	10.844
14	1.685	1.485	1.868	1.23	.813	.500	52	6.211	6.011	6.425	90	10.745	10.545	10.964
15	1.804	1.604	1.989	1.36	.875	.531	53	6.330	6.130	6.544	91	10.864	10.664	11.083
16	1.922	1.722	2.110	1.47	.938	.594	54	6.449	6.249	6.664	92	10.984	10.784	11.203
17	2.041	1.841	2.231	1.59	1.063	.656	55	6.569	6.369	6.783	93	11.103	10.903	11.322
18	2.159	1.959	2.352	1.72	1.188	.719	56	6.688	6.488	6.903	94	11.222	11.022	11.441
19	2.278	2.078	2.472	1.84	1.250	.750	57	6.807	6.607	7.022	95	11.342	11.142	11.561
20	2.397	2.197	2.593	1.95	1.313	.813	58	6.927	6.727	7.142	96	11.461	11.261	11.680
21	2.516	2.316	2.713	2.08	1.438	.906	59	7.046	6.846	7.261	97	11.580	11.380	11.800
22	2.635	2.435	2.833	2.20	1.563	.969	60	7.165	6.965	7.381	98	11.700	11.500	11.919
23	2.754	2.554	2.953	2.31	1.688	1.031	61	7.284	7.084	7.500	99	11.819	11.619	12.038
24	2.873	2.673	3.074	2.44	1.750	1.094	62	7.404	7.204	7.619	100	11.938	11.738	12.158
25	2.992	2.792	3.194	2.56	1.813	1.156	63	7.523	7.323	7.739	101	12.058	11.858	12.277
26	3.111	2.911	3.314	2.67	1.938	1.219	64	7.642	7.442	7.858	102	12.177	11.977	12.397
27	3.230	3.030	3.434	2.80	2.000	1.250	65	7.762	7.562	7.978	103	12.297	12.097	12.519
28	3.349	3.149	3.553	2.92	2.125	1.313	66	7.881	7.681	8.097	104	12.416	12.216	12.635
29	3.468	3.268	3.673	3.03	2.250	1.375	67	8.000	7.800	8.217	105	12.535	12.335	12.755
30	3.588	3.388	3.793	3.16	2.281	1.438	68	8.120	7.920	8.336	106	12.655	12.455	12.874
31	3.707	3.507	3.913	3.28	2.375	1.500	69	8.239	8.039	8.456	107	12.774	12.574	12.994
32	3.826	3.626	4.032	3.39	2.500	1.563	70	8.358	8.158	8.575	108	12.893	12.693	13.113
33	3.945	3.745	4.152	3.52	2.625	1.625	71	8.478	8.278	8.695	109	13.013	12.813	13.232
34	4.064	3.864	4.272	3.64	2.750	1.688	72	8.597	8.397	8.814	110	13.132	12.932	13.352
35	4.183	3.983	4.392	3.75	2.781	1.750	73	8.716	8.516	8.934	111	13.251	13.051	13.471
36	4.303	4.103	4.511	3.88	2.875	1.813	74	8.836	8.636	9.053	112	13.371	13.171	13.590
37	4.422	4.222	4.631	4.00	3.000	1.875	75	8.955	8.755	9.172	113	13.490	13.290	13.710
38	4.541	4.341	4.751	4.11	3.125	1.938	76	9.074	8.874	9.291	114	13.609	13.409	13.829
39	4.660	4.460	4.870	4.23	3.188	1.969	77	9.194	8.994	9.411	115	13.729	13.529	13.949
40	4.780	4.580	4.990	4.36	3.250	2.000	78	9.313	9.113	9.531	116	13.848	13.648	14.068
41	4.899	4.699	5.109	4.47	3.281	2.063	79	9.432	9.232	9.650	117	13.969	13.768	14.187
42	5.018	4.818	5.229	4.59	3.375	2.125	80	9.552	9.352	9.770	118	14.087	13.887	14.307
43	5.137	4.937	5.349	4.72	3.438	2.156	81	9.671	9.471	9.889	119	14.206	14.006	14.426
44	5.257	5.507	5.468	4.83	3.500	2.188	82	9.790	9.590	10.008	120	14.326	14.126	14.546
45	5.376	5.176	5.588	4.95	3.625	2.250	83	9.910	9.710	10.128	Larger sizes available			

Hub length thru bore, inches

Sprocket Type	Number of Teeth	Chain Width, Number of Strands					
		1	2	3	4	5	6
B	8 to 19	.75	1.25	1.75	2.13	2.63	3.13
	20 to 44	.88	1.38	1.88	2.25	2.75	3.25
	45 to 102	1.00	1.50	2.00	2.38	2.88	3.38
	103 to 120	1.25	1.75	2.25	2.63	3.13	3.63
C	41 to 80	1.75	2.00	2.25	2.50	2.75	3.00
	81 to 120	2.00	2.25	2.50	2.75	3.00	3.25

Tooth dimensions, inches

Dimension	Chain Width, Number of Strands					
	1	2	3	4	5	6
T	.168	.162	.162	.149	.149	.149
L	-	.560	.958	1.343	1.741	2.139
K	-	.399	.399	.399	.399	.399
Tolerances for T and L	Machined sprockets ..... +.000", –.008"					
	Hot rolled steel plate sprockets or unfinished forgings ..... +.000", –.027"					

Recommended standard bore tolerances, keyseat dimensions, eccentricity tolerances and similar data, page G-2.
Δ Non-functional dimension that may vary with the type of cutter used.
▲ Based on maximum hub diameter.

Dimensions and other engineering data are subject to change. Certified specifications of ordered product furnished upon request.

Drive engineering
No. 40 chain .500" pitch

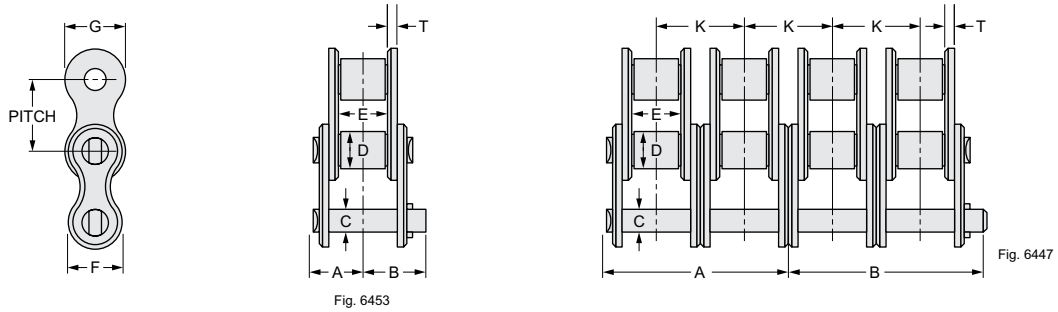


Fig. 6453

Fig. 6447

Specifications and dimensions

Chain Number	Chain Width, Number of Strands	Average ultimate strength, pounds	Joint bearing area, sq. in.	Weight per foot, pounds	Dimensions, inches								
					A	B	C	D	E	F	G	K	T
40	Single	3,700	.068	.39	.32	.38	.156	.313	.31	.41	.47	.566	.06
40-2	Double	7,400	.136	.79	.60	.67	.156	.313	.31	.41	.47	.566	.06
40-3	Triple	11,100	.204	1.18	.89	.95	.156	.313	.31	.41	.47	.566	.06
40-4	Quadruple	14,800	.272	1.57	1.17	1.23	.156	.313	.31	.41	.47	.566	.06
40-5	Quintuple	18,500	.340	1.97	1.45	1.52	.156	.313	.31	.41	.47	.566	.06
40-6	Sextuple	22,200	.408	2.36	1.73	1.80	.156	.313	.31	.41	.47	.566	.06

Available only in riveted construction.

Ratings

Number of teeth, in small sprocket	Maximum bore inches	Horsepower for single strand chain▲ RPM of small sprocket																			
		50	100	200	300	400	500	700	1000	1200	1400	1600	1800	2400	3000	3500	4000	5000	6000	7000	8000
11	.750	0.23	0.43	0.80	1.16	1.50	1.83	2.48	3.42	4.03	4.63	5.22	4.66	3.03	2.17	1.72	1.41	1.01	0.77	0.61	0.50
12	.844	0.25	0.47	0.88	1.27	1.65	2.01	2.73	3.76	4.43	5.09	5.74	5.31	3.45	2.47	1.96	1.60	1.15	0.87	0.69	0.57
13	1.000	0.28	0.52	0.96	1.39	1.80	2.20	2.97	4.10	4.83	5.55	6.26	5.99	3.89	2.79	2.21	1.81	1.29	0.98	0.78	0.64
14	1.188	0.30	0.56	1.04	1.50	1.95	2.38	3.22	4.44	5.23	6.01	6.78	6.70	4.35	3.11	2.47	2.02	1.45	1.10	0.87	0.71
15	1.250	0.32	0.60	1.12	1.62	2.10	2.56	3.47	4.78	5.64	6.47	7.30	7.43	4.82	3.45	2.74	2.24	1.60	1.22	0.97	0.79
16	1.375	0.35	0.65	1.20	1.74	2.25	2.75	3.72	5.13	6.04	6.94	7.83	8.18	5.31	3.80	3.02	2.47	1.77	1.34	1.07	0.87
17	1.500	0.37	0.69	1.29	1.85	2.40	2.93	3.97	5.48	6.45	7.41	8.36	8.96	5.82	4.17	3.31	2.71	1.94	1.47	1.17	0.96
18	1.625	0.39	0.73	1.37	1.97	2.55	3.12	4.22	5.82	6.86	7.88	8.89	9.76	6.34	4.54	3.60	2.95	2.11	1.60	1.27	0
19	1.750	0.42	0.78	1.45	2.09	2.71	3.31	4.48	6.17	2.27	8.36	9.42	10.5	6.88	4.92	3.91	3.20	2.29	1.74	1.38	0
20	1.875	0.44	0.82	1.53	2.21	2.86	3.50	4.73	6.53	7.69	8.83	9.96	11.1	7.43	5.31	4.22	3.45	2.47	1.88	1.49	0
21	2.063	0.46	0.87	1.62	2.33	3.02	3.69	4.99	6.88	8.11	9.31	10.5	11.7	7.99	5.72	4.54	3.71	2.66	2.02	1.60	0
22	2.188	0.49	0.91	1.70	2.45	3.17	3.88	5.25	7.23	8.52	9.79	11.0	12.3	8.57	6.13	4.87	3.98	2.85	2.17	1.72	0
23	2.250	0.51	0.96	1.78	2.57	3.33	4.07	5.51	7.59	8.94	10.3	11.6	12.9	9.16	6.55	5.20	4.26	3.05	2.32	1.84	0
24	2.250	0.54	1.00	1.87	2.69	3.48	4.26	5.76	7.95	9.36	10.8	12.1	13.5	9.76	6.99	5.54	4.54	3.25	2.47	1.96	0
25	2.281	0.56	1.05	1.95	2.81	3.64	4.45	6.02	8.30	9.78	11.2	12.7	14.1	10.4	7.43	5.89	4.82	3.45	2.63	0	-
28	2.625	0.63	1.18	2.20	3.18	4.11	5.03	6.81	9.39	11.1	12.7	14.3	15.9	12.3	8.80	6.99	5.72	4.09	3.11	0	-
30	2.750	0.68	1.27	2.38	3.42	4.43	5.42	7.33	10.1	11.9	13.7	15.4	17.2	13.6	9.76	7.75	6.34	4.54	3.45	0	-
32	3.000	0.73	1.36	2.55	3.67	4.75	5.81	7.86	10.8	12.8	14.7	16.5	18.4	15.0	10.8	8.54	6.99	5.00	0	-	-
35	3.563	0.81	1.50	2.81	4.04	5.24	6.40	8.66	11.9	14.1	16.2	18.2	20.3	17.2	12.3	9.76	7.99	5.72	0	-	-
40	3.781	0.93	1.74	3.24	4.67	6.05	7.39	10.0	13.8	16.3	18.7	21.1	23.4	21.0	15.0	11.9	9.76	6.99	0	-	-
Lubrication type■		A		B							C										

▲ Ratings are based on a service factor of 1. For a complete list of service factors. Refer to Table 1, page C-7.
The ratings listed above apply directly to lubricated, single strand, standard roller chains.
For multiple strand chains, apply the factors shown in the table at right. To select chains that vary in design or material from standard roller chain, use the factors in Table 3, page C-7.

■ Type A: Manual or drip (Maximum chain speed 300 FPM)
Type B: Bath or disc (Maximum chain speed 2300 FPM)
Type C: Forced (pump)

Number of strands	Multiple strand factor
2	1.7
3	2.5
4	3.3
5	4.1
6	5.0
7 or more	Consult Rexnord

No. 40 sprockets .500" pitch

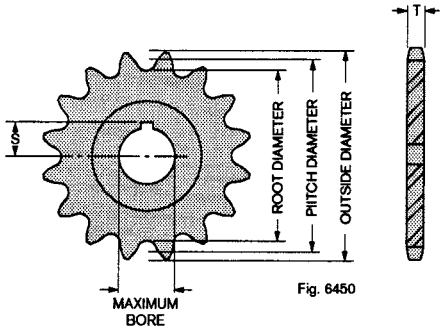


Fig. 6450

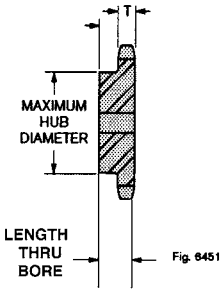
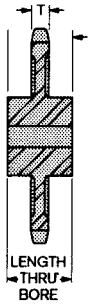


Fig. 6451



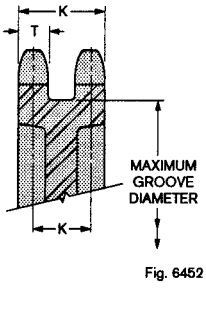


Fig. 6452

Dimensions

Number of teeth	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ	Maximum hub and groove diameter, inches	Maximum bore with standard keyseat, inches ▲	S max., inches	Number of teeth	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ	Number of teeth	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ
8	1.307	.995	1.507	.67	.375	.188	46	7.327	7.015	7.609	84	13.372	13.060	13.663
9	1.462	1.150	1.674	.84	.500	.313	47	7.486	7.174	7.769	85	13.531	13.219	13.822
10	1.618	1.306	1.839	1.00	.625	.406	48	7.645	7.333	7.927	86	13.690	13.378	13.982
11	1.775	1.463	2.003	1.17	.750	.469	49	7.804	7.492	8.088	87	13.849	13.537	14.141
12	1.932	1.620	2.166	1.33	.844	.516	50	7.963	7.651	8.247	88	14.008	13.696	14.300
13	2.089	1.777	2.329	1.50	1.000	.625	51	8.122	7.810	8.407	89	14.168	13.856	14.459
14	2.247	1.935	2.491	1.66	1.188	.719	52	8.281	7.969	8.566	90	14.327	14.015	14.618
15	2.405	2.093	2.653	1.81	1.250	.750	53	8.440	8.128	8.725	91	14.486	14.174	14.777
16	2.563	2.251	2.814	1.98	1.375	.844	54	8.599	8.287	8.885	92	14.645	14.333	14.937
17	2.721	2.409	2.975	2.14	1.500	.938	55	8.758	8.446	9.044	93	14.804	14.492	15.096
18	2.879	2.567	3.136	2.30	1.625	1.000	56	8.917	8.605	9.203	94	14.963	14.651	15.255
19	3.038	2.726	3.297	2.45	1.750	1.063	57	9.076	8.764	9.363	95	15.122	14.810	15.414
20	3.196	2.884	3.457	2.63	1.875	1.188	58	9.236	8.924	9.522	96	15.281	14.969	15.573
21	3.355	3.043	3.618	2.78	2.063	1.281	59	9.395	9.083	9.681	97	15.440	15.128	15.733
22	3.513	3.201	3.778	2.94	2.188	1.344	60	9.554	9.242	9.841	98	15.600	15.288	15.892
23	3.672	3.360	3.938	3.09	2.250	1.375	61	9.713	9.401	10.000	99	15.759	15.447	16.051
24	3.831	3.519	4.098	3.27	2.250	1.406	62	9.872	9.560	10.159	100	15.918	15.606	16.210
25	3.989	3.677	4.258	3.42	2.281	1.438	63	10.031	9.719	10.318	101	16.077	15.765	16.370
26	4.148	3.836	4.418	3.58	2.313	1.469	64	10.190	9.878	10.478	102	16.236	15.924	16.529
27	4.307	3.995	4.578	3.73	2.375	1.500	65	10.349	10.037	10.637	103	16.395	16.083	16.688
28	4.466	4.154	4.738	3.91	2.625	1.625	66	10.508	10.196	10.796	104	16.555	16.243	16.847
29	4.625	4.313	4.898	4.06	2.750	1.688	67	10.667	10.355	10.956	105	16.714	16.402	17.006
30	4.783	4.471	5.057	4.22	2.750	1.750	68	10.826	10.514	11.115	106	16.873	16.561	17.166
31	4.942	4.630	5.217	4.38	2.813	1.781	69	10.986	10.674	11.274	107	17.032	16.720	17.324
32	5.101	4.789	5.377	4.55	3.000	1.875	70	11.145	10.833	11.434	108	17.191	16.879	17.483
33	5.260	4.948	5.536	4.70	3.375	2.125	71	11.304	10.992	11.593	109	17.350	17.038	17.643
34	5.419	5.107	5.696	4.86	3.438	2.156	72	11.463	11.151	11.752	110	17.509	17.197	17.803
35	5.578	5.266	5.856	5.02	3.563	2.219	73	11.622	11.310	11.911	111	17.669	17.357	17.961
36	5.737	5.425	6.015	5.17	3.625	2.250	74	11.781	11.469	12.071	112	17.828	17.516	18.120
37	5.896	5.584	6.175	5.34	3.688	2.281	75	11.940	11.628	12.230	113	17.987	17.675	18.280
38	6.055	5.743	6.334	5.50	3.750	2.313	76	12.099	11.787	12.389	114	18.146	17.834	18.439
39	6.214	5.902	6.494	5.66	3.750	2.344	77	12.258	11.946	12.548	115	18.305	17.993	18.598
40	6.373	6.061	6.653	5.81	3.781	2.375	78	12.417	12.105	12.708	116	18.464	18.152	18.757
41	6.532	6.220	6.813	5.97	3.813	2.406	79	12.577	12.265	12.867	117	18.623	18.311	18.917
42	6.691	6.379	6.972	6.14	4.000	2.500	80	12.736	12.424	13.026	118	18.783	18.471	19.076
43	6.850	6.538	7.132	6.30	4.250	2.625	81	12.895	12.583	13.185	119	18.942	18.630	19.235
44	7.009	6.697	7.291	6.45	4.500	2.750	82	13.054	12.742	13.345	120	19.101	18.789	19.394
45	7.168	6.856	7.451	6.61	4.750	2.875	83	13.213	12.901	13.504	Larger sizes available			

Hub length thru bore, inches

Sprocket Type	Number of Teeth	Chain Width, Number of Strands					
		1	2	3	4	5	6
B	8 to 19	.88	1.50	2.13	2.75	3.38	4.00
	20 to 46	1.00	1.63	2.25	2.88	3.50	4.13
	47 to 76	1.13	1.75	2.38	3.00	3.63	4.25
	77 to 90	1.25	2.00	2.63	3.25	3.88	4.50
	91 to 120	1.38	2.25	2.88	3.50	4.13	4.75
C	30 to 60	1.75	2.13	2.50	3.25	3.63	4.00
	61 to 82	2.00	2.38	2.75	3.50	3.88	4.25
	83 to 120	2.25	2.63	3.00	3.75	4.13	4.50

Tooth dimensions, inches

Dimension	Chain Width, Number of Strands					
	1	2	3	4	5	6
T	.168	.162	.162	.149	.149	.149
L	-	.560	.958	1.343	1.741	2.139
K	-	.399	.399	.399	.399	.399
Tolerances for T and L	Machined sprockets ..... +.000", –.009"					
	Hot rolled steel plate sprockets or unfinished forgings ..... +.000", –.035"					

Recommended standard bore tolerances, keyseat dimensions, eccentricity tolerances, and similar data, page G-2.
Δ Non-functional dimension that may vary with the type of cutter used.
▲ Based on maximum hub diameter.

Dimensions and other engineering data are subject to change. Certified specifications of ordered product furnished upon request.

Drive Engineering
No. 41 chain .500" pitch

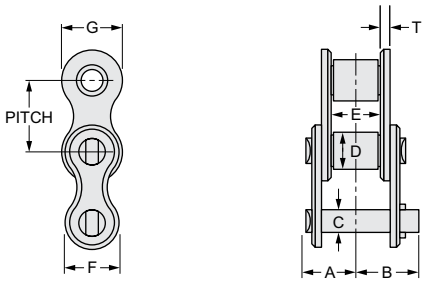


Fig. 6453

Specifications and dimensions

Chain Number	Average ultimate strength, pounds	Joint bearing area, sq. in.	Weight per foot, pounds	Dimensions, inches							
				A	B	C	D	E	F	G	T
41	2,000	.049	.27	.27	.32	.141	.306	.25	.32	.38	.05

Available only in riveted construction.

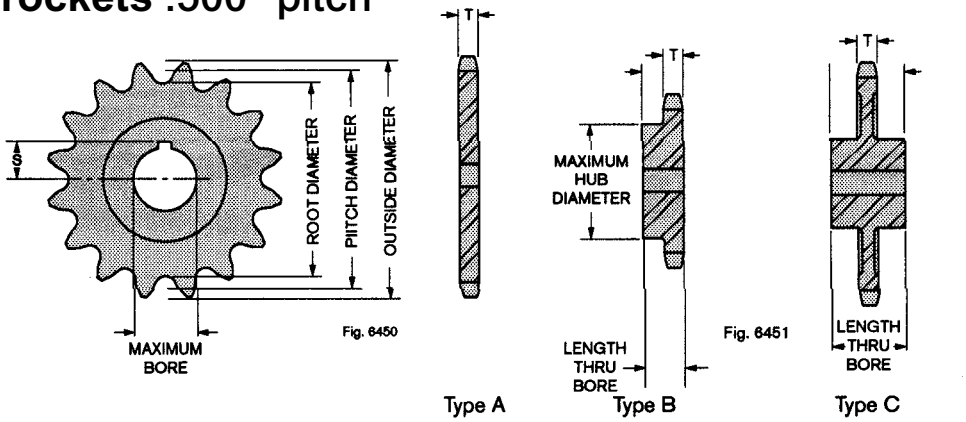
Ratings

Number of teeth, in small sprocket	Maximum bore inches	Horsepower for single strand chain▲																			
		RPM of small sprocket																			
		50	100	200	300	400	500	700	1000	1200	1400	1600	1800	2400	3000	3500	4000	5000	6000	7000	8000
11	.875	0.13	0.24	0.44	0.64	0.82	1.01	1.37	1.88	1.71	1.36	1.11	0.93	0.61	0.43	0.34	0.28	0.20	0.15	0.12	0.10
12	.969	0.14	0.26	0.49	0.70	0.91	1.11	1.50	2.07	1.95	1.55	1.27	1.06	0.69	0.49	0.39	0.32	0.23	0.17	0.14	0.11
13	1.125	0.15	0.28	0.53	0.76	0.99	1.21	1.63	2.25	2.20	1.75	1.43	1.20	0.78	0.56	0.44	0.36	0.26	0.20	0.16	0.13
14	1.250	0.16	0.31	0.57	0.83	1.07	1.31	1.77	2.44	2.46	1.95	1.60	1.34	0.87	0.62	0.49	0.40	0.29	0.22	0.17	0.14
15	1.313	0.18	0.33	0.62	0.89	1.15	1.41	1.91	2.63	2.73	2.17	1.77	1.49	0.96	0.69	0.55	0.45	0.32	0.24	0.19	0.16
16	1.438	0.19	0.36	0.66	0.95	1.24	1.51	2.05	2.82	3.01	2.39	1.95	1.64	1.06	0.76	0.60	0.49	0.35	0.27	0.21	0.17
17	1.563	0.20	0.38	0.71	1.02	1.32	1.61	2.18	3.01	3.29	2.61	2.14	1.79	1.16	0.83	0.66	0.54	0.39	0.29	0.23	0.19
18	1.688	0.22	0.40	0.75	1.08	1.40	1.72	2.32	3.20	3.59	2.85	2.33	1.95	1.27	0.91	0.72	0.59	0.42	0.32	0.25	0
19	1.813	0.23	0.43	0.80	1.15	1.49	1.82	2.46	3.40	3.89	3.09	2.53	2.12	1.38	0.98	0.78	0.64	0.46	0.35	0.28	0
20	1.875	0.24	0.45	0.84	1.21	1.57	1.92	2.60	3.59	4.20	3.33	2.73	2.29	1.49	1.06	0.84	0.69	0.49	0.38	0.30	0
21	2.063	0.26	0.48	0.89	1.28	1.66	2.03	2.74	3.78	4.46	3.59	2.94	2.46	1.60	1.14	0.91	0.74	0.53	0.40	0.32	0
22	2.188	0.27	0.50	0.93	1.35	1.74	2.13	2.89	3.98	4.69	3.85	3.15	2.64	1.71	1.23	0.97	0.80	0.57	0.43	0.34	0
23	2.250	0.28	0.53	0.98	1.41	1.83	2.24	3.03	4.17	4.92	4.11	3.37	2.82	1.83	1.31	1.04	0.85	0.61	0.46	0.37	0
24	2.250	0.29	0.55	1.03	1.48	1.92	2.34	3.17	4.37	5.15	4.38	3.59	3.01	1.95	1.40	1.11	0.91	0.65	0.49	0.39	0
25	2.313	0.31	0.57	1.07	1.55	2.00	2.45	3.31	4.57	5.38	4.66	3.81	3.20	2.08	1.49	1.18	0.96	0.69	0.53	0	-
28	2.625	0.35	0.65	1.21	1.75	2.26	2.77	3.74	5.16	6.08	5.52	4.52	3.79	2.46	1.76	1.40	1.14	0.82	0.62	0	-
30	2.813	0.38	0.70	1.31	1.88	2.44	2.98	4.03	5.56	6.55	6.13	5.01	4.20	2.73	1.95	1.55	1.27	0.91	0.69	0	-
32	3.125	0.40	0.75	1.40	2.02	2.61	3.20	4.33	5.96	7.03	6.75	5.52	4.63	3.01	2.15	1.71	1.40	1.00	0	-	-
35	3.563	0.44	0.83	1.54	2.22	2.88	3.52	4.76	6.57	7.74	7.72	6.32	5.29	3.44	2.46	1.95	1.60	1.14	0	-	-
40	3.875	0.51	0.96	1.78	2.57	3.33	4.07	5.50	7.59	8.94	9.43	7.72	6.47	4.20	3.01	2.39	1.95	1.40	0	-	-
Lubrication type■		A			B						C										

▲ Ratings are based on a service factor of 1. For a complete list of service factors, refer to Table 1, page C-7.
The ratings listed above apply directly to lubricated, single strand, standard roller chains.
To select chains that vary in design or material from standard roller chain, use the factors in Table 3, page C-7.

■ Type A: Manual or drip (Maximum chain speed 300 FPM)
Type B: Bath or disc (Maximum chain speed 2300 FPM)
Type C: Forced (pump)

No. 41 sprockets .500" pitch



Dimensions

Number of teeth	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ	Maximum hub and groove diameter, inches	Maximum bore with standard keyseat, inches ▲	S max., inches	Number of teeth	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ	Number of teeth	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ
8	1.307	1.001	1.507	.77	.500	.313	46	7.327	7.021	7.609	84	13.372	13.066	13.663
9	1.462	1.156	1.674	.94	.625	.406	47	7.486	7.180	7.769	85	13.531	13.225	13.822
10	1.618	1.312	1.839	1.09	.750	.469	48	7.645	7.339	7.927	86	13.690	13.384	13.982
11	1.775	1.469	2.003	1.27	.875	.531	49	7.804	7.498	8.088	87	13.849	13.543	14.141
12	1.932	1.626	2.166	1.42	.969	.609	50	7.963	7.657	8.247	88	14.008	13.702	14.300
13	2.089	1.783	2.329	1.59	1.125	.688	51	8.122	7.816	8.407	89	14.168	13.862	14.459
14	2.247	1.941	2.491	1.75	1.250	.750	52	8.281	7.975	8.566	90	14.327	14.021	14.618
15	2.405	2.099	2.653	1.91	1.313	.813	53	8.440	8.134	8.725	91	14.486	14.180	14.777
16	2.563	2.257	2.814	2.08	1.438	.906	54	8.599	8.293	8.885	92	14.645	14.339	14.937
17	2.721	2.415	2.975	2.23	1.563	.969	55	8.758	8.452	9.044	93	14.804	14.498	15.096
18	2.879	2.573	3.136	2.39	1.688	1.031	56	8.917	8.611	9.203	94	14.963	14.657	15.255
19	3.038	2.732	3.297	2.55	1.813	1.156	57	9.076	8.770	9.363	95	15.122	14.816	15.414
20	3.196	2.890	3.457	2.72	1.875	1.188	58	9.236	8.930	9.522	96	15.281	14.975	15.573
21	3.355	3.049	3.618	2.88	2.063	1.281	59	9.395	9.089	9.681	97	15.440	15.134	15.733
22	3.513	3.207	3.778	3.03	2.188	1.344	60	9.554	9.248	9.841	98	15.600	15.294	15.892
23	3.672	3.366	3.938	3.19	2.250	1.375	61	9.713	9.407	10.000	99	15.759	15.453	16.051
24	3.831	3.525	4.098	3.36	2.250	1.438	62	9.872	9.566	10.159	100	15.918	15.612	16.210
25	3.989	3.683	4.258	3.52	2.313	1.469	63	10.031	9.725	10.318	101	16.077	15.771	16.370
26	4.148	3.842	4.418	3.67	2.375	1.500	64	10.190	9.884	10.478	102	16.236	15.930	16.529
27	4.307	4.001	4.578	3.83	2.563	1.594	65	10.349	10.043	10.637	103	16.395	16.089	16.688
28	4.466	4.160	4.738	4.00	2.625	1.625	66	10.508	10.202	10.796	104	16.555	16.249	16.847
29	4.625	4.319	4.898	4.16	2.750	1.750	67	10.667	10.361	10.956	105	16.714	16.408	17.006
30	4.783	4.477	5.057	4.31	2.813	1.781	68	10.826	10.520	11.115	106	16.873	16.567	17.166
31	4.942	4.636	5.217	4.47	2.938	1.844	69	10.986	10.680	11.274	107	17.032	16.726	17.324
32	5.101	4.795	5.377	4.64	3.125	1.938	70	11.145	10.839	11.434	108	17.191	16.885	17.483
33	5.260	4.954	5.536	4.80	3.375	2.125	71	11.304	10.998	11.593	109	17.350	17.044	17.643
34	5.419	5.113	5.696	4.95	3.438	2.156	72	11.463	11.157	11.752	110	17.509	17.203	17.803
35	5.578	5.272	4.856	5.11	3.563	2.219	73	11.622	11.316	11.911	111	17.669	17.363	17.961
36	5.737	5.431	6.015	5.27	3.625	2.250	74	11.781	11.475	12.071	112	17.828	17.522	18.120
37	5.896	5.590	6.175	5.44	3.750	2.313	75	11.940	11.634	12.230	113	17.987	17.681	18.280
38	6.055	5.749	6.334	5.59	3.750	2.344	76	12.099	11.793	12.389	114	18.146	17.840	18.439
39	6.214	5.908	6.494	5.75	3.781	2.375	77	12.258	11.952	12.548	115	18.305	17.999	18.598
40	6.373	6.067	6.653	5.91	3.875	2.438	78	12.417	12.111	12.708	116	18.464	18.158	18.757
41	6.532	6.226	6.813	6.06	4.000	2.500	79	12.577	12.271	12.867	117	18.623	18.317	18.917
42	6.691	6.385	6.972	6.23	4.250	2.625	80	12.736	12.430	13.026	118	18.783	18.477	19.076
43	6.850	6.544	7.132	6.39	4.375	2.688	81	12.895	12.589	13.185	119	18.942	18.636	19.235
44	7.009	6.703	7.291	6.55	4.625	2.750	82	13.054	12.748	13.345	120	19.101	18.795	19.394
45	7.168	6.862	7.451	6.70	4.875	2.938	83	13.213	12.907	13.504	Larger sizes available			

Hub length thru bore, inches

Sprocket Type	Number of Teeth	Hub length, inches	Sprocket Type	Number of Teeth	Hub length, inches
B	8 to 19	.88	C	30 to 60	1.75
	20 to 46	1.00		61 to 82	2.00
	47 to 76	1.13		83 to 120	2.25
	77 to 90	1.25			
	91 to 120	1.38			

Tooth dimensions, inches

T = .227" + .000", –.009" for machined sprockets.
T = .227" + .000", –.032" for hot rolled steel plate sprockets or unfinished forgings.

Recommended standard bore tolerances, keyseat dimensions, eccentricity tolerances, and similar data, page G-2.
Δ Non-functional dimension that may vary with the type of cutter used.
▲Based on maximum hub diameter.

Dimensions and other engineering data are subject to change. Certified specifications of ordered product furnished upon request.

Drive Engineering
No. 50 chain .625" pitch

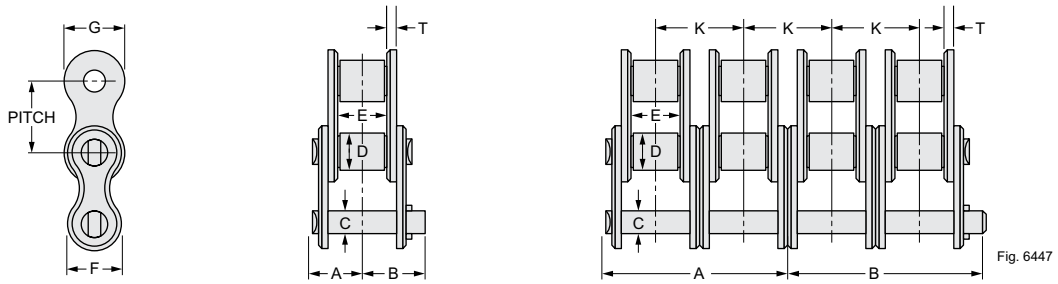


Fig. 6453

Fig. 6447

Specifications and dimensions

Chain Number	Chain Width, Number of Strands	Average ultimate strength, pounds	Joint bearing area, sq. in.	Weight per foot, pounds	Dimensions, inches								
					A	B	C	D	E	F	G	K	T
50	Single	6,100	.108	.70	.41	.48	.200	.400	.38	.52	.59	.713	.08
50-2	Double	12,000	.216	1.39	.76	.83	.200	.400	.38	.52	.59	.713	.08
50-3	Triple	18,300	.324	2.09	1.12	1.19	.200	.400	.38	.52	.59	.713	.08
50-4	Quadruple	24,400	.432	2.76	1.48	1.54	.200	.400	.38	.52	.59	.713	.08
50-5	Quintuple	30,500	.540	3.15	1.84	1.90	.200	.400	.38	.52	.59	.713	.08
50-6	Sextuple	36,600	.648	3.77	2.19	2.25	.200	.400	.38	.52	.59	.713	.08

Available only in riveted construction.

Ratings

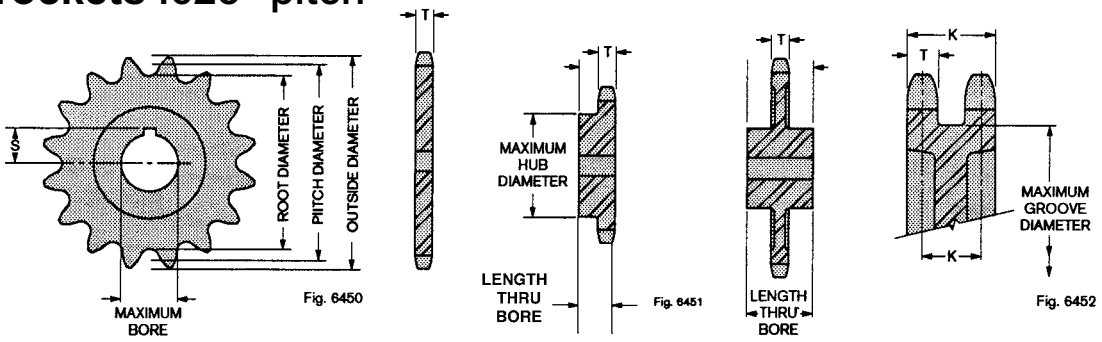
Number of teeth, in small sprocket	Maximum bore inches	Horsepower for single strand chain▲ RPM of small sprocket																			
		50	100	300	500	900	1000	1200	1400	1600	1800	2100	2400	2700	3000	3500	4000	4500	5000	5500	6000
11	.969	0.45	0.84	2.25	3.57	6.06	6.66	7.85	8.13	6.65	5.58	4.42	3.62	3.04	2.59	2.06	1.68	1.41	1.20	1.04	0.92
12	1.125	0.49	0.92	2.47	3.92	6.65	7.31	8.62	9.26	7.58	6.35	5.04	4.13	3.46	2.95	2.34	1.92	1.61	21.37	1.19	1.04
13	1.313	0.54	1.00	2.70	4.27	7.25	7.97	9.40	10.4	8.55	7.16	5.69	4.65	3.90	3.33	2.64	2.16	1.81	1.55	1.34	0
14	1.438	0.58	1.09	2.92	4.63	7.86	8.64	10.2	11.7	9.55	8.01	6.35	5.20	4.36	3.72	2.95	2.42	2.03	1.73	1.50	0
15	1.625	0.63	1.17	3.15	4.99	8.47	9.31	11.0	12.6	10.6	8.88	7.05	5.77	4.83	4.13	3.27	2.68	2.25	1.92	1.66	0
16	1.750	0.67	1.26	3.38	5.35	9.08	9.98	11.8	13.5	11.7	9.78	7.76	6.35	5.32	4.55	3.61	2.95	2.47	2.11	1.83	0
17	1.875	0.72	1.34	3.61	5.71	9.69	10.7	12.6	14.4	12.8	10.7	8.50	6.96	5.83	4.98	3.95	3.23	2.71	2.31	2.01	0
18	2.063	0.76	1.43	3.83	6.07	10.3	11.3	13.4	15.3	13.9	11.7	9.26	7.58	6.35	5.42	4.30	3.52	2.95	2.52	0	-
19	2.250	0.81	1.51	4.07	6.44	10.9	12.0	14.2	16.3	15.3	12.7	10.0	8.22	6.89	5.88	4.67	3.82	3.20	2.73	0	-
20	2.375	0.86	1.60	4.30	6.80	11.5	12.7	15.0	17.2	16.3	13.7	10.8	8.88	7.44	6.35	5.04	4.13	3.46	2.95	0	-
21	2.563	0.90	1.69	4.53	7.17	12.2	13.4	15.8	18.1	17.6	14.7	11.7	9.55	8.01	6.84	5.42	4.44	3.72	3.18	0	-
22	2.688	0.95	1.77	4.76	7.54	12.8	14.1	16.6	19.1	18.8	15.8	12.5	10.2	8.59	7.33	5.82	4.76	3.99	3.41	0	-
23	2.813	1.00	1.86	5.00	7.91	13.4	14.8	17.4	20.0	20.1	16.9	13.4	11.0	9.18	7.84	6.22	5.09	4.27	0	-	-
24	2.875	1.04	1.95	5.23	8.29	14.1	15.5	18.2	20.9	21.4	18.0	14.3	11.7	9.78	8.35	6.63	5.42	4.55	0	-	-
25	2.906	1.09	2.03	5.47	8.66	14.7	16.2	19.0	21.9	22.8	19.1	15.2	12.4	10.4	8.88	7.05	5.77	4.83	0	-	-
28	3.250	1.23	2.30	6.18	9.79	16.6	18.3	21.5	24.7	27.0	22.6	18.0	14.7	12.3	10.5	8.35	6.84	5.73	0	-	-
30	3.563	1.33	2.48	6.66	10.5	17.9	19.7	23.2	26.6	30.0	25.1	19.9	16.3	13.7	11.7	9.26	7.58	0	-	-	-
32	3.750	1.42	2.66	7.14	11.3	19.2	21.1	24.9	28.6	32.2	27.7	22.0	18.0	15.1	12.9	10.2	8.35	0	-	-	-
35	4.125	1.57	2.93	7.86	12.5	21.1	23.2	27.4	31.5	35.5	31.6	25.1	20.6	17.2	14.7	11.7	9.55	0	-	-	-
40	5.125	1.81	3.38	9.08	14.4	24.4	26.8	31.6	36.3	41.0	38.7	30.7	25.1	21.0	18.0	14.3	0	-	-	-	-
Lubrication type■		A		B			C														

▲ Ratings are based on a service factor of 1. For a complete list of service factors, refer to Table 1, page C-7. The ratings listed above apply directly to lubricated, single strand, standard roller chains. For multiple strand chains, apply the factors shown in the table at right. To select chains that vary in design or material from standard roller chain, use the factors in Table 3, page C-7.

■ Type A: Manual or drip (Maximum chain speed 250 FPM)
Type B: Bath or disc (Maximum chain speed 2000 FPM)
Type C: Forced (pump)

Number of strands	Multiple strand factor
2	1.7
3	2.5
4	3.3
5	4.1
6	5.0
7 or more	Consult Rexnord

No. 50 sprockets .625" pitch



Type A Type B Type C Multiple Width

Dimensions

Number of teeth	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ	Maximum hub and groove diameter, inches	Maximum bore with standard keyseat, inches ▲	S max., inches	Number of teeth	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ	Number of teeth	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ
8	1.633	1.233	1.884	.84	.563	.344	46	9.159	8.759	9.512	84	16.715	16.315	17.079
9	1.827	1.427	2.092	1.06	.688	.438	47	9.357	8.957	9.711	85	16.914	16.514	17.278
10	2.023	1.623	2.299	1.27	.875	.531	48	9.556	9.156	9.911	86	17.113	16.713	17.476
11	2.219	1.819	2.504	1.47	.969	.609	49	9.755	9.355	10.110	87	17.312	16.912	17.676
12	2.415	2.015	2.708	1.67	1.125	.688	50	9.954	9.554	10.309	88	17.511	17.111	17.874
13	2.612	2.212	2.911	1.88	1.313	.813	51	10.153	9.753	10.508	89	17.710	17.310	18.074
14	2.809	2.409	3.114	2.08	1.438	.906	52	10.351	9.951	10.708	90	17.909	17.509	18.273
15	3.006	2.606	3.316	2.28	1.625	1.000	53	10.550	10.150	10.907	91	18.107	17.707	18.471
16	3.204	2.804	3.517	2.48	1.750	1.063	54	10.749	10.349	11.106	92	18.306	17.906	18.671
17	3.401	3.001	3.719	2.69	1.875	1.188	55	10.948	10.548	11.305	93	18.505	18.105	18.869
18	3.599	3.199	3.919	2.89	2.063	1.281	56	11.147	10.747	11.504	94	18.704	18.304	19.069
19	3.797	3.397	4.121	3.08	2.250	1.375	57	11.346	10.946	11.703	95	18.903	18.503	19.268
20	3.995	3.595	4.321	3.28	2.375	1.500	58	11.544	11.144	11.903	96	19.102	18.702	19.466
21	4.194	3.794	4.522	3.48	2.563	1.594	59	11.743	11.343	12.102	97	19.301	18.901	19.666
22	4.392	3.992	4.722	3.69	2.688	1.656	60	11.942	11.542	12.301	98	19.500	19.100	19.864
23	4.590	4.190	4.922	3.89	2.813	1.719	61	12.141	11.741	12.500	99	19.699	19.299	20.064
24	4.788	4.388	5.123	4.08	2.875	1.781	62	12.340	11.940	12.699	100	19.898	19.498	20.263
25	4.987	4.587	5.323	4.28	2.906	1.813	63	12.539	12.139	12.898	101	20.096	19.696	20.463
26	5.185	4.785	5.523	4.48	2.938	1.875	64	12.738	12.338	13.097	102	20.295	19.895	20.661
27	5.384	4.984	5.723	4.69	3.125	1.938	65	12.936	12.536	13.296	103	20.494	20.094	20.860
28	5.582	5.182	5.922	4.89	3.250	2.000	66	13.135	12.735	13.496	104	20.693	20.293	21.059
29	5.781	5.381	6.122	5.08	3.313	2.094	67	13.334	12.934	13.694	105	20.892	20.492	21.258
30	5.979	5.579	6.321	5.28	3.563	2.219	68	13.533	13.133	13.894	106	21.091	20.691	21.457
31	6.178	5.778	6.521	5.48	3.719	2.313	69	13.732	13.332	14.093	107	21.290	20.890	21.656
32	6.376	5.976	6.721	5.69	3.750	2.344	70	13.931	13.531	14.292	108	21.489	21.089	21.855
33	6.575	6.175	6.920	5.89	3.781	2.375	71	14.130	13.730	14.491	109	21.688	21.288	22.054
34	6.774	6.374	7.120	6.08	3.875	2.438	72	14.329	13.929	14.690	110	21.887	21.487	22.253
35	6.972	6.572	7.319	6.28	4.125	2.500	73	14.527	14.127	14.889	111	22.086	21.686	22.452
36	7.171	6.771	7.519	6.48	4.313	2.625	74	14.726	14.326	15.088	112	22.285	21.885	22.651
37	7.370	6.970	7.718	6.69	4.375	2.688	75	14.925	14.525	15.287	113	22.484	22.084	22.850
38	7.569	7.169	7.918	6.88	4.500	2.750	76	15.124	14.724	15.486	114	22.683	22.283	23.049
39	7.767	7.367	8.117	7.08	4.750	3.000	77	15.323	14.923	15.685	115	22.881	22.481	23.248
40	7.966	7.566	8.316	7.28	5.125	3.125	78	15.522	15.122	15.884	116	23.080	22.680	23.447
41	8.165	7.765	8.516	7.48	5.250	3.250	79	15.721	15.321`	16.083	117	23.279	22.879	23.646
42	8.363	7.963	8.715	7.67	5.500	3.375	80	15.920	15.520	16.283	118	23.478	23.078	23.845
43	8.562	8.162	8.914	7.88	5.750	3.625	81	16.118	15.718	16.481	119	23.677	23.277	24.038
44	8.761	8.361	9.114	8.08	5.875	3.688	82	16.317	15.917	16.681	120	23.876	23.476	24.243
45	8.960	8.560	9.313	8.28	6.125	3.750	83	16.516	16.116	16.879	Larger sizes available			

Hub length thru bore, inches

Sprocket Type	Number of Teeth	Chain Width, Number of Strands					
		1	2	3	4	5	6
B	8 to 19	1.00	1.75	2.50	3.25	4.00	4.75
	20 to 39	1.13	1.88	2.63	3.38	4.13	4.88
	40 to 61	1.38	2.13	2.88	3.63	4.38	5.13
	62 to 90	1.63	2.38	3.13	3.88	4.63	5.38
	91 to 120	1.88	2.63	3.38	4.13	4.88	5.63
C	26 to 48	2.00	2.50	3.00	3.75	4.25	4.75
	49 to 60	2.25	2.75	3.25	4.00	4.50	5.00
	61 to 80	2.50	3.00	3.50	4.25	4.75	5.25
	81 to 120	2.75	3.25	3.75	4.50	5.00	5.50

Tooth dimensions, inches

Dimension	Chain Width, Number of Strands					
	1	2	3	4	5	6
T	3.43	.332	.332	.311	.311	.311
L	-	1.045	1.758	2.450	3.163	3.876
K	-	.713	.713	.713	.713	.713
Tolerances for T and L	Machined sprockets ..... +.000", –.010"					
	Hot rolled steel plate sprockets or unfinished forgings ..... +.000", –.036"					

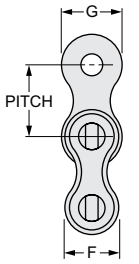
Recommended standard bore tolerances, keyseat dimensions, eccentricity tolerances, and similar data, page G-2.

Δ Non-functional dimension that may vary with the type of cutter used.

▲ Based on maximum hub diameter.

Dimensions and other engineering data are subject to change. Certified specifications of ordered product furnished upon request.

Drive Engineering
No. 60 chain .750" pitch



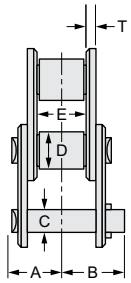


Fig. 6453

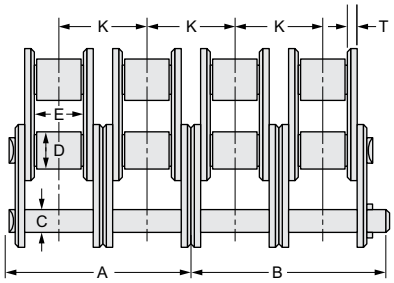


Fig. 6447

Specifications and dimensions

Chain Number	Chain Width, Number of Strands	Average ultimate strength, pounds	Joint bearing area, sq. in.	Weight per foot, pounds	Dimensions, inches								
					A	B	C	D	E	F	G	K	T
60	Single	8,500	.162	1.02	.50	.60	.234	.469	.50	.60	.71	.897	.09
60-2	Double	17,000	.324	2.00	.95	1.05	.234	.469	.50	.60	.71	.897	.09
60-3	Triple	25,500	.486	3.00	1.40	1.50	.234	.469	.50	.60	.71	.897	.09
60-4	Quadruple	34,000	.648	3.83	1.84	1.95	.234	.469	.50	.60	.71	.897	.09
60-5	Quintuple	42,500	.810	5.02	2.30	2.40	.234	.469	.50	.60	.71	.897	.09
60-6	Sextuple	51,000	.972	6.02	2.69	2.85	.234	.469	.50	.60	.71	.897	.09

Available in riveted or cottered construction.

Ratings

Number of teeth, in small sprocket	Maximum bore inches	Horsepower for single strand chain▲ RPM of small sprocket																				
		25	50	100	200	300	500	700	900	1000	1100	1200	1400	1600	1800	2000	2500	3000	3500	4000	4500
11	1.250	0.41	0.77	1.44	2.69	3.87	6.13	8.30	10.4	11.4	12.5	11.9	9.4	7.70	6.45	5.51	3.94	3.00	2.38	1.95	1.63
12	1.344	0.45	0.85	1.58	2.95	4.25	6.74	9.12	11.4	12.6	13.7	13.5	10.7	8.77	7.35	6.28	4.49	3.42	2.71	2.22	1.86
13	1.500	0.50	0.92	1.73	3.22	4.64	7.34	9.94	12.5	13.7	14.9	15.2	12.1	9.89	8.29	7.08	5.06	3.85	3.06	2.50	0
14	1.750	0.54	1.00	1.87	3.49	5.02	7.96	10.8	13.5	14.8	16.2	17.0	13.5	11.1	9.26	7.91	5.66	4.31	3.42	2.80	0
15	1.938	0.58	1.08	2.01	3.76	5.41	8.57	11.6	14.5	16.0	17.4	18.8	15.0	12.3	10.3	8.77	6.28	4.77	3.79	3.10	0
16	2.125	0.62	1.16	2.16	4.03	5.80	9.19	12.4	15.6	17.1	18.7	20.2	16.5	13.5	11.3	9.66	6.91	5.26	4.17	3.42	0
17	2.313	0.66	1.24	2.31	4.30	6.20	9.81	13.3	16.7	18.3	19.9	21.6	18.1	14.8	12.4	10.6	7.57	5.76	4.57	3.74	0
18	2.500	0.70	1.31	2.45	4.58	6.59	10.4	14.1	17.7	19.5	21.2	22.9	19.7	16.1	13.5	11.5	8.25	6.28	4.98	4.08	0
19	2.688	0.75	1.39	2.60	4.85	6.99	11.1	15.0	18.8	20.6	22.5	24.3	21.4	17.5	14.6	12.5	8.95	6.81	5.40	4.42	0
20	2.813	0.79	1.47	2.75	5.13	7.38	11.7	15.8	19.8	21.8	23.8	25.7	23.1	18.9	15.8	13.5	9.66	7.35	5.83	0	-
21	3.063	0.83	1.55	2.90	5.40	7.78	12.3	16.7	20.9	23.0	25.1	27.1	24.8	20.3	17.0	14.5	10.4	7.91	6.28	0	-
22	3.250	0.87	1.63	3.05	5.68	8.19	13.0	17.5	22.0	24.2	26.4	28.5	26.6	21.8	18.2	15.6	11.1	8.48	6.73	0	-
23	3.438	0.92	1.71	3.19	5.96	8.59	13.6	18.4	23.1	25.4	27.7	29.9	28.4	23.3	19.5	16.7	11.9	9.07	7.19	0	-
24	3.625	0.96	1.79	3.35	6.24	8.99	14.2	19.3	24.2	26.6	29.0	31.3	30.3	24.8	20.8	17.8	12.7	9.66	7.67	0	-
25	3.750	1.00	1.87	3.50	6.52	9.40	14.9	20.1	25.3	27.8	30.3	32.7	32.2	26.4	22.1	18.9	13.5	10.3	8.15	0	-
28	4.188	1.13	2.12	3.95	7.37	10.6	16.8	22.8	28.5	31.4	34.2	37.0	38.2	31.3	26.2	22.4	16.0	12.2	0	-	-
30	4.500	1.22	2.28	4.26	7.94	11.4	18.1	24.5	30.8	33.8	36.8	39.8	42.4	34.7	29.1	24.8	17.8	13.5	0	-	-
32	4.750	1.31	2.45	4.56	8.52	12.3	19.4	26.3	33.0	36.3	39.5	42.7	46.7	38.2	32.0	27.3	19.6	14.9	0	-	-
35	5.500	1.44	2.69	5.03	9.38	13.5	21.4	29.0	36.3	39.9	43.5	47.1	53.4	43.7	36.6	31.3	22.4	17.0	0	-	-
40	6.250	1.67	3.11	5.81	10.8	15.6	24.7	33.5	42.0	46.1	50.3	54.4	62.5	53.4	44.7	38.2	27.3	0	-	-	-
Lubrication type ■		A		B					C												

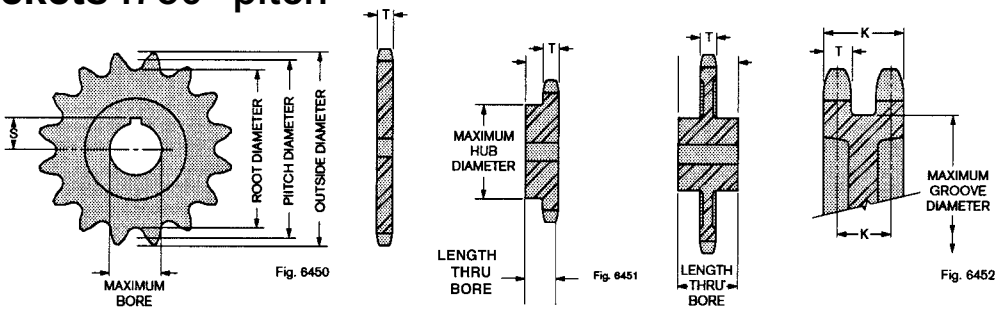
▲ Ratings are based on a service factor of 1. For a complete list of service factors, refer to Table 1, page C-7. The ratings listed above apply directly to lubricated, single strand, standard and heavy series roller chains. For multiple strand chains, apply the factors shown in the table at right. To select chains that vary in design or material from standard roller chain, use the factors in Table 3, page C-7.

■ Type A: Manual or drip (Maximum chain speed 220 FPM)
Type B: Bath or disc (Maximum chain speed 1800 FPM)
Type C: Forced (pump)

Multiple strand factors

Number of strands	Multiple strand factor
2	1.7
3	2.5
4	3.3
5	4.1
6	5.0
7 or more	Consult Rexnord

No. 60 sprockets .750" pitch



Type A | Type B | Type C | Multiple Width

Dimensions

Number of teeth	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ	Maximum hub and groove diameter, inches	Maximum bore with standard keyseat, inches ▲	S max., inches	Number of teeth	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ	Number of teeth	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ
8	1.960	1.491	2.261	1.03	.625	.406	46	10.990	10.522	11.414	84	20.058	19.589	20.495
9	2.193	1.724	2.510	1.28	.875	.531	47	11.229	10.760	11.654	85	20.297	19.828	20.733
10	2.427	1.958	2.759	1.52	1.000	.625	48	11.467	10.999	11.893	86	20.536	20.067	20.972
11	2.662	2.193	3.005	1.77	1.250	.750	49	11.706	11.237	12.132	87	20.774	20.305	21.211
12	2.898	2.429	3.249	2.02	1.344	.828	50	11.945	11.476	12.371	88	21.013	20.544	21.449
13	3.134	2.665	3.493	2.25	1.500	.938	51	12.183	11.714	12.610	89	21.252	20.783	21.689
14	3.371	2.902	3.737	2.50	1.750	1.063	52	12.422	11.953	12.849	90	21.490	21.021	21.927
15	3.607	3.139	3.979	2.75	1.938	1.219	53	12.660	12.192	13.088	91	21.729	21.260	22.166
16	3.844	3.376	4.220	2.98	2.125	1.313	54	12.899	12.430	13.327	92	21.968	21.499	22.405
17	4.082	3.613	4.463	3.22	2.313	1.469	55	13.137	12.669	13.566	93	22.206	21.737	22.643
18	4.319	3.850	4.703	3.47	2.500	1.563	56	13.376	12.907	13.805	94	22.445	21.976	22.883
19	4.557	4.088	4.945	3.70	2.688	1.656	57	13.615	13.146	14.044	95	22.683	22.214	23.121
20	4.794	4.326	5.186	3.95	2.813	1.719	58	13.853	13.385	14.283	96	22.922	22.453	23.360
21	5.032	4.563	5.426	4.19	3.063	1.906	59	14.092	13.623	14.522	97	23.161	22.692	23.599
22	5.270	4.801	5.666	4.44	3.250	2.000	60	14.331	13.862	14.761	98	23.400	22.931	23.837
23	5.508	5.039	5.906	4.67	3.438	2.156	61	14.569	14.100	15.000	99	23.638	23.169	24.077
24	5.746	5.277	6.147	4.91	3.625	2.250	62	14.808	14.339	15.239	100	23.877	23.408	24.315
25	5.984	5.515	6.387	5.16	3.750	2.313	63	15.046	14.577	15.478	101	24.116	23.647	24.554
26	6.222	5.753	6.627	5.39	3.875	2.438	64	15.285	14.816	15.716	102	24.354	23.885	24.793
27	6.460	5.992	6.867	5.63	4.000	2.500	65	15.524	15.055	15.956	103	24.593	24.124	25.032
28	6.699	6.230	7.106	5.88	4.188	2.594	66	15.762	15.293	16.195	104	24.832	24.363	25.271
29	6.937	6.468	7.346	6.11	4.375	2.688	67	16.001	15.532	16.433	105	25.071	24.602	25.509
30	7.175	6.706	7.586	6.34	4.500	2.750	68	16.240	15.771	16.673	106	25.309	24.840	25.748
31	7.413	6.945	7.826	6.59	4.563	2.906	69	16.478	16.009	16.911	107	25.548	25.079	25.987
32	7.652	7.183	8.065	6.83	4.750	3.000	70	16.717	16.248	17.150	108	25.787	25.318	26.226
33	7.890	7.421	8.304	7.06	5.125	3.188	71	16.956	16.487	17.389	109	26.025	25.556	26.465
34	8.129	7.660	8.544	7.31	5.375	3.313	72	17.194	16.725	17.628	110	26.264	25.795	26.704
35	8.367	7.898	8.783	7.55	5.500	3.375	73	17.433	16.964	17.867	111	26.503	26.034	26.942
36	8.605	8.137	9.023	7.78	5.625	3.563	74	17.671	17.203	18.106	112	26.742	26.273	27.181
37	8.844	8.375	9.262	8.03	5.875	3.688	75	17.910	17.441	18.344	113	26.980	26.511	27.420
38	9.082	8.613	9.501	8.27	6.000	3.750	76	18.149	17.680	18.584	114	27.219	26.750	27.659
39	9.321	8.852	9.740	8.50	6.125	3.813	77	18.387	17.918	18.822	115	27.458	26.989	27.898
40	9.559	9.090	9.980	8.75	6.250	3.875	78	18.626	18.157	19.061	116	27.697	27.228	28.136
41	9.798	9.329	10.219	8.98	6.375	3.938	79	18.865	18.396	19.300	117	27.936	27.467	28.375
42	10.036	9.567	10.458	9.22	6.500	4.000	80	19.103	18.635	19.539	118	28.174	27.705	28.614
43	10.275	9.806	10.697	9.47	6.875	4.188	81	19.342	18.873	19.778	119	28.413	27.944	28.853
44	10.513	10.044	10.937	9.70	7.125	4.313	82	19.581	19.112	20.017	120	28.651	28.182	29.091
45	10.752	10.283	11.176	9.94	7.375	4.438	83	19.819	19.350	20.255	Larger sizes available			

Hub length thru bore, inches

Sprocket Type	Number of Teeth	Chain Width, Number of Strands					
		1	2	3	4	5	6
B	8 to 30	1.25	2.13	3.00	4.00	4.88	5.75
	31 to 50	1.50	2.38	3.25	4.25	5.13	6.00
	51 to 83	1.75	2.63	3.50	4.50	5.38	6.25
	84 to 120	2.00	2.88	3.75	4.75	5.63	6.50
C	20 to 40	2.25	2.75	3.75	4.75	5.50	6.25
	41 to 80	2.50	3.00	3.75	4.75	5.50	6.25
	81 to 120	3.00	3.50	4.00	5.00	5.75	6.50

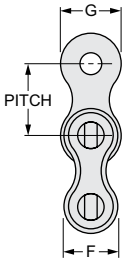
Tooth dimensions, inches

Dimension	Chain Width, Number of Strands					
	1	2	3	4	5	6
T	.459	.444	.444	.418	.418	.418
L	-	1.342	2.240	3.112	4.010	4.908
K	-	.897	.897	.897	.897	.897
Tolerances for T and L	Machined sprockets ..... +.000", –.011"					
	Hot rolled steel plate sprockets or unfinished forgings ..... +.000", –.036"					

Recommended standard bore tolerances, keyseat dimensions, eccentricity tolerances, and similar data, page G-2.
Δ Non-functional dimension that may vary with the type of cutter used.
▲ Based on maximum hub diameter.

Dimensions and other engineering data are subject to change. Certified specifications of ordered product furnished upon request.

Drive Engineering
No. 80 chain 1.000" pitch



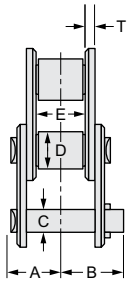


Fig. 6453

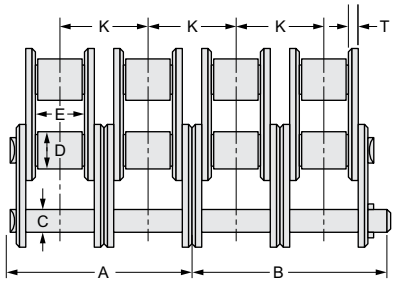


Fig. 6447

Specifications and dimensions

Chain Number	Chain Width, Number of Strands	Average ultimate strength, pounds	Joint bearing area, sq. in.	Weight per foot, pounds	Dimensions, inches								
					A	B	C	D	E	F	G	K	T
80	Single	14,500	.275	1.67	.63	.74	.313	.625	.63	.75	.91	1.153	.13
80-2	Double	29,000	.550	3.31	1.21	1.30	.313	.625	.63	.75	.91	1.153	.13
80-3	Triple	43,500	.825	4.97	1.78	1.87	.313	.625	.63	.75	.91	1.153	.13
80-4	Quadruple	58,000	1.100	6.76	2.35	2.44	.313	.625	.63	.75	.91	1.153	.13
80-5	Quintuple	72,500	1.375	8.21	2.92	3.03	.313	.625	.63	.75	.91	1.153	.13
80-6	Sextuple	87,000	1.650	9.84	3.50	3.61	.313	.625	.63	.75	.91	1.153	.13

Available in riveted or cottered construction.

Ratings

Number of teeth, in small sprocket	Maximum bore inches	Horsepower for single strand chain▲ RPM of small sprocket																				
		25	50	100	200	300	400	500	700	900	1000	1200	1400	1600	1800	2000	2200	2400	2700	3000	3400
11	1.625	0.97	1.80	3.36	6.28	9.04	11.7	14.3	19.4	23.0	19.6	14.9	11.8	9.69	8.12	6.93	6.01	5.27	4.42	3.77	1.70
12	1.750	1.06	1.98	3.69	6.89	9.93	12.9	15.7	21.3	26.2	22.3	17.0	13.5	11.0	9.25	7.90	6.85	6.01	5.04	4.30	0
13	2.000	1.16	2.16	4.03	7.52	10.8	14.0	17.1	23.2	29.1	25.2	19.2	15.2	12.5	10.4	8.91	7.72	6.78	5.68	4.85	0
14	2.250	1.25	2.34	4.36	8.14	11.7	15.2	18.6	25.1	31.5	28.2	21.4	17.0	13.9	11.7	9.96	8.63	7.57	6.35	5.42	0
15	2.563	1.35	2.52	4.70	8.77	12.6	16.4	20.0	27.1	34.0	31.2	23.8	18.9	15.4	12.9	11.0	9.57	8.40	7.04	6.01	0
16	2.875	1.45	2.70	5.04	9.41	13.5	17.6	21.5	29.0	36.4	34.4	26.2	20.8	17.0	14.2	12.2	10.5	9.25	7.76	6.62	0
17	3.125	1.55	2.88	5.38	10.0	14.5	18.7	22.9	31.0	38.9	37.7	28.7	22.7	18.6	15.6	13.3	11.5	10.1	8.49	7.25	0
18	3.375	1.64	3.07	5.72	10.7	15.4	19.9	24.4	33.0	41.4	41.1	31.2	24.8	20.3	17.0	14.5	12.6	11.0	9.25	7.90	0
19	3.688	1.74	3.25	6.07	11.3	16.3	21.1	25.8	35.0	43.8	44.5	33.9	26.9	22.0	18.4	15.7	13.6	12.0	10.0	8.57	0
20	3.813	1.84	3.44	6.41	12.0	17.2	22.3	27.3	37.0	46.3	48.1	36.6	29.0	23.8	19.9	17.0	14.7	12.9	10.8	0	-
21	4.125	1.94	3.62	6.76	12.6	18.2	23.5	28.8	39.0	48.9	51.7	39.4	31.2	25.6	21.4	18.3	15.9	13.9	11.7	0	-
22	4.438	2.04	3.81	7.11	13.3	19.1	24.8	30.3	41.0	51.4	55.5	42.2	33.5	27.4	23.0	19.6	17.0	14.9	12.5	0	-
23	4.625	2.14	4.00	7.46	13.9	20.1	26.0	31.8	43.0	53.9	59.3	45.1	35.8	29.3	24.6	21.0	18.2	15.9	13.4	0	-
24	4.688	2.24	4.19	7.81	14.6	21.0	27.2	33.2	45.0	56.4	62.0	48.1	38.2	31.2	26.2	22.3	19.4	17.0	14.2	0	-
25	4.750	2.34	4.37	8.16	15.2	21.9	28.4	34.7	47.0	59.0	64.8	51.1	40.6	33.2	27.8	23.8	20.6	18.1	15.1	0	-
28	5.375	2.65	4.94	9.23	17.2	24.8	32.1	39.3	53.2	66.7	73.3	60.6	48.1	39.4	33.0	28.2	24.4	21.4	0	-	-
30	5.750	2.85	5.33	9.94	18.5	26.7	34.6	42.3	57.3	71.8	78.9	67.2	53.3	43.6	36.6	31.2	27.1	23.8	0	-	-
32	6.313	3.06	5.71	10.7	19.9	28.6	37.1	45.4	61.4	77.0	84.6	74.0	58.7	48.1	40.3	34.4	29.8	26.2	0	-	-
35	7.750	3.37	6.29	11.7	21.9	31.6	40.9	50.0	67.6	84.8	93.3	84.7	67.2	55.0	46.1	39.4	34.1	0	-	-	-
40	9.375	3.89	7.27	13.6	25.3	36.4	47.2	57.7	78.1	99.01	108	103	82.1	67.2	56.3	48.1	20.0	0	-	-	-
Lubrication type■		A		B				C													

The dotted line indicates the point at which pin and bushing galling is likely to begin. When the desired selection falls within the shaded area, consult Rexnord for guidance.

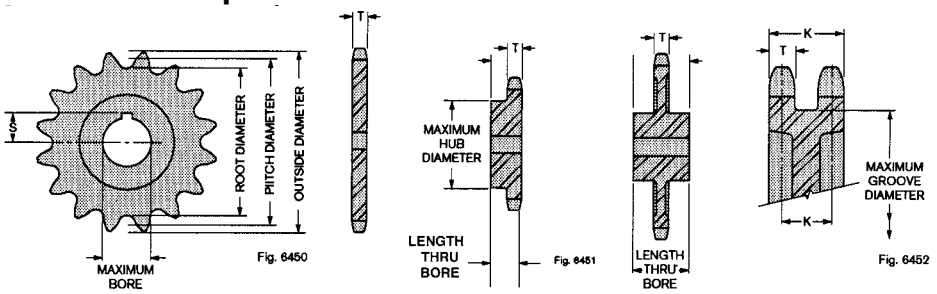
▲ Ratings are based on a service factor of 1. For a complete list of service factors, refer to Table 1, page C-7. The ratings listed above apply directly to lubricated, single strand, standard and heavy series roller chains. For multiple strand chains, apply the factors shown in the table at right. To select chains that vary in design or material from standard roller chain, use the factors in Table 3, page C-7.

■ Type A: Manual or drip (Maximum chain speed 170 FPM)
Type B: Bath or disc (Maximum chain speed 1500 FPM)
Type C: Forced (pump)

Multiple strand factors

Number of strands	Multiple strand factor
2	1.7
3	2.5
4	3.3
5	4.1
6	5.0
7 or more	Consult Rexnord

No. 80 sprockets 1.000" pitch



Type A | Type B | Type C | Multiple Width

Dimensions

Number of teeth	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ	Maximum hub and groove diameter, inches	Maximum bore with standard keyseat, inches ▲	S max., inches	Number of teeth	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ	Number of teeth	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ
8	2.613	1.988	3.014	1.38	.875	.563	46	14.654	14.029	15.219	84	26.744	26.119	27.326
9	2.924	2.299	3.347	1.72	1.188	.719	47	14.972	14.347	15.538	85	27.063	26.437	27.644
10	3.236	2.611	3.678	2.05	1.313	.813	48	15.290	14.665	15.857	86	27.381	26.756	27.962
11	3.549	2.924	4.006	2.38	1.625	1.000	49	15.608	14.983	16.176	87	27.699	27.074	28.281
12	3.864	3.239	4.332	2.70	1.750	1.063	50	15.926	15.301	16.495	88	28.017	27.392	28.599
13	4.179	3.554	4.657	3.02	2.000	1.250	51	16.244	15.619	16.813	89	28.335	27.710	28.918
14	4.494	3.869	4.982	3.34	2.250	1.375	52	16.562	15.937	17.132	90	28.654	28.029	29.236
15	4.810	4.185	5.305	3.67	2.563	1.594	53	16.880	16.255	17.451	91	28.972	28.347	29.554
16	5.126	4.501	5.627	3.98	2.875	1.813	54	17.198	16.573	17.769	92	29.290	28.665	29.873
17	5.442	4.817	5.950	4.31	3.125	1.938	55	17.517	16.892	18.088	93	29.608	28.983	30.191
18	5.759	5.134	6.271	4.54	3.375	2.125	56	17.836	17.210	18.406	94	29.926	29.301	30.510
19	6.076	5.451	6.593	4.95	3.688	2.281	57	18.153	17.528	18.725	95	30.245	29.620	30.828
20	6.393	5.768	6.914	5.28	3.813	2.344	58	18.471	17.846	19.044	96	30.563	29.938	31.146
21	6.710	6.085	7.235	5.59	4.125	2.563	59	18.789	18.164	19.363	97	30.881	30.256	31.465
22	7.027	6.402	7.555	5.92	4.438	2.719	60	19.107	18.482	19.681	98	31.199	30.574	31.783
23	7.344	6.719	7.875	6.23	4.625	2.813	61	19.426	18.800	20.000	99	31.518	30.893	32.102
24	7.661	7.035	8.196	6.56	4.688	2.938	62	19.744	19.119	20.318	100	31.836	31.211	32.420
25	7.979	7.354	8.516	6.88	4.750	3.000	63	20.062	19.347	20.637	101	32.154	31.529	32.739
26	8.296	7.671	8.836	7.20	5.063	3.156	64	20.380	19.755	20.955	102	32.473	31.848	33.057
27	8.614	7.989	9.156	7.52	5.125	3.188	65	20.698	20.073	21.274	103	32.791	32.166	33.376
28	8.932	8.307	9.475	7.84	5.375	3.313	66	21.016	20.391	21.593	104	33.109	32.484	33.694
29	9.249	8.624	9.795	8.16	5.625	3.563	67	21.335	20.710	21.911	105	33.427	32.802	34.012
30	9.567	8.942	10.114	8.48	5.750	3.625	68	21.653	21.028	22.230	106	33.746	33.121	34.331
31	9.885	9.260	10.434	8.80	6.000	3.750	69	21.971	21.346	22.548	107	34.064	33.439	34.649
32	10.202	9.577	10.753	9.11	6.313	3.906	70	22.289	21.664	22.867	108	34.382	33.757	34.968
33	10.520	9.895	11.072	9.44	7.000	4.250	71	22.607	21.982	23.185	109	34.701	34.076	35.286
34	10.838	10.213	11.392	9.75	7.563	4.656	72	22.926	22.301	23.504	110	35.019	34.394	35.605
35	11.156	10.531	11.711	10.08	7.750	4.750	73	23.244	22.619	23.822	111	35.337	34.712	35.923
36	11.474	10.849	12.030	10.39	8.063	4.906	74	23.562	22.937	24.141	112	35.655	35.030	36.241
37	11.792	11.167	12.349	10.72	8.250	5.000	75	23.880	23.255	24.459	113	35.974	35.349	36.560
38	12.110	11.485	12.668	11.03	8.500	5.125	76	24.198	23.573	24.778	114	36.292	35.667	36.878
39	12.428	11.803	12.987	11.34	9.125	5.438	77	24.517	23.892	25.096	115	36.610	35.985	37.197
40	12.746	12.121	13.306	11.67	9.375	5.563	78	24.835	24.210	25.415	116	36.929	36.304	37.515
41	13.064	12.439	13.625	11.98	9.500	5.625	79	25.153	24.528	25.733	117	37.247	36.622	37.833
42	13.382	12.757	13.944	12.31	9.625	5.688	80	25.471	24.846	26.052	118	37.565	36.940	38.152
43	13.700	13.075	14.263	12.63	9.750	5.750	81	25.790	25.165	26.370	119	37.883	37.258	38.470
44	14.018	13.393	14.582	12.94	9.813	5.906	82	26.108	25.483	26.689	120	38.201	37.576	38.788
45	14.336	13.711	14.901	13.27	9.875	5.938	83	26.426	25.801	27.007	Larger sizes available			

Hub length thru bore, inches

Sprocket Type	Number of Teeth	Chain Width, Number of Strands					
		1	2	3	4	5	6
B	8 to 15	1.38	2.50	3.63	4.75	5.88	7.00
	16 to 24	1.63	2.75	3.88	5.00	6.13	7.25
	25 to 37	1.88	3.00	4.13	5.25	6.38	7.50
	38 to 60	2.13	3.25	4.38	5.50	6.63	7.75
	61 to 88	2.38	3.50	4.63	5.75	6.88	8.00
	89 to 120	2.63	3.75	4.88	6.00	7.13	8.25
C	18 to 36	2.50	3.25	4.50	5.75	6.50	7.25
	37 to 64	3.00	3.75	4.50	5.75	6.50	7.25
	65 to 80	3.25	4.00	4.75	6.00	6.75	7.50
	81 to 120	3.50	4.25	5.00	6.25	7.00	7.75

Tooth dimensions, inches

Dimension	Chain Width, Number of Strands					
	1	2	3	4	5	6
T	.575	.557	.557	.526	.526	.526
L	-	1.709	2.861	3.982	5.134	6.286
K	-	1.153	1.153	1.153	1.153	1.153
Tolerances for T and L	Machined sprockets ..... +.000", –.012"					
	Hot rolled steel plate sprockets or unfinished forgings ..... +.000", –.040"					

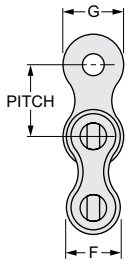
Recommended standard bore tolerances, keyseat dimensions, eccentricity tolerances, and similar data, page G-2.

Δ Non-functional dimension that may vary with the type of cutter used.

▲ Based on maximum hub diameter.

Dimensions and other engineering data are subject to change. Certified specifications of ordered product furnished upon request.

Drive Engineering
No. 100 chain 1.250" pitch



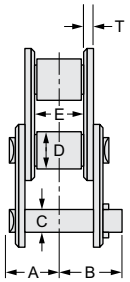


Fig. 6453

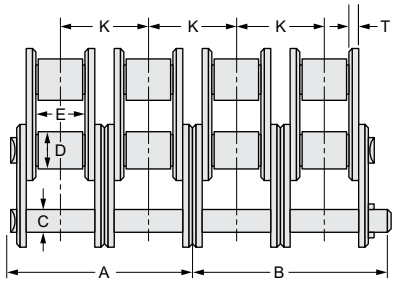


Fig. 6447

Specifications and dimensions

Chain Number	Chain Width, Number of Strands	Average ultimate strength, pounds	Joint bearing area, sq. in.	Weight per foot, pounds	Dimensions, inches								
					A	B	C	D	E	F	G	K	T
100	Single	26,000	.401	2.72	.76	.89	.375	.750	.75	.97	1.13	1.408	.16
100-2	Double	52,000	.802	5.19	1.46	1.59	.375	.750	.75	.97	1.13	1.408	.16
100-3	Triple	78,000	1.203	7.67	2.16	2.29	.375	.750	.75	.97	1.13	1.408	.16
100-4	Quadruple	104,000	1.604	10.1	2.86	2.99	.375	.750	.75	.97	1.13	1.408	.16
100-5	Quintuple	130.000	2.005	12.7	3.56	3.69	.375	.750	.75	.97	1.13	1.408	.16
100-6	Sextuple	156,000	2.406	15.2	4.26	4.39	.375	.750	.75	.97	1.13	1.408	.16

Available in riveted and cottered construction.

Ratings

Number of teeth, in small sprocket	Maximum bore inches	Horsepower for single strand chain▲ RPM of small sprocket																				
		25	50	100	200	300	400	500	600	700	800	900	1000	1200	1400	1600	1800	2000	2200	2400	2600
11	2.000	1.85	3.45	6.44	12.0	17.3	22.4	27.4	32.3	37.1	32.8	27.5	23.4	17.8	14.2	11.6	9.71	8.29	7.19	6.31	1.29
12	2.250	2.03	3.79	7.08	13.2	19.0	24.6	30.1	35.5	40.8	37.3	31.3	26.7	20.3	16.1	13.2	11.1	9.45	8.19	7.19	0
13	2.500	2.22	4.13	7.72	14.4	20.7	26.9	32.8	38.7	44.5	42.1	35.3	30.1	22.9	18.2	14.9	12.5	10.6	9.23	8.10	0
14	2.813	2.40	4.48	8.36	15.6	22.5	29.1	35.6	41.9	48.2	47.0	39.4	33.7	25.6	20.3	16.6	13.9	11.9	10.3	9.05	0
15	3.250	2.59	4.83	9.01	16.8	24.2	31.4	38.3	45.2	51.9	52.2	43.7	37.3	28.4	22.5	18.4	15.5	13.2	11.4	10.0	0
16	3.500	2.77	5.17	9.66	18.0	26.0	33.6	41.1	48.4	55.6	57.5	48.2	41.1	31.3	24.8	20.3	17.0	14.5	12.6	11.1	0
17	3.813	2.96	5.52	10.3	19.2	27.7	35.9	43.9	51.7	59.4	63.0	52.8	45.0	34.3	27.2	22.3	18.7	15.9	13.8	0.79	0
18	4.188	3.15	5.88	11.0	20.5	29.5	38.2	46.7	55.0	62.3	68.6	57.5	49.1	37.3	29.6	24.2	20.3	17.4	15.0	0	-
19	4.563	3.34	6.23	11.6	21.7	31.2	40.5	49.5	58.3	67.0	74.4	62.3	53.2	40.5	32.1	26.3	22.0	18.8	16.3	0	-
20	4.875	3.53	6.58	12.3	22.9	33.0	42.8	52.3	61.6	70.8	79.8	67.3	57.5	43.7	34.7	28.4	23.8	20.3	17.6	0	-
21	5.250	3.72	6.94	13.0	24.2	34.8	45.1	55.1	65.0	74.6	84.2	72.4	61.8	47.0	37.3	30.6	25.6	21.9	19.0	0	-
22	5.625	3.91	7.30	13.6	25.4	36.6	47.4	58.0	68.3	78.5	88.5	77.7	66.3	50.4	40.0	32.8	27.5	23.4	20.3	0	-
23	5.813	4.10	7.66	14.3	26.7	38.4	49.8	60.8	71.7	82.3	92.8	83.0	70.9	53.9	42.8	35.0	29.4	25.1	7.74	0	-
24	6.000	4.30	8.02	15.0	27.9	40.2	52.1	63.7	75.0	86.2	97.2	88.5	75.6	57.5	45.6	37.3	31.3	26.7	0	-	-
25	6.125	4.49	8.38	15.6	29.2	42.0	54.4	66.6	78.4	90.1	102	94.1	80.3	61.1	48.5	39.7	33.3	28.4	0	-	-
28	7.000	5.07	9.47	17.7	33.0	47.5	61.5	75.2	88.6	102	115	112	95.2	72.4	57.5	47.0	39.4	33.7	0	-	-
30	7.625	5.47	10.2	19.0	35.5	51.2	66.3	81.0	95.5	110	124	124	106	80.3	63.7	52.2	43.7	10.0	0	-	-
32	8.250	5.86	10.9	20.4	38.1	54.91	71.1	86.9	102	118	133	136	116	88.5	70.2	57.5	45.2	0	-	-	-
35	9.125	6.46	12.0	22.5	42.0	60.4	78.3	95.7	113	130	146	156	133	101	80.3	65.8	55.1	0	-	-	-
40	-	7.46	13.9	26.0	48.5	69.8	90.4	111	130	150	169	188	163	124	98.1	80.3	0	-	-	-	-
Lubrication type■		A	B				C														

The dotted line indicates the point at which pin and bushing galling is likely to begin. When the desired selection falls within the shaded area, consult Rexnord for guidance.

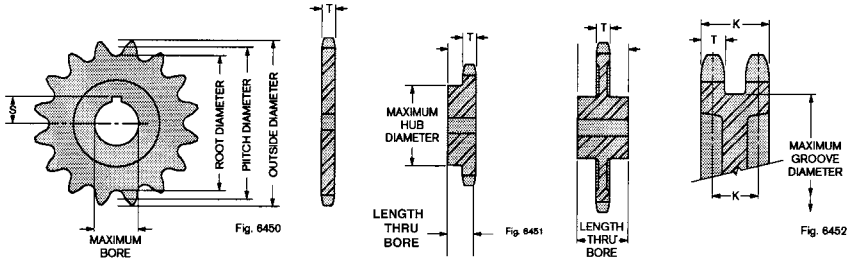
▲ Ratings are based on a service factor of 1. For a complete list of service factors, refer to Table 1, page C-7. The ratings listed above apply directly to lubricated, single strand, standard and heavy series roller chains. For multiple strand chains, apply the factors shown in the table at right. To select chains that vary in design or material from standard roller chain, use the factors in Table 3, page C-7.

■ Type A: Manual or drip (Maximum chain speed 150 FPM)
Type B: Bath or disc (Maximum chain speed 1300 FPM)
Type C: Forced (pump)

Multiple strand factors

Number of strands	Multiple strand factor
2	1.7
3	2.5
4	3.3
5	4.1
6	5.0
7 or more	Consult Rexnord

No. 100 sprockets 1.250" pitch



Dimensions

Type A | Type B | Type C | Multiple Width

Number of teeth	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ	Maximum hub and groove diameter, inches	Maximum bore with standard keyseat, inches ▲	S max., inches	Number of teeth	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ	Number of teeth	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ
8	3.266	2.516	3.768	1.73	1.188	.719	46	18.317	17.567	19.024	84	33.430	32.680	34.158
9	3.655	7.905	4.184	2.14	1.375	.844	47	18.715	17.965	19.423	85	33.828	33.078	34.555
10	4.045	3.295	4.598	2.56	1.625	1.000	48	19.122	18.362	19.821	86	34.226	33.476	34.953
11	4.437	3.687	5.008	2.97	2.000	1.250	49	19.510	18.760	20.220	87	34.624	33.874	35.351
12	4.830	4.080	5.415	3.38	2.250	1.375	50	19.908	19.168	20.619	88	35.021	34.271	35.749
13	5.223	4.473	5.821	3.78	2.500	1.563	51	20.305	19.555	21.016	89	35.419	34.669	36.148
14	5.617	4.867	6.228	4.19	2.813	1.719	52	20.703	19.953	21.415	90	35.817	35.067	36.545
15	6.012	5.262	6.631	4.59	3.250	2.000	53	21.100	20.350	21.814	91	36.215	35.465	36.943
16	6.407	5.657	7.034	5.00	3.500	2.188	54	21.498	20.748	22.211	92	36.612	35.862	37.341
17	6.803	6.053	7.438	5.41	3.813	2.344	55	21.896	21.146	22.610	93	37.010	36.260	37.739
18	7.198	6.448	7.839	5.80	4.188	2.594	56	22.293	21.543	23.008	94	37.408	36.658	38.138
19	7.595	6.845	8.241	6.20	4.563	2.781	57	22.691	21.941	23.406	95	37.806	37.056	38.535
20	7.991	7.241	8.643	6.61	4.875	3.063	58	23.089	22.339	23.805	96	38.203	37.453	38.933
21	8.387	7.637	9.044	7.00	5.250	3.250	59	23.486	22.736	24.204	97	38.601	37.851	39.331
22	8.783	8.033	9.444	7.41	5.625	3.438	60	23.884	23.134	24.601	98	38.999	38.249	39.729
23	9.180	8.430	9.844	7.81	5.813	3.656	61	24.282	25.532	25.000	99	39.397	38.647	40.128
24	9.577	8.827	10.245	8.20	6.000	3.750	62	24.680	23.930	25.398	100	39.795	39.045	40.525
25	9.973	9.223	10.645	8.61	6.125	3.813	63	25.077	24.327	25.796	101	40.193	39.443	40.924
26	10.370	9.620	11.045	9.02	6.188	3.844	64	25.475	24.725	26.194	102	40.591	39.841	41.321
27	10.767	10.017	11.445	9.41	6.375	4.063	65	25.873	25.123	26.592	103	40.989	40.239	41.720
28	11.164	10.414	11.844	9.81	7.000	4.250	66	26.271	25.521	26.991	104	41.386	40.636	42.118
29	11.561	10.811	12.244	10.20	7.250	4.375	67	26.668	25.918	27.389	105	41.784	41.034	42.515
30	11.958	11.208	12.643	10.61	7.625	4.563	68	27.066	26.316	27.788	106	42.182	41.432	42.914
31	12.356	11.606	13.043	11.00	7.750	4.750	69	27.464	26.714	28.185	107	42.580	41.820	43.311
32	12.753	12.003	13.441	11.41	8.250	5.000	70	27.862	27.112	25.584	108	42.978	42.228	43.710
33	13.150	12.400	13.840	11.80	8.375	5.063	71	28.259	27.509	28.981	109	43.376	42.626	44.108
34	13.547	12.797	14.240	12.20	9.000	5.375	72	28.657	27.907	29.380	110	43.774	43.024	44.506
35	13.945	12.195	14.639	12.61	9.125	5.438	73	29.055	28.305	29.778	111	44.171	43.421	44.904
36	14.342	13.592	15.038	13.00	-	-	74	29.453	28.703	30.176	112	44.569	43.819	45.301
37	14.740	13.990	15.436	13.41	-	-	75	29.850	29.100	30.574	113	44.967	44.217	45.700
38	15.137	14.387	15.835	13.80	-	-	76	30.248	29.498	30.973	114	45.365	44.615	46.098
39	15.534	14.784	16.234	14.20	-	-	77	30.646	29.896	31.370	115	45.763	45.013	46.496
40	15.932	15.182	16.633	14.59	-	-	78	31.044	30.294	31.769	116	46.161	45.411	46.894
41	16.329	15.579	17.031	15.00	-	-	79	31.441	30.691	32.166	117	46.559	45.809	47.291
42	16.727	15.977	17.430	15.39	-	-	80	31.839	31.089	32.565	118	46.957	46.027	47.690
43	17.124	16.374	17.829	15.80	-	-	81	32.237	31.487	32.963	119	47.354	46.604	48.088
44	17.522	16.772	18.228	16.19	-	-	82	32.635	31.885	33.361	120	47.752	47.002	48.485
45	17.920	17.170	18.626	16.59	-	-	83	33.033	32.283	33.759	Larger sizes available.			

Hub length thru bore, inches

Sprocket Type	Number of Teeth	Chain Width, Number of Strands					
		1	2	3	4	5	6
B	8 to 13	1.50	2.88	4.25	5.75	7.13	8.50
	14 to 18	1.75	3.13	4.50	6.00	7.38	8.75
	19 to 38	2.00	3.38	4.75	6.25	7.63	9.00
	39 to 53	2.25	3.63	5.00	6.50	7.88	9.25
	54 to 68	2.50	3.88	5.25	6.75	8.13	9.50
	69 to 88	2.75	4.13	5.50	7.00	8.38	9.75
	89 to 120	3.00	4.38	5.75	7.25	8.63	10.00
C	15 to 26	3.00	4.25	5.25	6.25	7.25	8.25
	27 to 40	3.25	4.25	5.25	6.25	7.25	8.25
	41 to 60	3.50	4.50	5.25	6.25	7.25	8.25
	61 to 72	3.75	4.75	5.50	6.50	7.50	8.50
	73 to 80	4.00	5.00	5.75	6.75	7.75	8.75
	81 to 100	4.25	5.25	6.00	7.00	8.00	9.00
	101 to 120	4.50	5.50	6.25	7.25	8.25	9.25

Tooth dimensions, inches

Dimension	Chain Width, Number of Strands					
	1	2	3	4	5	6
T	.692	.669	.669	.633	.633	.633
L	-	2.077	3.485	4.857	6.265	7.673
K	-	1.408	1.408	1.408	1.408	1.408
Tolerances for T and L	Machined sprockets ..... +.000", –.014"					
	Hot rolled steel plate sprockets or unfinished forgings ..... +.000", –.046"					

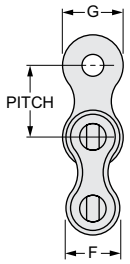
Recommended standard bore tolerances, keyseat dimensions, eccentricity tolerances, and similar data, page G-2.

Δ Non-functional dimension that may vary with the type of cutter used.

▲ Based on maximum hub diameter.

Dimensions and other engineering data are subject to change. Certified specifications of ordered product furnished upon request.

Drive Engineering
No. 120 chain 1.500" pitch



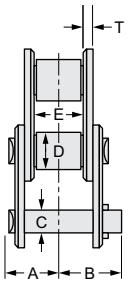


Fig. 6453

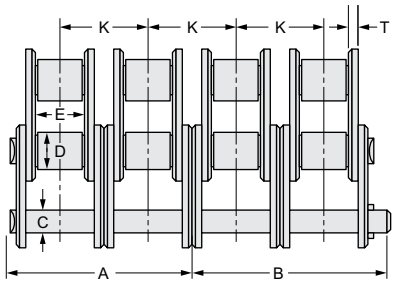


Fig. 6447

Specifications and dimensions

Chain Number	Chain Width, Number of Strands	Average ultimate strength, pounds	Joint bearing area, sq. in.	Weight per foot, pounds	Dimensions, inches								
					A	B	C	D	E	F	G	K	T
120	Single	36,500	.606	3.72	.96	1.13	.438	.875	1.00	1.13	1.38	1.789	.19
120-2	Double	73,000	1.212	7.38	1.84	2.02	.438	.875	1.00	1.13	1.38	1.789	.19
120-3	Triple	109,500	1.818	11.0	2.74	2.91	.438	.875	1.00	1.13	1.38	1.789	.19
120-4	Quadruple	146,000	2.424	14.7	3.63	3.81	.438	.875	1.00	1.13	1.38	1.789	.19
120-5	Quintuple	182,500	3.030	18.4	4.52	4.70	.438	.875	1.00	1.13	1.38	1.789	.19
120-6	Sextuple	219,000	3.636	22.0	5.42	5.59	.438	.875	1.00	1.13	1.38	1.789	.19

Available in riveted and cottered construction.

Ratings

Number of teeth, in small sprocket	Maximum bore inches	Horsepower for single strand chain▲ RPM of small sprocket																			
		10	25	50	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1600	1800	2000
11	2.438	1.37	3.12	5.83	10.9	20.3	29.2	37.9	46.3	54.6	46.3	37.9	31.8	27.1	23.5	20.6	18.3	16.4	13.4	11.2	9.59
12	2.750	1.50	3.43	6.40	11.9	22.3	32.1	41.6	50.9	59.9	52.8	43.2	36.2	30.9	26.8	23.5	20.9	18.7	15.3	12.8	10.9
13	3.188	1.64	3.74	6.98	13.0	24.3	35.0	45.4	55.5	65.3	59.5	48.7	40.8	34.9	30.2	26.5	23.5	21.0	17.2	14.4	12.3
14	3.625	1.78	4.05	7.56	14.1	26.3	37.9	49.1	60.1	70.8	66.5	54.4	45.6	39.0	33.8	29.6	26.3	23.5	19.2	16.1	8.94
15	4.000	1.91	4.37	8.15	15.2	28.4	40.9	53.0	64.7	76.3	73.8	60.4	50.6	43.2	37.4	32.9	29.1	26.1	21.3	17.9	0
16	4.438	2.05	4.68	8.74	16.3	30.4	43.8	56.8	69.4	81.8	81.3	66.5	55.7	47.6	41.2	36.2	32.1	28.7	23.5	19.7	0
17	4.688	2.19	5.00	9.33	17.4	32.5	46.8	60.6	74.1	87.3	89.0	72.8	61.0	52.1	45.2	39.6	35.2	31.5	25.8	21.6	0
18	5.188	2.33	5.32	9.92	18.5	34.6	49.8	64.5	78.8	92.9	97.0	79.4	66.5	56.8	49.2	43.2	38.3	34.3	28.1	23.5	0
19	5.563	2.47	5.64	10.5	19.6	36.6	52.8	68.4	83.6	98.5	105	86.1	72.1	61.6	53.4	46.8	41.5	37.2	30.4	25.5	0
20	5.938	2.61	5.96	11.1	20.7	38.7	55.8	72.2	88.3	104	114	92.9	77.9	66.5	57.6	50.6	44.9	40.1	32.9	27.5	0
21	6.375	2.75	6.28	11.7	21.9	40.8	58.8	76.2	93.1	110	122	100	83.8	71.6	62.0	54.4	48.3	43.2	35.4	29.6	0
22	6.500	2.90	6.60	12.3	23.0	42.9	61.8	80.1	97.9	115	131	107	89.9	76.7	66.5	58.4	51.8	46.3	37.9	16.6	0
23	6.688	3.04	6.93	12.9	24.1	45.0	64.9	84.0	103	121	139	115	96.1	82.0	71.1	62.4	55.3	49.5	40.5	0	-
24	7.000	3.18	7.25	13.5	25.3	47.1	67.9	88.0	108	127	146	122	102	87.4	75.8	66.5	59.0	52.8	43.2	0	-
25	7.250	3.32	7.58	14.1	26.4	49.3	71.0	91.9	112	132	152	130	109	92.9	80.6	70.7	62.7	56.1	45.9	0	-
28	8.375	3.76	8.57	16.0	29.8	55.7	80.2	104	127	150	172	154	129	110	95.5	83.8	74.3	66.5	54.4	0	-
30	9.250	4.05	9.23	17.2	32.1	60.0	86.4	112	137	161	185	171	143	122	106	92.9	82.4	73.8	42.4	0	-
32	10.000	4.34	9.90	18.5	34.5	64.3	92.6	120	147	173	199	188	158	135	117	102	90.8	81.3	0	-	-
35	-	4.78	10.9	20.3	38.0	70.9	102	132	162	190	219	215	180	154	133	117	104	92.9	0	-	-
40	-	5.52	12.6	23.5	43.9	81.8	118	153	187	220	253	263	220	188	163	143	127	59.5	0	-	-
Lubrication type■		A		B			C														

The dotted line indicates the point at which pin and bushing galling is likely to begin. When the desired selection falls within the shaded area, consult Rexnord for guidance.

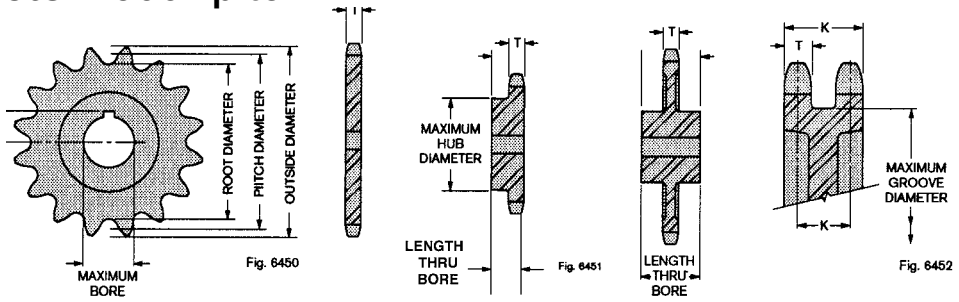
▲ Ratings are based on a service factor of 1. For a complete list of service factors, refer to Table 1, page C-7. The ratings listed above apply directly to lubricated, single strand, standard and heavy series roller chains. For multiple strand chains, apply the factors shown in the table at right. To select chains that vary in design or material from standard roller chain, use the factors in Table 3, page C-7.

■ Type A: Manual or drip (Maximum chain speed 130 FPM)
Type B: Bath or disc (Maximum chain speed 1200 FPM)
Type C: Forced (pump)

Multiple strand factors

Number of strands	Multiple strand factor
2	1.7
3	2.5
4	3.3
5	4.1
6	5.0
7 or more	Consult Rexnord

No. 120 sprockets 1.500" pitch



Dimensions

Type A | Type B | Type C | Multiple Width

Number of teeth	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ	Maximum hub and groove diameter, inches	Maximum bore with standard keyseat, inches ▲	S max., inches	Number of teeth	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ	Number of teeth	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ
8	3.920	3.045	4.521	2.08	1.313	.813	39	18.641	17.766	19.481	70	33.434	32.559	34.301
9	4.386	3.511	5.021	2.58	1.625	1.000	40	19.118	18.243	19.959	71	33.911	33.036	34.778
10	4.854	3.979	5.517	3.08	2.063	1.281	41	19.595	18.720	20.438	72	34.388	33.513	35.256
11	5.324	4.449	6.009	3.58	2.438	1.531	42	20.072	19.197	20.916	73	34.866	33.991	35.733
12	5.796	4.921	6.498	4.06	2.750	1.688	43	20.549	19.674	21.395	74	35.343	34.468	36.212
13	6.268	5.393	6.986	4.55	3.188	1.969	44	21.026	20.151	21.873	75	35.820	34.945	36.689
14	6.741	5.866	7.473	5.03	3.625	2.250	45	21.503	20.628	22.352	76	36.298	35.423	37.167
15	7.215	6.340	7.958	5.52	4.000	2.500	46	21.980	21.105	22.829	77	36.766	35.900	37.644
16	7.689	6.814	8.441	6.00	4.438	2.719	47	22.458	21.583	23.307	78	37.252	36.377	38.123
17	8.163	7.288	8.925	6.48	4.688	2.844	48	22.935	22.060	23.786	79	37.730	36.855	38.600
18	8.638	7.763	9.407	6.97	5.188	3.219	49	23.412	22.537	24.264	80	38.207	37.332	39.078
19	9.113	8.238	9.890	7.45	5.563	3.406	50	23.889	23.014	24.743	81	38.684	37.809	39.555
20	9.589	8.714	10.371	7.94	5.938	3.719	51	24.366	23.491	25.220	82	39.162	38.287	40.034
21	10.064	9.189	10.853	8.42	6.375	3.938	52	24.843	23.968	25.698	83	39.639	38.764	40.511
22	10.540	9.665	11.333	8.89	6.500	4.000	53	25.320	24.445	26.177	84	40.116	39.241	40.989
23	11.016	10.141	11.813	9.38	6.688	4.094	54	25.798	24.923	26.654	85	40.594	39.719	41.466
24	11.492	10.617	12.294	9.86	7.000	4.250	55	26.275	25.400	27.132	86	41.071	40.196	41.943
25	11.968	11.093	12.774	10.34	7.250	4.375	56	26.752	25.877	27.609	87	41.548	40.673	42.422
26	12.444	11.569	13.254	10.81	7.625	4.688	57	27.229	26.354	38.088	88	42.026	41.151	42.899
27	12.921	12.046	13.734	11.30	8.000	4.875	58	27.707	26.832	28.566	89	42.503	41.628	43.377
28	13.397	12.522	14.212	11.78	8.375	4.938	59	28.184	27.309	29.045	90	42.981	42.106	43.854
29	13.874	12.999	14.693	12.25	8.750	5.250	60	28.661	27.786	29.522	91	43.458	42.583	44.331
30	14.350	13.475	15.171	12.73	9.250	5.500	61	29.138	28.263	30.000	92	43.935	43.060	44.810
31	14.827	13.952	15.651	13.22	9.750	5.750	62	29.616	28.741	30.477	93	44.412	43.537	45.287
32	15.303	14.428	16.130	13.69	10.000	6.000	63	30.093	29.218	30.956	94	44.889	44.014	45.765
33	15.780	14.905	16.608	14.17	-	-	64	30.570	29.695	31.433	95	45.367	44.492	46.242
34	16.257	15.382	17.088	14.66	-	-	65	31.047	30.172	31.911	96	45.844	44.969	46.719
35	16.734	15.859	17.567	15.13	-	-	66	31.525	30.650	32.390	97	46.321	45.446	47.198
36	17.211	16.336	18.045	15.61	-	-	67	32.002	31.127	32.867	98	46.799	45.924	47.657
37	17.687	16.812	18.524	16.09	-	-	68	32.479	31.604	33.345	99	47.277	46.402	48.153
38	18.164	17.289	19.002	16.56	-	-	69	32.957	32.082	33.822	100	47.754	46.879	48.630
											Larger sizes available.			

Hub length thru bore, inches

Sprocket Type	Number of Teeth	Chain Width, Number of Strands					
		1	2	3	4	5	6
B	8 to 12	2.00	3.75	5.50	7.38	9.13	10.88
	13 to 16	2.25	4.00	5.75	7.63	9.38	11.13
	17 to 34	2.50	4.13	5.88	7.75	9.50	11.25
	35 to 52	2.75	4.38	6.13	8.00	9.75	11.50
	53 to 73	3.00	4.63	6.38	8.25	10.00	11.75
	74 to 100	3.25	4.88	6.63	8.50	10.25	12.00
C	14 to 21	3.50	4.75	5.25	6.25	...	...
	22 to 27	3.50	4.75	5.50	6.50	...	...
	28 to 36	3.50	4.75	5.75	6.75	...	...
	37 to 46	3.75	4.75	6.00	7.00	8.00	...
	47 to 60	4.00	5.00	6.25	7.25	8.25	9.25
	61 to 72	4.25	5.25	6.50	7.50	8.50	9.50
	73 to 80	4.50	5.50	6.75	7.75	8.75	9.75
	81 to 94	5.00	6.00	7.25	8.25	9.25	10.25
	95 to 100	5.50	6.50	7.75	8.75	9.75	10.75

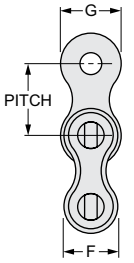
Tooth dimensions, inches

Dimension	Chain Width, Number of Strands					
	1	2	3	4	5	6
T	.924	.894	.894	.848	.848	.848
L	-	2.683	4.472	6.215	8.004	9.793
K	-	1.789	1.789	1.789	1.789	1.789
Tolerances for T and L	Machined sprockets ..... +.000", –.016"					
	Hot rolled steel plate sprockets or unfinished forgings ..... +.000", –.057"					

Recommended standard bore tolerances, keyseat dimensions, eccentricity tolerances, and similar data, page G-2.
Δ Non-functional dimension that may vary with the type of cutter used.
▲ Based on maximum hub diameter.

Dimensions and other engineering data are subject to change. Certified specifications of ordered product furnished upon request.

Drive Engineering
No. 140 chain 1.750" pitch



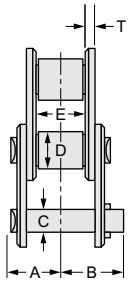


Fig. 6453

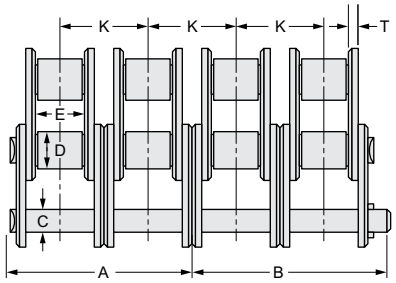


Fig. 6447

Specifications and dimensions

Chain Number	Chain Width, Number of Strands	Average ultimate strength, pounds	Joint bearing area, sq. in.	Weight per foot, pounds	Dimensions, inches								
					A	B	C	D	E	F	G	K	T
140	Single	48,500	.726	4.69	1.02	1.21	.500	1.000	1.00	1.31	1.56	1.924	.22
140-2	Double	97,000	1.452	9.25	1.98	2.17	.500	1.000	1.00	1.31	1.56	1.924	.22
140-3	Triple	145,500	2.178	13.8	2.94	3.13	.500	1.000	1.00	1.31	1.56	1.924	.22
140-4	Quadruple	194,000	2.904	18.4	3.90	4.09	.500	1.000	1.00	1.31	1.56	1.924	.22
140-5	Quintuple	242,500	3.630	22.9	4.86	5.05	.500	1.000	1.00	1.31	1.56	1.924	.22
140-6	Sextuple	291,000	4.356	27.4	5.82	6.01	.500	1.000	1.00	1.31	1.56	1.924	.22

Available in riveted and cottered construction.

Ratings

Number of teeth, in small sprocket	Maximum bore inches	Horsepower for single strand chain▲ RPM of small sprocket																				
		10	25	50	100	150	200	250	300	350	400	450	500	550	600	700	800	1000	1200	1400	1600
11	2.750	2.12	4.83	9.02	16.8	24.2	31.4	38.4	45.2	52.0	58.6	65.2	71.6	75.2	66.0	52.4	42.9	30.7	23.3	18.5	15.2
12	3.125	2.33	5.31	9.91	18.5	26.6	34.5	42.2	49.7	57.1	64.4	71.6	78.7	85.7	75.2	59.7	48.9	35.0	26.6	21.1	17.3
13	3.625	2.54	5.79	10.8	20.2	29.0	37.6	46.0	54.2	62.2	70.2	78.0	85.8	93.5	84.8	67.3	55.1	39.4	30.0	23.8	19.5
14	4.063	2.75	6.27	11.7	21.8	31.5	40.8	49.8	58.7	67.4	76.0	84.5	93.0	101	94.8	75.2	61.6	44.1	33.5	26.6	21.8
15	4.688	2.96	6.76	12.6	23.5	33.9	43.9	53.7	63.2	72.7	81.9	91.1	100	109	105	83.4	68.3	48.9	37.2	29.5	0
16	5.063	3.18	7.24	13.5	25.2	36.3	47.1	57.5	67.8	77.9	87.8	97.7	107	117	116	91.9	75.2	53.8	41.0	32.5	0
17	5.625	3.39	7.73	14.4	26.9	38.8	50.3	61.4	72.4	83.2	93.8	104	115	125	127	101	82.4	59.0	44.9	35.6	0
18	5.938	3.61	8.23	15.4	28.6	41.3	53.5	65.3	77.0	88.5	99.8	111	122	133	138	110	89.8	64.2	48.9	38.8	0
19	6.250	3.82	8.72	16.3	30.4	43.7	56.7	69.3	81.6	93.8	106	118	129	141	150	119	97.4	69.7	53.0	42.1	0
20	6.688	4.04	9.22	17.2	32.1	46.2	59.9	73.2	86.3	99.1	112	124	137	149	161	128	105	75.2	57.2	45.4	0
21	7.125	4.26	9.72	18.1	33.8	48.7	63.1	77.2	91.0	104	118	131	144	157	170	138	113	80.9	61.6	48.9	0
22	7.438	4.48	10.2	19.1	35.6	51.3	66.4	81.2	95.6	110	124	138	151	165	178	148	121	86.8	66.0	52.4	0
23	8.125	4.70	10.7	20.0	37.3	53.8	69.7	85.2	100	115	130	145	159	173	187	158	130	92.8	70.6	56.0	0
24	8.625	4.92	11.2	20.9	39.1	56.3	72.9	89.2	105	121	136	151	166	181	196	169	138	98.9	75.2	59.7	0
25	8.813	5.14	11.7	21.9	40.8	58.8	76.2	93.2	110	126	142	158	174	189	205	180	147	105	80.0	63.5	0
28	10.000	5.81	13.3	24.7	46.2	66.5	86.2	105	124	143	161	179	197	214	232	213	174	125	94.8	0	-
30	-	6.26	14.3	26.7	49.7	71.6	92.8	113	134	154	173	193	212	231	249	236	193	138	105	0	-
32	-	6.71	15.3	28.6	53.3	76.8	99.5	122	143	165	186	206	227	247	267	260	213	152	116	0	-
35	-	7.40	16.9	31.5	58.7	84.6	110	134	158	181	205	227	250	272	295	297	243	174	130	0	-
40	-	8.54	19.5	36.4	67.9	97.7	127	155	182	210	236	263	289	315	340	363	297	213	0	-	-
Lubrication type■		A	B				C														

The dotted line indicates the point at which pin and bushing galling is likely to begin. When the desired selection falls within the shaded area, consult Rexnord for guidance.

▲ Ratings are based on a service factor of 1. For a complete list of service factors, refer to Table 1, page C-7. The ratings listed above apply directly to lubricated, single strand, standard and heavy series roller chains. For multiple strand chains, apply the factors shown in the table at right. To select chains that vary in design or material from standard roller chain, use the factors in Table 3, page C-7.

■ Type A: Manual or drip (Maximum chain speed 130 FPM)
Type B: Bath or disc (Maximum chain speed 1200 FPM)
Type C: Forced (pump)

Multiple strand factors

Number of strands	Multiple strand factor
2	1.7
3	2.5
4	3.3
5	4.1
6	5.0
7 or more	Consult Rexnord

No. 140 sprockets 1.750" pitch

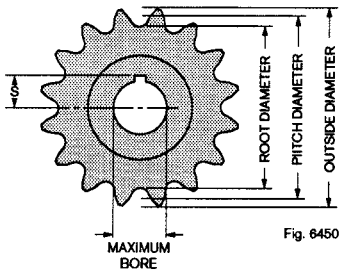
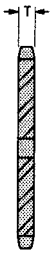


Fig. 6450



Type A

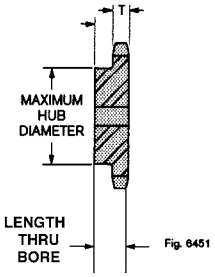
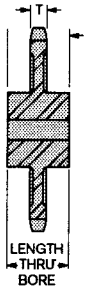


Fig. 6451

Type B



Type C

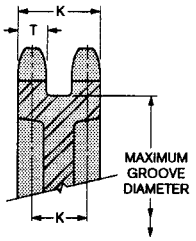


Fig. 6452

Multiple Width

Dimensions

Number of teeth	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ	Maximum hub and groove diameter, inches	Maximum bore with standard keyseat, inches ▲	S max., inches
8	3.920	3.045	4.521	2.08	1.313	.813
9	4.386	3.511	5.021	2.58	1.625	1.000
10	4.854	3.979	5.517	3.08	2.063	1.281
11	5.324	4.449	6.009	3.58	2.438	1.531
12	5.796	4.921	6.498	4.06	2.750	1.688
13	6.268	5.393	6.986	4.55	3.188	1.969
14	6.741	5.866	7.473	5.03	3.625	2.250
15	7.215	6.340	7.958	5.52	4.000	2.500
16	7.689	6.814	8.441	6.00	4.438	2.719
17	8.163	7.288	8.925	6.48	4.688	2.844
18	8.638	7.763	9.407	6.97	5.188	3.219
19	9.113	8.238	9.890	7.45	5.563	3.406
20	9.589	8.714	10.371	7.94	5.938	3.719
21	10.064	9.189	10.853	8.42	6.375	3.938
22	10.540	9.665	11.333	8.89	6.500	4.000
23	11.016	10.141	11.813	9.38	6.688	4.094
24	11.492	10.617	12.294	9.86	7.000	4.250
25	11.968	11.093	12.774	10.34	7.250	4.375
26	12.444	11.569	13.254	10.81	7.625	4.688
27	12.921	12.046	13.734	11.30	8.000	4.875
28	13.397	12.522	14.212	11.78	8.375	4.938
29	13.874	12.999	14.693	12.25	8.750	5.250
30	14.350	13.475	15.171	12.73	9.250	5.500
31	14.827	13.952	15.651	13.22	9.750	5.750
32	15.303	14.428	16.130	13.69	10.000	6.000
33	15.780	14.905	16.608	14.17	-	-
34	16.257	15.382	17.088	14.66	-	-
35	16.734	15.859	17.567	15.13	-	-
36	17.211	16.336	18.045	15.61	-	-
37	17.687	16.812	18.524	16.09	-	-
38	18.164	17.289	19.002	16.56	-	-

Number of teeth	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ
39	18.641	17.766	19.481
40	19.118	18.243	19.959
41	19.595	18.720	20.438
42	20.072	19.197	20.916
43	20.549	19.674	21.395
44	21.026	20.151	21.873
45	21.503	20.628	22.352
46	21.980	21.105	22.829
47	22.458	21.583	23.307
48	22.935	22.060	23.786
49	23.412	22.537	24.264
50	23.889	23.014	24.743
51	24.366	23.491	25.220
52	24.843	23.968	25.698
53	25.320	24.445	26.177
54	25.798	24.923	26.654
55	26.275	25.400	27.132
56	26.752	25.877	27.609
57	27.229	26.354	38.088
58	27.707	26.832	28.566
59	28.184	27.309	29.045
60	28.661	27.786	29.522
61	29.138	28.263	30.000
62	29.616	28.741	30.477
63	30.093	29.218	30.956
64	30.570	29.695	31.433
65	31.047	30.172	31.911
66	31.525	30.650	32.390
67	32.002	31.127	32.867
68	32.479	31.604	33.345
69	32.957	32.082	33.822

Number of teeth	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ
70	33.434	32.559	34.301
71	33.911	33.036	34.778
72	34.388	33.513	35.256
73	34.866	33.991	35.733
74	35.343	34.468	36.212
75	35.820	34.945	36.689
76	36.298	35.423	37.167
77	36.766	35.900	37.644
78	37.252	36.377	38.123
79	37.730	36.855	38.600
80	38.207	37.332	39.078
81	38.684	37.809	39.555
82	39.162	38.287	40.034
83	39.639	38.764	40.511
84	40.116	39.241	40.989
85	40.594	39.719	41.466
86	41.071	40.196	41.943
87	41.548	40.673	42.422
88	42.026	41.151	42.899
89	42.503	41.628	43.377
90	42.981	42.106	43.854
91	43.458	42.583	44.331
92	43.935	43.060	44.810
93	44.412	43.537	45.287
94	44.889	44.014	45.765
95	45.367	44.492	46.242
96	45.844	44.969	46.719
97	46.321	45.446	47.198
98	46.799	45.924	47.657
99	47.277	46.402	48.153
100	47.754	46.879	48.630

Larger sizes available.

Hub length thru bore, inches

Sprocket Type	Number of Teeth	Chain Width, Number of Strands 1	2	3	4	5	6
B	8 to 12	2.00	3.75	5.50	7.38	9.13	10.88
	13 to 16	2.25	4.00	5.75	7.63	9.38	11.13
	17 to 34	2.50	4.13	5.88	7.75	9.50	11.25
	35 to 52	2.75	4.38	6.13	8.00	9.75	11.50
	53 to 73	3.00	4.63	6.38	8.25	10.00	11.75
	74 to 100	3.25	4.88	6.63	8.50	10.25	12.00
C	14 to 21	3.50	4.75	5.25	6.25	-	-
	22 to 27	3.50	4.75	5.50	6.50	-	-
	28 to 36	3.50	4.75	5.75	6.75	-	-
	37 to 46	3.75	4.75	6.00	7.00	8.00	-
	47 to 60	4.00	5.00	6.25	7.25	8.25	9.25
	61 to 72	4.25	5.25	6.50	7.50	8.50	9.50
	73 to 80	4.50	5.50	6.75	7.75	8.75	9.75
	81 to 94	5.00	6.00	7.25	8.25	9.25	10.25
	95 to 100	5.50	6.50	7.75	8.75	9.75	10.75

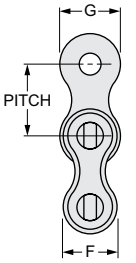
Tooth dimensions, inches

Dimension	Chain Width, Number of Strands 1	2	3	4	5	6
T	.924	.894	.894	.848	.848	.848
L	-	2.683	4.472	6.215	8.004	9.793
K	-	1.789	1.789	1.789	1.789	1.789
Tolerances for T and L	Machined sprockets ..... +.000", –.016"					
	Hot rolled steel plate sprockets or unfinished forgings ..... +.000", –.057"					

Recommended standard bore tolerances, keyseat dimensions, eccentricity tolerances, and similar data, page G-2.
Δ Non-functional dimension that may vary with the type of cutter used.
▲ Based on maximum hub diameter.

Dimensions and other engineering data are subject to change. Certified specifications of ordered product furnished upon request.

Drive Engineering
No. 160 chain 2.000" pitch



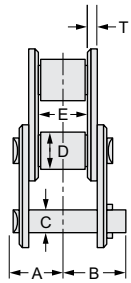


Fig. 6453

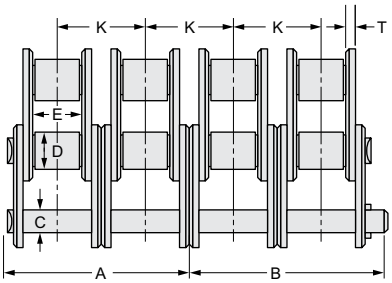


Fig. 6447

Specifications and dimensions

Chain Number	Chain Width, Number of Strands	Average ultimate strength, pounds	Joint bearing area, sq. in.	Weight per foot, pounds	Dimensions, inches								
					A	B	C	D	E	F	G	K	T
160	Single	68,000	.991	6.12	1.23	1.41	.563	1.125	1.25	1.56	1.81	2.305	.25
160-2	Double	136,000	1.982	12.5	2.38	2.56	.563	1.125	1.25	1.56	1.81	2.305	.25
160-3	Triple	204,000	2.973	18.6	3.52	3.71	.563	1.125	1.25	1.56	1.81	2.305	.25
160-4	Quadruple	272,000	3.964	24.8	4.67	4.86	.563	1.125	1.25	1.56	1.81	2.305	.25
160-5	Quintuple	340,000	4.955	31.9	5.82	6.00	.563	1.125	1.25	1.56	1.81	2.305	.25
160-6	Sextuple	408,000	5.946	38.3	6.97	7.15	.563	1.125	1.25	1.56	1.81	2.305	.25

Available in riveted and cottered construction.

Ratings

Number of teeth, in small sprocket	Maximum bore inches	Horsepower for single strand chain▲ RPM of small sprocket																				
		10	25	50	100	150	200	250	300	350	400	450	500	550	600	700	800	900	1000	1100	1200
11	3.250	3.07	7.01	13.1	24.4	35.2	45.6	55.7	65.6	75.4	85.0	94.5	96.6	83.7	73.5	58.3	47.7	40.0	34.1	29.6	26.0
12	3.500	3.38	7.70	14.4	26.8	38.6	50.1	61.2	72.1	82.8	93.4	104	110	95.4	83.7	66.4	54.4	45.6	38.9	33.7	29.6
13	4.000	3.68	8.40	15.7	29.2	42.1	54.6	66.7	78.6	90.3	102	113	124	108	94.4	74.9	61.3	51.4	43.9	38.0	33.4
14	4.563	3.99	9.10	17.0	31.7	45.6	59.1	72.3	85.2	97.8	110	123	135	120	105	83.7	68.5	57.4	49.0	42.5	37.3
15	5.000	4.30	9.80	18.3	34.1	49.2	63.7	77.9	91.7	105	119	132	145	133	117	92.8	76.0	63.7	54.4	47.1	41.4
16	5.625	4.61	10.5	19.6	36.6	52.7	68.3	83.5	98.4	113	127	142	156	147	129	102	83.7	70.2	59.9	51.9	45.6
17	6.313	4.92	11.2	20.9	39.1	56.3	72.9	89.1	105	121	136	151	166	161	141	112	91.7	76.8	65.6	56.9	49.9
18	6.500	5.23	11.9	22.3	41.6	59.9	77.6	94.8	112	128	145	161	177	175	154	122	99.9	83.7	71.5	62.0	54.4
19	7.063	5.55	12.7	23.6	44.1	63.5	82.2	101	118	136	153	171	188	190	167	132	108	90.8	77.5	67.2	59.0
20	7.250	5.86	13.4	25.0	46.6	67.1	86.9	106	125	144	162	180	198	205	180	143	117	98.1	83.7	72.6	63.7
21	7.750	6.18	14.1	26.3	49.1	70.7	91.6	112	132	152	171	190	209	221	194	154	126	105	90.1	78.1	68.5
22	8.125	6.50	14.8	27.7	51.6	74.4	96.3	118	139	159	180	200	220	237	208	165	135	113	96.6	83.7	0
23	8.750	6.82	15.6	29.0	54.2	78.0	101	124	146	167	189	210	231	251	222	176	144	121	103	89.5	0
24	9.625	7.14	16.3	30.4	56.7	81.7	106	129	152	175	197	220	241	263	237	188	154	129	110	95.4	0
25	-	7.46	17.0	31.8	59.3	85.4	111	135	159	183	206	229	252	275	252	200	164	137	117	101	0
28	-	8.43	19.2	35.9	67.0	96.5	125	153	180	207	233	259	285	311	298	237	194	162	139	120	0
30	-	9.08	20.7	38.7	72.2	104	135	165	194	223	251	279	307	336	331	263	215	180	154	0	-
32	-	9.74	22.2	41.5	77.4	111	144	176	208	239	269	300	329	359	365	289	237	198	169	0	-
35	-	10.7	24.5	45.7	85.2	123	159	194	229	263	297	330	363	395	417	331	271	227	180	0	-
40	-	12.4	28.3	52.8	98.5	142	184	225	265	304	343	381	419	457	494	404	331	257	0	-	-
Lubrication type■		A	B				C														

The dotted line indicates the point at which pin and bushing galling is likely to begin. When the desired selection falls within the shaded area, consult Rexnord for guidance.

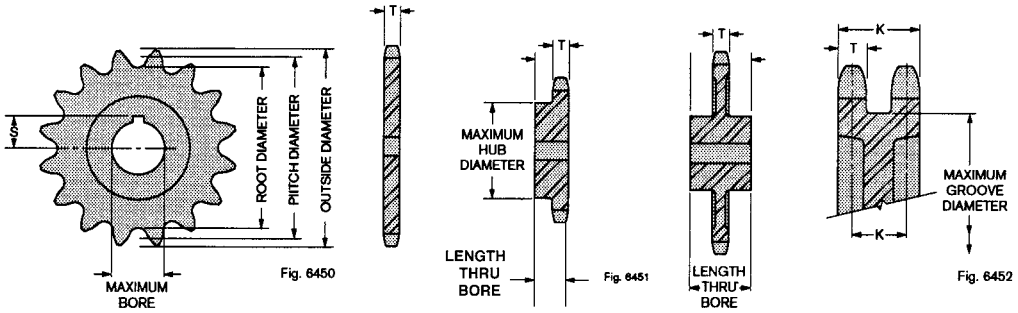
▲ Ratings are based on a service factor of 1. For a complete list of service factors, refer to Table 1, page C-7. The ratings listed above apply directly to lubricated, single strand, standard and heavy series roller chains. For multiple strand chains, apply the factors shown in the table at right. To select chains that vary in design or material from standard roller chain, use the factors in Table 3, page C-7.

■ Type A: Manual or drip (Maximum chain speed 130 FPM)
Type B: Bath or disc (Maximum chain speed 1200 FPM)
Type C: Forced (pump)

Multiple strand factors

Number of strands	Multiple strand factor
2	1.7
3	2.5
4	3.3
5	4.1
6	5.0
7 or more	Consult Rexnord

No. 160 sprockets 2.000" pitch



Type A Type B Type C Multiple Width

Dimensions

Number of teeth	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ	Maximum hub and groove diameter, inches	Maximum bore with standard keyseat, inches ▲	S max., inches	Number of teeth	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ	Number of teeth	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ
8	5.226	4.101	6.028	2.80	1.750	1.063	39	24.855	23.730	25.974	70	44.578	43.453	45.734
9	5.848	4.723	6.694	3.45	2.250	1.375	40	25.491	24.366	26.612	71	45.215	44.090	46.370
10	6.472	5.347	7.356	4.13	2.750	1.688	41	26.127	25.002	27.250	72	45.851	144.726	47.008
11	7.099	5.974	8.012	4.78	3.250	2.000	42	26.763	25.638	27.888	73	46.488	45.363	47.644
12	7.727	6.602	8.664	5.42	3.500	2.188	43	27.399	26.274	28.526	74	47.124	45.999	48.282
13	8.357	7.232	9.314	6.08	4.000	2.500	44	28.035	26.910	29.164	75	47.760	46.635	48.918
14	8.988	7.863	9.964	6.72	4.563	2.781	45	28.671	27.546	29.802	76	48.397	47.272	49.556
15	9.620	8.495	10.610	7.38	5.000	3.125	46	29.307	28.182	30.438	77	49.033	47.908	50.192
16	10.252	9.127	11.254	8.02	5.625	3.438	47	29.943	28.818	31.076	78	49.670	48.545	50.830
17	10.885	9.760	11.900	8.66	6.313	3.906	48	30.580	29.455	31.714	79	50.306	49.181	51.466
18	11.518	10.393	12.542	9.31	6.500	4.000	49	31.216	30.091	32.352	80	50.943	49.818	52.104
19	12.151	11.026	13.186	9.95	7.063	4.281	50	31.852	30.727	32.990	81	51.579	50.454	52.740
20	12.785	11.660	13.828	10.59	7.250	4.375	51	32.488	31.363	33.626	82	52.216	51.091	53.378
21	13.419	12.294	14.470	11.23	7.750	4.750	52	33.124	31.999	34.264	83	52.852	51.727	54.014
22	14.053	12.928	15.110	11.88	8.188	4.938	53	33.761	32.636	34.902	84	53.489	52.364	54.652
23	14.688	13.563	15.750	12.52	8.750	5.250	54	34.397	33.272	35.538	85	54.125	53.000	55.288
24	15.323	14.198	16.392	13.16	9.625	5.688	55	35.033	33.908	36.176	86	54.761	53.637	55.924
25	15.958	14.833	17.032	13.80	-	-	56	35.669	34.544	36.812	87	55.398	54.273	56.562
26	16.593	15.468	17.672	14.44	-	-	57	36.306	35.181	37.450	88	56.034	54.909	57.198
27	17.228	16.103	18.312	15.08	-	-	58	36.942	35.817	38.088	89	56.671	55.546	57.836
28	17.863	16.738	18.950	15.72	-	-	59	37.578	36.453	38.726	90	57.307	56.182	58.472
29	18.498	17.373	19.590	16.36	-	-	60	38.215	37.090	39.362	91	57.944	56.819	59.110
30	19.134	18.009	20.228	17.00	-	-	61	38.851	37.726	40.000	92	58.580	57.455	59.750
31	19.769	18.644	20.868	17.63	-	-	62	39.487	38.362	40.636	93	59.216	58.091	60.380
32	20.405	19.280	21.506	18.27	-	-	63	40.124	38.999	41.274	94	59.853	58.728	61.020
33	21.040	19.915	22.144	18.91	-	-	64	40.760	39.635	41.910	95	60.489	59.364	61.660
34	21.676	20.551	22.784	19.55	-	-	65	41.396	40.271	42.548	96	61.126	60.001	62.290
35	22.312	21.187	23.422	20.19	-	-	66	42.033	40.908	43.186	97	61.762	60.637	62.930
36	22.947	21.822	24.060	20.83	-	-	67	42.669	41.544	43.822	98	62.399	61.274	63.570
37	23.583	22.458	24.698	21.47	-	-	68	43.306	42.181	44.460	99	63.035	61.910	64.200
38	24.219	23.094	25.336	22.09	-	-	69	43.942	42.817	45.096	100	63.672	62.547	64.840
											Larger sizes available.			

Hub length thru bore, inches

Sprocket Type	Number of Teeth	Chain Width, Number of Strands					
		1	2	3	4	5	6
B	8 to 12	2.25	4.50	6.88	9.13	11.38	13.63
	13 to 15	2.50	4.75	7.13	9.38	11.63	13.88
	16 to 25	2.75	5.00	7.38	9.63	11.88	14.13
	26 to 35	3.00	5.25	7.63	9.88	12.13	14.38
	36 to 51	3.25	5.50	7.88	10.13	12.38	14.63
	52 to 79	3.50	5.75	8.13	10.38	12.63	14.88
	80 to 100	3.75	6.00	8.38	10.63	12.88	15.13
C	19 to 27	4.00	5.75	7.00	8.25	-	-
	28 to 37	4.25	5.75	7.25	8.50	-	-
	38 to 46	4.50	6.00	7.50	8.75	10.25	11.75
	47 to 70	5.00	6.50	8.00	9.25	10.75	12.25
	71 to 81	5.50	7.00	8.50	9.75	11.25	12.75
	82 to 100	6.00	7.50	9.00	10.25	11.75	13.25

Tooth dimensions, inches

Dimension	Chain Width, Number of Strands					
	1	2	3	4	5	6
T	1.156	1.119	1.119	1.063	1.063	1.063
L	-	3.424	5.729	7.978	10.283	12.588
K	-	2.305	2.305	2.305	2.305	2.305
Tolerances for T and L	Machined sprockets ..... +.000", –.019"					
	Hot rolled steel plate sprockets or unfinished forgings ..... +.000", –.062"					

Recommended standard bore tolerances, keyseat dimensions, eccentricity tolerances, and similar data, page G-2.
Δ Non-functional dimension that may vary with the type of cutter used.
▲ Based on maximum hub diameter.

Dimensions and other engineering data are subject to change. Certified specifications of ordered product furnished upon request.

Drive Engineering
No. 180 chain 2.250" pitch

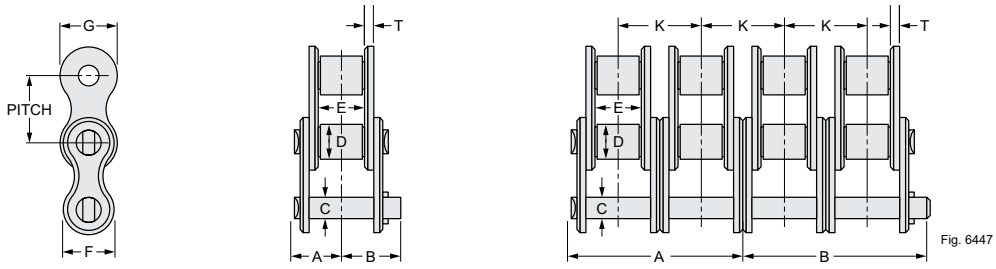


Fig. 6453

Fig. 6447

Specifications and dimensions

Chain Number	Chain Width, Number of Strands	Average ultimate strength, pounds	Joint bearing area, sq. in.	Weight per foot, pounds	Dimensions, inches								
					A	B	C	D	E	F	G	K	T
180	Single	86,000	1.364	9.06	1.39	1.56	.688	1.406	1.41	1.85	2.14	2.592	.28
180-2	Double	172,000	2.728	17.6	2.69	2.86	.688	1.406	1.41	1.85	2.14	2.592	.28
180-3	Triple	258,000	4.092	26.9	3.98	4.15	.688	1.406	1.41	1.85	2.14	2.592	.28
180-4	Quadruple	344,000	5.456	35.8	5.28	5.45	.688	1.406	1.41	1.85	2.14	2.592	.28
180-5	Quintuple	430,000	6.820	44.7	6.57	6.74	.688	1.406	1.41	1.85	2.14	2.592	.28
180-6	Sextuple	516,000	8.184	53.6	7.87	8.04	.688	1.406	1.41	1.85	2.14	2.592	.28

Available in riveted or cottered construction.

Ratings

Number of teeth, in small sprocket	Maximum bore inches	Horsepower for single strand chain▲ RPM of small sprocket																			
		10	25	50	100	150	200	250	300	350	400	450	500	550	600	650	700	800	900	1000	1100
11	3.375	4.24	9.68	18.1	33.7	48.6	62.9	76.9	90.6	104	117	124	106	92.0	80.7	71.6	64.1	52.4	46.9	37.5	32.5
12	4.000	4.66	10.6	19.8	37.0	53.4	69.1	84.5	99.6	114	129	142	121	105	92.0	81.6	73.0	59.7	50.1	42.8	37.1
13	4.500	5.08	11.6	21.6	40.4	58.2	75.4	92.1	109	125	141	156	136	118	104	92.0	82.3	67.4	56.5	48.2	0
14	5.375	5.51	12.6	23.4	43.7	63.0	81.6	99.8	118	135	152	169	152	132	116	103	92.0	75.3	63.1	53.9	0
15	5.875	5.93	13.5	25.3	47.1	67.9	88.0	108	127	146	164	182	169	146	129	114	102	83.5	70.0	59.7	0
16	6.250	6.36	14.5	27.1	50.5	72.8	94.3	115	136	156	176	196	186	161	142	126	112	92.0	77.1	65.8	0
17	6.688	6.79	15.5	28.9	54.0	77.7	101	123	145	167	188	209	204	177	155	138	123	101	84.4	72.1	0
18	7.375	7.22	16.5	30.8	57.4	82.7	107	131	154	177	200	222	222	193	169	150	134	110	92.0	78.5	0
19	7.750	7.66	17.5	32.6	60.8	87.6	114	139	164	188	212	236	241	209	183	163	145	119	99.8	85.2	0
20	8.250	8.10	18.5	34.5	64.3	92.6	120	147	173	199	224	249	260	226	198	176	157	129	108	92.0	0
21	9.313	8.53	19.5	36.3	67.8	97.6	126	155	182	209	236	262	280	243	213	189	169	138	116	99.0	0
22	-	8.97	20.5	38.2	71.3	103	133	163	192	220	248	276	300	260	228	203	181	148	124	0	-
23	-	9.41	21.5	40.1	74.8	108	140	171	201	231	260	290	318	278	244	216	194	159	133	0	-
24	-	9.86	22.5	42.0	78.3	113	146	179	210	242	273	303	333	296	260	231	206	169	142	0	-
25	-	10.3	23.5	43.9	81.8	118	153	187	220	253	285	317	348	315	277	245	220	180	151	0	-
28	-	11.6	26.6	49.6	92.5	133	173	211	249	286	322	358	394	374	328	291	260	213	178	0	-
30	-	12.5	28.6	53.4	99.6	144	186	227	268	308	347	386	424	414	364	322	289	236	198	0	-
32	-	13.4	30.7	57.2	107	154	199	244	287	330	372	414	455	456	401	355	318	260	0	-	-
35	-	14.8	33.8	63.1	118	170	220	268	316	363	410	458	501	522	458	406	364	291	0	-	-
40	-	17.1	39.0	72.9	136	196	254	310	365	420	473	526	579	575	524	465	398	244	0	-	-
Lubrication type■		A	B			C															

The dotted line indicates the point at which pin and bushing galling is likely to begin. When the desired selection falls within the shaded area, consult Rexnord for guidance.

▲ Ratings are based on a service factor of 1. For a complete list of service factors, refer to Table 1, page C-7. The ratings listed above apply directly to lubricated, single strand, standard and heavy series roller chains. For multiple strand chains, apply the factors shown in the table at right. To select chains that vary in design or material from standard roller chain, use the factors in Table 3, page C-7.

■ Type A: Manual or drip (Maximum chain speed 95 FPM)
Type B: Bath or disc (Maximum chain speed 950 FPM)
Type C: Forced (pump)

Multiple strand factors

Number of strands	Multiple strand factor
2	1.7
3	2.5
4	3.3
5	4.1
6	5.0
7 or more	Consult Rexnord

No. 180 sprockets 2.250" pitch

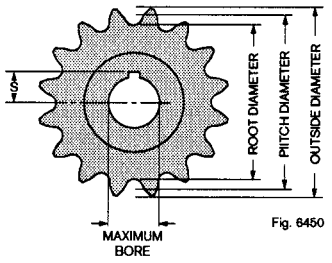
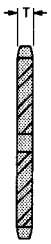


Fig. 6450



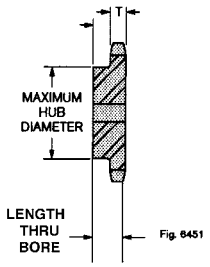
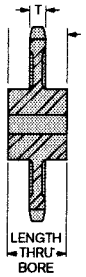


Fig. 6451



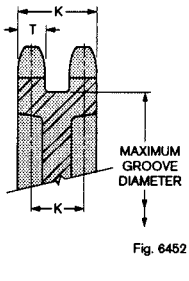


Fig. 6452

Dimensions

Type A | Type B | Type C | Multiple Width

Number of teeth	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ	Maximum hub and groove diameter, inches	Maximum bore with standard keyseat, inches ▲	S max., inches
8	5.879	4.473	6.782	3.14	2.000	1.250
9	6.579	5.173	7.533	3.89	2.250	1.375
10	7.281	5.875	8.276	4.64	2.875	1.813
11	7.986	6.580	9.014	5.38	3.375	2.125
12	8.693	7.287	9.747	6.11	4.000	2.500
13	9.402	7.996	10.478	6.84	4.500	2.750
14	10.112	8.706	11.207	7.58	5.375	3.313
15	10.822	9.416	11.934	8.30	5.875	3.688
16	11.533	10.127	12.661	9.03	6.250	3.875
17	12.245	10.839	13.385	9.75	6.688	4.094
18	12.957	11.551	14.110	10.47	7.375	4.438
19	13.670	12.264	14.834	11.20	7.750	4.750
20	14.383	12.977	15.557	11.92	8.250	5.000
21	15.096	13.690	16.279	12.64	9.313	5.531
22	15.810	14.404	16.999	13.36	-	-
23	16.524	15.118	17.721	14.08	-	-
24	17.238	15.832	18.441	14.80	-	-
25	17.952	16.546	19.161	15.52	-	-
26	18.666	17.260	19.881	16.25	-	-
27	19.381	17.975	20.601	16.97	-	-
28	20.096	18.690	21.319	17.69	-	-
29	20.810	19.404	22.039	18.41	-	-
30	21.525	20.119	22.757	19.13	-	-
31	22.240	20.834	23.477	19.84	-	-
32	22.955	21.549	24.194	20.56	-	-
33	23.670	22.264	24.914	21.28	-	-
34	24.385	22.979	25.632	22.00	-	-
35	25.101	23.695	26.350	22.72	-	-
36	25.816	24.410	27.068	23.44	-	-
37	26.531	25.125	27.785	24.16	-	-
38	27.246	25.840	28.503	24.86	-	-

Number of teeth	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ
39	27.962	26.556	29.221
40	28.677	27.271	29.939
41	29.393	27.987	30.656
42	30.108	28.702	31.374
43	30.824	29.418	32.092
44	31.539	30.133	32.810
45	32.255	30.849	33.527
46	32.971	31.565	24.243
47	33.686	32.280	34.961
48	34.402	32.996	35.678
49	35.118	33.712	36.396
50	35.834	34.428	37.114
51	36.549	35.143	37.829
52	37.265	35.859	38.547
53	37.981	36.575	39.265
54	38.696	37.290	39.980
55	39.412	38.006	40.698
56	40.128	38.722	41.416
57	40.844	39.438	42.131
58	41.560	40.154	42.849
59	42.276	40.870	43.567
60	42.991	41.585	44.282
61	43.707	42.301	45.000
62	44.423	43.017	45.716
63	45.139	43.733	46.433
64	45.855	44.449	47.151
65	46.571	45.165	47.867
66	47.287	45.881	48.584
67	48.003	46.597	49.300
68	48.719	47.313	50.018
69	49.435	48.029	50.733

Number of teeth	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ
70	50.151	48.745	51.451
71	50.866	49.460	52.166
72	51.583	50.177	52.884
73	52.299	50.893	53.600
74	53.015	51.609	54.317
75	53.730	52.324	55.033
76	54.446	53.040	55.751
77	55.162	53.746	56.466
78	55.879	54.473	57.184
79	56.594	55.188	57.899
80	57.310	55.904	58.617
81	58.027	56.621	59.333
82	58.743	57.337	60.050
83	59.459	58.053	60.766
84	60.175	58.769	61.484
85	60.891	59.485	62.199
86	61.607	60.201	62.915
87	62.323	60.917	63.632
88	63.039	61.633	64.348
89	63.755	62.349	65.066
90	64.471	63.065	65.781
91	65.187	63.781	66.499
92	65.903	64.497	67.214
93	66.619	65.213	67.932
94	67.335	65.929	68.648
95	68.051	66.645	69.363
96	68.767	67.361	70.081
97	69.483	68.077	70.796
98	70.199	68.793	71.514
99	70.916	69.510	72.230
100	71.631	70.225	72.947

Larger sizes available.

Hub length thru bore, inches

Sprocket Type	Number of Teeth	Chain Width, Number of Strands					
		1	2	3	4	5	6
B	7 to 10	2.50	5.00	7.50	10.00	12.50	15.00
	11 to 13	2.75	5.25	7.75	10.25	12.75	15.25
	14 to 17	3.00	5.50	8.00	10.50	13.00	15.50
	18 to 23	3.25	5.75	8.25	10.75	13.25	15.75
	24 to 34	3.50	6.00	8.50	11.00	13.50	16.00
	35 to 52	4.00	6.50	9.00	11.50	14.00	16.50
	53 to 72	4.50	7.00	9.50	12.00	14.50	17.00
	73 to 90	5.00	7.50	10.00	12.50	15.00	17.50
	91 to 100	5.50	8.00	10.50	13.00	15.50	18.00
C	24 to 34	4.50	6.25	7.75	9.50	-	-
	35 to 52	5.00	6.75	8.25	10.00	11.75	13.50
	53 to 72	5.50	7.25	8.75	10.50	12.25	14.00
	73 to 90	6.25	8.00	9.50	11.25	13.00	14.75
	91 to 100	7.00	8.75	10.25	12.00	13.75	15.50

Tooth dimensions, inches

Dimension	Chain Width, Number of Strands					
	1	2	3	4	5	6
T	1.301	1.259	1.259	1.198	1.198	1.198
L	-	3.851	6.443	8.974	11.566	14.158
K	-	2.592	2.592	2.592	2.592	2.592
Tolerances for T and L	Machined sprockets ..... +.000", –.020"					
	Hot rolled steel plate sprockets or unfinished forgings ..... +.000", –.068"					

Recommended standard bore tolerances, keyseat dimensions, eccentricity tolerances, and similar data, page G-2.
Δ Non-functional dimension that may vary with the type of cutter used.
▲ Based on maximum hub diameter.

Dimensions and other engineering data are subject to change. Certified specifications of ordered product furnished upon request.

Drive Engineering
No. 200 chain 2.500" pitch

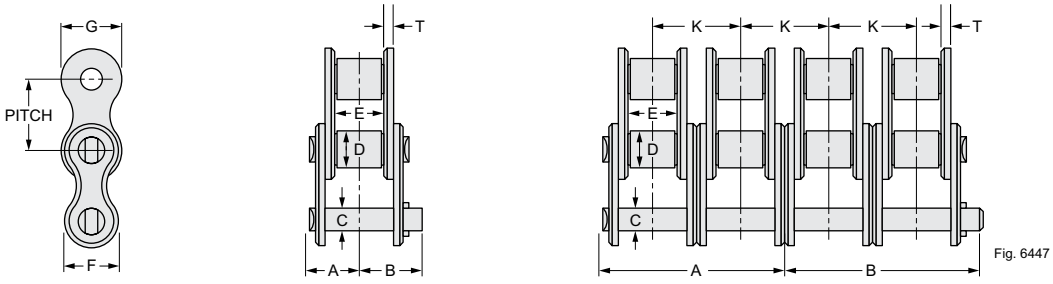


Fig. 6453

Fig. 6447

Specifications and dimensions

Chain Number	Chain Width, Number of Strands	Average ultimate strength, pounds	Joint bearing area, sq. in.	Weight per foot, pounds	Dimensions, inches								
					A	B	C	D	E	F	G	K	T
200	Single	100,000	1.681	10.9	1.54	1.89	.781	1.563	1.50	1.94	2.31	2.817	.31
200-2	Double	200,000	3.362	21.0	2.96	3.31	.781	1.563	1.50	1.94	2.31	2.817	.31
200-3	Triple	300,000	5.043	31.5	4.38	4.73	.781	1.563	1.50	1.94	2.31	2.817	.31
200-4	Quadruple	400,000	6.724	43.2	5.80	6.14	.781	1.563	1.50	1.94	2.31	2.817	.31
200-5	Quintuple	500,000	8.405	53.9	7.22	7.56	.781	1.563	1.50	1.94	2.31	2.817	.31
200-6	Sextuple	600,000	10.086	64.6	8.64	8.98	.781	1.563	1.50	1.94	2.31	2.817	.31

Available in riveted or cottered construction.

Ratings

Number of teeth, in small sprocket	Maximum bore inches	Horsepower for single strand chain▲ RPM of small sprocket																			
		10	15	20	30	40	50	70	100	150	200	250	300	350	400	450	500	550	600	650	700
9	2.625	4.54	6.54	8.47	12.2	15.8	19.3	26.1	36.0	51.9	67.3	82.2	96.9	111	119	100	85.4	74.1	65.0	57.6	0
10	3.125	5.08	7.32	9.49	13.7	17.7	21.6	29.3	40.4	58.2	75.4	92.1	109	125	140	117	100	86.7	76.1	67.5	0
11	3.750	5.64	8.12	10.5	15.1	19.6	24.0	32.5	44.8	64.5	83.5	102	120	138	156	135	115	100	87.8	77.9	0
12	4.625	6.19	8.92	11.6	16.6	21.6	26.4	35.7	49.2	70.8	91.8	112	132	152	171	154	132	114	100	0	-
13	5.250	6.75	9.72	12.6	18.1	23.5	28.7	38.9	53.6	77.2	100	122	144	166	187	174	148	129	113	0	-
14	5.875	7.31	10.5	13.6	19.7	25.5	31.1	42.1	58.1	83.7	108	132	156	179	202	194	166	144	126	0	-
15	6.125	7.88	11.3	14.7	21.2	27.4	33.5	45.4	62.6	90.1	117	143	168	193	218	215	184	159	140	0	-
16	6.688	8.45	12.2	15.8	22.7	29.4	36.0	48.7	67.1	96.6	125	153	180	207	234	237	203	176	154	0	-
17	7.688	9.02	13.0	16.8	24.2	31.4	38.4	52.0	71.6	103	134	163	193	221	249	260	222	192	169	0	-
18	8.375	9.59	13.8	17.9	25.8	33.4	40.8	55.3	76.2	110	142	174	205	235	265	283	242	209	184	0	-
19	9.125	10.2	14.6	19.0	27.3	35.4	43.3	58.6	80.8	116	151	184	217	249	281	307	262	227	199	0	-
20	9.750	10.7	15.5	20.1	28.9	37.4	45.8	61.9	85.4	123	159	195	229	264	297	331	283	245	0	-	-
21	-	11.3	16.3	21.1	30.5	39.5	48.2	65.3	90.0	130	168	205	242	278	313	348	305	264	0	-	-
22	-	11.9	17.2	22.2	32.0	41.5	50.7	68.7	94.6	136	177	216	254	292	330	366	327	283	0	-	-
23	-	12.5	18.0	23.3	33.6	43.5	53.2	72.0	99.3	143	185	226	267	307	346	384	349	303	0	-	-
24	-	13.1	18.9	24.4	35.2	45.6	55.7	75.4	104	150	194	237	279	321	362	402	372	323	0	-	-
25	-	13.7	19.7	25.5	36.8	47.6	58.2	78.8	109	156	203	248	292	335	378	421	396	343	0	-	-
26	-	14.3	20.6	26.6	38.4	49.7	60.7	82.2	113	163	212	259	305	350	395	439	420	364	0	-	-
Lubrication type■		A		B							C										

The dotted line indicates the point at which pin and bushing galling is likely to begin. When the desired selection falls within the shaded area, consult Rexnord for guidance.

▲ Ratings are based on a service factor of 1. For a complete list of service factors, refer to Table 1, page C-7. The ratings listed above apply directly to lubricated, single strand, standard and heavy series roller chains. For multiple strand chains, apply the factors shown in the table at right. To select chains that vary in design or material from standard roller chain, use the factors in Table 3, page C-7.

■ Type A: Manual or drip (Maximum chain speed 95 FPM)
Type B: Bath or disc (Maximum chain speed 950 FPM)
Type C: Forced (pump)

Multiple strand factors

Number of strands	Multiple strand factor
2	1.7
3	2.5
4	3.3
5	4.1
6	5.0
7 or more	Consult Rexnord

No. 200 sprockets 2.500" pitch

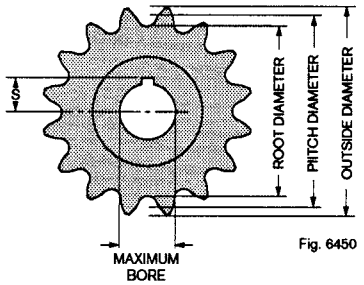
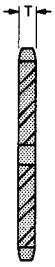


Fig. 6450



Type A

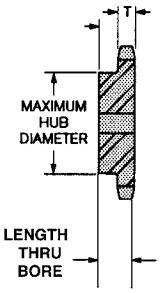
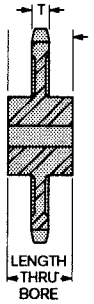


Fig. 6451
Type B



Type C

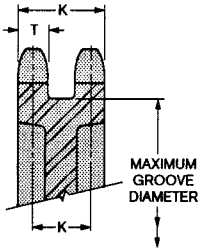


Fig. 6452
Multiple Width

Dimensions

Number of teeth	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ	Maximum hub and groove diameter, inches	Maximum bore with standard keyseat, inches ▲	S max., inches	Number of teeth	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ	Number of teeth	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ
8	6.532	4.970	7.535	3.50	2.250	1.375	39	31.070	29.508	32.468	70	55.722	54.160	57.168
9	7.310	5.748	8.368	4.33	2.625	1.625	40	31.865	30.303	33.265	71	56.517	54.955	57.963
10	8.090	6.528	9.195	5.16	3.125	1.938	41	32.660	31.098	34.063	72	57.315	55.753	58.760
11	8.872	7.310	10.015	5.98	3.750	2.313	42	33.455	31.893	34.860	73	58.110	56.548	59.555
12	9.660	8.098	10.830	6.80	4.625	2.813	43	34.250	32.688	35.658	74	58.905	57.343	60.353
13	10.447	8.885	11.643	7.61	5.250	3.250	44	35.045	33.483	36.455	75	59.700	58.438	61.148
14	11.235	9.673	12.455	8.42	5.875	3.688	45	35.840	34.278	37.253	76	60.495	58.933	61.945
15	12.025	10.463	13.263	9.22	6.125	3.828	46	36.635	35.073	38.048	77	61.292	59.730	62.740
16	12.815	11.253	14.068	10.03	6.688	4.094	46	37.430	35.868	38.845	78	62.087	60.525	63.538
17	13.605	12.043	14.875	10.84	7.688	4.719	48	38.225	36.663	39.643	79	62.882	61.320	64.333
18	14.397	12.835	15.678	11.64	8.375	5.063	49	39.020	37.458	40.440	80	63.677	62.115	65.130
19	15.190	13.628	16.483	12.44	9.125	5.438	50	39.815	38.253	41.238	81	64.475	62.913	65.925
20	15.982	14.420	17.285	13.25	9.750	5.750	51	40.610	39.048	42.033	82	65.270	63.708	66.723
21	16.775	15.213	18.088	14.05	-	-	52	41.405	39.843	42.830	83	66.065	64.503	67.518
22	17.567	16.005	18.888	14.84	-	-	53	42.200	40.638	43.628	84	66.860	65.298	68.315
23	18.360	16.798	19.688	15.66	-	-	54	42.995	41.433	44.423	85	67.657	66.095	69.110
24	19.152	17.590	20.490	16.45	-	-	55	43.792	42.230	45.220	86	68.452	66.890	69.905
25	19.947	18.385	21.290	17.25	-	-	56	44.587	43.025	46.015	87	69.247	67.685	70.703
26	20.740	19.178	22.090	18.05	-	-	57	45.382	43.820	46.813	88	70.042	68.480	71.498
27	21.535	19.973	22.890	18.86	-	-	58	46.177	44.615	47.610	89	70.837	69.275	72.295
28	22.330	20.768	23.688	19.59	-	-	59	46.972	45.410	48.408	90	71.635	70.073	73.090
29	23.122	21.560	24.488	20.45	-	-	60	47.767	46.205	49.203	91	72.430	70.868	73.890
30	23.917	22.355	25.285	21.25	-	-	61	48.565	47.003	50.000	92	73.225	71.663	74.680
31	24.712	23.150	26.085	22.05	-	-	62	49.360	47.798	50.795	93	74.020	72.458	75.480
32	25.505	23.943	26.883	22.84	-	-	63	50.155	48.593	51.593	94	74.815	73.253	76.280
33	26.300	24.738	27.680	23.64	-	-	64	50.950	49.388	52.388	95	75.612	74.050	77.070
34	27.095	25.533	28.480	24.44	-	-	75	51.745	50.183	53.185	96	76.407	74.845	77.870
35	27.890	26.328	29.278	25.23	-	-	66	52.540	50.978	53.983	97	77.202	75.640	78.660
36	28.685	27.123	30.075	26.03	-	-	67	53.337	51.775	54.778	98	77.997	76.435	79.460
37	29.480	27.918	30.873	26.84	-	-	68	54.132	52.570	55.575	99	78.795	77.233	80.260
38	30.275	28.713	31.670	27.64	-	-	69	54.927	53.365	56.370	100	79.590	78.028	81.050
											Larger sizes available.			

Hub length thru bore, inches

Sprocket Type	Number of Teeth	Chain Width, Number of Strands					
		1	2	3	4	5	6
B	8 to 11	3.00	5.75	8.75	11.50	14.25	17.00
	12 to 22	3.50	6.25	9.25	12.00	14.75	17.50
	23 to 36	4.00	6.75	9.75	12.50	15.25	18.00
	37 to 47	4.50	7.25	10.25	13.00	15.75	18.50
	48 to 60	5.00	7.75	10.75	13.50	16.25	19.00
	61 to 78	5.50	8.25	11.25	14.00	16.75	19.50
	79 to 100	6.00	8.75	11.75	14.50	17.25	20.00
C	16 to 22	4.50	6.25	8.00	9.75	-	-
	23 to 35	5.00	6.75	8.50	10.25	12.00	13.75
	36 to 50	5.50	7.25	9.00	10.75	12.50	14.25
	51 to 64	6.00	7.75	9.50	11.25	13.00	14.75
	65 to 75	6.50	8.25	10.00	11.75	13.50	15.25
	76 to 82	7.00	8.75	10.50	12.25	14.00	15.75
	83 to 100	7.50	9.25	11.00	12.75	14.50	16.25

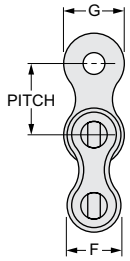
Tooth dimensions, inches

Dimension	Chain Width, Number of Strands					
	1	2	3	4	5	6
T	1.389	1.344	1.344	1.278	1.278	1.278
L	-	4.161	6.978	9.729	12.546	15.363
K	-	2.817	2.817	2.817	2.817	2.817
Tolerances for T and L	Machined sprockets ..... +.000", –.021"					
	Hot rolled steel plate sprockets or unfinished forgings ..... +.000", –.072"					

Recommended standard bore tolerances, keyseat dimensions, eccentricity tolerances, and similar data, page G-2.
Δ Non-functional dimension that may vary with the type of cutter used.
▲ Based on maximum hub diameter.

Dimensions and other engineering data are subject to change. Certified specifications of ordered product furnished upon request.

Drive Engineering
No. 240 chain 3.000" pitch



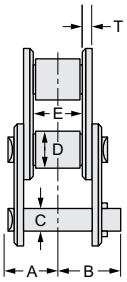


Fig. 6453

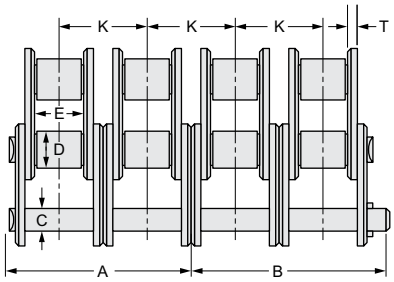


Fig. 6447

Specifications and dimensions

Chain Number	Chain Width, Number of Strands	Average ultimate strength, pounds	Joint bearing area, sq. in.	Weight per foot, pounds	Dimensions, inches								
					A	B	C	D	E	F	G	K	T
240	Single	152,200	2.488	16.4	1.85	2.20	.938	1.875	1.88	2.44	2.81	3.458	.38
240-2	Double	304,400	4.976	32.2	3.58	3.93	.938	1.875	1.88	2.44	2.81	3.458	.38
240-3	Triple	456,600	7.464	49.4	5.31	5.75	.938	1.875	1.88	2.44	2.81	3.458	.38
240-4	Quadruple	608,800	9.952	65.7	7.04	7.38	.938	1.875	1.88	2.44	2.81	3.458	.38
240-5	Quintuple	761,000	10.440	82.0	8.76	9.11	.938	1.875	1.88	2.44	2.81	3.458	.38
240-6	Sextuple	913,200	14.928	98.4	10.50	10.84	.938	1.875	1.88	2.44	2.81	3.458	.38

Available in riveted and cottered construction.

Ratings

Number of teeth, in small sprocket	Maximum bore inches	Horsepower for single strand chain▲ RPM of small sprocket																				
		5	10	15	20	25	30	40	50	60	80	100	125	150	175	200	250	300	350	400	450
9	3.250	3.92	7.31	10.5	13.6	16.7	19.6	25.4	31.1	36.7	47.5	58.1	71.0	83.6	96.1	108	132	156	169	138	116
10	4.000	4.39	8.19	11.8	15.3	18.7	22.0	28.5	34.9	41.1	53.2	65.0	79.5	93.7	108	121	148	175	198	162	136
11	4.500	4.86	9.08	13.1	16.9	20.7	24.4	31.6	38.6	45.5	59.0	72.1	88.1	104	119	135	164	194	223	187	156
12	5.500	5.34	9.97	14.4	18.6	22.7	26.8	34.7	42.4	50.0	64.8	79.2	96.8	114	131	148	181	213	245	213	0
13	6.250	5.83	10.9	15.7	20.3	24.8	29.2	37.9	46.3	54.5	70.6	86.4	106	124	143	161	197	232	267	240	0
14	7.875	6.31	11.8	17.0	22.0	26.9	31.7	41.0	50.1	59.1	76.5	93.6	114	135	155	175	213	251	289	268	0
15	8.813	6.80	12.7	18.3	23.7	28.9	34.1	44.2	54.0	63.6	82.4	101	123	145	167	188	230	271	311	297	0
16	9.688	7.29	13.6	19.6	25.4	31.0	36.6	47.4	57.9	68.2	88.4	108	132	156	179	202	247	290	334	328	0
17	-	7.78	14.5	20.9	27.1	33.1	39.0	50.6	61.8	72.9	94.4	115	141	166	191	215	263	310	356	359	0
18	-	8.28	15.4	22.3	28.8	35.2	41.5	53.8	65.8	77.5	100	123	150	177	203	229	280	330	379	377	0
19	-	8.78	16.4	23.6	30.6	37.4	44.0	57.0	69.7	82.2	106	130	159	187	215	243	297	350	402	393	0
20	-	9.28	17.3	24.9	32.3	39.5	46.5	60.3	73.7	86.8	112	138	168	198	228	257	314	370	423	407	0
21	-	9.78	18.2	26.3	34.1	41.6	49.0	63.5	77.7	91.5	119	145	177	209	240	270	331	390	439	421	0
22	-	10.3	19.2	27.6	35.8	43.8	51.6	66.8	81.7	96.2	125	152	186	220	252	284	348	410	454	435	0
23	-	10.8	20.1	29.0	37.6	45.9	54.1	70.1	85.7	101	131	160	195	230	265	298	365	430	469	448	0
24	-	11.3	21.1	30.4	39.3	48.1	56.7	73.4	89.7	106	137	167	205	241	277	312	382	450	483	0	-
25	-	11.8	22.0	31.7	41.1	50.3	59.2	76.7	93.8	110	143	175	214	252	290	327	399	470	496	0	-
26	-	12.3	23.0	33.1	42.9	52.4	61.8	80.0	97.8	115	149	183	223	263	302	341	416	491	509	0	-
Lubrication type■		A		B									C								

The dotted line indicates the point at which pin and bushing galling is likely to begin. When the desired selection falls within the shaded area, consult Rexnord for guidance.

▲ Ratings are based on a service factor of 1. For a complete list of service factors, refer to Table 1, page C-7. The ratings listed above apply directly to lubricated, single strand, standard and heavy series roller chains. For multiple strand chains, apply the factors shown in the table at right. To select chains that vary in design or material from standard roller chain, use the factors in Table 3, page C-7.

■ Type A: Manual or drip (Maximum chain speed 95 FPM)
Type B: Bath or disc (Maximum chain speed 950 FPM)
Type C: Forced (pump)

Multiple strand factors

Number of strands	Multiple strand factor
2	1.7
3	2.5
4	3.3
5	4.1
6	5.0
7 or more	Consult Rexnord

No. 240 sprockets 3.000" pitch

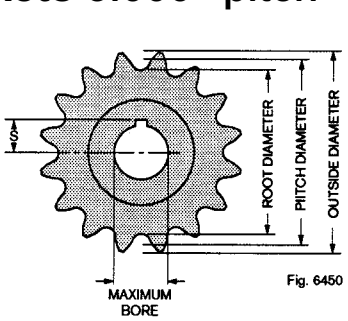
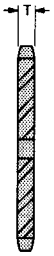


Fig. 6450



Type A

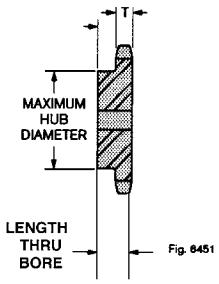
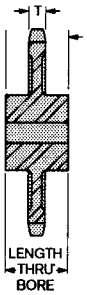


Fig. 6451
Type B



Type C

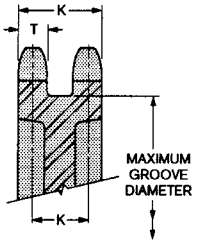


Fig. 6452
Multiple Width

Dimensions

Number of teeth	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ	Maximum hub and groove diameter, inches	Maximum bore with standard keyseat, inches ▲	S max., inches	Number of teeth	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ	Number of teeth	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ
8	7.893	5.964	9.042	4.20	2.983	1.844	39	37.283	35.408	38.961	70	66.868	64.993	68.601
9	8.771	6.896	10.044	5.20	3.250	2.000	40	38.237	36.362	39.918	71	67.822	69.947	69.555
10	9.708	7.833	11.034	6.20	4.000	2.500	41	39.191	37.316	40.875	72	68.777	66.902	70.512
11	10.649	8.774	12.018	7.19	4.500	2.750	42	40.145	38.270	41.832	73	69.731	67.856	71.466
12	11.591	9.716	12.996	8.16	5.500	3.375	43	41.099	39.224	42.789	74	70.686	68.811	72.423
13	12.536	10.661	13.971	9.14	6.250	3.875	44	42.053	40.178	43.746	75	71.641	69.766	73.377
14	13.482	11.607	14.943	10.11	7.875	4.688	45	43.007	41.132	44.703	76	72.595	70.720	74.334
15	14.492	12.554	15.912	11.08	8.813	5.281	46	43.961	42.086	45.657	77	73.550	71.675	75.288
16	15.377	13.502	16.881	12.05	9.688	5.719	47	44.915	43.040	46.614	78	74.505	72.630	76.245
17	16.327	14.452	17.847	13.02	-	-	48	45.869	43.994	47.571	79	75.459	73.584	77.199
18	17.276	15.401	18.813	13.98	-	-	49	46.824	44.949	48.528	80	76.414	74.539	78.156
19	18.227	16.352	19.779	14.94	-	-	50	47.778	45.903	49.485	81	77.369	75.494	79.110
20	19.177	17.302	20.742	15.91	-	-	51	48.732	45.857	50.439	82	78.323	76.448	80.067
21	20.129	18.254	21.705	16.88	-	-	52	49.687	47.812	51.396	83	79.278	77.403	80.021
22	21.080	19.205	22.665	17.83	-	-	53	50.641	48.766	52.353	84	80.233	78.358	81.978
23	22.032	20.157	23.628	18.80	-	-	54	51.595	49.720	53.307	85	81.188	79.313	82.932
24	22.984	21.109	24.588	19.75	-	-	55	52.550	50.675	54.264	86	82.142	80.267	83.886
25	23.936	22.061	25.548	20.70	-	-	56	53.504	51.629	55.221	87	83.097	81.222	84.843
26	24.889	23.014	26.508	21.67	-	-	57	54.458	52.583	56.175	88	84.052	82.177	85.797
27	25.841	23.966	27.468	22.63	-	-	58	55.413	53.538	57.132	89	85.006	83.131	86.754
28	26.794	24.919	28.425	23.59	-	-	59	56.368	54.493	58.089	90	85.961	84.086	87.708
29	27.747	25.872	29.385	24.55	-	-	60	57.322	55.447	59.043	91	86.916	85.041	88.665
30	28.700	26.825	30.342	25.50	-	-	61	58.277	56.402	60.000	92	87.871	85.996	89.619
31	29.654	27.779	31.302	26.47	-	-	62	59.231	57.356	60.954	93	88.825	86.950	90.576
32	30.607	28.732	32.259	27.42	-	-	63	60.185	58.310	61.911	94	89.780	87.905	91.530
33	31.560	29.685	33.129	28.38	-	-	64	61.140	59.265	62.868	95	90.375	88.860	92.484
34	32.514	30.639	34.176	29.34	-	-	65	62.095	60.220	63.822	96	91.690	89.815	93.441
35	33.467	31.592	35.133	30.30	-	-	66	63.049	61.174	64.779	97	92.645	90.770	94.395
36	34.421	32.546	36.090	31.25	-	-	67	64.004	62.192	65.733	98	93.599	91.724	95.352
37	35.375	33.500	37.047	32.22	-	-	68	64.958	63.083	66.690	99	94.554	92.679	96.306
38	36.329	34.454	38.004	33.17	-	-	69	65.913	64.038	67.644	100	95.509	93.634	97.263
												Larger sizes available.		

Hub length thru bore, inches

Sprocket Type	Number of Teeth	Chain Width, Number of Strands					
		1	2	3	4	5	6
B	7 to 10	3.25	6.75	10.25	13.75	17.25	20.75
	11 to 15	4.00	7.50	11.00	14.50	18.00	21.50
	16 to 22	4.50	8.00	11.50	15.00	18.50	22.00
	23 to 31	5.00	8.50	12.00	15.50	19.00	22.50
	32 to 38	5.50	9.00	12.50	16.00	19.50	23.00
	39 to 52	6.00	9.50	13.00	16.50	20.00	23.50
	53 to 65	6.50	10.00	13.50	17.00	20.50	24.00
	66 to 82	7.00	10.50	14.00	17.50	21.00	24.50
	83 to 100	7.50	11.00	14.50	18.00	21.50	25.00
C	23 to 31	6.25	8.50	10.50	12.75	15.00	17.25
	32 to 38	7.00	9.25	11.25	13.50	15.75	18.00
	39 to 52	7.75	10.00	12.00	14.25	16.50	18.75
	53 to 65	8.50	10.75	12.75	15.00	17.25	19.50
	66 to 82	9.00	11.25	13.25	15.50	17.75	20.00
	83 to 100	9.75	12.00	14.00	16.25	18.50	20.75

Tooth dimensions, inches

Dimension	Chain Width, Number of Strands					
	1	2	3	4	5	6
T	1.738	1.682	1.682	1.601	1.601	1.601
L	-	5.139	8.596	11.972	15.429	18.886
K	-	3.458	3.458	3.458	3.458	3.458
Tolerances for T and L	Machined sprockets ..... +.000", –.025"					
	Hot rolled steel plate sprockets or unfinished forgings ..... +.000", –.088"					

Recommended standard bore tolerances, keyseat dimensions, eccentricity tolerances, and similar data, page G-2.
Δ Non-functional dimension that may vary with the type of cutter used.
▲ Based on maximum hub diameter.

Dimensions and other engineering data are subject to change. Certified specifications of ordered product furnished upon request.

Drive Engineering
No. 2040 chain 1.000" pitch

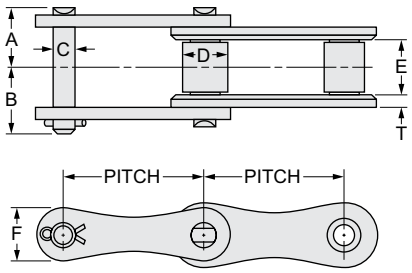


Fig. 7031

Specifications and dimensions

Chain Number	Average ultimate strength, pounds	Joint bearing area, sq. in.	Weight per foot, pounds	Dimensions, inches							
				A	B	C	D	E	F	G	T
2040	3700	.068	.28	.32	.41	.156	.313	.31	39	.47	.06

Available only in riveted or cottered construction.

Ratings

Number of teeth, in small sprocket	Maximum bore inches	Horsepower for single strand chain▲ RPM of small sprocket																
		25	50	100	150	200	250	300	400	500	600	700	800	900	1000	1100	1200	1300
11	2.188	.202	.379	.687	.958	1.19	1.41	1.59	1.89	2.14	2.32	-	-	-	-	-	-	-
12	2.250	.233	.419	.766	1.07	1.34	1.58	1.81	2.16	2.46	2.71	2.88	-	-	-	-	-	-
13	2.281	.243	.458	.842	1.18	1.48	1.76	2.00	2.44	2.79	3.08	3.31	3.58	-	-	-	-	-
14	2.625	.263	.497	.914	1.28	1.63	1.93	2.20	2.67	3.09	3.44	3.70	3.91	4.10		-	-	-
15	2.750	.283	.535	.989	1.39	1.76	2.09	2.40	2.93	3.38	3.77	4.08	4.32	4.52	4.67	-	-	-
16	3.000	.303	.572	1.06	1.49	1.89	2.25	2.59	3.17	3.67	4.09	4.44	4.73	4.96	5.13	-	-	-
17	3.438	.322	.611	1.13	1.59	2.02	2.41	2.77	3.41	3.95	4.41	4.80	5.10	5.38	5.57	5.72	-	-
18	3.625	.342	.648	1.20	1.70	2.15	2.57	2.94	3.63	4.21	4.71	5.13	5.48	5.76	5.97	6.15	-	-
19	3.750	.361	.687	1.27	1.80	2.28	2.72	3.14	3.86	4.49	5.02	5.48	5.85	6.17	6.41	6.61	6.70	-
20	3.781	.380	.720	1.34	1.90	2.40	2.87	3.29	4.07	4.72	5.29	5.76	6.17	6.50	6.77	6.98	7.13	-
21	4.000	.399	.758	1.41	1.99	2.52	3.01	3.47	4.27	4.97	5.57	6.07	6.50	6.86	7.13	7.35	7.50	-
22	4.500	.419	.794	1.48	2.08	2.64	3.15	3.63	4.48	5.20	5.83	6.37	6.81	7.18	7.48	7.71	7.87	-
23	-	.437	.829	1.54	2.18	2.76	3.30	3.79	4.68	5.42	6.09	6.64	7.11	7.49	7.80	8.04	8.21	8.30
24	-	.456	.866	1.60	2.27	2.88	3.44	3.96	4.87	5.67	6.35	6.92	7.40	7.80	8.12	8.37	8.54	8.63
25	-	.475	.902	1.67	2.36	3.00	3.58	4.11	5.07	5.90	6.60	7.19	7.73	8.10	8.42	8.67	8.84	8.94
30	-	.568	1.076	1.99	2.81	3.56	4.24	4.86	5.95	6.93	7.76	8.40	8.90	9.38	9.72	9.95	10.09	10.15
35	-	.657	1.247	2.30	3.24	4.09	4.86	5.56	6.81	7.86	8.71	9.42	9.99	10.43	10.72	10.93	10.97	-
40	-	.748	1.413	2.60	3.65	4.59	5.44	6.22	7.57	8.67	9.60	10.31	10.86	11.23	11.49	11.61	-	-
Lubrication type■		**1**				**2**				**3**								

▲ Ratings based on service factor of 1. For complete listing service factors, refer to Table 1, page C-7.

■ Type 1: Manual drip (4 to 10 drops per minute), or splash.
Type 2: Rapid drip (20 drops per minute minute minimum); splash, or disc.
Type 3: Disc or forced.

Sprockets
No. 2040 sprockets 1.000" pitch

Sprockets are usually furnished with twice the required number of teeth, virtually doubling sprocket life. Sprockets with only the required number of teeth can also be furnished.

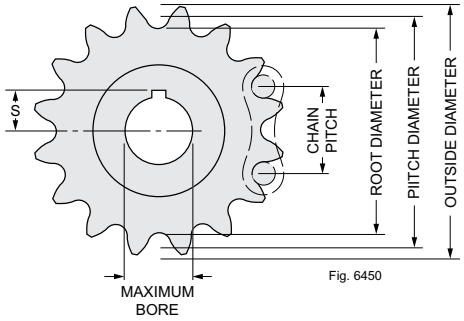
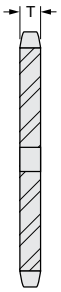


Fig. 6450



Type A

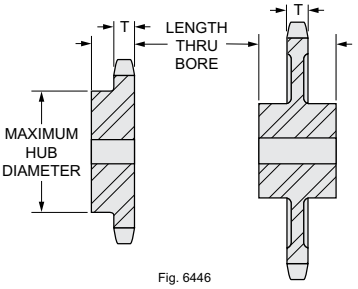


Fig. 6446

Type B Type C

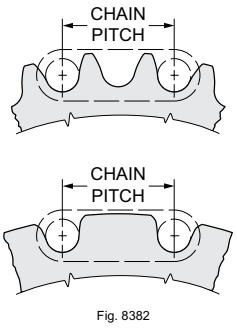


Fig. 8382

Number of teeth ●	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ	Maximum hub and groove diameter, inches	Maximum bore with standard keyseat, inches ▲	S max., inches
6	2.000	1.688	2.166	1.19	.750	.469
6 1/2	2.152	1.840	2.318	1.38	.844	.516
7	2.305	1.993	2.491	1.55	1.000	.625
7 1/2	2.458	2.146	2.644	1.70	1.188	.719
8	2.613	2.301	2.811	1.88	1.250	.750
8 1/2	2.768	2.456	2.968	2.05	1.375	.844
9	2.924	2.612	3.136	2.20	1.438	.969
9 1/2	3.080	2.768	3.292	2.38	1.688	1.031
10	3.236	2.924	3.457	2.55	1.813	1.125
10 1/2	3.392	3.080	3.613	2.70	1.938	1.219
11	3.549	3.237	3.777	2.88	2.188	1.344
11 1/2	3.706	3.394	3.934	3.03	2.250	1.375
12	3.864	3.552	4.098	3.19	2.250	1.406
12 1/2	4.021	3.709	4.255	3.36	2.281	1.438
13	4.179	3.867	4.419	3.52	2.281	1.469
13 1/2	4.336	4.024	4.576	3.69	2.375	1.500
14	4.494	4.182	4.738	3.84	2.625	1.625
14 1/2	4.652	4.340	4.896	4.00	2.688	1.656
15	4.810	4.498	5.057	4.17	2.750	1.750
15 1/2	4.968	4.656	5.215	4.33	2.813	1.781
16	5.126	4.814	5.377	4.48	3.000	1.875
16 1/2	5.284	4.972	5.535	4.66	3.375	2.125
17	5.442	5.130	5.696	4.81	3.438	2.156
17 1/2	5.600	5.288	5.854	4.97	3.563	2.219
18	5.759	5.447	6.015	5.14	3.625	2.250
18 1/2	5.917	5.605	6.173	5.30	3.688	2.281
19	6.076	5.764	6.334	5.45	3.750	2.313
19 1/2	6.233	5.921	6.491	5.61	3.750	2.344
20	6.392	6.081	6.654	5.78	3.781	2.375
20 1/2	6.551	6.239	6.812	5.94	3.813	2.406
21	6.710	6.398	6.972	6.09	4.000	2.500
21 1/2	6.868	6.556	7.130	6.27	4.250	2.625
22	7.027	6.715	7.292	6.42	4.500	2.750
22 1/2	7.185	6.873	7.450	6.58	4.750	2.875
23	7.344	7.032	7.610	6.73	-	-

Number of teeth ●	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ
23 1/2	7.502	7.190	7.768
24	7.661	7.349	7.928
24 1/2	7.820	7.508	8.087
25	7.979	7.667	8.248
25 1/2	8.137	7.825	8.406
26	8.296	7.984	8.566
26 1/2	8.455	8.143	8.725
27	8.614	8.302	8.885
27 1/2	8.772	8.460	9.043
28	8.931	8.620	9.204
28 1/2	9.090	8.778	9.362
29	9.249	8.937	9.521
29 1/2	9.408	9.096	9.680
30	9.567	9.255	9.841
30 1/2	9.725	9.413	9.999
31	9.885	9.573	10.160
31 1/2	10.043	9.731	10.318
32	10.202	9.890	10.478
32 1/2	10.361	10.049	10.637
33	10.520	10.208	10.796
33 1/2	10.679	10.367	10.955
34	10.838	10.526	11.12
35	11.156	10.844	11.43
36	11.474	11.162	11.75
37	11.792	11.480	12.07
38	12.110	11.798	12.39
39	12.428	12.116	12.71
40	12.746	12.434	13.03
41	13.064	12.752	13.35
42	13.382	13.070	13.66
43	13.700	13.388	13.98
44	14.018	13.706	14.30
45	14.336	14.024	14.62
46	14.654	14.342	14.94
47	14.972	14.660	15.26

Number of teeth ●	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ
48	15.290	14.978	15.57
49	15.608	15.296	15.89
50	15.926	15.614	16.21
51	16.244	15.932	16.53
52	16.562	16.250	16.85
53	16.880	16.568	17.17
54	17.198	16.886	17.48
55	17.516	17.205	17.80
56	17.835	17.523	18.12
57	18.153	17.841	18.44
58	18.471	18.159	18.76
59	18.789	18.477	19.08
60	19.107	18.795	19.39
61	19.426	19.114	19.71
62	19.744	19.432	20.03
63	20.062	19.750	20.35
64	20.380	20.068	20.67
65	20.698	20.386	20.99
66	21.016	20.704	21.30
67	21.335	21.023	21.62
68	21.653	21.341	21.94
69	21.971	21.659	22.26
70	22.289	21.977	22.58
71	22.607	22.295	22.90
72	22.926	22.614	23.21
73	23.244	22.932	23.53
74	23.562	23.250	23.85
75	23.880	23.568	24.17
76	24.198	23.886	24.49
77	24.517	24.205	24.81
78	24.835	24.523	25.13
79	25.153	24.841	25.45
80	25.471	25.159	25.77
Larger sizes available.			

Hub length thru bore, inches

Sprocket Type	Number Of effective teeth	Hub length, thru bore, inches
B	6 to 9 1/2	.88
	10 to 23	1.0
	23 1/2 to 38	1.1
	39 to 45	1.2
	46 to 80	1.38
C	15 to 30	1.75
	30 1/2 to 41	2.00
	42 to 60	2.25
	61 to 80	2.50

Tooth dimensions, inches

T = .284" + .000", – .009" for machined sprockets.
T = .284" + .000", – .035" for hot rolled steel plate sprockets or unfinished forgings.

Recommended standard bore tolerances, keyseat dimensions, eccentricity tolerances, and similar data, page G-2.

● "Effective" describes the number of teeth that engage the chain rollers during each revolution of the sprocket. See Fig. 8382 above. The effective number is used to calculate chain speed. Sprockets are normally furnished with twice the effective number listed. When the actual number of teeth is 24 or more, sprockets for No. 40 roller chain may be used. See page C-13 for sprocket data.

Δ Non-functional dimension that may vary with the type of cutter used.

▲ Based on maximum hub diameter.

Dimensions and other engineering data are subject to change. Certified specifications of ordered product furnished upon request.

Drive Engineering
No. 2050 chain 1.250" pitch

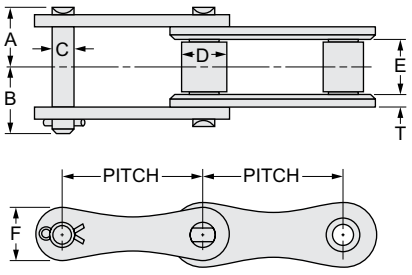


Fig. 7031

Specifications and dimensions

Chain Number	Average ultimate strength, pounds	Joint bearing area, sq. in.	Weight per foot, pounds	Dimensions, inches							
				A	B	C	D	E	F	G	T
2050	6100	.108	.41	.41	.48	.200	.400	.38	.48	.59	.08

Available only in riveted construction.

Ratings

Number of teeth, in small sprocket	Maximum bore inches	Horsepower for single strand chain▲ RPM of small sprocket															
		25	50	100	150	200	250	300	350	400	450	500	550	600	700	800	900
11	2.625	.385	.72	1.29	1.78	2.19	2.56	2.85	3.12	3.33	3.53	-	-	-	-	-	-
12	2.875	.428	.80	1.44	1.99	2.48	2.90	3.26	3.58	3.86	4.10	4.31	-	-	-	-	-
13	2.938	.467	.87	1.59	2.20	2.74	3.23	3.65	4.03	4.36	4.66	4.91	5.11	5.30	-	-	-
14	3.250	.506	.95	1.73	2.41	3.01	3.55	4.02	4.45	4.84	5.17	5.48	5.73	5.96	-	-	-
15	3.563	.544	1.02	1.87	2.61	3.27	3.86	4.39	4.88	5.31	5.68	6.02	6.31	6.57	6.94	-	-
16	3.750	.582	1.09	2.00	2.81	3.52	4.16	4.74	5.26	5.73	6.16	6.55	6.87	7.19	7.61	-	-
17	3.875	.620	1.16	2.14	2.99	3.77	4.46	5.09	5.66	6.17	6.63	7.05	7.42	7.75	8.24	8.62	-
18	4.313	.658	1.23	2.27	3.19	4.01	4.75	5.41	6.03	6.58	7.09	7.54	7.94	8.31	8.84	9.28	-
19	4.500	.696	1.31	2.41	3.39	4.25	5.05	5.76	6.42	7.00	7.55	8.04	8.46	8.87	9.42	9.90	-
20	5.125	.732	1.38	2.54	3.56	4.48	5.32	6.07	6.75	7.38	7.95	8.46	8.92	9.35	9.97	10.49	-
21	5.500	.769	1.45	2.66	3.75	4.70	5.59	6.38	7.10	7.77	8.37	8.90	9.39	9.84	10.50	11.06	11.44
22	5.875	.806	1.52	2.79	3.92	4.92	5.86	6.69	7.45	8.14	8.76	9.33	9.84	10.31	11.01	11.59	12.00
23	-	.842	1.58	2.91	4.09	5.16	6.12	6.98	7.78	8.50	9.15	9.74	10.27	10.76	11.50	12.10	12.52
24	-	.879	1.65	3.05	4.27	5.37	6.38	7.28	8.10	8.85	9.54	10.16	10.70	11.21	11.97	12.59	13.03
25	-	.914	1.72	3.17	4.45	5.59	6.62	7.58	8.42	9.20	9.91	10.55	11.12	11.64	12.42	13.05	13.50
30	-	1.092	2.06	3.77	5.28	6.63	7.84	8.93	9.92	10.82	11.62	12.35	12.99	13.57	14.39	15.06	15.48
35	-	1.267	2.38	4.35	6.07	7.59	8.96	10.18	11.27	12.26	13.14	13.92	14.59	15.17	16.00	16.62	16.94
40	-	1.44	2.70	4.91	6.82	8.51	10.00	11.33	12.51	13.57	14.49	15.28	15.95	16.57	17.29	17.78	-
Lubrication type■		**1**			**2**					**3**							

▲ Ratings are based on a service factor of 1. For a complete list of service factors, refer to Table 1, page C-7.

■ Type 1: Manual drip (4 to 10 drops per minute), or splash.
Type 2: Rapid drip (20 drops per minute minute minimum); splash, or disc.
Type 3: Disc or forced.

Sprockets

No. 2050 sprockets 1.250" pitch

Sprockets are usually furnished with twice the required number of teeth, virtually doubling sprocket life. Sprockets with only the required number of teeth can also be furnished.

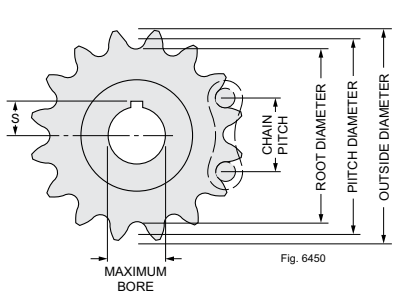
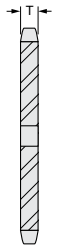


Fig. 6450



Type A

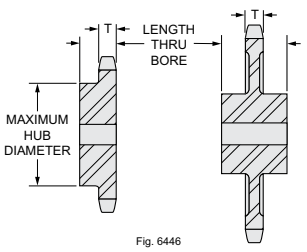


Fig. 6446

Type B Type C

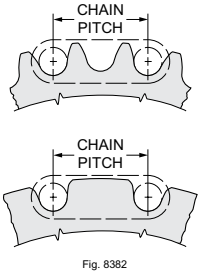


Fig. 8382

Number of teeth ●	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ	Maximum hub and groove diameter, inches	Maximum bore with standard keyseat, inches ▲	S max., inches
6	2.500	2.100	2.708	1.50	.969	.609
6 1/2	2.690	2.290	2.898	1.72	1.125	.688
7	2.881	2.481	3.112	1.94	1.375	.844
7 1/2	3.073	2.673	3.305	2.14	1.438	.906
8	3.266	2.866	3.517	2.36	1.625	1.000
8 1/2	3.460	3.060	3.711	2.56	1.813	1.094
9	3.655	3.255	3.920	2.77	1.938	1.219
9 1/2	3.850	3.450	4.115	2.98	2.125	1.313
10	4.045	3.645	4.321	3.19	2.313	1.438
10 1/2	4.241	3.841	4.517	3.39	2.438	1.531
11	4.437	4.037	4.722	3.59	2.625	1.625
11 1/2	4.633	4.233	4.918	3.80	2.750	1.688
12	4.830	4.430	5.123	4.00	2.875	1.781
12 1/2	5.026	4.626	5.319	4.20	2.906	1.813
13	5.223	4.823	5.522	4.41	2.934	1.875
13 1/2	5.420	5.020	5.719	4.61	3.125	1.934
14	5.617	5.217	5.921	4.81	3.250	2.000
14 1/2	5.815	5.415	6.119	5.02	3.313	2.094
15	6.012	5.612	6.321	5.22	3.563	2.219
15 1/2	6.210	5.810	6.519	5.42	3.719	2.313
16	6.407	6.007	6.720	5.63	3.750	2.313
16 1/2	6.605	6.205	6.918	5.83	3.781	2.375
17	6.803	6.403	7.121	6.03	3.875	2.438
17 1/2	7.001	6.601	7.319	6.22	4.125	2.500
18	7.198	6.798	7.519	6.42	4.313	2.625
18 1/2	7.396	6.996	7.717	6.63	4.375	2.688
19	7.595	7.195	7.918	6.83	4.500	2.750
19 1/2	7.792	7.392	8.115	7.03	4.750	3.000
20	7.991	7.591	8.317	7.23	5.125	3.125
20 1/2	8.189	7.789	8.515	7.44	5.250	3.250
21	8.387	7.987	8.715	7.63	5.500	3.375
21 1/2	8.585	8.185	8.913	7.83	5.750	3.625
22	8.783	8.383	9.113	8.03	5.875	3.688
22 1/2	8.982	8.582	9.312	8.23	6.125	3.750
23	9.180	8.780	9.512	8.44	-	-

Number of teeth ●	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ
23 1/2	9.378	8.978	9.710
24	9.577	9.177	9.911
24 1/2	9.775	9.375	10.111
25	9.973	9.573	10.308
25 1/2	10.172	9.772	10.507
26	10.370	9.970	10.707
26 1/2	10.569	10.169	10.906
27	10.767	10.367	11.105
27 1/2	10.966	10.566	11.304
28	11.164	10.764	11.504
28 1/2	11.362	10.962	11.702
29	11.561	11.161	11.902
29 1/2	11.760	11.360	12.101
30	11.958	11.558	12.300
30 1/2	12.157	11.757	12.499
31	12.356	11.956	12.699
31 1/2	12.554	12.154	12.897
32	12.753	12.353	13.098
32 1/2	12.952	12.552	13.297
33	13.150	12.750	13.495
33 1/2	13.349	12.949	13.691
34	13.547	13.147	13.893
35	13.945	13.545	14.290
36	14.342	13.942	14.790
37	14.740	14.340	15.090
38	15.137	14.737	15.490
39	15.534	15.134	15.880
40	15.932	15.532	16.28
41	16.329	15.929	16.68
42	16.727	16.327	17.08
43	17.124	16.724	17.48
44	17.522	17.122	17.88
45	17.920	17.520	18.27
46	18.317	17.917	18.67
47	18.715	18.315	19.07

Number of teeth ●	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ
48	19.112	18.712	19.47
49	19.510	19.110	19.87
50	19.908	19.508	20.36
51	20.305	19.905	20.66
52	20.703	20.303	21.06
53	21.100	20.700	21.46
54	21.498	21.098	21.86
55	21.896	21.496	22.25
56	22.293	21.893	22.65
57	22.691	22.291	23.05
58	23.089	22.689	23.45
59	23.486	23.086	23.85
60	23.884	23.484	24.24
61	24.282	23.882	24.64
62	24.680	24.280	25.04
63	25.077	24.677	25.44
64	25.475	25.075	25.84
65	25.873	25.473	26.23
66	27.464	25.871	26.63
67	26.668	26.268	27.03
68	27.066	26.666	27.43
69	27.464	27.064	27.82
70	27.862	27.462	28.22
71	28.259	27.859	28.62
72	28.657	28.257	29.02
73	29.055	28.655	29.42
74	29.453	29.053	29.81
75	29.850	29.450	30.21
76	30.248	29.848	30.61
77	30.646	30.246	31.01
78	31.044	30.644	31.41
79	31.441	31.041	31.81
80	31.839	31.439	32.21

Larger sizes available.

Hub length thru bore, inches

Sprocket Type	Number Of effective teeth	Hub length, thru bore, inches
B	6 to 9 1/2	1.00
	10 to 19 1/2	1.13
	20 to 30 1/2	1.38
	31 to 45	1.63
	46 to 80	1.88

Sprocket Type	Number Of effective teeth	Hub length, thru bore, inches
C	13 to 24	2.00
	24 1/2 to 30	2.25
	30 1/2 to 40	2.50
	41 to 60	2.75
	61 to 72	3.00
	73 to 80	3.25

Tooth dimensions, inches

T = .343" + .000", – .010" for machined sprockets.
T = .343" + .000", – .036" for hot rolled steel plate sprockets or unfinished forgings.

Recommended standard bore tolerances, keyseat dimensions, eccentricity tolerances, and similar data, page G-2.

● "Effective" describes the number of teeth that engage the chain rollers during each revolution of the sprocket. See Fig. 8382 above. The effective number is used to calculate chain speed. Sprockets are normally furnished with twice the effective number listed. When the actual number of teeth is 24 or more, sprockets for No. 50 roller chain may be used. See page C-17 for sprocket data.

Δ Non-functional dimension that may vary with the type of cutter used.

▲ Based on maximum hub diameter.

Dimensions and other engineering data are subject to change. Certified specifications of ordered product furnished upon request.

Drive Engineering
No. 2060 and 2060H 1.500" pitch

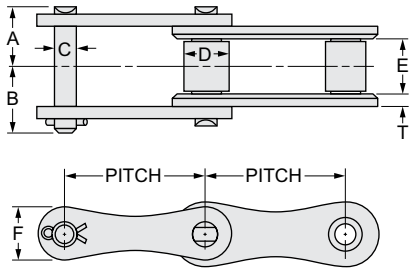


Fig. 7031

Specifications and dimensions

Chain Number	Average ultimate strength, pounds	Joint bearing area, sq. in.	Weight per foot, pounds	Dimensions, inches							
				A	B	C	D	E	F	G	T
2060	8,500	.162	.65	.50	.59	.234	.469	.50	.60	.69	.09
2060H	8,500	.162	.79	.59	.65	.234	.469	.50	.60	.69	.13

Available in riveted or cottered construction.

Ratings

Number of teeth, in small sprocket	Maximum bore inches	Horsepower for single strand chain▲ RPM of small sprocket																
		25	50	75	100	125	150	200	250	300	350	400	450	500	550	600	650	700
11	3.125	.66	1.21	1.70	2.15	2.54	2.93	3.58	4.12	4.56	4.93	-	-	-	-	-	-	-
12	3.563	.73	1.34	1.90	2.41	2.85	3.30	4.05	4.70	5.24	5.71	6.08	-	-	-	-	-	-
13	3.813	.79	1.48	2.09	2.65	3.15	3.65	4.52	5.27	5.91	6.46	6.92	7.32	-	-	-	-	-
14	4.125	.86	1.60	2.27	2.90	3.45	4.00	4.97	5.79	6.54	7.17	7.72	8.18	8.58	-	-	-	-
15	4.500	.92	1.72	2.45	3.14	3.74	4.34	5.39	6.32	7.14	7.86	8.48	9.01	9.48	-	-	-	-
16	4.688	.99	1.85	2.64	3.36	4.01	4.66	5.82	6.82	7.73	8.52	9.21	9.80	10.34	10.77	-	-	-
17	5.250	1.05	1.97	2.82	3.59	4.28	4.98	6.22	7.32	8.29	9.14	9.91	10.56	11.14	11.64	12.06	-	-
18	5.563	1.12	2.10	2.99	3.82	4.56	5.31	6.63	7.82	8.85	9.78	10.60	11.31	11.96	12.50	12.97	-	-
19	5.938	1.18	2.23	3.17	4.05	4.83	5.62	7.03	8.29	9.42	10.41	11.29	12.08	12.76	13.35	13.87	14.30	-
20	6.188	1.25	2.34	3.34	4.26	5.09	5.93	7.41	8.74	9.92	10.97	11.91	12.74	13.46	14.08	14.64	15.10	-
21	6.438	1.31	2.46	3.51	4.49	5.36	6.24	7.80	9.19	10.43	11.55	12.52	13.40	14.14	14.83	15.42	15.90	-
22	7.000	1.37	2.58	3.67	4.70	5.62	6.54	8.16	9.62	10.93	12.08	13.13	14.04	14.84	15.55	16.15	16.67	-
23	-	1.44	2.69	3.83	4.90	5.86	6.83	8.53	10.06	11.42	12.62	13.71	14.67	15.49	16.22	16.87	17.38	17.83
24	-	1.50	2.80	4.00	5.11	6.11	7.12	8.90	10.47	11.90	13.16	14.28	15.27	16.14	16.89	17.56	18.11	18.57
25	-	1.56	2.92	4.17	5.32	6.36	7.41	9.27	10.89	12.37	13.67	14.84	15.86	16.76	17.53	18.21	18.79	19.24
30	-	1.86	3.48	4.96	6.32	7.55	8.78	10.94	12.76	14.55	16.05	17.38	18.54	19.53	20.38	21.11	21.70	22.16
35	-	2.16	4.03	5.73	7.29	8.67	10.06	12.52	14.67	16.54	18.17	19.61	20.80	21.88	22.73	23.40	23.99	-
40	-	2.45	4.55	6.46	8.20	9.70	11.31	13.99	16.33	18.35	20.08	21.57	22.84	23.86	24.64	25.42	-	-
Lubrication type■		1				2						3						

▲ Ratings are based on a service factor of 1. For a complete list of service factors, refer to Table 1, page C-7.

■ Type1: Manual drip (4 to 10 drops per minute), or splash.
Type 2: Rapid drip (20 drops per minute minimum); splash, or disc.
Type 3: Disc or forced.

Sprockets

No. 2060, 2060H, sprockets 1.500" pitch

Sprockets are usually furnished with twice the required number of teeth, virtually doubling sprocket life. Sprockets with only the required number of teeth can also be furnished.

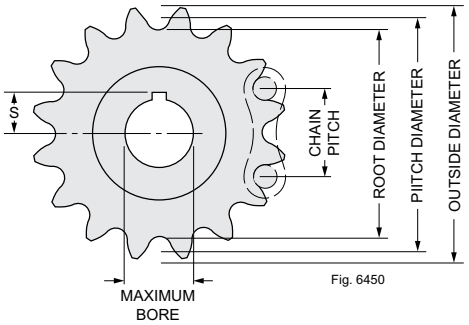
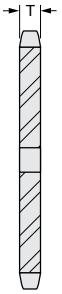


Fig. 6450



Type A

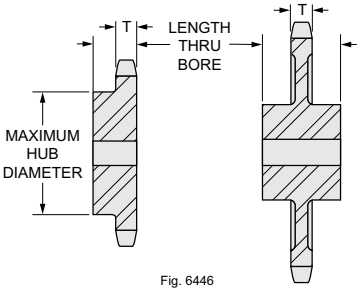


Fig. 6446

Type B Type C

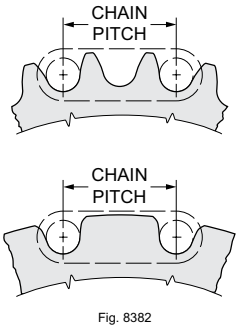


Fig. 8382

Number of teeth ●	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ	Maximum hub and groove diameter, inches	Maximum bore with standard keyseat, inches ▲	S max., inches
6	3.000	2.531	3.249	1.81	1.250	.750
6 1/2	3.228	2.759	3.477	2.08	1.344	.828
7	3.457	2.988	3.735	2.33	1.563	.969
7 1/2	3.688	3.219	3.964	2.58	1.750	1.063
8	3.920	3.451	4.221	2.83	1.935	1.219
8 1/2	4.152	3.683	4.453	3.08	2.188	1.375
9	4.386	3.917	4.704	3.33	2.313	1.469
9 1/2	4.620	4.151	4.938	3.58	2.500	1.563
10	4.854	4.385	5.185	3.83	2.750	1.688
10 1/2	5.089	4.620	5.420	4.08	2.938	1.813
11	5.324	4.855	5.666	4.33	3.125	1.934
11 1/2	5.560	5.091	5.902	4.56	3.375	2.094
12	5.796	5.327	6.147	4.81	3.563	2.219
12 1/2	6.032	5.563	6.383	5.06	3.688	2.281
13	6.268	5.799	6.627	5.30	3.813	2.375
13 1/2	6.504	6.035	6.863	5.55	4.000	2.500
14	6.741	6.272	7.106	5.78	4.125	2.563
14 1/2	6.978	6.509	7.343	6.03	4.250	2.625
15	7.215	6.746	7.587	6.27	4.500	2.750
15 1/2	7.452	6.983	7.824	6.52	4.563	2.906
16	7.689	7.220	8.066	6.75	4.688	2.969
16 1/2	7.926	7.457	8.303	7.00	5.000	3.125
17	8.163	7.694	8.543	7.23	5.250	3.250
17 1/2	8.401	7.932	8.781	7.48	5.500	3.6375
18	8.638	8.169	9.023	7.72	5.563	3.469
18 1/2	8.875	8.406	9.260	7.97	5.750	3.625
19	9.113	8.644	9.501	8.20	5.938	3.719
19 1/2	9.350	8.881	9.738	8.44	6.063	3.781
20	9.589	9.120	9.980	8.69	6.188	3.844
20 1/2	9.826	9.357	10.217	8.92	6.313	3.906
21	10.064	9.595	10.458	9.17	6.438	3.969
21 1/2	10.302	9.833	10696	9.41	6.750	4.125
22	10.540	10.071	10.936	9.64	7.000	4.250
22 1/2	10.778	10.309	11.174	9.89	7.188	4.344
23	11.016	10.547	11.415	10.13	-	-

Number of teeth ●	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ
23 1/2	11.254	10.785	11.653
24	11.492	11.023	11.896
24 1/2	11.730	11.261	12.131
25	11.968	11.499	12.371
25 1/2	12.206	11.737	12.609
26	12.444	11.975	12.849
26 1/2	12.682	12.213	13.087
27	12.921	12.452	13.328
27 1/2	13.159	12.690	13.566
28	13.397	13.928	13.805
28 1/2	13.635	13.166	14.043
29	13.874	13.405	14.238
29 1/2	14.112	13.643	14.521
30	14.350	13.881	14.761
30 1/2	14.588	14.119	14.999
31	14.827	14.358	15.239
31 1/2	15.065	14.596	15.477
32	15.303	14.834	15.716
32 1/2	15.542	15.073	15.955
33	15.780	15.311	16.194
33 1/2	16.018	15.549	16.432
34	16.257	15.788	16.672
35	16.734	16.265	17.150
36	17.211	16.742	17.630
37	17.687	17.218	18.110
38	18.164	17.695	18.580
39	18.641	18.172	19.060
40	19.118	18.649	19.540
41	19.595	19.126	20.020
42	20.072	19.603	20.490
43	20.549	20.080	20.970
44	21.026	20.557	21.450
45	21.503	21.034	21.930
46	21.980	21.511	22.410
47	22.458	21.989	22.880

Number of teeth ●	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ
48	22.935	22.466	23.36
49	28.412	22.943	23.84
50	23.889	23.420	24.32
51	24.366	23.897	24.79
52	24.843	24.374	25.27
53	25.320	24.851	25.75
54	25.798	25.329	26.23
55	26.275	25.806	26.70
56	26.752	26.283	27.18
57	27.229	26.760	27.66
58	27.707	27.238	28.14
59	28.184	27.715	28.61
60	28.661	28.192	29.09
61	29.138	28.669	29.57
62	29.616	29.147	30.05
63	30.093	29.624	30.53
64	30.570	30.010	31.00
65	31.047	30.578	31.48
66	31.525	31.056	31.96
67	32.002	31.533	32.43
68	32.479	32.010	32.91
69	32.957	32.488	33.39
70	33.434	32.965	33.87
71	33.611	33.451	34.34
72	34.388	33.919	34.82
73	34.866	34.397	35.30
74	35.343	34.874	35.78
75	35.820	35.351	36.25
76	36.298	35.829	36.73
77	36.775	36.306	37.21
78	37.252	36.783	37.69
79	37.730	37.261	38.17
80	38.207	37.738	38.65
Larger sizes available.			

Hub length thru bore, inches

Sprocket Type	Number Of effective teeth	Hub length, thru bore, inches
B	6 to 15	1.25
	15 1/2 to 25	1.50
	25 1/2 to 41	1.75
	42 to 60	2.00
	61 to 80	2.25

Sprocket Type	Number Of effective teeth	Hub length, thru bore, inches
C	10 to 20	2.25
	20 1/2 to 40	2.50
	41 to 60	3.00
	61 to 80	3.25

Tooth dimensions, inches

T = .459" + .000", –.010" for machined sprockets.
T = .459" + .000", –.036" for hot rolled steel plate sprockets or unfinished forgings.

Recommended standard bore tolerances, keyseat dimensions, eccentricity tolerances, and similar data, page G-2.

● "Effective" describes the number of teeth that engage the chain rollers during each revolution of the sprocket. See Fig. 8382 above. The effective number is used to calculate chain speed. Sprockets are normally furnished with twice the effective number listed. When the actual number of teeth is 24 or more, sprockets for No. 60 roller chain may be used. See page C-19 for sprocket data.

Δ Non-functional dimension that may vary with the type of cutter used.

▲ Based on maximum hub diameter.

Dimensions and other engineering data are subject to change. Certified specifications of ordered product furnished upon request.

Drive Engineering
No. 2080 chain 2.000" pitch

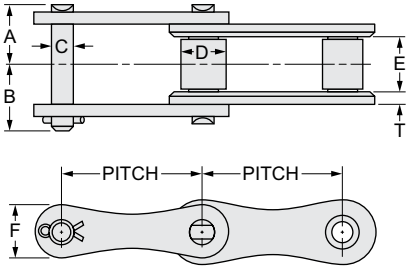


Fig. 7031

Specifications and dimensions

Chain Number	Average ultimate strength, pounds	Joint bearing area, sq. in.	Weight per foot, pounds	Dimensions, inches							
				A	B	C	D	E	F	G	T
2080	14,500	.275	1.10	.66	.74	.312	.625	.63	.75	.88	.13

Available in riveted or cottered construction.

Ratings

Number of teeth, in small sprocket	Maximum bore inches	Horsepower for single strand chain▲ RPM of small sprocket																
		10	20	30	40	50	60	70	80	90	100	150	200	250	300	350	400	450
11	4.250	.66	1.24	1.78	2.26	2.76	3.20	3.60	3.99	4.38	4.78	6.36	7.60	-	-	-	-	-
12	4.625	.72	1.37	1.96	5.52	3.08	3.56	4.03	4.48	4.92	5.36	7.20	8.68	9.82	-	-	-	-
13	4.938	.79	1.49	2.15	2.77	3.36	3.91	4.44	4.95	5.45	5.93	8.02	9.73	11.08	-	-	-	-
14	5.250	.85	1.62	2.33	3.01	3.66	4.26	4.85	5.42	5.96	6.49	8.82	10.75	12.29	13.60	-	-	-
15	5.688	.91	1.74	2.52	3.25	3.95	4.60	5.25	5.86	6.45	7.03	9.60	11.74	13.46	14.94	-	-	-
16	6.188	.98	1.87	2.70	3.48	4.24	4.94	5.64	6.29	6.93	7.56	10.36	12.70	14.59	16.24	17.65	-	-
17	7.375	1.04	1.99	2.88	3.71	4.52	5.28	6.02	6.72	7.40	8.09	11.10	13.63	15.69	17.50	19.04	-	-
18	7.938	1.11	2.11	3.05	3.94	4.80	5.61	6.40	7.14	7.87	8.60	11.82	14.53	16.76	18.72	20.38	21.77	-
19	8.438	1.17	2.23	3.23	4.17	5.09	5.94	6.77	7.56	8.33	9.10	12.52	15.40	17.80	19.90	21.67	23.18	-
20	9.313	1.23	2.35	3.40	4.40	5.36	6.26	7.13	7.98	8.78	9.60	13.20	16.25	18.81	21.04	22.91	24.52	-
21	9.563	1.29	2.47	3.57	4.62	5.62	6.58	7.49	8.39	9.23	10.09	13.87	17.08	19.79	22.14	24.11	25.80	-
22	9.813	1.36	2.58	3.74	4.84	5.90	6.89	7.84	8.79	9.67	10.57	14.53	17.90	20.74	23.20	25.27	27.03	-
23	-	1.42	2.70	3.90	5.06	6.16	7.20	8.19	9.18	10.10	11.05	15.18	18.71	21.66	24.23	26.40	28.22	
24	-	1.48	2.82	4.05	5.27	6.43	7.51	8.54	9.56	10.53	11.52	15.82	19.51	22.55	25.23	27.50	29.38	30.98
25	-	1.54	2.93	4.20	5.48	6.69	7.81	8.89	9.94	10.95	11.98	16.45	20.30	23.42	26.20	28.57	30.52	32.16
30	-	1.84	3.50	5.02	6.54	7.96	9.29	10.59	11.74	12.97	14.23	19.46	23.91	27.52	30.70	33.56	35.52	37.26
35	-	2.14	4.07	5.82	7.56	9.19	10.71	12.21	13.48	14.92	16.35	22.26	27.23	31.21	34.65	37.57	39.66	-
40	-	2.43	4.61	6.60	8.55	10.38	12.09	13.76	15.17	16.80	18.36	24.88	30.28	34.52	28.09	40.96	43.07	-
Lubrication type■		**1**									**2**			**3**				

▲ Ratings are based on a service factor of 1. For a complete list of service factors, refer to Table 1, page C-7.

■ Type1: Manual drip (4 to 10 drops per minute), or splash.
Type 2: Rapid drip (20 drops per minute minimum); splash, or disc.
Type 3: Disc or forced.

Sprockets

2080 sprockets 2.000" pitch

Sprockets are usually furnished with twice the required number of teeth, virtually doubling sprocket life. Sprockets with only the required number of teeth can also be furnished.

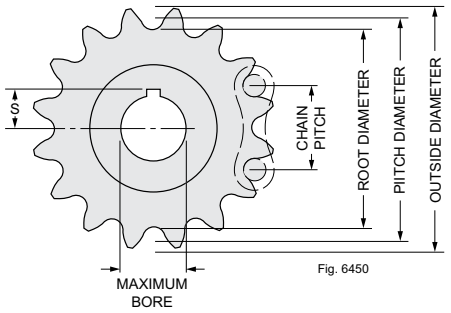
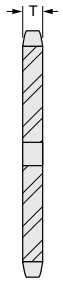


Fig. 6450



Type A

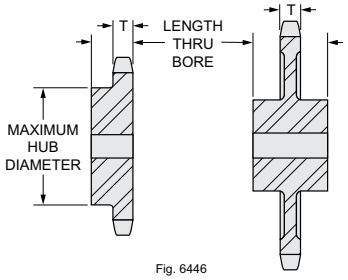


Fig. 6446

Type B Type C

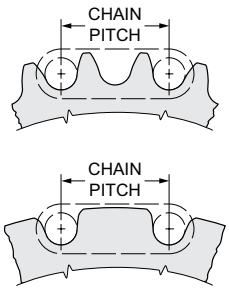


Fig. 8382

Number of teeth ●	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ	Maximum hub and groove diameter, inches	Maximum bore with standard keyseat, inches ▲	S max., inches
6	4.000	3.375	4.332	2.42	1.625	1.000
6 1/2	4.304	3.679	4.636	2.78	1.750	1.063
7	4.610	3.985	4.982	3.11	2.063	1.281
7 1/2	4.917	4.292	5.289	3.45	2.250	1.375
8	5.226	4.601	5.627	3.80	2.688	1.688
8 1/2	5.536	4.911	5.937	4.13	3.000	1.875
9	5.848	5.223	6.271	4.45	3.250	2.031
9 1/2	6.160	5.535	6.583	4.80	3.500	2.188
10	6.472	5.847	6.914	5.13	3.750	2.313
10 1/2	6.785	6.160	7.227	5.45	3.938	2.438
11	7.099	6.474	7.556	5.78	4.250	2.625
11 1/2	7.413	6.788	7.870	6.09	4.500	2.750
12	7.727	7.102	8.195	6.42	4.625	2.875
12 1/2	8.042	7.417	8.510	6.75	4.688	2.969
13	8.357	7.732	8.835	7.08	4.938	3.094
13 1/2	8.672	8.047	9.150	7.41	5.063	3.156
14	8.988	8.363	9.476	7.72	5.250	3.250
14 1/2	9.304	8.679	9.792	8.05	5.500	3.438
15	9.620	8.995	10.115	8.38	5.688	3.594
15 1/2	9.936	9.311	10.431	8.69	5.875	3.688
16	10.252	9.627	10.753	9.02	6.188	3.844
16 1/2	10.568	9.943	11.069	9.34	6.813	4.156
17	10.885	10.260	11.392	9.66	7.375	4.500
17 1/2	11.201	10.576	11.708	9.98	7.688	4.719
18	11.518	10.893	12.030	10.31	7.938	4.844
18 1/2	11.834	11.209	12.346	10.63	8.188	4.969
19	12.151	11.526	12.668	10.95	8.438	5.094
19 1/2	12.467	11.842	12.984	11.27	8.875	5.313
20	12.785	12.160	13.306	11.59	9.313	5.531
20 1/2	13.102	12.477	13.623	11.91	9.438	5.594
21	13.419	12.794	13.944	12.23	9.563	5.656
21 1/2	13.736	13.111	14.261	12.55	9.688	5.719
22	14.053	13.428	14.581	12.88	9.813	5.875
22 1/2	14.371	13.746	14.899	13.19	9.875	5.938
23	14.688	14.063	15.219	13.52	-	-

Number of teeth ●	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ
23 1/2	15.005	14.380	15.536
24	15.323	14.698	15.858
24 1/2	15.640	15.015	16.175
25	15.958	15.333	16.495
25 1/2	16.275	15.650	16.812
26	16.593	15.968	17.133
26 1/2	16.910	16.285	17.450
27	17.228	16.603	17.770
27 1/2	17.545	16.920	18.087
28	17.863	17.238	18.406
28 1/2	18.180	17.555	18.723
29	18.498	17.873	19.044
29 1/2	18.816	18.191	19.362
30	19.134	18.509	19.681
30 1/2	19.451	18.826	19.998
31	19.769	19.144	20.318
31 1/2	20.087	19.462	20.636
32	20.405	19.780	20.956
32 1/2	20.723	20.098	21.274
33	21.040	20.415	21.592
33 1/2	21.358	20.733	21.910
34	21.676	21.051	22.230
35	22.312	21.687	22.870
36	22.947	22.322	23.500
37	23.583	22.958	24.140
38	24.219	23.594	24.780
39	24.855	24.230	25.410
40	25.491	24.866	26.050
41	26.127	25.502	26.690
42	26.763	26.138	27.330
43	27.399	26.774	27.960
44	28.035	27.410	28.600
45	28.671	28.046	29.240
46	29.307	28.682	29.870
47	29.943	29.318	30.510

Number of teeth ●	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ
48	30.580	29.955	31.25
49	31.216	30.591	31.78
50	31.852	31.227	32.42
51	32.488	31.863	33.06
52	33.124	32.499	33.69
53	33.761	33.136	34.33
54	34.397	33.772	34.97
55	35.033	34.408	35.61
56	3.669	35.044	36.24
57	36.306	35.681	36.88
58	36.942	36.317	37.52
59	37.578	36.953	38.15
60	38.215	37.590	38.79
61	38.851	38.226	39.43
62	39.487	38.862	40.06
63	40.124	39.499	40.70
64	40.760	40.135	41.34
65	41.396	40.771	41.97
66	42.033	41.408	42.61
67	42.669	42.044	43.24
68	43.306	42.681	43.88
69	43.942	43.371	44.52
70	44.578	43.953	45.16
71	45.215	44.590	45.79
72	45.851	45.226	46.43
73	46.488	45.863	47.07
74	47.124	46.499	47.70
75	47.760	47.135	48.34
76	48.397	47.772	48.98
77	49.033	48.408	49.61
78	49.670	49.045	50.25
79	50.306	49.681	50.89
80	50.943	50.318	51.53

Larger sizes available.

Hub length thru bore, inches

Sprocket Type	Number Of effective teeth	Hub length, thru bore, inches	Sprocket Type	Number Of effective teeth	Hub length, thru bore, inches
B	6 to 7 1/2	1.38	C	9 to 18	2.50
	8 to 12	1.63		18 1/2 to 32	3.00
	12 1/2 to 18 1/2	1.88		32 1/2 to 40	3.25
	19 to 30	2.13		41 to 60	3.50
	30 1/2 to 44	2.38		61 to 72	4.00
	45 to 72	2.63		73 to 80	4.25
	73 to 80	2.75			

Tooth dimensions, inches

T = .575" + .000", –.012" for machined sprockets.
T = .575" + .000", –.040" for hot rolled steel plate sprockets or unfinished forgings.

Recommended standard bore tolerances, keyseat dimensions, eccentricity tolerances, and similar data, page G-2.

● "Effective" describes the number of teeth that engage the chain rollers during each revolution of the sprocket. See Fig. 8382 above. The effective number is used to calculate chain speed. Sprockets are normally furnished with twice the effective number listed. When the actual number of teeth is 24 or more, sprockets for No. 80 roller chain may be used. See page C-21 for sprocket data.

Δ Non-functional dimension that may vary with the type of cutter used.

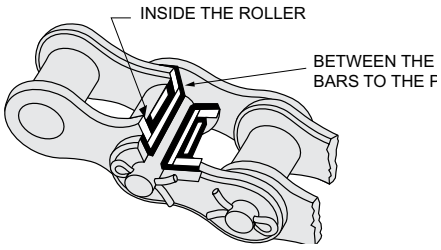
▲ Based on maximum hub diameter.

Dimensions and other engineering data are subject to change. Certified specifications of ordered product furnished upon request.

Drive Engineering
Lubrication

Generally, chains should be lubricated to achieve and maintain high operating efficiency and provide long service life. Factors such as operating conditions, chain size, type of service, and method of lubrication influence the life of chain. Many low-speed drives perform successfully with little lubrication, but where operating conditions permit, longer chain life will result from adequate lubrication.

The primary purpose of chain lubrication is to provide a clean film of oil at all load-carrying points where relative motion occurs. To effectively lubricate the chain joints, oil must be delivered to the spaces indicated in Figure 7913. The oil should be directed to the inside of the lower span of chain so that it will not be thrown off by centrifugal force before it penetrates the chain joint.



Factory Prelubrication

Laboratory tests and actual experience show that chain joint friction is greatest during the run-in period, the span of time between drive start-up and the point at which the lubrication system begins to function effectively. To minimize joint friction during this critical period of operation, Rexnord roller chains are factory prelubricated.

Laboratory tests show that prelubrication reduces joint wear during the critical run-in period by approximately 50%. The result is longer operating life for the chain.

Subsequent maintenance of a clean oil film between all bearing surfaces is equally important for high operating efficiency.

Selection of the Lubricant

Drives operating at room temperatures should be lubricated with an S.A.E. 30 mineral oil. For operation at high or low temperature extremes, oils with higher or lower viscosity numbers should be used, such as those listed below.

Temperature of atmosphere surrounding drive, degrees Fahrenheit	S.A.E. viscosity number
–20 to 40	20
40 to 100	30
100 to 120	40
120 to 140	50

Petroleum oils should not be used to lubricate drive chains operating in temperatures above 300°F (149° Celsius). Under certain operating conditions, chains operating in high temperature atmospheres can be effectively lubricated with colloidal graphite dispersed in a suitable volatile carrier. These solutions penetrate the chain joints and, upon evaporation of the carrier, leave a thin deposit of graphite on the chain joint surfaces. This type of lubricant may be applied by drip-feed or wick-feed oil cups. Consult a lubricant manufacturer for recommendations when chains are required to operate at temperatures between 300°F and 700°F (149° and 371°C).

Suggested Methods of Lubrication

Several methods for lubricating chain drives have been developed, each fitting a particular range of operating conditions. Horsepower, chain speed, and the relative position of shafts are primary considerations. The various methods suggested and their range of application are described below.

Manual or drip lubrication may be used for open running drives (those enclosed by a safety guard) which operate in a non-abrasive atmosphere. These methods should be confined to low horsepower drives operating at low chain speeds. The lubricant may be applied to the clearances between sidebars with a brush, oil can, or drip-cup oiler.

Drip-cups are usually mounted on a pipe with drilled holes spaced to distribute oil between the sidebars in the lower span of chain. About 4 to 10 drops per minute are sufficient to lubricate very slow speed drives, while a minimum of 20 drops per minute is recommended for higher speeds.

The relative position of shafts is not a factor when these methods of lubrication are used.

Bath lubrication is the simplest automatic method of lubricating encased chain drives and is highly satisfactory for low or moderate speeds.

The chain dips into an oil reservoir to a depth of about one-half inch, forcing the lubricant into the chain joints. Only a short length of chain should run through the oil, preferably only that portion on the bottom of the lower sprocket.

The relative shaft positions illustrated below are recommended when oil bath lubrication is used:

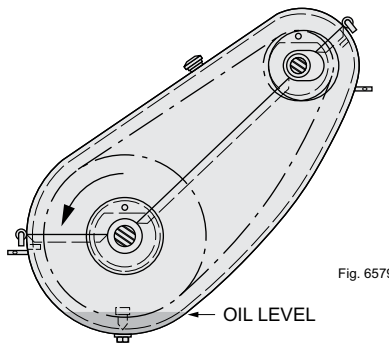


Fig. 6579

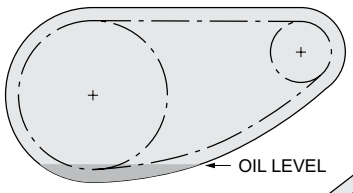


Fig. 5243

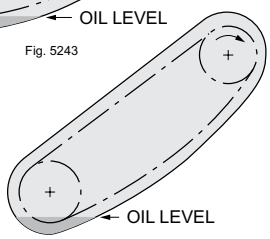


Fig. 5245

Disc lubrication is very effective for moderately high-speed drives and is frequently used when the drive arrangement is not suitable for oil bath lubrication.

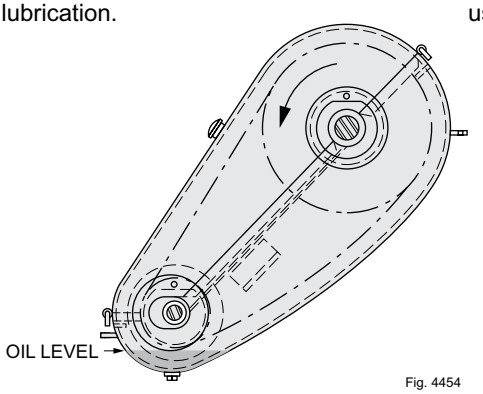


Fig. 4454

An oil disc mounted on the lower sprocket dips about one-half inch into an oil reservoir. The oil is thrown off the disc by centrifugal force, automatically lubricating the chain which is kept above the oil level. This method of lubrication is ineffective at high speeds as well as at very low speeds.

Oil disc lubrication is applicable to the relative shaft positions illustrated below:

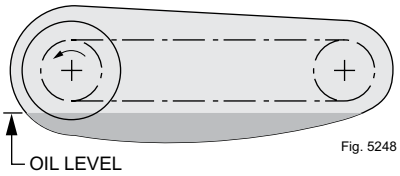


Fig. 5248

Small ratio with horizontal centers

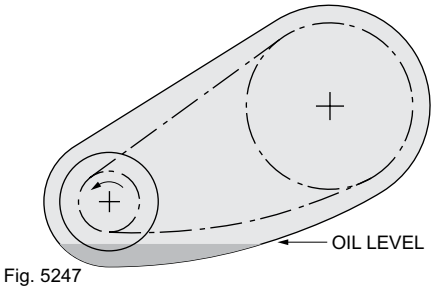


Fig. 5247

Large ratio with small sprocket low

Forced lubrication is recommended for large horsepower drives, heavily loaded drives, high speed drives, or where oil bath or oil disc lubrication cannot be used.

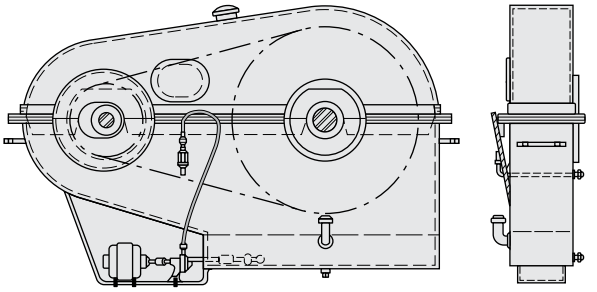


Fig. 4245

An oil pump is provided to supply a continuous spray of oil to the inside of the lower span of chain. The circulation of the lubricant aids in the dissipation of heat and results in a well-lubricated, cooler operating drive.

The pump is usually direct-connected to a fractional horsepower motor as illustrated in Figure 4245. A chain driven pump, operating from either the driving or driven shaft may be used where electric power is not available. Pumps of about one-gallon-per-minute capacity are adequate for most drives under 200 hp.

The relative position of shafts is not a factor when forced lubrication is used.

Chain Casings

Oil-retaining casings are an integral part of the lubricating system when the oil bath, disc, or forced methods of lubrication are used.

As a safety feature, guard-type casings are required for drives lubricated by the manual or drip-cup methods.

Dimensions and other engineering data are subject to change. Certified specifications of ordered product furnished upon request.

Drive Engineering
Drive Installation

Accurate alignment, proper chain tension, good lubrication, and periodic inspection are required to obtain maximum chain and sprocket life.

For safe installation of chain and sprockets, careful attention should be given to the following instructions.

Caution: Shut off all power to the equipment so that it cannot be started accidentally during these installation steps. Failure to do so can result in serious personal injury.

Shaft alignment Mount the sprockets on their respective shafts. As illustrated in Photo 33635, align the shafts horizontally with a machinist's level, and adjust the shafts for parallel alignment with a vernier, caliper, or feeler bar. The distance between shafts on both sides of the sprockets must be equal. When shafts have been accurately aligned, the motor, bearings, etc., should be bolted securely in place so that alignment will be maintained during operation.

Sprocket alignment Sprockets must be in axial alignment for correct chain and sprocket tooth engagement. Apply a straight edge, or heavy cord to the machined sprocket surfaces as shown in Photo 33636. When a shaft is subject to end flat, the sprocket should be aligned for the normal running position. Tighten set screws in sprocket hubs to guard against lateral movement and to hold key in position.

Chain installation Inspect chain to make sure it is free from dirt or grit before it is installed. Fit the chain around both sprockets bringing the free ends together on one sprocket as shown in Photo 33637. Insert connecting link and secure in place.

Note: Due to their flexibility, chains can be somewhat difficult to handle. When installing the chain, pick it up by the end links to avoid the possibility of pinching fingers or hands. Failure to do so may result in personal injury.

Chain tension Adjust drive centers for proper chain tension, as outlined below.

Normally, horizontal and inclined drives should be installed with an initial sag equal to approximately 2% of sprocket centers.

Vertical center drives, and those subject to shock loading, reversal of rotation, or dynamic braking, should be operated with both spans of chain almost taught. Periodic inspection of such drives should be made to avoid operation with excessive slack and to maintain proper chain tension.

To determine the amount of sag, pull one side of the chain taught allowing all the excess chain to accumulate in the opposite span. As illustrated in Photo 33638, place a straight edge over the slack span and, pulling the chain down at the center, measure the amount of sag. If necessary, adjust drive centers for proper sag that will result in correct chain tension.

Sag in inches based on 2% of sprocket centers											
Shaft centers, inches	20	30	40	50	60	70	80	90	100	125	150
Sag, Inches	.50	.63	.88	1.00	1.25	1.50	1.63	1.88	2.00	2.50	3.00

Caution: To avoid serious personal injury, the drive should be enclosed in a casing or safety guard. Consult Rexnord for casing installation procedures. If the drive is not enclosed, clear the area of tools and other installation equipment before reconnecting the power.



33635

Aligning shafts



33636

Aligning sprockets



33637

Inserting connecting link



33638

Determining chain sag

NOTES

Dimensions and other engineering data are subject to change. Certified specifications of ordered product furnished upon request.

Link-Belt and Rexnord Chains
for Conveyor Applications

A broad selection of Link-Belt and Rexnord chains and attachments designed specifically for a wide range of conveying applications are available. Attachment designs accommodate slats, angles, rollers, crossroads and many other conveying devices.



Standard Roller Chain

Standard Roller chains, with suitable attachments, are the most widely used products for applications requiring compactness or extra-smooth operation. Their capabilities include uses where the conveyor operates as an integral part of the machine. See pages B-1 through B-3.



Redi-Lube™ Chain[1]

Self-lubricating, heavy walled, oil-impregnated, sintered steel bushings replace bushing and roller of standard ANSI chain. Available in single and double-pitch. Full range of standard attachments also available. See page D-9.



Block Chain[1]

Used in light load, low speed conveyors. Consisting of block links (solid or laminated) and link plates joined by pins, all Block chains are 1" pitch and vary in width of block from $^{3}/_{16}$" to $^{1}/_{2}$". See page D-16.



Side Bow Roller Chain

Extra clearance chain with ability to flex and twist. Ideal for use on curved conveyors or to transmit power under misaligned sprocket conditions. Available in $^{3}/_{8}$" to 1" single pitch. See page D-15.



Double-Pitch Conveyor Chain

Lower in cost than standard roller chains, Double-Pitch Conveyor chains are generally recommeded for applications with relatively long shaft centers. Available variations include large diameter rollers and a hollow pin design. See pages D-3 through D-8.



Hollow Pin Chain[1]

The truly versatile conveyor chain. Constructed with special pin links which have hollow pins assembled in the pin plates. This unique design allows easy insertion of cross rods or attachments to preassembled chain at desired spacings. Attachments can be repositioned without removing chain from conveyor. It is available in single and double-pitch with or without Carrier Rollers. Full line of standard attachments available. See page D-11.

[1] Available only in Link-Belt brand.

Conveyor Chains
Standard Roller Chains

For conveyor applications, Standard Roller chains find their widest use where compactness or extra-smooth operation is a paramount requirement.

The feature of compactness is of particular advantage on applications where the conveyor is an integral part of a machine. Smooth operation may be achieved with standard roller chains because sprockets, with sufficient teeth to avoid chordal disturbance, are relatively small in diameter. In addition, precision construction provides accurate timing where this is an essential requirement.

Double-Pitch chains and attachments for long conveyors are listed on pages D-6 through D-7.

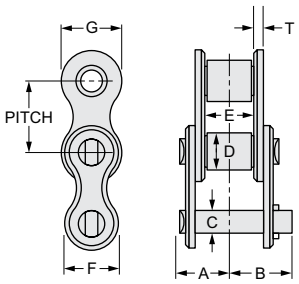


Fig. 6453

Chain Number	Chain pitch, inches	Average Ultimate strength, pounds	Joint bearing area, square inches	Weight per foot, pounds	Dimensions, inches								Sprocket data, pages
					A	B	C	D	E	F	G	T	
35Δ	.375	2,100	.041	.22	.24	.27	.141	.200▲	.19	.31	.35	.05	C-11
40Δ	.500	3,700	.068	.39	.32	.38	.156	.313	.31	.41	.47	.06	C-13
50Δ	.625	6,100	.108	.70	.41	.48	.200	.400	.38	.51	.59	.08	C-17
60	.750	8,500	.162	1.02	.50	.60	.234	.469	.50	.60	.71	.09	C-19
80	1.000	14,500	.275	1.67	.63	.74	.313	.625	.63	.75	.91	.13	C-21
100	1.250	26,000	.401	2.72	.76	.89	.375	.750	.75	.97	1.13	.16	C-23
120	1.500	36,500	.606	3.72	.96	1.13	.438	.875	1.00	1.13	1.38	.19	C-25
140	1.750	48,500	.726	4.69	1.02	1.21	.500	1.000	1.00	1.31	1.56	.22	C-27
160	2.000	68,000	.991	6.12	1.23	1.41	.563	1.125	1.25	1.56	1.81	.25	C-29

Standard Roller Chain Attachments

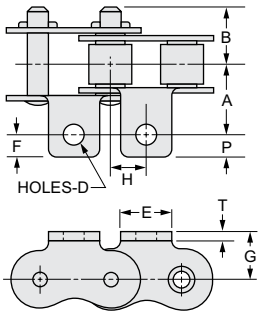


Fig. 4379

A1

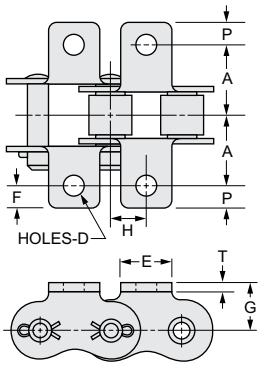


Fig. 4380

K1

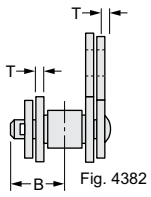
A1 and K1 attachments

Chain Number	Chain pitch, inches	Dimensions, inches								
		A	B	D	E	F	G	H	P	T
35Δ	.375	.38	.27	.11	.31	.13	.25	.19	.13	.05
40Δ	.500	.50	.38	.14	.38	.17	.31	.25	.17	.06
50Δ	.625	.63	.48	.20	.50	.31	.41	.31	.31	.08
60	.750	.75	.60	.20	.63	.34	.47	.38	.34	.09
80	1.000	1.00	.74	.27	.75	.41	.63	.50	.41	.13
100	1.250	1.25	.89	.33	1.00	.45	.78	.63	.45	.16
120	1.500	1.50	1.13	.39	1.13	.55	.91	.75	.55	.19
140	1.750	1.75	1.21	.45	1.38	.48	1.13	.88	.48	.22
160	2.000	2.00	1.41	.52	1.50	.67	1.25	1.00	.67	.25

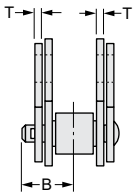
Δ Available only in riveted construction. All other sizes may be furnished cottered or riveted.
▲ Bushing diameter. Chain is rollerless.

Dimensions and other engineering data are subject to change. Certified specifications of ordered product furnished upon request.

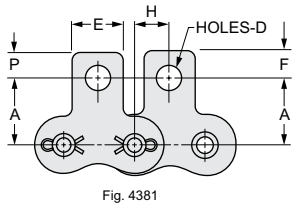
Standard Roller Chain Attachments



M35

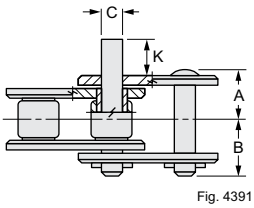


M1

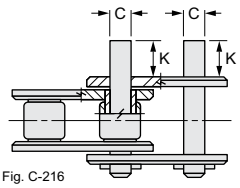


M35 and M1 attachments

Chain Number	Chain pitch, inches	Dimensions, inches								
		A	B	D	E	F	G	H	P	T
35Δ	.375	.38	.27	.11	.31	.21	.19	.21	.05	.05
40Δ	.500	.50	.38	.14	.38	.19	.25	.25	.06	.06
50Δ	.625	.63	.48	.20	.56	.34	.31	.37	.08	.08
60	.750	.72	.60	.20	.63	.44	.38	.44	.09	.09
80	1.000	.97	.74	.27	.75	.53	.50	.41	.13	.13
100	1.250	1.25	.89	.33	1.00	.58	.63	.42	.16	.16
120	1.500	1.44	1.13	.39	1.13	.69	.75	.50	.19	.19
140	1.750	1.75	1.21	.45	1.38	.72	.88	.50	.22	.22
160	2.000	2.00	1.41	.52	1.50	.88	1.00	.61	.25	.25



D1 and D100



D3

D1, D3 and D100 attachments

Chain Number	Chain pitch, inches	Dimensions, inches					
		A	B	C	K		
					D1▲	D3	D100†
35Δ	.375	.24	.27	.141	.38	.38	.44
40Δ	.500	.32	.38	.156	.38	.38	.59
50Δ	.625	.40	.48	.200	.47	.47	.77
60	.750	.50	.60	.234	.56	.56	.94
80	1.000	.63	.74	.313	.75	.75	1.20
100	1.250	.76	.89	.375	.94	.94	1.47
120	1.500	.96	1.13	.438	1.13	1.13	1.84
140	1.750	1.02	1.21	.500	1.31	1.31	1.98
160	2.000	1.23	1.41	.563	1.50	1.50	2.38

Δ Available only in riveted construction. All other sizes may be furnished cottered or riveted.
▲ Conforms to ANSI Standard B29.1 and will be furnished unless otherwise specified.
† Formerly furnished as D1 attachment.

Conveyor Chains
Double Pitch Roller Chains

Double-Pitch Conveyor chains are lower in cost than standard roller chains and are ideally suited for conveyor applications, particularly when shaft centers are relatively long. Double-Pitch conveyor chains have straight side-bars of equal height and can be furnished with standard diameter or large diameter rollers.

Standard diameter rollers are for applications where the chain slides along the conveyor path. The straight, equal height sidebars provide ample sliding surfaces to resist wear.

Chains with rollers larger in diameter than the height of the sidebars are used where rolling action along the conveyor path is desired. Large Delrin rollers can be furnished for applications that require minimum or no lubrication.

Sprockets Sprockets for Double-Pitch Conveyor chains with standard diameter rollers are normally furnished with two times the number of teeth required. As illustrated in Fig. 6553-A, the relationship between chain pitch and roller diameter results in adequate space for a second set of teeth which substantially increases sprocket life.

When the total number of teeth in the sprocket is 24 or more, stock sprockets for standard roller chains of one-half the conveyor chain pitch may be used.

Sprockets for conveyor chains with large diameter rollers can only be furnished with the required number of teeth as illustrated in Fig. 6553-B.

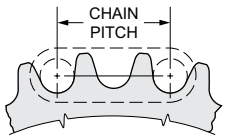


Fig. 6553A

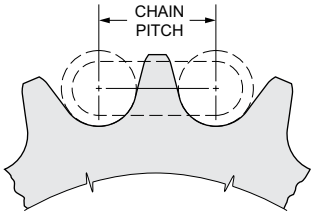


Fig. 6553B

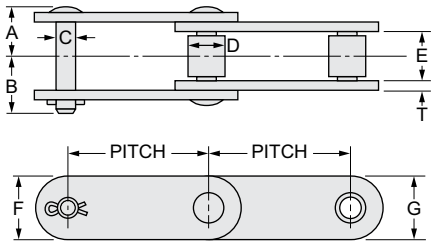


Fig. 5074

Standard Diameter Steel Rollers

Carbon Steel

Chain Number	Chain pitch, inches	Average Ultimate strength, pounds	Joint bearing area, square inches	Weight per foot, pounds	Dimensions, inches								Sprocket data, pages
					A	B	C	D	E	F	G	T	
C 2040Δ	1.000	3,700	.068	.32	.32	.38	.156	.313	.31	.47	.47	.06	E-10
C 2050Δ	1.250	6,100	.108	.51	.41	.48	.200	.400	.38	.59	.59	.08	E-12
C 2060H	1.500	8,500	.176	1.05	.56	65	.234	.469	.50	.68	.68	.13	E-14
C 2080H	2.000	12,500	.295	1.67	.69	.81	.313	.625	.63	.91	.91	.16	E-16
C 2100H	2.500	26,000	.427	2.55	.83	.95	.375	.750	.75	1.13	1.13	.19	E-18
C 2120H	3.000	36,500	.636	3.57	1.02	1.19	.438	.875	1.00	1.38	1.38	.22	E-20
C 2160H	4.000	68,000	1.014	6.18	1.30	1.48	.562	1.125	1.25	1.87	1.87	.28	E-22

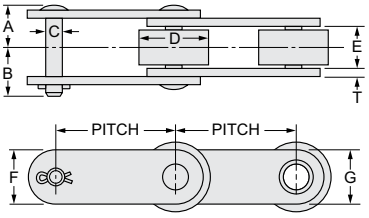
Stainless Steel

Chain Number	Chain pitch, inches	Average Ultimate strength, pounds	Joint bearing area, square inches	Weight per foot, pounds	Dimensions, inches								Sprocket data, pages
					A	B	C	D	E	F	G	T	
C 2040 SSΔ	1.000	3,000	.068	.32	.32	.38	.156	.313	.31	.45	.45	.06	E-10
C 2050 SSΔ	1.250	5,000	.108	.51	.41	.48	.200	.400	.38	.55	.55	.08	E-12
C 2060H SS	1.500	6,800	.176	1.05	.56	65	.234	.469	.50	.71	.71	.13	E-14
C 2080H SN	2.000	12,000	.295	1.67	.69	.81	.313	.625	.63	.91	.91	.16	E-16
C 2100H SN	2.500	18,750	.427	2.55	.83	.95	.375	.750	.75	1.13	1.13	.19	E-18
C 2120H SN	3.000	27,000	.636	3.57	1.02	1.19	.438	.875	1.00	1.38	1.38	.22	E-20
C 2160H SN	4.000	47,000	1.014	6.18	1.30	1.48	.562	1.125	1.25	1.87	1.87	.28	E-22

Δ Available only in riveted construction. All other sizes may be furnished cottered or riveted.

Dimensions and other engineering data are subject to change. Certified specifications of ordered product furnished upon request.

Large Diameter Steel Or Delrin Rollers



Carbon Steel

Chain Number	Chain pitch, inches	Average Ultimate strength, pounds	Joint bearing area, square inches	Weight per foot, pounds	Dimensions, inches								Sprocket data, pages
					A	B	C	D	E	F	G	T	
C 2042Δ	1.000	3,700	.068	.56	.32	.38	.156	.625	.31	.47	.47	.06	E-11
C 2052Δ	1.250	6,100	.108	.83	.41	.48	.200	.750	.38	.59	.59	.08	E-13
C 2062H	1.500	8,500	.176	1.55	.56	65	.234	.875	.50	.68	.68	.13	E-15
C 2082H	2.000	12,500	.295	2.35	.69	.81	.313	1.125	.63	.91	.91	.16	E-17
C 2102H	2.500	26,000	.427	3.85	.83	.95	.375	1.563	.75	1.13	1.13	.19	E-19
C 2122H	3.000	36,500	.636	6.22	1.02	1.19	.438	1.750	1.00	1.38	1.38	.22	E-21
C 2162H	4.000	68,000	1.014	9.34	1.30	1.48	.562	2.250	1.25	1.87	1.87	.28	E-23

Stainless Steel

Chain Number	Chain pitch, inches	Average Ultimate strength, pounds	Joint bearing area, square inches	Weight per foot, pounds	Dimensions, inches								Sprocket data, pages
					A	B	C	D	E	F	G	T	
C 2042 SSΔ	1.000	3,000	.068	.56	.32	.38	.156	.625	.31	.47	.47	.06	E-11
C 2052 SSΔ	1.250	5,000	.108	.83	.41	.48	.200	.750	.38	.59	.59	.08	E-13
C 2062H SS	1.500	6,800	.176	1.55	.56	65	.234	.875	.50	.68	.68	.13	E-15
C 2082H SN	2.000	12,000	.295	2.35	.69	.81	.313	1.125	.63	.91	.91	.16	E-17
C 2102H SN	2.500	18,750	.427	3.85	.83	.95	.375	1.563	.75	1.13	1.13	.19	E-19
C 2122H SN	3.000	27,000	.636	6.22	1.02	1.19	.438	1.750	1.00	1.38	1.38	.22	E-21
C 2162H SN	4.000	47,000	1.014	9.34	1.30	1.48	.562	2.250	1.25	1.87	1.87	.28	E-23

Δ Available only in riveted construction. All other sizes may be furnished cottered or riveted.
When ordering chains and attachments with large Delrin rollers, add the suffix “DR” to the chain number listed above.

Conveyor Chains
Double Pitch Chain Attachments

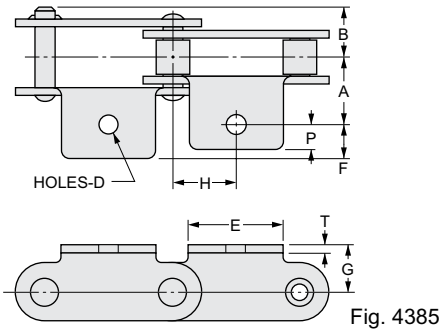


Fig. 4385

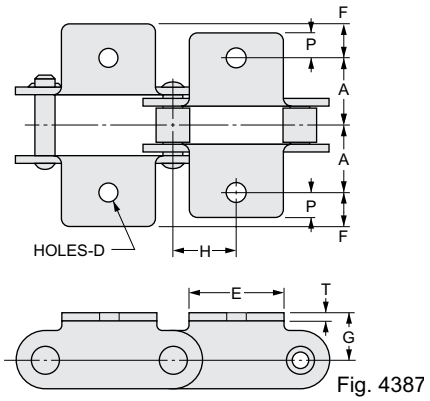


Fig. 4387

A1 and K1 attachments

A1 **K1**

Chain Number		Chain pitch, inches	Dimensions, inches								
Standard Rollers	Large Rollers		A	B	D	E	F	G	H	P	T
C 2040Δ	C 2042Δ	1.000	.50	.38	.14	.75	.25	.36	.50	.22	.06
C 2050Δ	C 2052Δ	1.250	.63	.48	.20	.94	.34	.44	.63	.26	.08
C 2060H	C 2062H	1.500	.84	.65	.20	1.13	.50	.58	.75	.37	.13
C 2080H	C 2082H	2.000	1.09	.81	.27	1.50	.48	.75	1.00	.30	.16
C 2100H	C 2102H	2.500	1.31	.95	.33	1.88	.67	.92	1.25	.44	.19
C 2120H	C 2122H	3.000	1.56	1.19	.39	2.25	.83	1.09	1.50	.55	.22
C 2160H	C 2162H	4.000	2.06	1.48	.52	3.00	.72	1.44	2.00	.70	.28

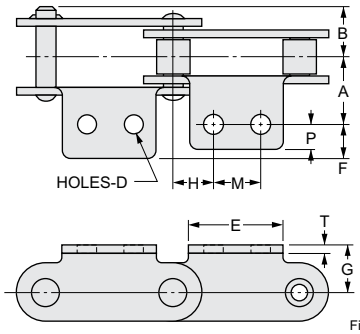


Fig. 4386

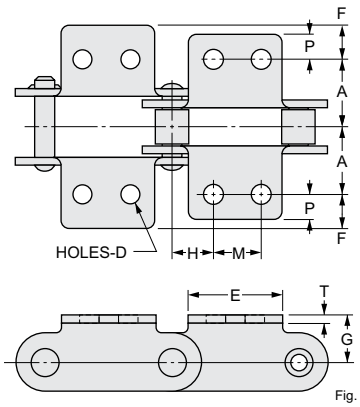


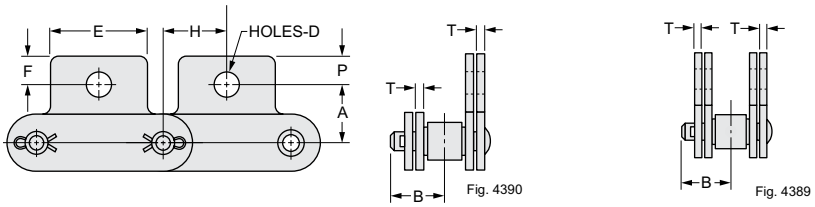
Fig. 4388

A2 and K2 attachments

Chain Number		Chain pitch, inches	Dimensions, inches									
Standard Rollers	Large Rollers		A	B	D	E	F	G	H	R	P	T
C 2040Δ	C 2042Δ	1.000	.50	.38	.14	.75	.25	.36	.31	.38	.22	.06
C 2050Δ	C 2052Δ	1.250	.63	.48	.20	1.00	.34	.44	.39	.47	.26	.08
C 2060H	C 2062H	1.500	.84	.65	.20	1.13	.50	.58	.47	.56	.37	.13
C 2080H	C 2082H	2.000	1.09	.81	.27	1.50	.48	.75	.63	.75	.31	.16
C 2100H	C 2102H	2.500	1.31	.95	.33	1.88	.67	.92	.78	.94	.47	.19
C 2120H	C 2122H	3.000	1.56	1.19	.39	2.25	.77	1.09	.94	1.13	.59	.22
C 2160H	C 2162H	4.000	2.06	1.48	.52	3.00	.72	1.44	1.25	1.50	.70	.28

For stainless steel chains and attachments, contact Rexnord.
Δ Available only in riveted construction. All other sizes may be furnished cottered or riveted.
When ordering chains and attachments with large Delrin rollers, add the suffix “DR” to the chain number listed above.

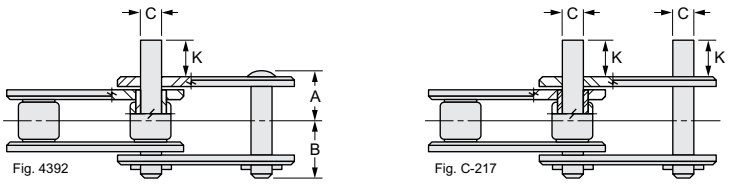
Dimensions and other engineering data are subject to change. Certified specifications of ordered product furnished upon request.



M35 **M1**

M35 and M1 attachments

Chain Number		Chain pitch, inches	Dimensions, inches							
Standard Rollers	Large Rollers		A	B	D	E	F	H	P	T
C 2040Δ	C 2042Δ	1.000	.44	.38	.20	.75	.37	.50	.37	.06
C 2050Δ	C 2052Δ	1.250	.56	.48	.27	1.00	.42	.63	.42	.08
C 2060H	C 2062H	1.500	.69	.65	.33	1.13	.61	.75	.61	.13
C 2080H	C 2082H	2.000	.88	.81	.39	1.50	.70	1.00	.70	.16
C 2100H	C 2102H	2.500	1.13	.95	.52	1.88	.88	1.25	.88	.19
C 2120H	C 2122H	3.000	1.31	1.19	.58	2.25	1.06	1.50	1.06	.22
C 2160H	C 2162H	4.000	1.75	1.48	.75	3.00	1.08	2.00	1.08	.28



D1 and D100 **D3**

D1, D3 and D100 attachments

Chain Number		Chain pitch, inches	Dimensions, inches					
Standard Rollers	Large Rollers		A	B	C	D1▲	D3	D100†
C 2040Δ	C 2042Δ	1.000	.32	.38	.156	.38	.38	.59
C 2050Δ	C 2052Δ	1.250	.40	.48	.200	.47	.47	.77
C 2060H	C 2062H	1.500	.56	.65	.234	.56	.56	.81
C 2080H	C 2082H	2.000	.69	.81	.313	.75	.75	1.08
C 2100H	C 2102H	2.500	.83	.95	.375	.94	.94	1.33
C 2120H	C 2122H	3.000	1.02	1.19	.438	1.13	1.13	1.72
C 2160H	C 2162H	4.000	1.30	1.48	.562	1.50	1.50	2.52

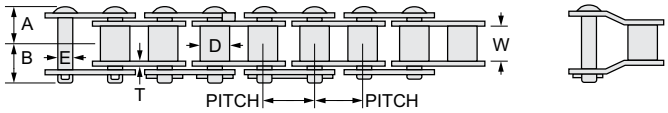
For stainless steel chains and attachments, contact Rexnord.
Δ Available only in riveted construction. All other sizes may be furnished cottered or riveted.
When ordering chains and attachments with large Delrin rollers, add the suffix “DR” to the chain number listed above.
† Formerly furnished as D1 attachment.
▲Conforms to ANSI Standard B29.1 and will be furnished unless otherwise specified.

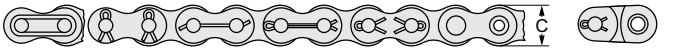
Conveyor Chains

Link-Belt Redi-Lube Chain

Standard Group







CONN. LINK SPRING CLIP TYPE SCCLK | CONN. LINK COTTER TYPE CTCLKCTP | PIN LINK SOLID LONG COTTER TYPE SLC | PIN LINK LONG SINGLE COTTER TYPE LC | PIN LINK SPLIT COTTER TYPE DC | PIN LINK RIVETED TYPE RIV | OFFSET LINK TYPE OLKCTP

Link-Belt Redi-Lube™ chain is built for service comparable to that of ANSI roller chain and is interchangeable with the ANSI chain. However, Redi-Lube chain is self-lubricating. Like the ANSI chain, Redi-Lube is made in standard, single and multiple widths and Double-Pitch; the latter in two series—drive and conveyor.

Construction Heavy-walled, oil-impregnated, sintered-steel bushings replace the conventional rollers and bushings of ANSI roller chain. Controlled interference fits between the bushings and link plates prevent tight chain joints, caused by the link plates backing off the bushings.

Advantages Redi-Lube chain, being self-lubricating, assures long wear life when lubrication is not possible or practical. This advantage in Redi-Lube chain only applies to chain speed ranges shown in the "Speed Range" table on following page.

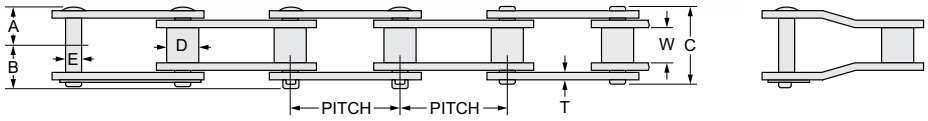
Maximum operating temperature for Redi-Lube chain is 200°F. Built-in clearances and self-lubrication guard against corrosion and abrasion. Although these destructive elements cannot be entirely overcome, the constant presence of a lubricating film in the pin-bushing contact area minimizes their effect.

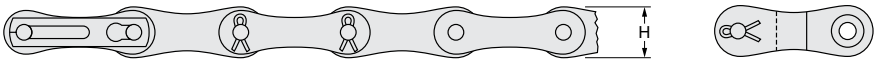
Attachments A, K, M and D Type Attachments are available for the pin links only for Redi-Lube chain. Dimensionally these pin link attachments are the same as those for corresponding ANSI single pitch chains thru $^{3}/_{4}$" pitch and Double-Pitch Conveyor series chains thru $1^{1}/_{2}$" pitch.

Sprockets Single-Pitch Redi-Lube chain uses Standard Roller chain sprockets. Double-Pitch Redi-Lube chain uses Double-Pitch sprockets.

Double-Pitch Group—Drive Series







CONNECTING LINK SPRING CLIP TYPE SCCLK | CONNECTING LINK COTTER TYPE CTCLKCTP | PIN LINK RIVETED TYPE RIV | OFFSET LINK TYPE OLKCTP

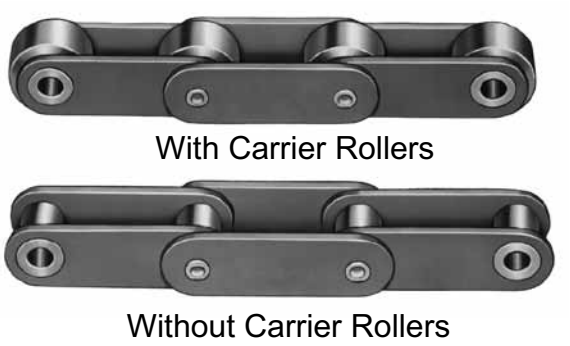
Dimensions, Strengths and Weights

Chain Number			Dimensions, Inches													
Single Pitch Drive Series	Double Pitch Drive Series	Pitch	Bushing Width W	Bushing Diam. D	Riv. End to Center Line A	Conn. End to Center Line B	Overall Width C Riv.	Overall Width C Cot.	Link Plate Height H	Link Plate Thickness T	Pin Diam. E	Average Ultimate Strength, Lbs.	Minimum Ultimate Strength, Lbs.	Average Weight Per Foot, Lbs.	Std. Type of Pin Link	Type of Connecting Link
45LJ	-	0.500	0.31	0.31	0.33	0.41	0.66	0.73	0.47	0.06	0.16	2,650	2,500	0.39	Riv.	SCCLK
-	2045LJ	1.000	0.31	0.31	0.33	0.41	0.66	0.73	0.47	0.06	0.16	2,650	2,500	0.32	Riv.	SCCLK
55LJ	-	0.625	0.38	0.40	.041	0.48	0.81	0.89	0.59	0.08	0.20	5,200	4,130	0.65	Riv.	SCCLK
-	2055LJ	1.250	0.38	0.40	.041	0.48	0.81	0.89	0.59	0.08	0.20	5,200	4,130	0.42	Riv.	SCCLK
65LJ	-	0.750	0.50	0.47	0.50	0.59	1.00	1.09	0.70	0.09	0.23	7,800	5,980	0.99	Riv.	SCCLK
-	2065LJ	1.500	0.50	0.47	0.50	0.59	1.00	1.09	0.69	0.09	0.23	7,800	5,980	0.61	Riv.	SCCLK
65HLJ	-	0.750	0.50	0.47	0.58	0.67	1.11	1.25	0.69	0.13	0.23	8,500	7,080	1.09	Riv.	SCCLK
-	2065HLJ	1.500	0.50	0.47	0.59	0.66	1.13	1.25	0.69	0.13	0.23	8,500	7,080	0.97	Riv.	SCCLK
85LJ	-	1.000	0.63	0.63	0.66	0.75	1.31	1.41	0.95	0.13	0.31	13,000	11,000	1.8	SLC	DC
85HLJ	-	1.000	0.63	0.63	0.72	0.81	1.44	1.53	0.95	0.16	0.31	14,000	12,000	2.1	SLC	DC
105LJ	-	1.250	0.75	0.75	0.80	0.92	1.58	1.72	1.19	0.16	0.38	20,000	17,000	2.7	SLC	DC

Dimensions and other engineering data are subject to change. Certified specifications of ordered product furnished upon request.

Conveyor Chains

Carrier Roller Group

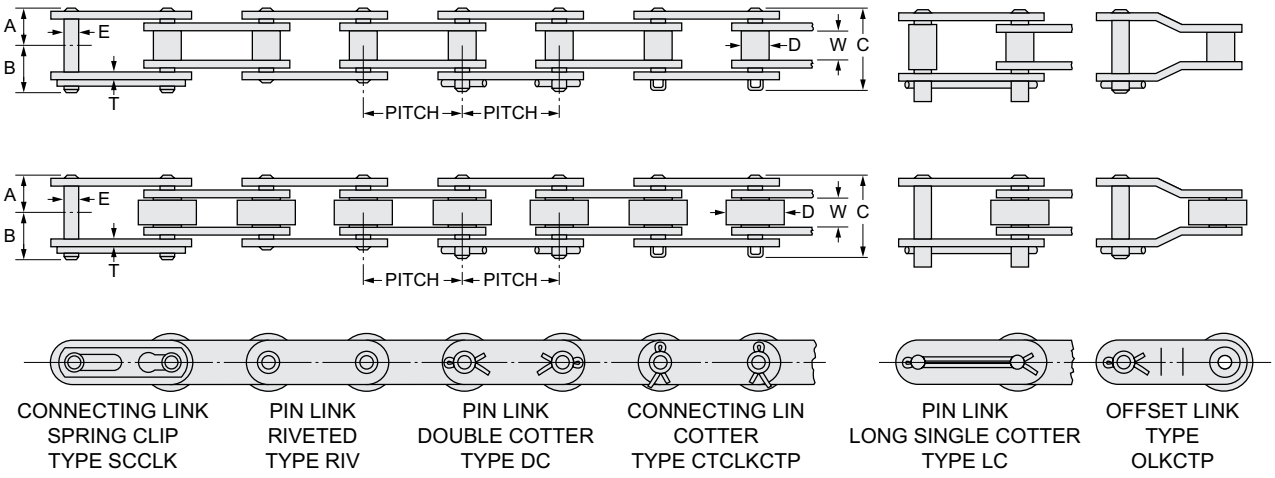


With Carrier Rollers

Without Carrier Rollers

Redi-Lube Chain Speed Ranges

Chain Number	Speed Range FPM
40L	0-2000
50L	0-1500
60L	0-1000
60HL	0-1000
80L	0-750
80HL	0-750
100L	0-250
1, 1¼, 1½ - inch double-pitch	0-500
2-inch double-pitch	0-350



NOTE: EXCEPT FOR CARRIER ROLLER, DRAWING
ALSO APPLIES TO ROLLERLESS TYPE

Dimensions, Strengths and Weights

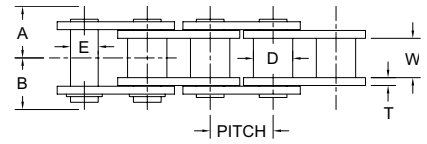
Chain Number		Dimensions, Inches															
Without Carrier Rollers	With Carrier Rollers	Pitch	Bushing or Roller		Riv. End to Center Line	Conn. End to Center Line	Overall Width C		Link Plate		Pin Diam.	Average Ultimate Strength, Lbs.	Minimum Ultimate Strength, Lbs.	Average Weight Per Foot, Lbs.	Std. Type of Pin Link	Type of Connecting Link
			Width	Diam.					Height	Thick-ness						
			W	D	A	B	Riv.	Conn. Link	H	T	E					
C2045LJ	-	1.000	0.31	0.31	0.33	0.41	0.66	0.73	0.47	0.06	0.16	3,000	2,500	0.33	Riv.	SCCLK
-	C2042LJ	1.000	0.31	0.63	0.33	0.41	0.66	0.73	0.47	0.06	0.16	3,000	2,500	0.56	Riv.	SCCLK
C2055LJ	-	1.250	0.38	0.40	0.41	0.48	0.81	0.89	0.59	0.08	0.20	5,200	4,130	0.56	Riv.	SCCLK
-	C2052LJ	1.250	0.38	0.75	0.41	0.48	0.81	0.89	0.59	0.08	0.20	5,200	4,130	0.87	Riv.	SCCLK
C2065LJ	-	1.500	0.50	0.47	0.50	0.59	1.00	1.09	0.69	0.09	0.23	7,000	5,980	0.61	Riv.	SCCLK
C2065HLJ	-	1.500	0.50	0.47	0.59	0.66	1.13	1.25	0.69	0.13	0.23	8,500	7,080	0.97	Riv.	SCCLK
-	C2062HLJ	1.500	0.50	0.88	0.59	0.66	1.13	1.25	0.69	0.13	0.23	8,500	7,080	1.45	Riv.	SCCLK
C2085HLJ	-	2.000	0.63	0.63	0.72	0.81	1.44	1.53	0.95	0.16	0.31	12,500	12,000	2.10	DC	DC
-	C2082HLJ	2.000	0.63	1.13	0.72	0.81	1.44	1.53	0.95	0.16	0.31	12,500	12,000	2.60	DC	DC
85HLJ	-	1.000	0.63	0.63	0.72	0.81	1.44	1.53	0.95	0.16	0.31	14,000	12,000	2.1	SLC	DC
105LJ	-	1.250	0.75	0.75	0.80	0.92	1.58	1.72	1.19	0.16	0.38	20,000	17,000	2.7	SLC	DC

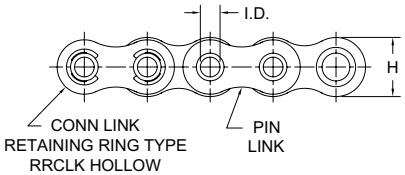
Conveyor Chains

Hollow Pin Chain



Single Pitch
Carrier Roller Type





Link-Belt Hollow Pin chain is identical to ANSI Standard Roller Chain in pitch, roller width, and roller diameter. It is quality designed for long wear life in conveyor applications. The “hollow pin” feature provides unlimited conveyor design versatility.

Link-Belt Hollow Pin chain is available in single pitch series or Double-Pitch series. The Double-Pitch series is furnished either rollerless or with large-diameter carrier rollers constructed of steel or Delrin.

Advantages: Attachments or crossrods can be inserted at any desired spacing, which provides great design versatility. Changes can be made without removing the chain from the conveyor.

Ease of assembly of attachments or crossrods reduces assembly costs and maintenance time. There is less down-time in the event of a conveyor jam-up.

Standard ANSI sprockets can be used except on large-diameter carrier roller chain.

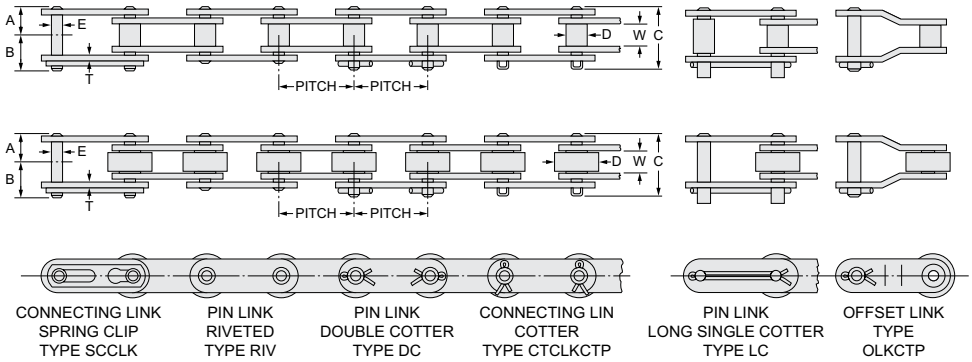
The type of connecting link used for all Hollow Pin chain is retaining ring (RR).

Sprockets: Single pitch Hollow Pin chain uses standard stock sprockets. Double-Pitch Hollow Pin chain uses Double-Pitch sprockets.

Attachments: Since the connecting link for the Hollow Pin chain is in itself a wider assembly than the standard Hollow Pin chain, the connecting link will not accept an attachment.



Double Pitch
Carrier Roller Type



Dimensions, Strengths and Weights

Chain Number			Pitch	Bushing		Riv. End to Center Line	Conn. End to Center Line	Overall Width C		Link Plate		Pin Diameter		Average Ultimate Strength, Lbs.	Minimum Ultimate Strength, Lbs.	Average Weight Per Foot, Lbs.
Single Pitch	Rollerless Double Pitch	Carrier Roller Double Pitch		Width	Diam.					Height	Thickness	Out Diam.	Inside Diam.			
				W	D	A	B	Riv.	Ret Ring	H	T	E	Min.			
45HP	-	-	0.500	0.31	0.31	0.33	0.38	0.66	0.69	0.47	0.06	0.22	0.16	2,500	1,750	0.38
-	C2045HP	-	1.000	0.31	0.31	0.33	0.38	0.66	0.69	0.47	0.06	0.22	0.16	2,500	1,750	0.31
-	-	C2042HP	1.000	0.31	0.63	0.33	0.38	0.66	0.69	0.47	0.06	0.22	0.16	2,500	1,750	0.54
55HP	-	-	0.625	0.38	0.40	0.41	0.44	0.80	0.84	0.59	0.08	0.28	0.20	4,400	2,540	0.63
-	C2055HP	-	1.250	0.38	0.40	0.41	0.44	0.80	0.84	0.59	0.08	0.28	0.20	4,400	2,540	0.51
-	-	C2052HP	1.250	0.38	0.75	0.41	0.44	0.80	0.84	0.59	0.08	0.28	0.20	4,400	2,540	0.84
65HP	-	-	0.750	0.50	0.47	0.50	0.55	0.98	1.03	0.69	0.09	0.33	0.24	6,000	5,100	0.88
-	C2065HP	-	1.500	0.50	0.47	0.50	0.55	0.98	1.03	0.69	0.09	0.33	0.24	6,000	5,100	0.75
-	-	C2062HP	1.500	0.50	0.88	0.50	0.55	0.98	1.03	0.69	0.09	0.33	0.24	6,000	5,100	1.20
85HP	-	-	1.000	0.63	0.63	0.61	0.70	1.22	1.32	0.94	0.13	0.44	0.31	12,000	11,750	1.60
-	C2085HP	-	2.000	0.63	0.63	0.67	0.77	1.34	1.44	0.94	0.16	0.44	0.31	12,000	11,750	1.50
-	-	C2082HP	2.000	0.63	1.13	0.67	0.77	1.34	1.44	0.94	0.16	0.44	0.31	12,000	11,750	2.25

Dimensions and other engineering data are subject to change. Certified specifications of ordered product furnished upon request.

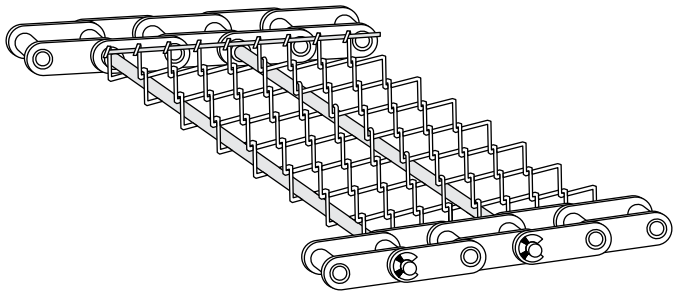
Hollow Pin Chain Attachments

Standard attachments are separate, complete links having long pins which are inserted thru the hollow pins of the chain. All standard attachments will fit chains with or without large diameter carrier rollers. It is recommended that all attachments be inserted in the pin link position of the chain.

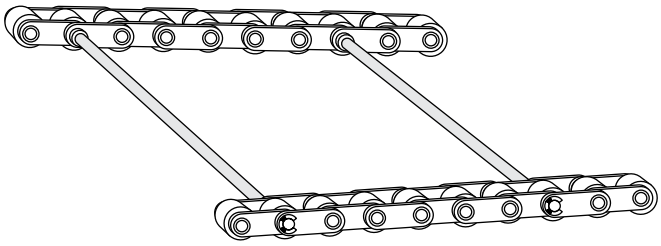
Hollow Pin chain provides great versatility in conveyor design. Various types of attachments may be stocked for use on the same chain. Chain may be purchased in any desired length and assembled into a conveyor using loose attachments, adaptors, and/or cross rods in any desired spacing or arrangement. Attachments or cross rods may be inserted into any link in the chain without chain disassembly. Changes in attachments and in attachment spacing can be quickly accomplished while the chain remains on its sprockets.

The attachments and the uses pictured on this page, while not standard, are typical of the versatility provided for by the unique features of Hollow Pin chain.

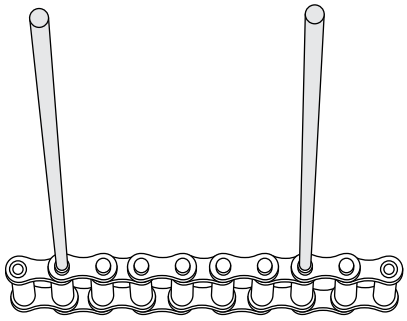
Note: Attachment applications on this page are examples of typical uses and should not be construed as being supplied by Rexnord.



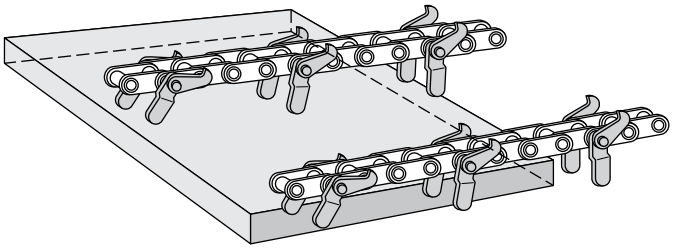
Wire mesh conveyor, using cross rods assembled to parallel strands of Hollow Pin Chain.



Rod conveyor made by assembling cross rods with parallel strands of Hollow Pin Chain.

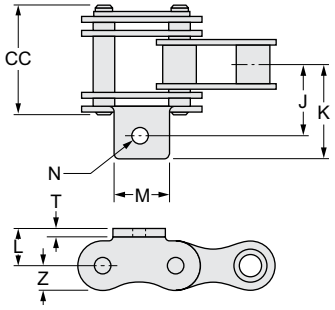


Vertical pins assembled in Hollow Pin Chain for locating and conveying.



Pivoting pusher attachment assembled into Hollow Pin Chain (special).

For Single Pitch Chain

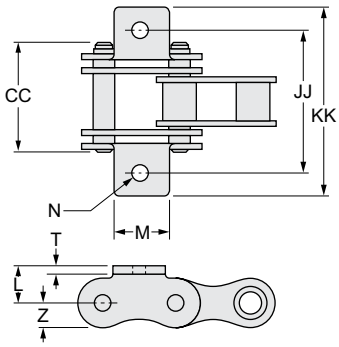


A-1 BENT LUG AND
ONE HOLE, ONE SIDE

Dimensions and Weights

A-1 Connecting Link Attachments

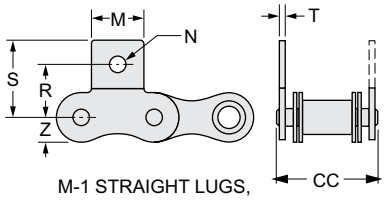
Chain Number	Dimensions, Inches									Ave. Wgt. per Attach., Lbs.
	Pitch	J	K	L	M	N	T	CC	Z	
45HP	0.500	0.61	0.78	0.31	0.38	0.14	0.06	0.89	0.23	0.021
55HP	0.625	0.75	1.19	0.41	0.56	0.20	0.08	1.09	0.30	0.045
65HP	0.750	0.84	1.25	0.47	0.63	0.20	0.09	1.33	0.34	0.074



K-1 BENT LUGS AND
ONE HOLE , BOTH SIDES

K-1 Connecting Link Attachments

Chain Number	Dimensions, Inches									Ave. Wgt. per Attach., Lbs.
	Pitch	JJ	KK	L	M	N	T	CC	Z	
45HP	0.500	1.22	1.56	0.31	0.38	0.14	0.06	0.89	0.23	0.024
55HP	0.625	1.50	2.13	0.41	0.56	0.20	0.08	1.09	0.30	0.054
65HP	0.750	1.75	2.50	0.47	0.63	0.20	0.09	1.33	0.34	0.086

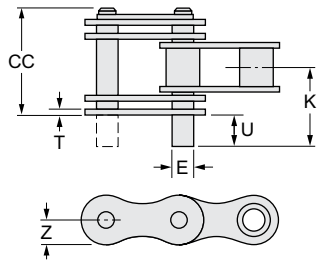


M-1 STRAIGHT LUGS,
BOTH SIDES

M-35 STRAIGT LUG,
ONE SIDE

M-1 and M-35 Connecting Link Attachments

Chain Number	Dimensions, Inches								Ave. Wgt. per Attach., Lbs.	
	Pitch	M	S	T	CC	Z	R	N	Lug One Side	Lug Both Sides
45HP	0.500	0.38	0.69	0.06	0.89	0.23	0.50	0.14	0.021	0.024
55HP	0.625	0.56	0.94	0.06	0.89	0.30	0.63	0.20	0.045	0.054
65HP	0.750	0.63	1.06	0.08	1.09	0.34	0.72	0.20	0.074	0.086



D-1 ONE EXTENDED PIN
IN A PIN LINK

D-3 TWO EXTENDED PINS
IN A PIN LINK

D-1 and D-3 Connecting Link Attachments

Chain Number	Dimensions, Inches							Ave. Wgt. per Attach., Lbs.	
	Pitch	E	K	T	CC	U	Z	D-1	D-3
45HP	0.500	0.16	0.78	0.06	0.89	0.38	0.23	0.020	0.023
55HP	0.625	0.20	1.19	0.06	0.89	0.47	0.30	0.040	0.045
65HP	0.750	0.23	1.25	0.08	1.09	0.56	0.34	0.068	0.075

If specific dimensions are required, or if flatness, alignment, or other dimensional requirements of attachments are critical, please contact Rexnord.

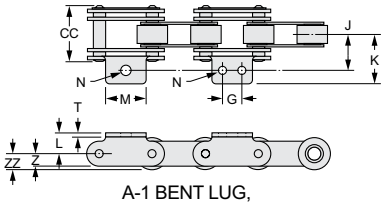
Dimensions and other engineering data are subject to change. Certified specifications of ordered product furnished upon request.

For Double Pitch Chain

Dimensions and Weights

A-1 and A-2 Connecting Link Attachments

Chain Number	Dimensions, Inches											Ave. Wgt. per Attach., Lbs.
	Pitch	J	K	L	M	N	T	CC	G (A-2)	Z	ZZ	
C2045HP	1.000	0.61	0.84	0.36	0.75	0.14	0.06	0.89	0.38	0.23	-	0.036
C2042HP	1.000	0.61	0.84	0.36	0.75	0.14	0.06	0.89	0.38	0.23	0.31	0.036
C2055HP	1.250	0.75	1.06	0.44	1.00	0.81	0.08	1.09	0.47	0.30	-	0.075
C2052HP	1.250	0.75	1.06	0.44	1.00	0.81	0.08	1.09	0.47	0.30	0.38	0.075
C2065HP	1.500	0.94	1.31	0.58	1.13	0.81	0.13	1.39	0.56	0.34	-	0.154
C2062HP	1.500	0.94	1.31	0.58	1.13	0.81	0.13	1.39	0.56	0.34	0.44	0.154

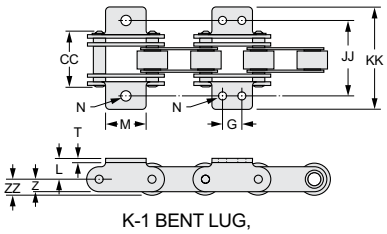


A-1 BENT LUG,
ONE HOLE, ONE SIDE

A-2 BENT LUG
TWO HOLES, ONE SIDE

K-1 and K-2 Connecting Link Attachments

Chain Number	Dimensions, Inches											Ave. Wgt. per Attach., Lbs.
	Pitch	JJ	KK	L	M	N	T	CC	G (K-2)	Z	ZZ	
C2045HP	1.000	1.22	1.69	0.36	0.75	0.14	0.06	0.89	0.38	0.23	-	0.042
C2042HP	1.000	1.22	1.69	0.36	0.75	0.14	0.06	0.89	0.38	0.23	0.31	0.042
C2055HP	1.250	1.50	2.13	0.44	1.00	0.81	0.08	1.09	0.47	0.30	-	0.090
C2052HP	1.250	1.50	2.13	0.44	1.00	0.81	0.08	1.09	0.47	0.30	0.38	0.090
C2065HP	1.500	1.88	2.63	0.58	1.13	0.81	0.13	1.39	0.56	0.34	-	0.184
C2062HP	1.500	1.88	2.63	0.58	1.13	0.81	0.13	1.39	0.56	0.34	0.44	0.184

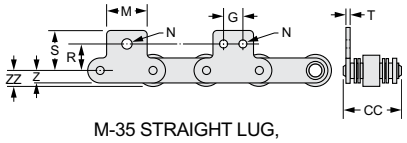


K-1 BENT LUG,
ONE HOLE, BOTH SIDES

K-2 BENT LUG
TWO HOLES, BOTH SIDES

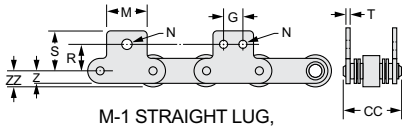
M-Type Connecting Link Attachments

Chain Number	Dimensions, Inches												Ave. Wgt. per Attach., Lbs.	
	Pitch	M	S	T	CC	Z	ZZ	One Hole		Two Holes			Lug One Side	Lug Both Sides
								R	N	R	G	N		
C2045HP	1.000	0.75	0.77	0.06	0.89	0.23	-	0.44	0.20	0.53	0.38	0.14	0.035	0.042
C2042HP	1.000	0.75	0.77	0.06	0.89	0.23	0.31	0.44	0.20	0.53	0.38	0.14	0.035	0.042
C2055HP	1.250	1.00	0.97	0.08	1.09	0.30	-	0.56	0.25	0.63	0.47	0.20	0.075	0.090
C2052HP	1.250	1.00	0.97	0.08	1.09	0.30	0.38	0.56	0.25	0.63	0.47	0.20	0.075	0.090
C2065HP	1.500	1.13	1.20	0.13	1.39	0.34	-	0.69	0.33	0.75	0.56	0.20	0.154	0.184
C2062HP	1.500	1.13	1.20	0.13	1.39	0.34	0.44	0.69	0.33	0.75	0.56	0.20	0.154	0.184



M-35 STRAIGHT LUG,
ONE HOLE, ONE SIDE

M-35-2 STRAIGHT LUG
TWO HOLES, ONE SIDE

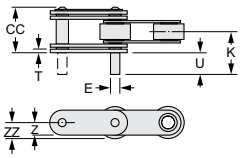


M-1 STRAIGHT LUG,
ONE HOLE, BOTH SIDES

M-2 STRAIGHT LUG
TWO HOLES, BOTH SIDES

D-1 and D-3 Connecting Link Attachments

Chain Number	Dimensions, Inches								Ave. Wgt. per Attach., Lbs.	
	Pitch	E	K	T	CC	U	Z	ZZ	D-1	D-3
C2045HP	1.000	0.16	0.77	0.06	0.89	0.38	0.23	-	0.034	0.037
C2042HP	1.000	0.16	0.77	0.06	0.89	0.38	0.23	0.31	0.034	0.037
C2055HP	1.250	0.20	0.95	0.08	1.09	0.47	0.30	-	0.066	0.071
C2052HP	1.250	0.20	0.95	0.08	1.09	0.47	0.30	0.38	0.066	0.071
C2065HP	1.500	0.23	1.17	0.13	1.39	0.56	0.34	-	0.133	0.140
C2062HP	1.500	0.23	1.17	0.13	1.39	0.56	0.34	0.44	0.133	0.140



D-1 ONE EXTENDED PIN IN A PIN LINK

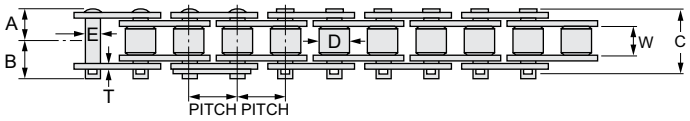
D-3 TWO EXTENDED PINS IN A PIN LINK

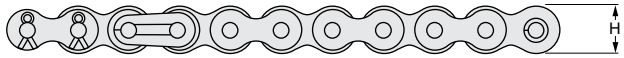
If specific dimensions are required, or if flatness, alignment, or other dimensional requirements of attachments are critical, please contact Rexnord.

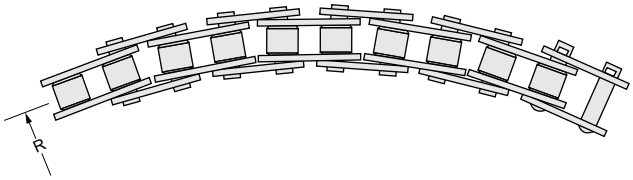
Conveyor Chains

Side Bow Roller Chain









Side Bow Roller chain is an extra-clearance chain with the ability to permit side flexing and twisting. It is made of the same high-quality materials and specifications, and undergoes the same manufacturing processes and precision finishing, as ANSI standard roller chain.

This chain is constructed of standard ANSI roller links combined with special pin links designed to allow greater clearance between the pins and bushings and between the roller link and pin-link plates. Compensation of the pin-link pitch results in uniform chain pitch throughout.

Sprockets For most applications, stock standard ANSI cut tooth sprockets or existing sprockets may be used. For special applications, sprockets may be made-to-order.

Side Bow Roller chain is designed for curved conveyor application on bottling, packaging, canning, and conveying machinery. Some typical applications for this chain are:

1. To operate a live-roll conveyor on a power curve.
2. To carry materials around a curve by use of attachments or slats.
3. To transmit power where abnormal chain twist may be encountered.

The use of Side Bow chain for this type of service results in substantial savings in chain replacement costs, in down time, and in maintenance costs.

Attachments Roller-link attachments are same as ANSI standard. Pin-link attachments are made-to-order.

Selection of this chain not included in the selection procedure of this catalog. For assistance in selection contact Rexnord.

Dimensions, Strengths and Weights

Chain Number	Dimensions, Inches									Average Weight Per Foot, Lbs.	Type of Pin Link	Type of Connecting Link
	Pitch	Rollers		Riv. End to Center Line	Cot. End to Center Line	Overall Width Ric.	Link Plate		Pin Diam.			
		Width	Diam.				Height	Thick-ness				
		W	D	A	B	C	H	T	E			
35TF	0.375	0.19	0.20	0.27	0.34	0.48	0.36	0.05	0.125	0.20	Riv	CTCLKCTP
40TF	0.500	0.31	0.31	0.36	0.44	0.64	0.47	0.06	0.136	0.38	Riv	CTCLKCTP
50TF	0.625	0.38	0.40	0.45	0.55	0.81	0.59	0.08	0.172	0.66	Riv	SCCLK
60TF	0.750	0.50	0.47	0.55	0.63	1.02	0.70	0.09	0.200	0.95	Riv	CTCLKCTP
80TF	1.000	0.63	0.63	0.67	0.75	1.34	0.95	0.13	0.283	1.61	Riv	CTCLKCTP

Recommended Maximum Working Load (Pounds)

Chain Number	Pitch	Minimum Radius, Inches	Maximum Twist Per Foot of Center Distance* (Degrees)	Maximum Working Load For Side Bow Conditions (Pounds)			Average Ultimate Strgth., Lbs.	Minimum Ultimate Strgth., Lbs.
				Chain Speed – Feet Per Minute				
		R		0-100	100-200	200-300		
35TF	.375	10	80	125	75	45	1,800	1,700
40TF	.500	14	50	250	150	90	2,400	2,200
50TF	.625	16	40	450	240	145	4,600	3,550
60TF	.750	20	30	600	360	220	6,100	4,930
80TF	1.000	28	20	1,000	600	360	11,000	9,200

* Because this condition results in abnormal wear and strain on the chain parts, substantial reduction of normal service life must be expected.

Available Attachments

Chain Number	Roller Link	Chain Number	Roller Link
35TF	A1, K1, M1, M35	60TF	A1, K1, M1, M35
40TF	A1, K1, M1, M35	80TF	A1, K1, M1, M35
50TF	A1, K1, M1, M35		

Dimensions and other engineering data are subject to change. Certified specifications of ordered product furnished upon request.

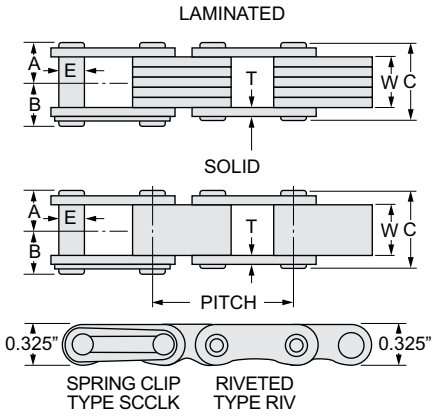
Conveyor Chains
Block Chain

Link-Belt Block chain is precision-finished chain consisting of alternate block links and link plates, joined by pins. Solid blocks are made of sintered metal. Laminated blocks are made of laminated steel plates. All chain is 1-inch pitch, with block links varying from $^{3}/_{16}$ - inch to $^{1}/_{2}$ - inch in width. Pitch is measured between centers of alternate pins in a taut chain, instead of between centers of adjacent pins.

This chain is used in light-load, low-speed conveyors. Its broad surface can be dragged along a guide to reduce the catenary load on sprockets. Block chain length tolerance is –0 to +$^{1}/_{16}$" per foot.

Note: Non-corrosive and heat-resistant block chain - Stainless steel chains can be furnished on a made-to-order basis with laminated blocks only in riveted construction with cottered type connecting links.

Sprockets All Block Chain sprockets are made to order.



Chain Number		Dimensions, inches								Recom. Max. Working Load, Lbs			Average Weight Per Foot Lbs
		Pitch	Block Width	Pin Head to Ctr. Line	Pin End to Ctr. Line	Overall Width C		Link Plate Thick-ness	Pin. Diam.	Chain Speed FPM			
Solid	Laminated		W	A	B	Riv.	SCCLK	T	E	0-100	101-200	201-300	
B-502	L-502	1.000	0.19	0.19	0.25	0.38	0.44	0.06	0.17	200	182	143	0.3
B-503	L-503	1.000	0.25	0.22	0.28	0.44	0.50	0.06	0.17	230	209	164	0.3
B-504	L-504	1.000	0.31	0.28	0.33	0.56	0.61	0.08	0.19	230	209	164	0.4
B-505	L-505	1.000	0.38	0.31	0.36	0.63	0.67	0.08	0.19	300	273	214	0.4
B-506	L-506	1.000	0.50	0.38	0.42	0.75	0.80	0.08	0.19	300	273	214	0.5
-	L505SS	1.000	0.38	0.31	0.39	0.61	CTCLK	0.08	0.19	300	273	214	0.4

NOTES

Dimensions and other engineering data are subject to change. Certified specifications of ordered product furnished upon request.

Conveyor Engineering
Engineering Recommendations

In keeping with modern machinery design, roller chains are widely used for conveyor service because of their appearance, availability, durability, and performance. Precision manufacturing assures long, dependable operation and economical service, while compactness and light weight result in minimum space and power requirements.

Standard Roller chains used for conveyor and elevator service are the same as those used for power transmission drives. The Double Pitch Conveyor chains are similar to the drive chain series, differing principally in sidebar style.

Compared to power transmission applications, chains for conveyor service operate at relatively slow speeds on longer centers and are not exposed to heavy sprocket impact from high velocity, or to the high frequency of joint articulation. Consequently, different methods are used in selecting chains for conveyors than for power transmission service.

The procedure for selecting conveyor chains is outlined on page E-4. Use the following recommendations as a guide when selecting roller chains for conveyors.

Chain types Three general types of roller chains are used for conveyor applications:

Standard Roller chains with suitable attachments are usually applied where sprocket diameters are restricted and smoothness of operation is essential. Most sizes are readily available in stainless steel for corrosive conditions.

Double Pitch Conveyor chains are more economical than Standard Roller chains and are available with either standard diameter or large diameter rollers. Chains with standard diameter rollers are furnished for vertical conveyors or for applications where the chain slides on the edge of the sidebars. Chains with large diameter rollers are recommended when it is advantageous to reduce the power required to operate the conveyor.

Flat-top chains in numerous styles are available for transporting containers of all types, small parts, packages, and countless other items through various processing operations. Top-plates attached to the chain form the carrying surface.

Chain pitch Although conveyor chains are usually selected on the basis of ultimate strength, it is often necessary to consider chain pitch. Chain pitch may govern, or be governed by, the size of the carrier or the attachment spacing.

Consider short pitch Standard Roller chains, 35 through 80, for short conveyors or where smooth operation is required. For a given sprocket diameter, smaller pitch chains permit a large number of sprocket teeth; hence, less chain speed variation. See Chart A, page E-2. For longer conveyors, consider Double Pitch Roller chains.

Larger pitch standard roller chains, numbers 100 through 160, are used for more heavily loaded conveyors. For long conveyors with heavy loading, consider Steel Engineering chains. Consult Rexnord for specifications.

Multiple strand conveyors When two or more strands of chains must operate abreast, strands are matched for uniform length and attachment location. Each 10-foot length is tagged to indicate the proper sequence of assembly. Sprockets should be keyseated in line with respect to a tooth or tooth space to assure an equal distribution of the load in all strands of chain.

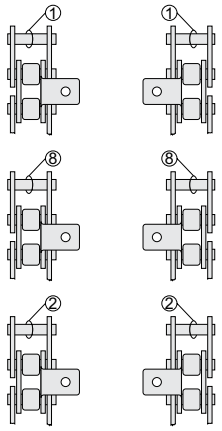


Fig C-166

It is not necessary to couple the strands in numerical sequence unless more than one type of attachment is used in variable spacing.

Operating temperature Roller chains may be operated in moderately elevated temperature zones, as in baking and enameling ovens. The working factors listed in the table on page E-4 may be used when the chain temperature is below 350° F. Consult Rexnord Industrial Chain for operation at temperature above 350° F. Refer to page E-9 for information regarding lubrication at elevated temperatures.

Chain joint bearing area Chain joint bearing area is the pin diameter multiplied by the bushing length.

Although this value is not directly used in the chain selection procedure, it can serve as an indicator of comparative wear life between two chains. For this reason, bearing area values are shown in the conveyor chain specification tables, pages D-3 to D-6.

Catenary tension and chain sag The formulas applying to the conveyor layouts on pages E-6 and E-7 do not consider catenary tension since most roller chain conveyors are designed to support the return span of chain. However, for short conveyors, it is not uncommon or undesirable to permit the return run to hang free. Longer conveyors are sometimes designed so that the major portion of the return run is supported, thus allowing the catenary tension in the unsupported section of chain to act as a takeup.

When the return run of chain on a long conveyor is unsupported, calculate the catenary tension due to chain weight and add it to the chain pull so that the selection will be based on the total working load.

Catenary tension should not exceed the chain pull and must be considered when calculating bearing loads and necessary shaft diameters, but is not a factor in determining the required horsepower to operate the conveyor.

Conveyor Engineering

Engineering Recommendations

It is often desirable to determine the amount of sag to be expected in the unsupported slack span of a conveyor chain so that required clearances can be established. Table 5 below lists the approximate sag for various center distances.

Use the following formulas to calculate chain sag and catenary tension, where:

E=Excess chain, inches, or arc AB minus straight line AB

U=Unsupported horizontal length of catenary, inches

W=Weight of conveyor components (chain, slats, flights, etc.) per conveyor foot

Z=Sag, inches

Pc=Catenary tension, pounds

$$Z = \sqrt{.375\,UE}$$

$$P_c = \frac{WU^2}{96Z} + \frac{WZ}{12}$$

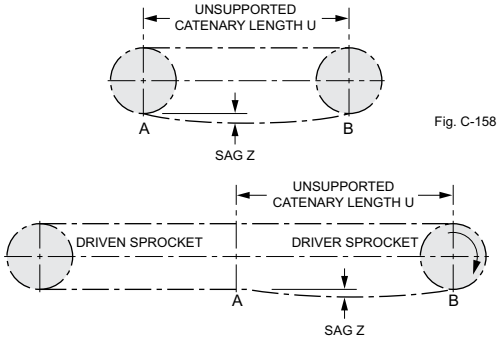


Fig. C-158

Sprockets Sprockets for conveyor and elevator applications are usually the same diameter at both the head and foot ends. Use sprockets with as many teeth as practical to achieve smooth operation and minimize chain and sprocket wear.

Sprockets with at least 15 teeth are recommended; however, where greater operating smoothness is required, use sprockets with 21 or more teeth. Chart A illustrates the relationship between chordal action and the number of teeth in sprockets.

Driving power The driving power is usually applied to the head, or discharge, end of the conveyor. This arrangement is recommended so that only the carrying run of the conveyor chain is under maximum tension.

Chart A Variations in chain speed due to chordal action

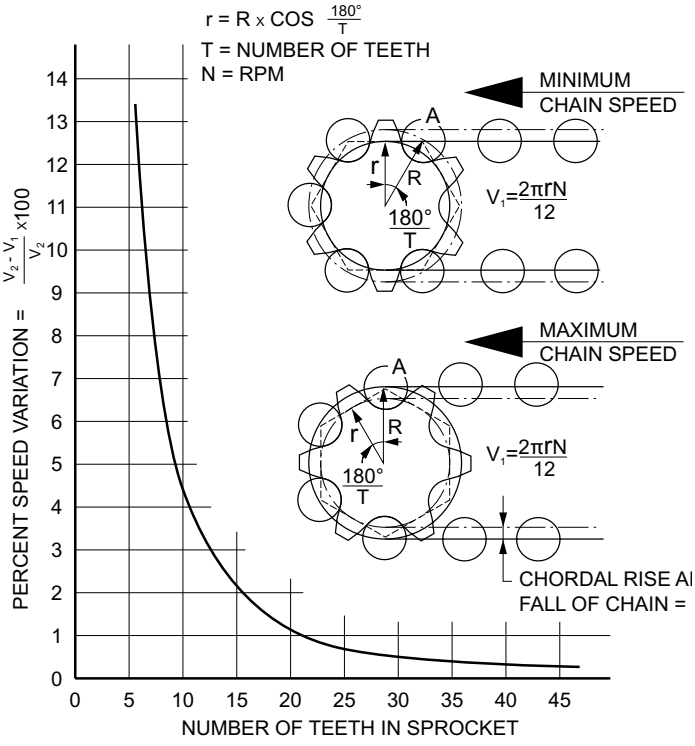


Fig. 5059

Table 5 Chain sag–equal size sprockets–horizontal centers

Sprocket Center in inches	Approximate sag in inches – Excess chain in inches											
	1/16	1/8	3/8	1/2	3/4	1	1 1/2	2	2 1/2	3	3 1/2	4
10	.484	.684	1.19	1.37	1.68	1.94	2.37	2.74	3.06	3.35	3.62	3.87
20	.685	.968	1.68	1.94	2.37	2.74	3.35	3.84	4.33	4.74	5.12	5.47
30	.839	1.19	2.06	2.38	2.90	3.35	4.11	4.74	5.30	5.81	6.27	6.71
40	.968	1.37	2.38	2.74	3.35	3.87	4.74	5.48	6.12	6.70	7.25	7.75
50	1.08	1.53	2.65	3.06	3.75	4.33	5.30	6.12	6.85	7.50	8.10	8.66
60	1.19	1.68	2.91	3.35	4.10	4.74	5.81	6.71	7.50	8.20	8.87	9.49
70	1.28	1.81	3.14	3.63	4.44	5.12	6.27	7.25	8.10	8.87	9.58	10.2
80	1.37	1.94	3.35	3.87	4.74	5.48	6.71	7.75	8.66	9.49	10.2	11.0
90	1.45	2.04	3.56	4.11	5.03	5.81	7.11	8.21	9.19	10.1	10.9	11.6
100	1.53	2.17	3.75	4.33	5.30	6.12	7.50	8.66	9.68	10.6	11.4	12.2
125	1.71	2.42	4.19	4.84	5.93	6.85	8.39	9.68	11.1	11.9	12.8	13.7
150	1.88	2.65	4.60	5.30	6.49	7.50	9.19	10.6	11.9	13.0	14.0	15.0
175	2.03	2.86	4.96	5.73	7.02	8.10	9.92	11.4	12.8	14.0	15.2	16.2
200	2.71	3.06	5.31	6.12	7.50	8.66	10.6	12.2	13.7	15.0	16.2	17.3

Takeups Locate takeups at the foot, or loading, end of the conveyor whenever practical. Screw takeups are ordinarily used but where fixed tension is required, such as on long conveyors subject to wide temperature variations, spring, gravity, or catenary takeups are recommended.

Takeups should have sufficient travel to permit removal of 2 pitches of chain.

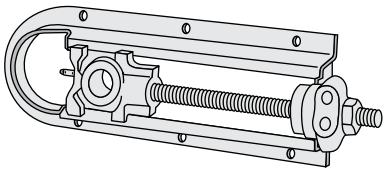


Fig. 7970

Screw takeup
Used where periodic manual adjustments are sufficient.

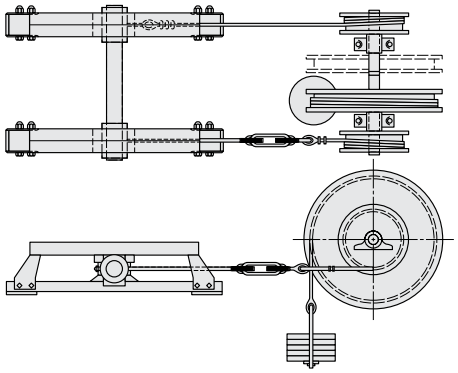


Fig. 7971

Gravity takeup
Used where constant adjustment is desirable to compensate for chain wear.

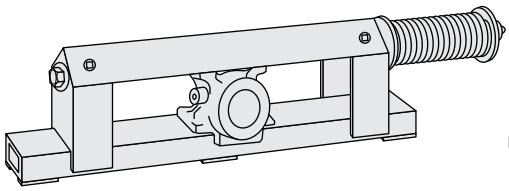


Fig. 7972

Spring takeup
Especially useful for shock loading conditions. Due to limited travel of the spring, manual adjustments are also necessary.

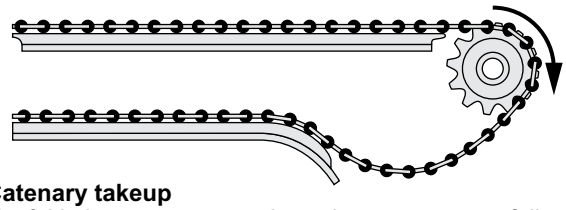


Fig. 7973

Catenary takeup
Useful in long conveyors where the catenary can follow the drive sprocket, thereby relieving chain tension throughout the rest of the conveyor. The catenary provides “automatic” tensioning of the chain.

Lubrication Conveyor chains must be properly lubricated to give long, trouble-free service.

When operating in a clean atmosphere, lubricate the chain with a neutral grade of straight mineral oil that is fluid enough to penetrate the chain joint.

When operating in an abrasive atmosphere lubricate the chain with a neutral petroleum jelly or a soft grease which, when heated, becomes sufficiently fluid to penetrate into the chain joint, but at operating temperature is solid enough to hinder the entrance of abrasive materials.

When operating at elevated temperatures lubricate the chain with colloidal graphite dispersed in a suitable carrier.

Complete data on lubrication methods and recommendations are on page E-9.

Typical arrangements The three arrangements illustrated are most commonly used to attach slats, pans, crossrods, and similar carriers to conveyor chains. Although the illustrations show the chains rolling on large diameter rollers, the same arrangements may be used for chains with standard diameter rollers where the chains slide on the edges of the sidebars.

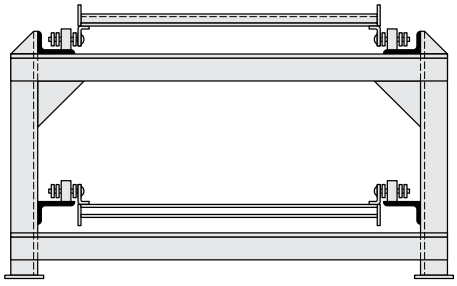


Fig. 4706

Arrangement 1 illustrates the use of A attachments to which the carriers are fastened. This arrangement permits rolling on both the carrying and return runs.

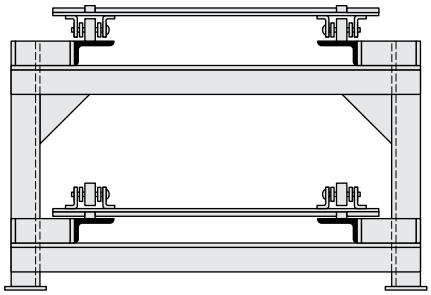


Fig. 4705

Arrangement 2 illustrates a conveyor chain with K attachments. This arrangement gives greater chain stability to wide conveyors but permits rolling on only the carrying run. Slide rails support the carrier and chain on the return run.

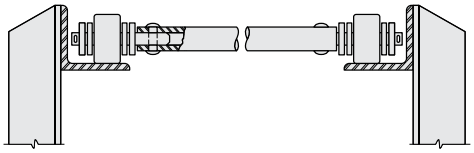


Fig. 5075

Arrangement 3 shows the recommended method of attaching crossrods to a conveyor chain. Tubular crossrods riveted to the extended chain pin, or D attachment, allow some flexibility in chain alignment and may prevent overloading of one strand.

Conveyor Engineering
Selection Procedure

Either standard or Double Pitch Roller chains, with suitable attachments, are most often used for conveying applications. Numerous attachments are available to accommodate slats, crossrods, and other commonly used conveying devices. The procedure for selecting the roller chains listed in Table 6 follows.

Roller chain selection procedure

Preliminary information Although chain pull and speed are the prime considerations in selecting a roller chain for conveyor service, the following information is also required.

Type of conveyor
Conveyor speed, feet per minute (FPM)
Approximate center distance between shafts, feet
Approximate diameter and bore of sprockets, inches
Weight of material to be conveyed, per conveyor foot
Kind of material to be conveyed
Weight of carriers (slats, pans), per conveyor foot
Size and spacing of carriers
Type of attachment

With this information, the selection procedure is as follows:

Select the layout Refer to pages E-6 and E-7 and select the appropriate conveyor layout.

Calculate the approximate conveyor pull Calculate the approximate conveyor pull from the formula accompanying the layout. Since a chain has not yet been selected, value W will include the weight of slats, pans, or other carriers, and an approximate chain weight of 2 pounds per foot for each strand. Also, assume a takeup tension of 40 pounds for each strand of chain.

Establish the working factor Select a working factor based on the operating speed of the conveyor. The factors listed below apply to evenly loaded, well lubricated chains operating in a clean, non-abrasive atmosphere, and in a normal temperature environment. Increase the listed factors to compensate for any deviation from the operating conditions specified above.

Chain speed, feet per minute	Working factor		Chain speed, feet per minute	Working factor	
	Carbon† steel chain	Stainless ▲ steel chain		Carbon† steel chain	Stainless ▲ steel chain
Up to 50	7	28	150 to 200	12	48
50 to 100	8	32	200 to 250	14	56
00 to 150	10	40	250 to 300	16	64

† Assumes good lubrication.
▲ Assumes minimum lubrication.

Table 6 Ultimate strengths and weights

Type of chain	Chain Number			Chain pitch, inches	Average ultimate strength, pounds		Weight per foot, pounds		
	Standard diameter rollers	Large diameter rollers			Carbon steel chain	Stainless steel chain	Standard diameter rollers	Large diameter rollers	
		Steel	Delrin					Steel	Delrin
Standard Roller chain	35	-	-	3.75	2,100	1,550	.22	-	-
	40	-	-	.500	3,700	2,800	.39	-	-
	50	-	-	.625	6,100	5,000	.70	-	-
	60	-	-	.750	8,500	7,000	1.02	-	-
	80	-	-	1.000	14,500	12,000	1.67	-	-
	100	-	-	1.250	26,000	18,750	2.72	-	-
	120	-	-	1.500	34,500	-	3.72	-	-
	140	-	-	1.750	48,500	-	4.69	-	-
	160	-	-	2.000	68,000	-	6.12	-	-
Double-Pitch Conveyor chain	C 2040	C 2042	C 2042 DR	1.000	3,700	3,000	.32	.56	.33
	C 2050	C 2052	C 2052 DR	1.250	6,100	5,000	.51	.83	.65
	C 2060H	C 2062H	C 2062H DR	1.500	8,500	6,800	1.05	1.55	1.04
	C 2080H	C 2082H	C 2082H DR	2.000	12,500	12,000	1.67	2.35	1.63
	C 2100H	C 2102H	C 2102H DR	2.500	29,000	18,750	2.55	3.85	2.43
	C 2120H	C 2122H	C 2122H DR	3.000	41,500	27,000	3.57	6.22	3.47
	C 2160H	C 2162H	C 2162H DR	4.000	70,000	47,000	6.18	9.34	5.60

Roller chain selection procedure (cont.)

Determine the minimum conveyor strength required Multiply the working factor by the approximate conveyor pull. The product is the minimum ultimate conveyor strength required.

Determine the minimum chain strength required Divide the minimum conveyor strength by the number of strands carrying the load.

When the conveyor is designed to use two or more parallel strands of chain the required chain strength should reflect the distribution of load on each strand. If equal load distribution is assured, base the required chain strength for double strand conveyors on $^1/_2$ the minimum conveyor strength requirement, $^1/_3$ for triple strand, etc. If the strands are not evenly loaded, divide the calculated minimum conveyor requirement by the number of strands that will normally handle the imposed load. For example, the chain selected for a four-strand conveyor may have to be based on two or three strands taking the full load at times, due to its distribution on the conveyor.

Select the conveyor chain Refer to Table 6 on page E-4 and select a chain with an ultimate strength slightly greater than the minimum requirement just calculated.

The size of slats or pans, or the required spacing of attachments govern chain pitch. Make sure that the chain selected meets both pitch and strength requirements.

Check the chain selection Refer to the formula previously used and compute the actual chain pull, considering chain weight (Table 6 on page E-4) and takeup tension now that a chain has been selected.

Multiply the actual chain pull by the working factor to determine the minimum ultimate strength requirement. Check the result against the ultimate strength of the chain selected. If equal to or greater than the minimum requirement, the chain selection is satisfactory.

Determine the number of teeth in the sprockets Use sprocket pitch diameters listed for drive series Double Pitch chains (pages E-10 through E-23) for determining the number of teeth in the desired sprocket for use with conveyor series extended pitch chains.

If possible, use sprockets with 15 teeth or more. Smoothness of conveyor chain operation is dependent upon adequate teeth in the driving sprockets, as illustrated in Chart A, page E-2.

Calculate chain length and sprocket centers When the number of teeth in the sprockets is equal, calculate chain length from the formula:

$$\text{chain length, in pitches} = T + \frac{2c}{P}$$

where c = center distance between shafts, inches

P = chain pitch, inches

T = number of teeth per sprocket

Chain length should equal an even number of pitches. Using the nearest even number of pitches as value N, calculate the exact sprocket centers from the formula:

$$C = \frac{N - T}{2} \times P$$

where C = exact sprocket centers, inches

N = nearest even number of pitches

P = chain pitch, inches

T = number of teeth per sprocket

When the number of teeth in the head and foot sprockets is unequal, chain length and exact sprocket centers are calculated from the formula on page C-8.

Chain sag The amount of sag in the slack span of chain is calculated from the formula on page E-2.

Lubrication It is usually advisable to lubricate conveyor chains. See page E-9 for methods and recommendations.

Calculate the conveyor horsepower requirement To calculate the horsepower required to operate the conveyor, use the formula in the appropriate conveyor layout, pages E-6 and E-7.

Conveyor Engineering
Layouts and Formulas

Layouts and formulas

The layouts on this page and page E-7 represent the most common conveyor arrangements. For layouts not shown, consult Rexnord.

If the conveyor design involves both a horizontal and an inclined section, the total conveyor pull (P_{CV}) is determined by calculating separate conveyor pulls for each section, using the formulas in Layouts A & B, and adding them together.

The symbols used in the formulas and layouts are:

- F = Friction factor, Tables 7 and 8
- HP = Horsepower at head shaft
- L = Length of conveyor or elevator centers, feet
- M = Weight of material carried per foot of conveyor or elevator, pounds
- P = Chain pitch, inches
- P_B = Pull due to digging material from elevator boot, pounds
- P_C = Conveyor pull due to catenary tension, pounds (See page E-2 for formula.)
- P_L = Conveyor or elevator pull on loaded run, pounds
- P_O = Conveyor pull from other sources, pounds
- P_R = Conveyor pull on return run, pounds
- P_T = Total calculated chain pull per strand, pounds
- P_{CV} = Total calculated conveyor pull, pounds
- P_{EL} = Total calculated elevator pull, pounds
- P_{TU} = Conveyor take-up pull, pounds
- R = Vertical rise of elevator or inclined portion of conveyor, feet
- S = Chain speed, feet per minute
- T = Number of teeth in drive sprocket
- W = Weight of chain and conveying member (slats, buckets, etc.), pounds per foot of conveyor
- Y = Horizontal length of inclined portion of conveyor or elevator, feet

Coefficients of friction

The factors in Tables 7 and 8 refer to roller chains operating on smooth, flat, clean tracks at normal operating temperatures. The factors should be increased when tracks cannot be kept clean.

The coefficients of sliding friction in Table 7 apply when the conveyed load is carried by the edges of the chain sidebars or by the top plates of flat-top roller chains.

The coefficients of rolling friction in Table 8 apply when the conveyed load is carried by double-pitch conveyor chains with large diameter rollers. Chains with standard diameter rollers are not recommended for rolling conveyors since the rollers may not always turn due to the small ratio between outside and inside diameters.

Chain rolling or sliding and material carried

Layout A

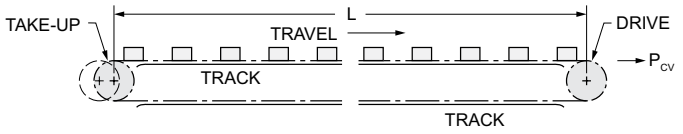


Fig. 5068

The total conveyor pull is the sum of the following:

Pull on loaded run	$P_L = (W + M)LF$
Pull on return run	$P_R = WLF$
Take-up pull Δ	P_{TU} or P_U
Pull to operate tail sprocket	$P_R \times .1$
Pull from other factors	P_O
Total conveyor pull	P_{CV}

Calculate the total chain pull per strand (P_T) by dividing P_{CV} by the number of strands taking the load.

Δ Usually, the takeup pull is known. If not, use 0.3% of the chain's ultimate strength as a reasonable estimate.

Horsepower required to operate the conveyor

$$HP = \frac{(P_{CV} - P_{TU} \text{ or } P_C) \times 1.2 \times S}{33{,}000}$$

Table 7 Coefficient of sliding friction
(Conveyed load carried by chain sidebars or top plates)

Non-lubricated steel track	Lubricated steel track
33	.24

Table 8 Coefficient of rolling friction▲
(Conveyed load carried by large diameter rollers)

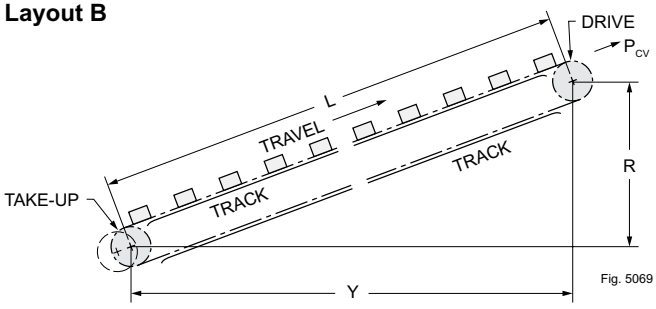
Chain number	Chain pitch, inches	Non-lubricated chain	Chain speed, feet per minute
C 2042	1.000	.17	.12
C 2052	1.250	.16	.11
C 2062H	1.500	.16	.11
C 2082H	2.000	.15	.10
C 2102H	2.500	.14	.09
C 2122H	3.000	.14	.09

▲ When calculating the approximate chain pull, use a trial rolling friction factor of .17 for non-lubricated chains or .12 for lubricated chains.

■ These factors should be used only when an adequate oil film will be maintained between rollers and bushings. Otherwise, use the factors for non-lubricated chain.

Chain rolling or sliding and material carried

Layout B



The total conveyor pull (P_{CV}) is the sum of the following:

Pull on loaded run: to move load = (W + M)YF to lift load = (W + M)R	PL = (W + M)YF + (W + M)R
Pull on return run ✭	P_R = WYF
Take-up pull Δ	P_{TU} or P_C
Pull to operate tail sprocket	P_R × .1
Pull from other factors	P_O

Calculate the total chain pull per strand (P_T) by dividing P_{CV} by the number of strands taking the load.

✭ Disregard when $\frac{R}{Y}$ is greater than factor F.

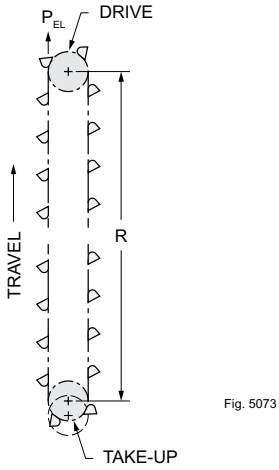
Δ Usually, the takeup pull is known. If not, use 0.3% of the chain's ultimate strength as a reasonable estimate.

Horsepower required to operate the conveyor

$$HP = \frac{(P_{CV} - P_{TU} \text{ or } P_C) \times 1.2 \times S}{33{,}000}$$

Vertical elevator with material carried

Layout C



The total elevator pull (P_{EL}) is the sum of the following:

Pull on loaded run	P_L = (W + M)R
Take-up pull	P_{TU}
Digging pull	P_B = M × ▲
Pull to operate tail sprocket	P_{TU} × .1

Calculate the total chain pull per strand (P_T) by dividing P_{EL} by the number of chain strands used in the elevator.

Δ Usually, the takeup pull is known. If not, use 0.3% of the chain's ultimate strength as a reasonable estimate.

▲ For material with small lumps, multiply M by the sprocket diameter. For fine or fluffy materials, multiply M by the sprocket radius.

Horsepower required to operate the elevator

$$HP = \frac{P_{EL} - (P_{TU} + WR) \times 1.2 \times S}{33{,}000}$$

Conveyor Engineering

Selection Example

This example illustrates the method of selecting a conveyor chain solely on the basis of ultimate chain strength. Attachment spacing, appearance, or other factors may make it desirable to use a larger, higher strength chain than the minimum indicated by the conveyor pull formula and working factor.

Problem

Select a conveyor chain for the following application:

Type of conveyor	Double-strand horizontal slat conveyor, evenly loaded, with chain rolling and material carried. Chain lubricated and supported on carrying and return runs.
Conveyor speed	200 FPM
Approx. center distance between shafts	60 feet
Approx. sprocket diameters	8.250"
Sprocket bores	1.938"
Weight of material	70 pounds per conveyor foot
Kind of material	35 pound cans, 10" diameter, spaced 2" apart, 2 cans per conveyor foot.
Weight of slats	5 pounds per conveyor foot
Size and spacing of slats	Will be designed in relation to pitch of chain selected.

Solution

Select the layout Layout A on page E-6 illustrates a horizontal conveyor with chain rolling and material carried.

Calculate the approximate conveyor pull As indicated in the selection procedure, certain assumed values are used in the layout formula at this point.

Chain weight = 2 lbs. per foot per strand
Take-up tension = 40 lbs. per strand
Rolling friction factor = .12

Using these values, the approximate conveyor pull is the sum of the following:

Pull on loaded run	P_L	= (W + M)LF	
		= (5 + 4 + 70)60 × .12	=569
Pull on return run	P_R	= WLF	
		= 9 × 60 × .12	= 65
Takeup pull	P_{TU}	= 40 x 2	= 80
Pull to operate tail sprocket	P_R	× .1 = 65 × .1	= 7
Total conveyor pull	P_{CV}		=721

Establish the working factor The working factor listed on page E-4 for a chain speed of 200 feet per minute is 14.

Determine the minimum conveyor strength required
The minimum requirement is:

721 x 14 = 10,094 pounds

Determine the minimum chain strength required Since this is a double-strand conveyor, with each strand evenly loaded, the minimum chain strength per strand is 10,094 ÷ 2 or 5,047 pounds ultimate strength.

Select the chain Since a rolling chain is desired, refer to Table 6 and tentatively select C 2052 chain which has large diameter rollers and an average ultimate strength of 6100 pounds.

Check the chain selection From Layout A, compute the actual conveyor pull, using the weight of C 2052 chain shown in Table 6. Since the actual takeup pull is not known, use .3% of the ultimate strength of C 2052 chain for each strand. Also use the rolling friction factor for C 2052 shown in Table 8. The actual conveyor pull is the sum of the following:

P_L = [5 + (2 x .83) + 70] 60 × .11	= 506#
P_R = [5 + (2 x .83)] 60 × .11	= 44#
P_{TU} = .003 × 2 × 6100	= 37#
P_R × .1 = 44 × .1	= 4#
Total conveyor pull (P_{CV})	= 591#

Minimum conveyor strength = 591 × 14 = 8274#

Minimum chain strength per strand = 8274÷ 2 = 4137#

The selection of C 2052 chain with an ultimate strength of 6100 pounds is satisfactory.

Determine the number of teeth in the sprockets Refer to the listing for 2050 sprockets on page E-12. Note that a 19-tooth sprocket has a pitch diameter of 7.595" which is slightly less than the appropriate outside diameter of 8.250" desired, and that they will readily accommodate the 1.938" bore requirement. If a distance of 8.240" between the carrying and return runs is satisfactory, use 19-tooth sprockets.

Calculate the chain length and sprocket chains Since the number of teeth in the sprockets are equal, the chain length from the formula on page E-5 is:

$$19 + \frac{2(60 \times 12)}{1.25} = 1171 \text{ pitches. Use } 1172.$$

Exact sprocket centers, based on 1172 pitches, are:

$$C = \frac{1172 - 19}{2} \times 1.25 = 720.625\text{", or } 60\text{' } .625\text{"}$$

Lubrication Refer to page E-9 for recommendations.

Calculate the horsepower requirement Use the formula accompanying Layout A to determine the horsepower requirement of the conveyor drive.

$$HP = \frac{(591 - 37) \times 1.2 \times 200}{33{,}000} = 4.03$$

Lubrication

Lubrication

The primary purpose of chain lubrication is to provide a clean film of oil at all load carrying points where relative motion occurs. This is particularly important during the initial break-in period when the wear characteristics of the chain are being established. Consequently, most chains are pre-lubricated at the factory unless otherwise specified.

To be effective, subsequent lubrication must be directed to the bearing surfaces as shown in Figure C-147.

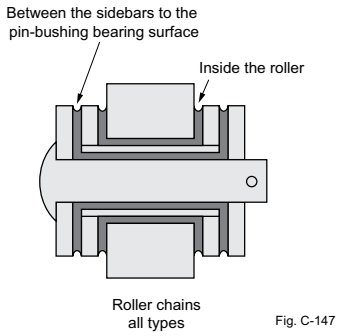


Fig. C-147

As a general rule, lubrication of conveyor and elevator chains is necessary to obtain adequate chain life. However, there may be some applications where little or no lubrication is permissible. Meat packing and food processing plants are typical examples where contamination of the conveyed material must be avoided. Likewise, the presence of lubricant in a very dusty or abrasive environment could be a deterrent to long chain life. In these cases, lubrication decisions must often be based on actual experience.

Selection of the lubricant

Conveyor and elevator chains operating at room temperature should generally be lubricated with a straight mineral oil of S.A.E. viscosity number 30. Lower or higher ambient temperatures require oils with lower or higher viscosity numbers, respectively.

The following operating conditions require special lubricants:

Elevated temperatures Petroleum oils should not be used to lubricate conveyor or elevator chains operating in temperatures exceeding 300°F (149°C).

Under certain conditions, chains operating in high-temperature atmospheres can be effectively lubricated with colloidal graphite dispersed in a suitable volatile carrier. The solution penetrates the chain joints and, upon evaporation of the carrier, leaves a thin deposit of graphite on the chain joint surfaces. The lubricant may be applied by drip-feed cups, provided agitation is used.

Consult a lubricant manufacturer for recommendations when chains are required to operate at elevated temperatures.

Corrosion The effect of unusual corrosion conditions can sometimes be reduced with special lubricants. Consult a lubricant manufacturer for a material that is not soluble in the corrosive element.

High loads When chain joints are subject to high unit bearing loads, use an “EP” oil. This type of lubricant has an extreme pressure additive that helps maintain a cushioning film of oil between joint components.

Methods of lubrication

It is difficult and generally impractical to provide protective housings for chains applied to conveyors and elevators. They are usually operated in the open and exposed to the material being conveyed. Therefore, applying a lubricant is difficult under some operating conditions.

Various methods are used to lubricate conveyor and elevator chains. The nature of the surrounding atmosphere is the principal consideration in selecting the best method to use.

Clean atmosphere Chains operating in a relatively clean atmosphere can be lubricated manually or by a semi-automatic method using drip cups.

The lubricant may be applied manually with a brush or spout-type oil can to the spaces shown in Figure C-147.

With the semi-automatic method, dripcups are usually mounted on a pipe with drilled holes spaced to distribute oil between the sidebars in the lower span of chain. About 4 to 10 drops per minute are usually sufficient to lubricate slow-speed conveyors. It will take about one hour to drop one ounce of oil at the rate of 10 drops per minute.

Atmosphere laden with lint or non-abrasive dust Where large volumes of lint or non-abrasive dust are present, a brush or wiper can be used to clean the chain and apply the lubricant. Otherwise, the lint or dust will clog the chain joint clearances and prevent the oil from penetrating into the joints. This type of lubrication can be made to operate automatically.

Abrasive atmosphere If abrasives come in contact with the chain, lubrication becomes more difficult. When lubricants are applied externally, abrasive particles tend to adhere to the chain surfaces and act as a lapping or grinding compound. Under extreme conditions, it is sometimes advisable to avoid chain lubrication.

Chains operating in an abrasive atmosphere can often be lubricated with a neutral petroleum jelly such as petrolatum, or with various other nonfluid lubricants such as greases with or without molybdenum disulfide or colloidal graphite additives. When properly heated, these lubricants are sufficiently fluid to penetrate the chain joints, but at normal temperatures are solid enough to hinder the entrance of abrasive materials.

To lubricate a chain with petroleum jelly or non-fluid greases, heat the lubricant until fluid. Immerse the chain and allow it to soak until air bubbles cease to rise, thus indicating that the lubricant has penetrated the chain joints. Allow the chain to remain submerged until the lubricant is partially solidified to prevent the lubricant from draining out of the joints when the chain is removed. Before relubricating, thoroughly clean chain to remove all dirt and abrasives.

Sprockets

C 2040 sprockets 1.000" pitch

Sprockets are usually furnished with twice the required number of teeth, virtually doubling sprocket life. Sprockets with only the required number of teeth can also be furnished.

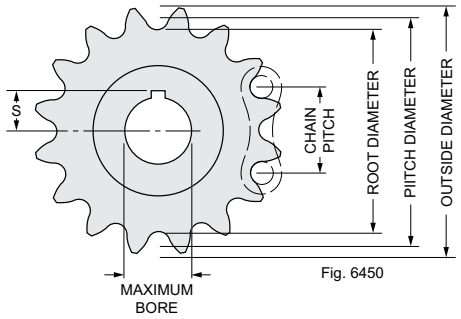
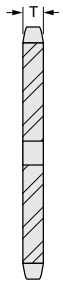


Fig. 6450



Type A

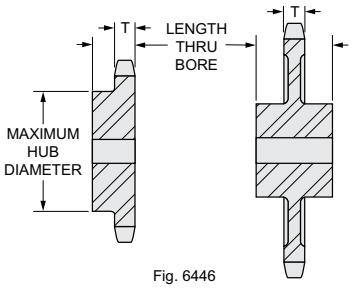


Fig. 6446

Type B Type C

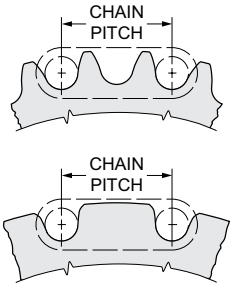


Fig. 8382

Number of effective teeth ❉	Pitch dia., inches	Root dia., inches	Outside dia., inches Δ	Maximum hub diameter, inches	Maximum bore with standard keyseat, inches ▲	S max., inches
6	2.000	1.688	2.166	1.19	.750	.469
6 1/2	2.152	1.840	2.318	1.38	.844	.516
7	2.305	1.993	2.491	1.55	1.000	.625
7 1/2	2.458	2.146	2.644	1.70	1.188	.719
8	2.613	2.301	2.811	1.88	1.250	.750
8 1/2	2.768	2.456	2.968	2.05	1.375	.844
9	2.924	2.612	3.136	2.20	1.438	.969
9 1/2	3.080	2.768	3.292	2.38	1.688	1.031
10	3.236	2.924	3.457	2.58	1.813	1.125
10 1/2	3.392	3.080	3.613	2.70	1.938	1.219
11	3.549	3.237	3.777	2.88	2.188	1.344
11 1/2	3.706	3.394	3.934	3.03	2.250	1.375
12	3.864	3.552	4.098	3.19	2.250	1.406
12 1/2	4.021	3.709	4.255	3.36	2.281	1.438
13	4.179	3.867	4.419	3.52	2.281	1.469
13 1/2	4.336	4.024	4.576	3.69	2.375	1.500
14	4.494	4.182	4.738	3.84	2.625	1.625
14 1/2	4.652	4.340	4.896	4.00	2.688	1.656
15	4.810	4.498	5.057	4.17	2.750	1.750
15 1/2	4.968	4.656	5.215	4.33	2.813	1.781
16	5.126	4.814	5.377	4.48	3.000	1.875
16 1/2	5.284	4.972	5.535	4.66	3.375	2.125
17	5.442	5.130	5.696	4.81	3.438	2.156
17 1/2	5.600	5.288	5.854	4.97	3.563	2.219
18	5.759	5.447	6.015	5.14	3.625	2.250
18 1/2	5.917	5.605	6.173	5.30	3.688	2.281
19	6.076	5.764	6.334	5.45	3.750	2.313
19 1/2	6.233	5.921	6.491	5.61	3.750	2.344
20	6.392	6.081	6.654	5.78	3.781	2.375
20 1/2	6.551	6.239	6.812	5.94	3.813	2.406
21	6.710	6.398	6.972	6.09	4.000	2.500
21 1/2	6.868	6.556	7.130	6.27	4.250	2.625
22	7.027	6.715	7.292	6.42	4.500	2.750
22 1/2	7.185	6.873	7.450	6.58	4.750	2.875
23	7.344	7.032	7.610	6.73	-	-
23 1/2	7.502	7.190	7.768			
24	7.661	7.349	7.928			
24 1/2	7.820	7.508	8.087			
25	7.979	7.667	8.248			
25 1/2	8.137	7.825	8.406			
26	8.296	7.984	8.566			
26 1/2	8.455	8.143	8.725			
27	8.614	8.302	8.885			
27 1/2	8.772	8.460	9.043			
28	8.931	8.620	9.204			
28 1/2	9.090	8.778	9.362			
29	9.249	8.937	9.521			
29 1/2	9.408	9.096	9.680			
30	9.567	9.255	9.841			
30 1/2	9.725	9.413	9.999			
31	9.885	9.573	10.160			
31 1/2	10.043	9.731	10.318			
32	10.202	9.890	10.478			
32 1/2	10.361	10.049	10.637			
33	10.520	10.208	10.796			
33 1/2	10.679	10.367	10.955			
34	10.838	10.526	11.12			
35	11.156	10.844	11.43			
36	11.474	11.162	11.75			
37	11.792	11.480	12.07			
38	12.110	11.798	12.39			
39	12.428	12.116	12.71			
40	12.746	12.434	13.03			
41	13.064	12.752	13.35			
42	13.382	13.070	13.66			
43	13.700	13.388	13.98			
44	14.018	13.706	14.30			
45	14.336	14.024	14.62			
46	14.654	14.342	14.94			
47	14.972	14.660	15.26			
48	15.290	14.978	15.57			
49	15.608	15.296	15.89			
50	15.926	15.614	16.21			
51	16.244	15.932	16.53			
52	16.562	16.250	16.85			
53	16.880	16.568	17.17			
54	17.198	16.886	17.48			
55	17.516	17.205	17.80			
56	17.835	17.523	18.12			
57	18.153	17.841	18.44			
58	18.471	18.159	18.76			
59	18.789	18.477	19.08			
60	19.107	18.795	19.39			
61	19.426	19.114	19.71			
62	19.744	19.432	20.03			
63	20.062	19.750	20.35			
64	20.380	20.068	20.67			
65	20.698	20.386	20.99			
66	21.016	20.704	21.30			
67	21.335	21.023	21.62			
68	21.653	21.341	21.94			
69	21.971	21.659	22.26			
70	22.289	21.977	22.58			
71	22.607	22.295	22.90			
72	22.926	22.614	23.21			
73	23.244	22.932	23.53			
74	23.562	23.250	23.85			
75	23.880	23.568	24.17			
76	24.198	23.886	24.49			
77	24.517	24.205	24.81			
78	24.835	24.523	25.13			
79	25.153	24.841	25.45			
80	25.471	25.159	25.77			
Larger sizes available. Consult Rexnord.						

Hub length thru bore

Sprocket Type	Number of effective teeth	Hub length, thru bore, inches
B	6 to 9 1/2	.88
	10 to 23	1.00
	23 1/2 to 38	1.13
	39 to 45	1.25
	46 to 80	1.38
C	15 to 30	1.75
	30 1/2 to 41	2.00
	42 to 60	2.25
	61 to 80	2.50

Tooth dimensions

T = .284" + .000", –.009" for machined sprockets.

T = .284" + .000", –.035" for hot rolled plate sprockets or unfinished forgings.

Recommended standard bore tolerances, keyseat dimensions, eccentricity tolerances, and similar data, page G-2.

❉ "Effective" describes the number of teeth that engage the chain rollers during each revolution of the sprocket. See Fig. 8382 above. The effective number is used to calculate chain speed. Sprockets are normally furnished with twice the effective number listed. When the actual number of teeth is 24 or more, sprockets for No.40 roller chain may be used. See page C-13 for sprocket data.

Δ Non-functional dimension that may vary with the type of cutter used.

▲ Based on maximum hub diameter.

C 2042 sprockets 1.000" pitch

Sprockets for large diameter roller chains can be furnished only with the actual number of teeth required.

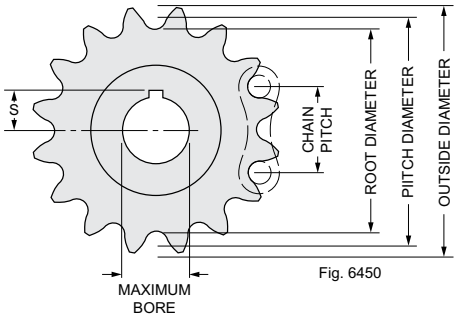
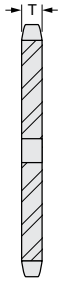


Fig. 6450



Type A

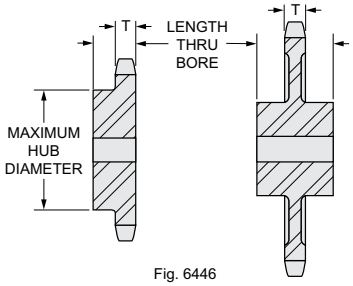


Fig. 6446

Type B Type C

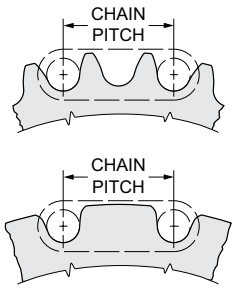


Fig. 8382

Number of teeth	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ	Maximum hub diameter, inches ▲	Maximum bore with standard keyseat, inches	S max., inches	Number of teeth	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ
6	2.000	1.375	2.330	1.19	.750	.469	24	7.661	7.036	8.200
7	2.305	1.680	2.680	1.55	1.000	.625	25	7.979	7.354	8.520
8	2.613	1.988	3.010	1.88	1.250	.750	26	8.296	7.671	8.840
9	2.924	2.299	3.350	2.20	1.438	.969	27	8.614	7.989	9.160
10	3.236	2.611	3.680	2.55	1.813	1.125	28	8.932	8.307	9.480
11	3.549	2.924	4.010	2.88	2.188	1.344	29	9.249	8.624	9.800
12	3.864	3.239	4.330	3.19	2.250	1.406	30	9.567	8.942	10.110
13	4.179	3.554	4.660	3.52	2.281	1.469	31	9.885	9.260	10.430
14	4.494	3.869	4.980	3.84	2.625	1.625	32	10.202	9.577	10.750
15	4.810	4.185	5.310	4.17	2.750	1.750	33	10.520	9.895	11.070
16	5.126	4.501	5.630	4.48	3.000	1.875	34	10.838	10.213	11.390
17	5.442	4.817	5.950	4.81	3.438	2.156	35	11.156	10.531	11.710
18	5.759	5.134	6.270	5.14	3.625	2.250	36	11.474	10.849	12.030
19	6.076	5.451	6.590	5.45	3.750	2.313	37	11.792	11.167	12.350
20	6.393	5.768	6.910	5.78	3.781	2.375	38	12.110	11.485	12.670
21	6.710	6.085	7.240	6.09	4.000	2.500	39	12.428	11.803	12.990
22	7.027	6.402	7.560	-	-	-	40	12.746	12.121	13.310
23	7.344	6.719	7.880	-	-	-	Larger sizes available.			

Hub length thru bore

Sprocket Type	Number of effective teeth	Hub length, thru bore, inches	Sprocket Type	Number of effective teeth	Hub length, thru bore, inches
B	6 to 9	.88	C	15 to 30	1.75
	10 to 23	1.00		31 to 40	2.00
	24 to 38	1.13			
	39 to 40	1.25			

Standard bore tolerances, keyseat dimensions, eccentricity tolerances, and similar data, page G-2.

Δ Non-functional dimension that may vary with the type of cutter used.
▲ Based on maximum hub diameter.

Tooth dimensions

T = .284" + .000", –.009" for machined sprockets.
T = .284" + .000", –.035" for hot rolled plate sprockets or unfinished forgings.

Sprockets

C 2050 sprockets 1.250" pitch

Sprockets are usually furnished with twice the required number of teeth, virtually doubling sprocket life. Sprockets with only the required number of teeth, can also be furnished.

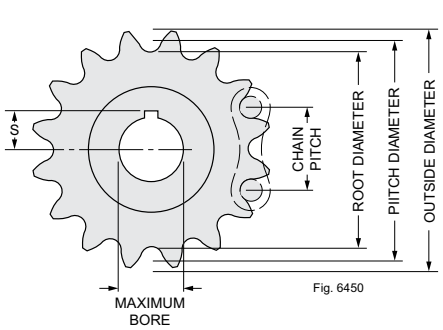
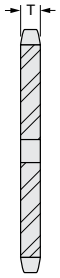


Fig. 6450



Type A

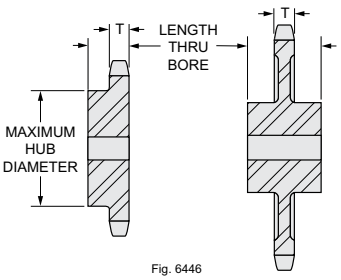


Fig. 6446

Type B Type C

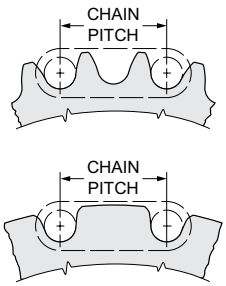


Fig. 8382

Number of effective teeth ❉	Pitch dia., inches	Root dia., inches	Outside dia., inches Δ	Maximum hub diameter, inches	Maximum bore with standard keyseat, inches ▲	S max., inches	Number of effective teeth ❉	Pitch dia., inches	Root dia., inches	Outside dia., inches Δ	Number of effective teeth ❉	Pitch dia., inches	Root dia., inches	Outside dia., inches Δ
6	2.500	2.100	2.708	1.50	.969	.609	23½	9.378	8.978	9.710	48	19.112	18.712	19.47
6½	2.690	2.290	2.898	1.72	1.125	.688	24	9.577	9.177	9.911	49	19.510	19.110	19.87
7	2.881	2.481	3.112	1.94	1.375	.844	24½	9.775	9.375	10.111	50	19.908	19.508	20.36
7½	3.073	2.673	3.305	2.14	1.438	.906	25	9.973	9.573	10.308	51	20.305	19.905	20.66
8	3.266	2.866	3.517	2.36	1.625	1.000	25½	10.172	9.772	10.507	52	20.703	20.303	21.06
8½	3.460	3.060	3.711	2.56	1.813	1.094	26	10.370	9.970	10.707	53	21.100	20.700	21.46
9	3.655	3.255	3.920	2.77	1.938	1.219	26½	10.569	10.169	10.906	54	21.498	21.098	21.86
9½	3.850	3.450	4.115	2.98	2.125	1.313	27	10.767	10.367	11.105	55	21.896	21.496	22.25
10	4.045	3.645	4.321	3.19	2.313	1.438	27½	10.966	10.566	11.304	56	22.293	21.893	22.65
10½	4.241	3.841	4.517	3.39	2.438	1.531	28	11.164	10.764	11.504	57	22.961	22.291	23.05
11	4.437	4.037	4.722	3.59	2.625	1.625	28½	11.362	10.962	11.702	58	23.089	22.689	23.45
11½	4.633	4.233	4.918	3.80	2.750	1.688	29	11.561	11.161	11.902	59	23.486	23.086	23.85
12	4.830	4.430	5.123	4.00	2.875	1.781	29½	11.760	11.360	12.101	60	23.884	23.484	24.24
12½	5.026	4.626	5.319	4.20	2.906	1.813	30	11.958	11.558	12.300	61	24.282	23.882	24.64
13	5.223	4.823	5.522	4.41	2.934	1.875	30½	12.157	11.757	12.499	62	24.680	24.280	25.04
13½	5.420	5.020	5.719	4.61	3.125	1.934	31	12.356	11.956	12.699	63	25.077	24.677	25.44
14	5.617	5.217	5.921	4.81	3.250	2.000	31½	12.554	12.154	12.897	64	25.475	25.075	25.84
14½	5.815	5.415	6.119	5.02	3.313	2.094	32	12.753	12.353	13.098	65	25.873	25.473	26.23
15	6.012	5.612	6.321	5.22	3.563	2.219	32½	12.952	12.552	13.297	66	26.271	25.871	26.63
15½	6.210	5.810	6.519	5.42	3.719	2.313	33	13.150	12.750	13.495	67	26.668	26.268	27.03
16	6.407	6.007	6.720	5.63	3.750	2.313	33½	13.349	12.949	13.691	68	27.066	26.666	27.43
16½	6.605	6.205	6.918	5.83	3.781	2.375	34	13.547	13.147	13.893	69	27.464	27.064	27.82
17	6.803	6.403	7.121	6.03	3.875	2.438	35	13.945	13.545	14.290	70	27.862	27.462	28.22
17½	7.001	6.601	7.319	6.22	4.125	2.500	36	14.342	13.942	14.790	71	28.259	27.859	28.62
18	7.198	6.798	7.519	6.42	4.313	2.625	37	14.740	14.340	15.090	72	28.657	28.257	29.02
18½	7.396	6.996	7.717	6.63	4.375	2.688	38	15.137	14.737	15.490	73	29.055	28.655	29.42
19	7.595	7.195	7.918	6.83	4.500	2.750	39	15.534	15.134	15.880	74	29.453	29.053	29.81
19½	7.792	7.392	8.115	7.03	4.750	3.000	40	15.932	15.532	16.28	75	29.850	29.450	30.21
20	7.991	7.591	8.317	7.23	5.125	3.125	41	16.329	15.929	16.68	76	30.248	29.848	30.61
20½	8.189	7.789	8.515	7.44	5.250	3.250	42	16.727	16.327	17.08	77	30.646	30.246	31.01
21	8.387	7.987	8.715	7.63	5.500	3.375	43	17.124	16.724	17.48	78	31.044	30.644	31.41
21½	8.585	8.185	8.913	7.83	5.750	3.625	44	17.522	17.122	17.88	79	31.441	31.041	31.81
22	8.783	8.383	9.113	8.03	5.875	6.688	45	17.920	17.520	18.27	80	31.839	31.439	32.21
22½	8.982	8.582	9.312	8.23	6.125	3.750	46	18.317	17.917	18.67	Larger sizes available.			
23	9.180	8.780	9.512	8.44	-	-	47	18.715	18.315	19.07				

Hub length thru bore

Sprocket Type	Number of effective teeth	Hub length, thru bore, inches	Sprocket Type	Number of effective teeth	Hub length, thru bore, inches
B	6 to 9½	1.00	C	13 to 24	2.00
	10 to 19½	1.13		24½ to 30	2.25
	20 to 30½	1.38		30½ to 40	2.50
	31 to 45	1.63		41 to 60	2.75
	46 to 80	1.88		61 to 72	3.00
	73 to 80	3.25			

Tooth dimensions

T = .343" + .000", –.010" for machined sprockets.

T = .343" + .000", –.036" for hot rolled plate sprockets or unfinished forgings.

Recommended standard bore tolerances, keyseat dimensions, eccentricity tolerances, and similar data, page G-2.

❉ "Effective" describes the number of teeth that engage the chain rollers during each revolution of the sprocket. See Fig. 8382 above. The effective number is used to calculate chain speed. Sprockets are normally furnished with twice the effective number listed. When the actual number of teeth is 24 or more, sprockets for No. 50 roller chain may be used. See page C-17 for sprocket data.

Δ Non-functional dimension that may vary with the type of cutter used.

▲ Based on maximum hub diameter.

C 2052 sprockets 1.250" pitch

Sprockets for large diameter roller chains can be furnished only with the actual number of teeth required.

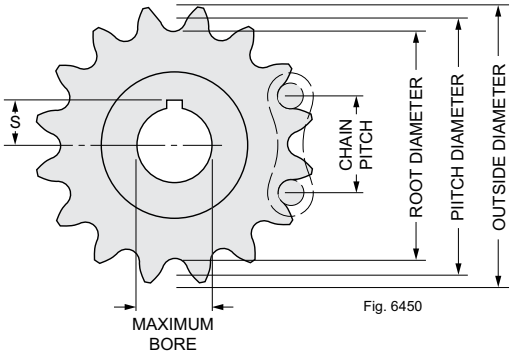
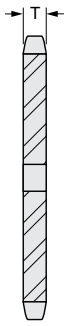


Fig. 6450



Type A

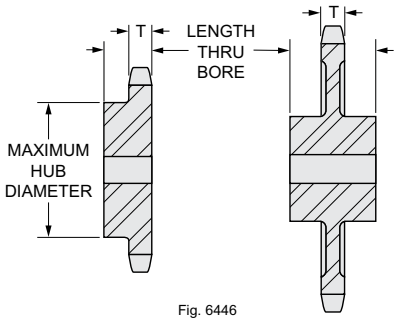


Fig. 6446

Type B Type C

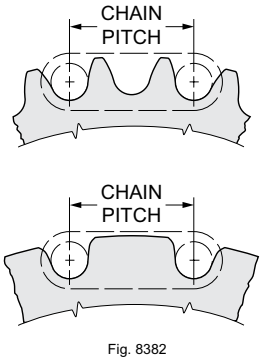


Fig. 8382

Number of teeth	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ	Maximum hub diameter, inches	Maximum bore with standard keyseat, inches ▲	S max., inches	Number of teeth	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ
6	2.500	1.750	2.920	1.50	.969	.609	24	9.577	8.827	10.250
7	2.881	2.131	3.350	1.94	1.375	.844	25	9.973	9.223	10.640
8	3.266	2.516	3.770	2.36	1.625	1.000	26	10.370	9.620	11.050
9	3.655	2.905	4.180	2.77	1.938	1.219	27	10.767	10.017	11.440
10	4.045	3.295	4.600	3.19	2.313	1.438	28	11.164	10.414	11.840
11	4.437	3.687	5.010	3.59	2.625	1.625	29	11.561	10.811	12.240
12	4.830	4.080	5.420	4.00	2.875	1.781	30	11.958	11.208	12.640
13	5.223	4.473	5.820	4.41	2.938	1.875	31	12.356	11.606	13.040
14	5.617	4.867	6.230	4.81	3.250	2.000	32	12.753	12.003	13.440
15	6.012	5.262	6.630	5.22	3.563	2.219	33	13.150	12.400	13.840
16	6.407	5.657	7.030	5.63	3.750	2.313	34	13.547	12.797	14.240
17	6.803	6.053	7.440	6.03	3.875	2.438	35	13.945	13.195	14.640
18	7.198	6.448	7.840	6.42	4.313	2.625	36	14.342	13.592	15.040
19	7.595	6.845	8.240	6.83	4.500	2.750	37	14.740	13.990	15.440
20	7.991	7.241	8.640	7.23	5.125	3.125	38	15.137	14.387	15.840
21	8.387	7.637	9.040	7.63	5.500	3.375	39	15.534	14.784	16.230
22	8.783	8.033	9.440	-	-	-	40	15.932	15.182	16.630
23	9.180	8.430	9.840	-	-	-	Larger sizes available.			

Hub length thru bore

Sprocket Type	Number of teeth	Hub length, thru bore, inches	Sprocket Type	Number of teeth	Hub length, thru bore, inches
B	6 to 9	1.00	C	13 to 24	2.00
	10 to 19	1.13		25 to 30	2.25
	20 to 30	1.38		31 to 40	2.50
	31 to 40	1.63			

Tooth dimensions

T = .343" + .000", –.010" for machined sprockets.

T = .343" + .000", –.036" for hot rolled plate sprockets or unfinished forgings.

Standard bore tolerances, keyseat dimensions, eccentricity tolerances, and similar data, page G-2.

Δ Non-functional dimension that may vary with the type of cutter used.

▲ Based on maximum hub diameter.

Sprockets

C 2060H, FT 2060 1.500" pitch

Sprockets are usually furnished with twice the required number of teeth, virtually doubling sprocket life. Sprockets with only the required number of teeth can also be furnished.

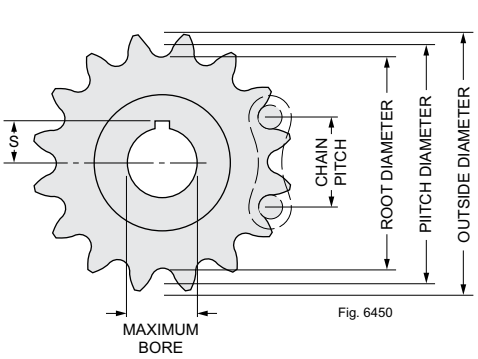
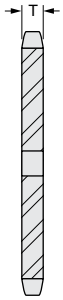


Fig. 6450



Type A

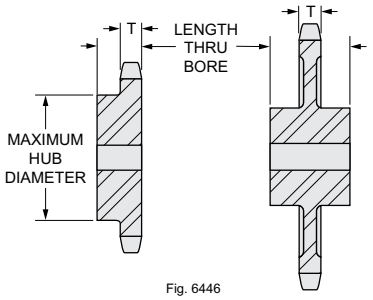


Fig. 6446

Type B Type C

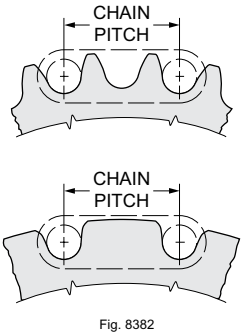


Fig. 8382

Number of effective teeth ❉	Pitch dia., inches	Root dia., inches	Outside dia., inches Δ	Maximum hub diameter, inches	Maximum bore with standard keyseat, inches ▲	S max., inches	Number of effective teeth ❉	Pitch dia., inches	Root dia., inches	Outside dia., inches Δ	Number of effective teeth ❉	Pitch dia., inches	Root dia., inches	Outside dia., inches Δ
6	3.000	2.531	3.249	1.81	1.250	.750	23½	11.254	10.785	11.653	48	22.935	22.466	23.36
6½	3.228	2.759	3.477	2.08	1.344	.828	24	11.492	11.023	11.893	49	23.412	22.943	23.84
7	3.457	2.988	3.735	2.33	1.563	.969	24½	11.730	11.261	12.131	50	23.889	23.420	24.32
7½	3.688	3.219	3.964	2.58	1.750	1.063	25	11.968	11.499	12.371	51	24.366	23.897	24.79
8	3.920	3.451	4.221	2.83	1.938	1.219	25½	12.206	11.737	12.609	52	24.843	24.374	25.27
8½	4.152	3.683	4.453	3.08	2.188	1.375	26	12.444	11.975	12.849	53	25.320	24.851	25.75
9	4.386	3.917	4.704	3.33	2.313	1.469	26½	12.682	12.213	13.087	54	25.798	25.329	26.23
9½	4.620	4.151	4.938	3.58	2.500	1.563	27	12.921	12.452	13.328	55	26.275	25.806	26.70
10	4.854	4.385	5.185	3.83	2.750	1.688	27½	13.159	12.690	13.566	56	26.752	26.283	27.18
10½	5.089	4.620	5.420	4.08	2.938	1.813	28	13.397	13.928	13.805	57	27.229	26.760	27.66
11	5.324	4.855	5.666	4.33	3.125	1.934	28½	13.635	13.166	14.043	58	27.707	27.238	28.14
11½	5.560	5.091	5.902	4.56	3.375	2.094	29	13.874	13.405	14.238	59	28.184	27.715	28.61
12	5.796	5.327	6.147	4.81	3.563	2.219	29½	14.112	13.643	14.521	60	28.661	28.192	29.09
12½	6.032	5.563	6.383	5.06	3.688	2.281	30	14.350	13.881	14.761	61	29.138	29.669	29.57
13	6.268	5.799	6.627	5.30	3.813	2.375	30½	14.588	14.119	14.999	62	29.616	29.147	30.05
13½	6.504	6.035	6.863	5.55	4.000	2.500	31	14.827	14.358	15.239	63	30.093	29.624	30.53
14	6.741	6.272	7.106	5.78	4.125	2.563	31½	15.065	14.596	15.477	64	30.570	30.010	31.00
14½	6.978	6.509	7.343	6.03	4.250	2.625	32	15.303	14.834	15.716	65	31.047	30.578	31.48
15	7.215	6.746	7.587	6.27	4.500	2.750	32½	15.542	15.073	15.955	66	31.525	31.056	31.96
15½	7.452	6.983	7.824	6.52	4.563	2.906	33	15.780	15.311	16.194	67	32.002	31.533	32.43
16	7.689	7.220	8.066	6.75	4.688	2.969	33½	16.018	15.549	16.432	68	32.479	32.010	32.91
16½	7.926	7.457	8.303	7.00	5.000	3.125	34	16.257	15.788	16.672	69	32.957	32.488	33.39
17	8.163	7.694	8.543	7.23	5.250	3.250	35	16.734	16.265	17.150	70	33.434	32.965	33.87
17½	8.401	7.932	8.781	7.48	5.500	3.375	36	17.211	16.742	17.630	71	33.911	33.451	34.34
18	8.638	8.169	9.023	7.72	5.563	3.469	37	17.687	17.218	18.110	72	34.388	33.919	34.82
18½	8.875	8.406	9.260	7.97	5.750	3.625	38	18.164	17.695	18.580	73	34.866	34.397	35.30
19	9.113	8.644	9.501	8.20	5.938	3.719	39	18.641	18.172	19.060	74	35.343	34.874	35.78
19½	9.350	8.881	9.738	8.44	6.063	3.781	40	19.118	18.649	19.540	75	35.820	35.351	36.25
20	9.589	9.120	9.980	8.69	6.188	3.844	41	19.595	19.126	20.020	76	36.298	35.829	36.73
20½	9.826	9.357	10.217	8.92	6.313	3.906	42	20.072	19.603	20.490	77	36.775	36.306	37.21
21	10.064	9.595	10.458	9.17	6.438	3.969	43	20.549	20.080	20.970	78	37.252	36.783	37.69
21½	10.302	9.833	10.696	9.41	6.750	4.125	44	21.026	20.557	21.450	79	37.730	37.261	38.17
22	10.540	10.071	10.936	9.64	7.000	4.250	45	21.503	21.034	21.930	80	38.207	37.738	38.65
22½	10.778	10.309	11.174	9.89	7.188	4.344	46	21.980	21.511	22.41	Larger sizes available.			
23	11.016	10.547	11.415	10.13	-	-	47	22.458	21.989	22.88				

Hub length thru bore

Sprocket Type	Number of effective teeth	Hub length, thru bore, inches	Sprocket Type	Number of effective teeth	Hub length, thru bore, inches
B	6 to 15	1.25	C	10 to 20	2.25
	15½ to 25	1.50		20½ to 40	2.50
	25½ to 41	1.75		41 to 60	3.00
	42 to 60	2.00		61 to 80	3.25
	61 to 80	2.25			

Tooth dimensions

T = .459" + .000", –.011" for machined sprockets.

T = .459" + .000", –.036" for hot rolled steel plate sprockets or unfinished forgings.

Recommended standard bore tolerances, keyseat dimensions, eccentricity tolerances, and similar data, page G-2.

❉ "Effective" describes the number of teeth that engage the chain rollers during each revolution of the sprocket. See Fig. 8382 above. The effective number is used to calculate chain speed. Sprockets are normally furnished with twice the effective number listed. When the actual number of teeth is 24 or more, sprockets for No. 60 roller chain may be used. See page C-19 for sprocket data.

Δ Non-functional dimension that may vary with the type of cutter used.

▲ Based on maximum hub diameter.

C 2062 sprockets 1.500" pitch

Sprockets for large diameter roller chains can be furnished only with the actual number of teeth required.

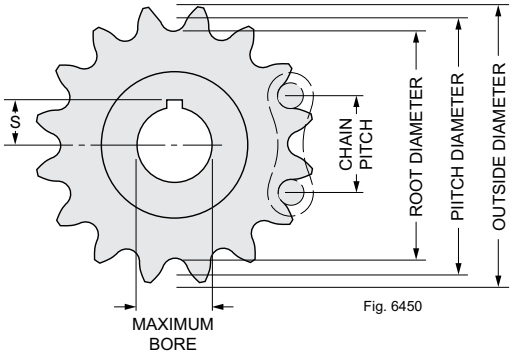
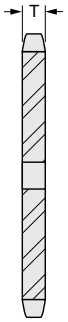


Fig. 6450



Type A

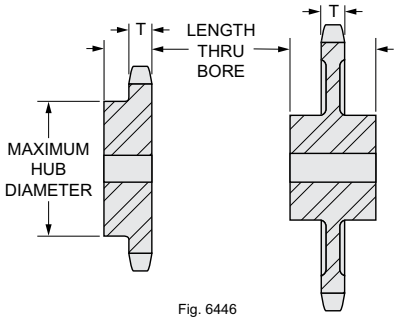


Fig. 6446

Type B Type C

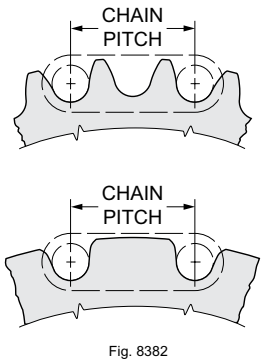


Fig. 8382

Number of teeth	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ	Maximum hub diameter, inches	Maximum bore with standard keyseat, inches ▲	S max., inches	Number of teeth	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ
6	3.000	2.125	3.500	1.81	1.250	.750	24	11.492	10.617	12.290
7	3.457	2.582	4.020	2.33	1.563	.969	25	11.968	11.093	12.770
8	3.920	3.045	4.520	2.83	1.934	1.219	26	12.444	11.569	13.250
9	4.386	3.511	5.020	3.33	2.313	1.469	27	12.921	12.046	13.730
10	4.854	3.979	5.520	3.83	2.750	1.688	28	13.397	12.522	14.210
11	5.324	4.449	6.010	4.33	3.125	1.938	29	13.874	12.999	14.690
12	5.796	4.921	6.500	4.81	3.563	2.219	30	14.350	13.475	15.170
13	6.268	5.393	6.990	5.30	3.813	2.375	31	14.827	13.952	15.650
14	6.741	5.866	7.470	5.78	4.125	2.563	32	15.303	14.428	16.130
15	7.215	6.340	7.960	6.27	4.500	2.750	33	15.780	14.905	16.610
16	7.689	6.814	8.440	6.75	4.688	2.969	34	16.257	15.382	17.090
17	8.163	7.288	8.920	7.23	5.250	3.250	35	16.734	15.859	17.570
18	8.638	7.763	9.410	7.72	5.563	3.469	36	17.211	16.336	18.050
19	9.113	8.238	9.890	8.20	5.938	3.719	37	17.687	16.812	18.520
20	9.589	8.714	10.370	8.69	6.188	3.844	38	18.164	17.289	19.000
21	10.064	9.189	10.850	9.17	6.438	3.969	39	18.641	17.766	19.480
22	10.540	9.665	11.330	-	-	-	40	19.118	18.243	19.960
23	11.016	10.141	11.810	-	-	-	Larger sizes available.			

Hub length thru bore

Sprocket Type	Number of teeth	Hub length, thru bore, inches	Sprocket Type	Number of teeth	Hub length, thru bore, inches
B	6 to 15	1.25	C	10 to 20	2.25
	16 to 25	1.50		21 to 40	2.50
	26 to 40	1.75			

Standard bore tolerances, keyseat dimensions, eccentricity tolerances, and similar data, page G-2.

Δ Non-functional dimension that may vary with the type of cutter used.
▲ Based on maximum hub diameter.

Tooth dimensions

T = .459" + .000", –.011" for machined sprockets.
T = .459" + .000", –.036" for hot rolled steel plate sprockets or unfinished forgings.

Sprockets

C 2080H sprockets 2.000" pitch

Sprockets are usually furnished with twice the required number of teeth, virtually doubling sprocket life. Sprockets with only the required number of teeth can also be furnished.

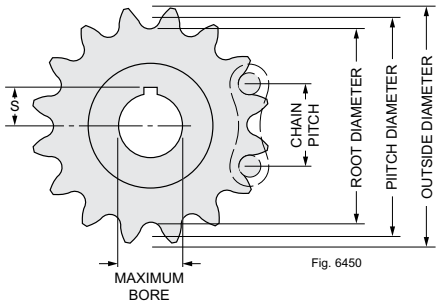
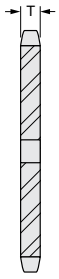


Fig. 6450



Type A

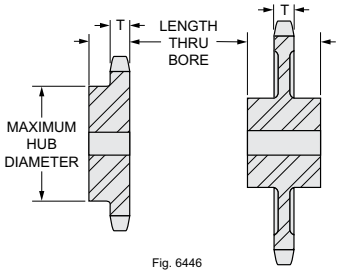


Fig. 6446

Type B

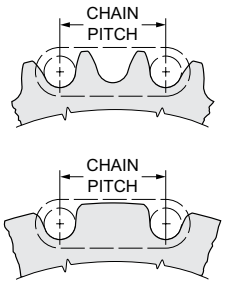


Fig. 8382

Type C

Number of effective teeth ❉	Pitch dia., inches	Root dia., inches	Outside dia., inches Δ	Maximum hub diameter, inches	Maximum bore with standard keyseat, inches ▲	S max., inches
6	4.000	3.375	4.332	2.42	1.625	1.000
6 1/2	4.304	3.679	4.636	2.78	1.750	1.063
7	4.610	3.985	4.982	3.11	2.063	1.281
7 1/2	4.917	4.292	5.289	3.45	2.250	1.375
8	5.226	4.601	5.627	3.80	2.688	1.688
8 1/2	5.536	4.911	5.937	4.13	3.000	1.875
9	5.848	5.223	6.271	4.45	3.250	2.031
9 1/2	6.160	5.535	6.583	4.80	3.500	2.188
10	6.472	5.847	6.914	5.13	3.750	2.313
10 1/2	6.785	6.160	7.227	5.45	3.938	2.438
11	7.099	6.474	7.556	5.78	4.250	2.625
11 1/2	7.413	6.788	7.870	6.09	4.500	2.750
12	7.727	7.102	8.195	6.42	4.625	2.875
12 1/2	8.042	7.417	8.510	6.75	4.688	2.969
13	8.357	7.732	8.835	7.08	4.938	3.094
13 1/2	8.672	8.047	9.150	7.41	5.063	3.156
14	8.988	8.363	9.476	7.72	5.250	3.250
14 1/2	9.304	8.679	9.792	8.05	5.500	3.438
15	9.620	8.995	10.115	8.35	5.688	3.594
15 1/2	9.936	9.311	10.431	8.69	5.875	3.688
16	10.252	9.627	10.753	9.02	6.188	3.844
16 1/2	10.568	9.943	11.069	9.34	6.813	4.156
17	10.885	10.260	11.392	9.66	7.375	4.500
17 1/2	11.201	10.576	11.708	9.98	7.688	4.719
18	11.518	10.893	12.030	10.31	7.938	4.844
18 1/2	11.834	11.209	12.346	10.63	8.188	4.969
19	12.151	11.526	12.668	10.95	8.438	5.094
19 1/2	12.467	11.842	12.984	11.27	8.875	5.313
20	12.785	12.160	13.306	11.59	9.313	5.531
20 1/2	13.102	12.477	13.623	11.91	9.438	5.594
21	13.419	12.794	13.944	12.23	9.563	5.656
21 1/2	13.736	13.111	14.261	12.55	9.688	5.719
22	14.053	13.428	14.581	12.88	9.813	5.875
22 1/2	14.371	13.746	14.899	13.19	9.875	5.938
23	14.688	14.063	15.219	13.52	-	-

Number of effective teeth ❉	Pitch dia., inches	Root dia., inches	Outside dia., inches Δ
23 1/2	15.005	14.380	15.536
24	15.323	14.698	15.858
24 1/2	15.640	15.015	16.175
25	15.958	15.333	16.495
25 1/2	16.275	15.650	16.812
26	16.593	15.968	17.133
26 1/2	16.910	16.285	17.450
27	17.228	16.603	17.770
27 1/2	17.545	16.920	18.087
28	17.863	17.238	18.406
28 1/2	18.180	17.555	18.723
29	18.498	17.873	19.044
29 1/2	18.816	18.191	19.362
30	19.134	18.509	19.681
30 1/2	19.451	18.826	19.998
31	19.769	19.144	20.318
31 1/2	20.087	19.462	20.636
32	20.405	19.780	20.956
32 1/2	20.723	20.098	21.274
33	21.040	20.415	21.592
33 1/2	21.358	20.733	24.910
34	21.676	21.051	22.230
35	22.312	21.687	22.870
36	22.947	22.322	23.500
37	23.583	22.958	24.140
38	24.219	23.594	24.780
39	24.855	24.230	25.410
40	25.491	24.866	26.050
41	26.127	25.502	26.690
42	26.763	26.138	27.330
43	27.399	26.774	27.960
44	28.035	27.410	28.600
45	28.671	28.046	29.240
46	29.307	28.682	29.870
47	29.943	29.318	30.510

Number of effective teeth ❉	Pitch dia., inches	Root dia., inches	Outside dia., inches Δ
48	30.580	29.955	31.25
49	31.216	30.591	31.78
50	31.852	31.227	32.42
51	32.488	31.863	33.06
52	33.124	32.499	33.69
53	33.761	33.136	34.33
54	34.397	33.772	34.97
55	35.033	34.408	35.61
56	35.669	35.044	36.24
57	36.306	35.681	36.88
58	36.942	36.317	37.52
59	37.578	39.953	38.15
60	38.215	37.590	38.79
61	38.851	38.226	39.43
62	39.487	38.862	40.06
63	40.124	39.499	40.70
64	40.760	40.135	41.34
65	41.396	40.771	41.97
66	42.033	41.408	42.61
67	42.669	42.044	43.24
68	43.306	42.681	43.88
69	43.942	43.371	44.52
70	44.578	43.953	45.16
71	45.215	44.590	45.79
72	45.851	45.226	46.43
73	46.488	45.863	47.07
74	47.124	46.499	47.70
75	47.760	47.135	48.34
76	48.397	47.772	48.98
77	49.033	48.408	49.61
78	49.670	49.045	50.25
79	50.306	49.681	50.89
80	50.943	50.318	51.53

Larger sizes available.

Hub length thru bore

Sprocket Type	Number of effective teeth	Hub length, thru bore, inches	Sprocket Type	Number of effective teeth	Hub length, thru bore, inches
B	6 to 7 1/2	1.38	C	9 to 18	2.50
	8 to 12	1.63		18 1/2 to 32	3.00
	12 1/2 to 18 1/2	1.88		32 1/2 to 40	3.25
	19 to 30	2.13		41 to 60	3.50
	30 1/2 to 44	2.38		61 to 72	4.00
	45 to 72	2.63		73 to 80	4.25
	73 to 80	2.75			

Tooth dimensions

T = .575" + .000", –.012" for machined sprockets.

T = .575" + .000", –.040" for hot rolled plate sprockets or unfinished forgings.

Recommended standard bore tolerances, keyseat dimensions, eccentricity tolerances, and similar data, page G-2.

❉ "Effective" describes the number of teeth that engage the chain rollers during each revolution of the sprocket. See Fig. 8382 above. The effective number is used to calculate chain speed. Sprockets are normally furnished with twice the effective number listed. When the actual number of teeth is 24 or more, sprockets for No. 80 roller chain may be used. See page C-21 for sprocket data.

Δ Non-functional dimension that may vary with the type of cutter used.

▲ Based on maximum hub diameter.

C 2082 sprockets 2.000" pitch

Sprockets for large diameter roller chains can be furnished only with the actual number of teeth required.

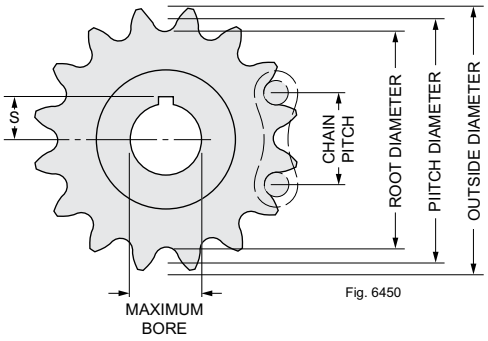
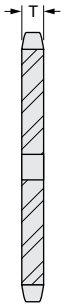


Fig. 6450



Type A

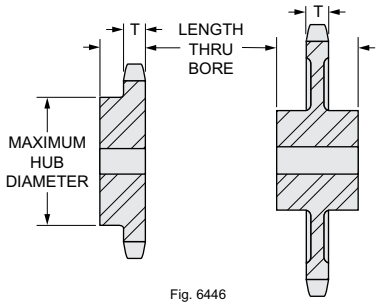


Fig. 6446

Type B Type C

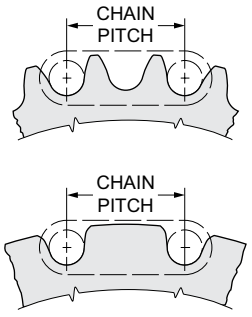


Fig. 8382

Number of teeth	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ	Maximum hub diameter, inches	Maximum bore with standard keyseat, inches ▲	S max., inches	Number of teeth	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ
6	4.000	2.875	4.660	2.42	1.625	1.000	24	15.323	14.198	16.390
7	4.610	3.485	5.350	3.11	2.063	1.281	25	15.958	14.833	17.030
8	5.226	4.101	6.030	3.80	2.688	1.688	26	16.593	15.468	17.670
9	5.848	4.723	6.700	4.45	3.250	2.031	27	17.228	16.103	18.310
10	6.472	5.347	7.360	5.13	3.750	2.313	28.	17.863	16.738	18.950
11	7.099	5.974	8.010	5.78	4.250	2.625	29	18.498	17.373	19.590
12	7.727	6.602	8.660	6.42	4.625	2.875	30	19.134	18.009	20.230
13	8.357	7.232	9.320	7.08	4.938	3.094	31	19.769	18.644	20.870
14	8.988	7.863	9.960	7.72	5.250	3.250	32	20.405	19.280	21.510
15	9.620	8.495	10.610	8.38	5.688	3.594	33	21.040	19.915	22.150
16	10.252	9.127	11.260	9.02	6.188	3.844	34	21.676	20.551	22.780
17	10.885	9.760	11.900	9.66	7.375	4.500	35	22.312	21.187	23.420
18	11.518	10.393	12.540	10.31	7.938	4.844	36	22.947	21.822	24.060
19	12.151	11.026	13.190	10.95	8.438	5.094	37	23.583	22.458	24.700
20	12.785	11.660	13.830	11.59	9.313	5.531	38	24.219	23.094	25.340
21	13.419	12.294	14.470	12.23	9.563	5.656	39	24.855	23.730	25.980
22	14.053	12.928	15.110	-	-	-	40	25.491	24.366	26.610
23	14.688	13.563	15.750	-	-	-	Larger sizes available.			

Hub length thru bore

Sprocket Type	Number of teeth	Hub length, thru bore, inches	Sprocket Type	Number of teeth	Hub length, thru bore, inches
B	6 to 7	1.38	C	9 to 18	2.50
	8 to 12	1.63		19 to 32	3.00
	13 to 18	1.88		33 to 40	3.25
	19 to 30	2.13			
	31 to 40	2.38			

Standard bore tolerances, keyseat dimensions, eccentricity tolerances, and similar data, page G-2.

Tooth dimensions

T = .575" + .000", –.012" for machined sprockets.

T = .575" + .000", –.040" for hot rolled plate sprockets or unfinished forgings.

Δ Non-functional dimension that may vary with the type of cutter used.
▲ Based on maximum hub diameter.

Sprockets

C 2100H sprockets 2.500" pitch

Sprockets are usually furnished with twice the required number of teeth, virtually doubling sprocket life. Sprockets with only the required number of teeth, can also be furnished.

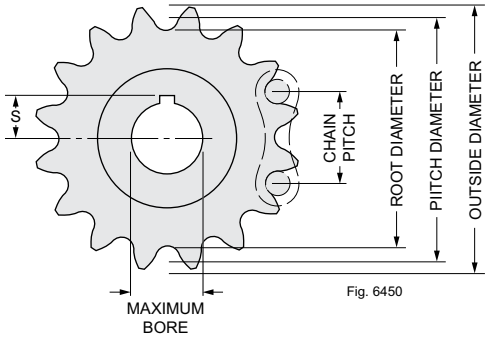
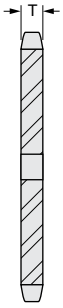


Fig. 6450



Type A

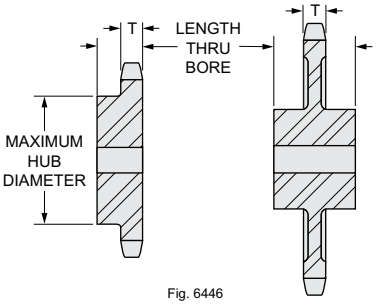


Fig. 6446

Type B Type C

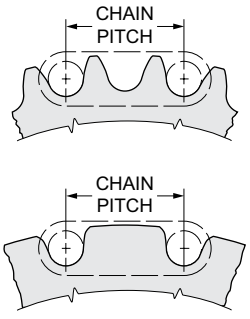


Fig. 8382

Number of effective teeth ❉	Pitch dia., inches	Root dia., inches	Outside dia., inches Δ	Maximum hub diameter, inches	Maximum bore with standard keyseat, inches ▲	S max., inches	Number of effective teeth ❉	Pitch dia., inches	Root dia., inches	Outside dia., inches Δ
6	5.000	4.250	5.415	3.11	2.063	1.281	22	17.567	16.817	18.228
6 1/2	5.380	4.630	5.795	3.55	2.375	1.469	22 1/2	17.964	17.214	18.625
7	5.762	5.012	6.227	3.97	2.625	1.625	23	18.360	17.610	19.024
7 1/2	6.146	5.396	6.611	4.39	3.000	1.844	23 1/2	18.756	18.006	19.420
8	6.523	5.782	7.034	4.81	3.375	2.094	24	19.152	18.402	19.820
8 1/2	6.920	6.170	7.422	5.23	3.688	2.281	24 1/2	19.550	18.800	20.218
9	7.130	6.560	7.839	5.64	4.000	2.469	25	19.947	19.197	20.619
9 1/2	7.700	6.950	8.229	6.06	4.438	2.719	25 1/2	20.344	19.594	21.016
10	8.090	7.340	8.642	6.47	4.750	3.000	26	20.740	19.990	21.415
10 1/2	8.481	7.731	9.033	6.88	5.125	3.188	26 1/2	21.138	20.388	21.813
11	8.872	8.122	9.442	7.27	5.500	3.375	27	21.535	20.785	22.212
11 1/2	9.266	8.516	9.836	7.70	5.750	3.625	27 1/2	21.931	21.181	22.608
12	9.660	8.910	10.245	8.05	5.875	3.688	28	22.330	21.580	23.010
12 1/2	10.053	9.303	10.638	8.52	6.063	3.781	28 1/2	22.725	21.975	23.405
13	10.447	9.697	11.045	8.83	6.188	3.844	29	23.122	22.372	23.805
13 1/2	10.840	10.090	11.438	9.33	6.313	4.000	29 1/2	23.520	22.770	24.203
14	11.235	10.485	11.845	9.63	6.750	4.156	30	23.917	23.167	24.602
14 1/2	11.630	10.880	12.240	10.13	7.188	4.344	30 1/2	24.314	23.564	24.999
15	12.025	11.275	12.644	10.41	7.438	4.469	31	24.712	23.962	25.399
15 1/2	12.420	11.670	13.039	10.94	7.750	4.750	31 1/2	25.109	24.359	25.796
16	12.815	12.065	13.442	11.20	8.000	4.875	32	25.505	24.755	26.194
16 1/2	13.210	12.460	13.837	11.75	8.375	5.063	32 1/2	25.904	25.154	26.593
17	13.605	12.855	14.239	12.00	8.750	5.219	33	26.300	25.550	26.991
17 1/2	14.001	13.251	14.635	12.55	9.063	5.406	34	27.095	26.345	27.788
18	14.397	13.647	15.038	12.78	-	-	35	27.890	27.140	28.580
18 1/2	14.793	14.043	15.434	13.36	-	-	36	28.685	27.935	29.380
19	15.190	14.440	15.836	13.58	-	-	37	29.480	28.730	30.180
19 1/2	15.584	14.834	16.230	14.16	-	-	38	30.275	29.525	30.970
20	15.982	15.232	16.633	14.38	-	-	39	31.070	30.320	31.770
20 1/2	16.378	15.628	17.029	14.97	-	-	40	31.865	31.115	32.570
21	16.775	16.025	17.431	15.16	-	-	Larger sizes available.			
21 1/2	17.170	16.420	17.826	-	-	-				

Hub length thru bore

Sprocket Type	Number of effective teeth	Hub length, thru bore, inches	Sprocket Type	Number of effective teeth	Hub length, thru bore, inches
B	6 to 6 1/2	1.50	C	7 1/2 to 13	3.00
	7 to 9	1.75		13 1/2 to 20	3.25
	9 1/2 to 19	2.00		20 1/2 to 30	3.50
	19 1/2 to 26 1/2	2.25		30 1/2 to 36	3.75
	27 to 34	2.50		37 to 40	4.00
	35 to 40	2.75			

Tooth dimensions

T = .692" + .000", –.014" for machined sprockets.

T = .692" + .000", –.046" for hot rolled plate sprockets or unfinished forgings.

Standard bore tolerances, keyseat dimensions, eccentricity tolerances, and similar data, page G-2.

❉ "Effective" describes the number of teeth that engage the chain rollers during each revolution of the sprocket. See Fig. 8382 above. The effective number is used to calculate chain speed. Sprockets are normally furnished with twice the effective number listed. When the actual number of teeth is 24 or more, sprockets for No. 100 roller chain may be used. See page C-23.

Δ Non-functional dimension that may vary with the type of cutter used.

▲ Based on maximum hub diameter.

C 2102H sprockets 2.500" pitch

Sprockets for large diameter roller chains can be furnished only with the actual number of teeth required.

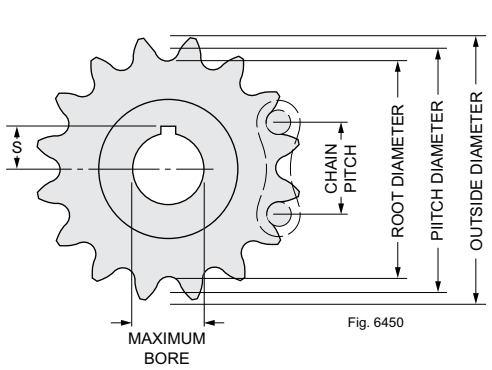
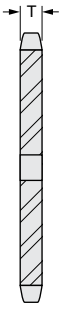


Fig. 6450



Type A

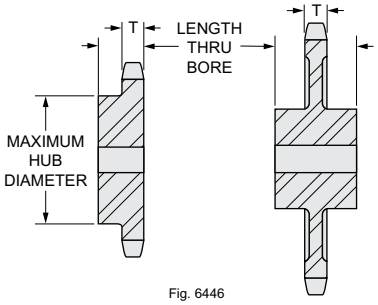


Fig. 6446

Type B

Type C

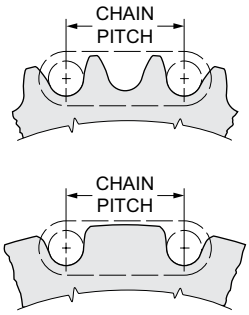


Fig. 8382

Number of teeth	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ	Maximum hub diameter, inches	Maximum bore with standard keyseat, inches ▲	S max., inches	Number of teeth	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ
6	5.000	3.438	5.830	3.11	2.063	1.281	24	19.152	17.590	20.490
7	5.762	4.200	6.690	3.97	2.625	1.625	25	19.947	18.385	21.290
8	6.532	4.970	7.540	4.81	3.375	2.094	26	20.740	19.178	22.090
9	7.310	5.748	8.370	5.64	4.000	2.469	27	21.535	19.973	22.890
10	8.090	6.528	9.300	6.47	4.750	3.000	28	22.330	20.768	23.690
11	8.872	7.310	10.020	7.27	5.500	3.375	29	23.122	21.560	24.490
12	9.660	8.098	10.830	8.05	5.875	3.688	30	23.917	22.355	25.290
13	10.447	8.885	11.640	8.83	6.188	3.844	31	24.712	23.151	26.090
14	11.235	9.673	12.460	9.63	6.750	4.156	32	25.505	23.943	26.880
15	12.025	10.463	13.260	10.41	7.138	4.469	33	26.300	24.738	27.680
16	12.815	11.253	14.070	11.20	8.000	4.875	34	27.095	25.533	28.480
17	13.605	12.043	14.870	12.00	8.750	5.219	35	27.890	26.328	29.280
18	14.397	12.835	15.680	12.78	-	-	36	28.685	27.123	30.080
19	15.190	13.628	16.480	13.58	-	-	37	29.480	27.918	30.870
20	15.982	14.420	17.290	14.38	-	-	38	30.275	28.713	31.670
21	16.775	15.213	18.090	15.16	-	-	39	31.070	29.508	32.470
22	17.567	16.005	18.890	-	-	-	40	31.865	30.303	33.270
23	18.360	16.798	19.690	-	-	-	Larger sizes available.			

Hub length thru bore

Sprocket Type	Number of teeth	Hub length, thru bore, inches	Sprocket Type	Number of teeth	Hub length, thru bore, inches
B	6	1.50	C	8 to 13	3.00
	7 to 9	1.75		14 to 20	3.25
	10 to 19	2.00		21 to 30	3.50
	20 to 26	.25		31 to 36	3.75
	27 to 34	2.50		37 to 40	4.00
	35 to 40	2.75			

Standard bore tolerances, keyseat dimensions, eccentricity tolerances, and similar data, page G-2.

Δ Non-functional dimension that may vary with the type of cutter used.
▲ Based on maximum hub diameter.

Tooth dimensions

T = .692" + .000", –.014" for machined sprockets.
T = .692" + .000", –.046" for hot rolled plate sprockets or unfinished forgings.

Sprockets

C 2120H sprockets 3.000" pitch

Sprockets are usually furnished with twice the required number of teeth, virtually doubling sprocket life. Sprockets with only the required number of teeth can also be furnished.

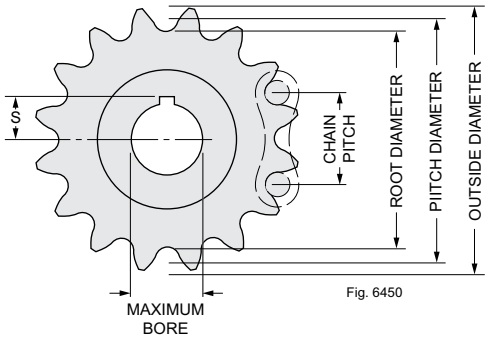
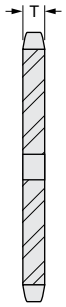


Fig. 6450



Type A

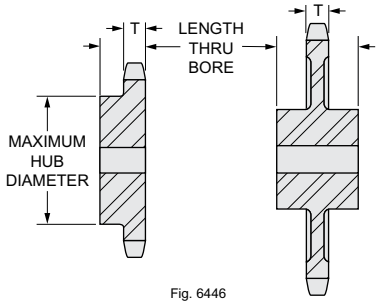


Fig. 6446

Type B Type C

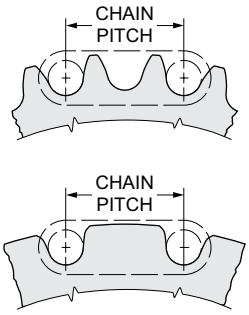


Fig. 8382

Number of effective teeth ❉	Pitch dia., inches	Root dia., inches	Outside dia., inches Δ	Maximum hub diameter, inches	Maximum bore with standard keyseat, inches ▲	S max., inches	Number of effective teeth ❉	Pitch dia., inches	Root dia., inches	Outside dia., inches Δ
6	6.000	5.125	6.498	3.66	2.438	1.531	22	21.080	20.205	21.872
6 1/2	6.456	5.581	6.954	4.19	2.875	1.781	22 1/2	21.557	20.682	22.369
7	6.915	6.040	7.473	4.69	3.188	1.969	23	22.032	21.157	22.829
7 1/2	7.376	6.501	7.934	5.20	3.750	2.344	23 1/2	22.508	21.633	23.3058
8	7.839	6.964	8.440	5.70	4.188	2.594	24	22.985	22.110	23.787
8 1/2	8.304	7.429	8.905	6.20	4.563	2.781	24 1/2	23.460	22.585	24.262
9	8.772	7.897	9.407	6.70	4.938	3.031	25	23.937	23.062	24.743
9 1/2	9.240	8.365	9.875	7.20	5.375	3.313	25 1/2	24.413	23.538	25.219
10	9.708	8.833	10.370	7.70	5.750	3.563	26	24.890	24.015	25.700
10 1/2	10.178	9.303	10.840	8.19	6.125	3.813	26 1/2	25.365	24.490	26.175
11	10.649	9.774	11.333	8.69	6.438	3.969	27	25.842	24.967	26.654
11 1/2	11.120	10.245	11.804	9.17	6.625	4.125	27 1/2	26.318	25.443	27.130
12	11.591	10.716	12.293	9.66	6.875	4.188	28	26.795	25.920	27.611
12 1/2	12.063	11.188	12.765	10.14	7.125	4.313	28 1/2	27.270	26.395	28.086
13	12.536	11.661	13.254	10.64	7.500	4.563	29	27.747	26.872	28.565
13 1/2	13.008	12.133	13.726	11.13	7.875	4.813	29 1/2	28.224	27.349	29.042
14	13.482	12.607	14.213	11.61	8.250	4.906	30	28.701	27.826	29.523
14 1/2	13.956	13.081	14.687	12.09	8.625	5.125	30 1/2	29.177	28.302	29.999
15	14.430	13.555	15.172	12.58	9.125	5.438	31	29.654	28.779	30.478
15 1/2	14.904	14.029	15.646	13.06	9.625	5.688	31 1/2	30.131	29.256	30.955
16	15.378	14.503	16.130	13.58	9.938	5.938	32	30.608	29.733	31.435
16 1/2	15.852	14.977	16.604	14.03	-	-	32 1/2	31.085	30.210	31.912
17	16.328	15.453	17.089	14.52	-	-	33	31.560	30.685	32.389
17 1/2	16.802	15.927	17.563	15.00	-	-	34	32.514	31.639	33.345
18	17.277	16.402	18.046	15.48	-	-	35	33.468	32.593	34.300
18 1/2	17.751	16.876	18.520	15.95	-	-	36	34.421	33.546	35.260
19	18.227	17.352	19.003	16.44	-	-	37	35.375	34.500	36.210
19 1/2	18.701	17.826	19.477	16.92	-	-	38	36.329	35.454	37.170
20	19.178	18.303	19.958	17.41	-	-	39	37.283	36.408	38.120
20 1/2	19.653	18.778	20.434	17.89	-	-	40	38.237	37.362	39.080
21	20.129	19.254	20.916	18.36	-	-	Consult Rexnord.			
21 1/2	20.604	19.729	21.391	-	-	-				

Hub length thru bore

Sprocket Type	Number of effective teeth	Hub length, thru bore, inches	Sprocket Type	Number of effective teeth	Hub length, thru bore, inches
B	6	2.00	C	7 to 18	3.50
	6 1/2 to 8	2.25		18 1/2 to 23	3.75
	8 1/2 to 17	2.50		23 1/2 to 30	4.00
	17 1/2 to 26	2.75		30 1/2 to 36	4.25
	26 1/2 to 36	3.00		37 to 40	4.50
	37 to 40	3.25			

Tooth dimensions

T = .924" + .000", –.016" for machined sprockets.
T = .924" + .000", –.057" for hot rolled plate sprockets or unfinished forgings.

Standard bore tolerances, keyseat dimensions, eccentricity tolerances, and similar data, page G-2.

❉ "Effective" describes the number of teeth that engage the chain rollers during each revolution of the sprocket. See Fig. 8382 above. The effective number is used to calculate chain speed. Sprockets are normally furnished with twice the effective number listed. When the actual number of teeth is 24 or more, sprockets for No. 120 roller chain may be used. See page C-25 for sprocket data.

Δ Non-functional dimension that may vary with the type of cutter used.

▲ Based on maximum hub diameter.

C 2122H sprockets 3.000" pitch

Sprockets for large diameter roller chains can be furnished only with the actual number of teeth required.

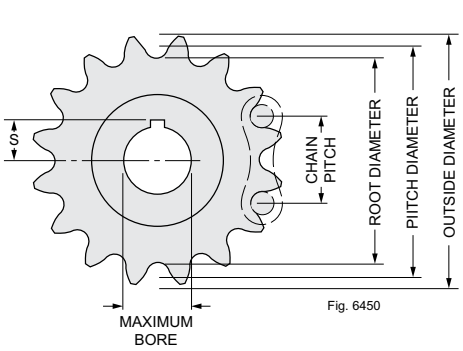
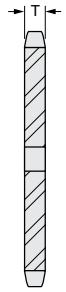


Fig. 6450



Type A

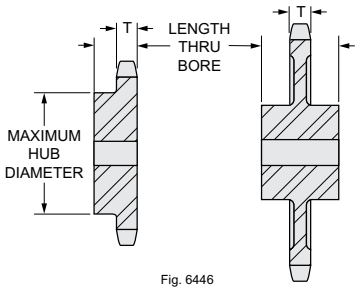


Fig. 6446

Type B Type C

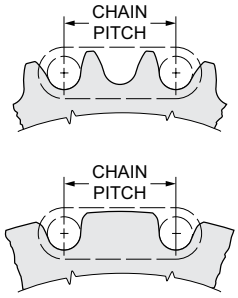


Fig. 8382

Number of teeth	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ	Maximum hub diameter, inches	Maximum bore with standard keyseat, inches ▲	S max., inches	Number of teeth	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ
6	6.000	4.250	7.000	3.66	2.438	1.531	24	22.985	21.235	24.588
7	6.915	5.164	8.030	4.69	3.188	1.969	25	23.937	22.187	25.548
8	7.839	6.089	9.040	5.70	4.188	2.594	26	24.890	23.140	26.507
9	8.772	7.022	10.042	6.70	4.938	3.031	27	25.842	24.092	27.467
10	9.708	7.958	11.033	7.70	5.750	3.563	28	26.795	25.045	28.427
11	10.649	8.899	12.017	8.69	6.438	3.969	29	27.747	25.997	29.385
12	11.591	9.841	12.996	9.66	6.875	4.188	30	28.701	26.951	30.344
13	12.536	10.786	13.971	10.64	7.500	4.563	31	29.654	27.904	31.302
14	13.482	11.732	14.945	11.61	8.250	4.906	32	30.608	28.858	32.259
15	14.430	12.680	15.914	12.58	9.125	5.438	33	31.560	29.810	33.216
16	15.378	13.628	16.883	13.58	9.938	5.938	34	32.514	30.764	34.176
17	16.328	14.578	17.849	14.52	-	-	35	33.468	31.718	35.133
18	17.277	15.527	18.815	15.48	-	-	36	34.421	32.671	36.090
19	18.227	16.477	19.778	16.44	-	-	37	35.375	33.625	37.047
20	19.178	17.428	20.742	17.41	-	-	38	36.329	34.579	38.004
21	20.129	18.379	21.705	18.36	-	-	39	37.283	35.533	38.961
22	21.080	19.330	22.665	-	-	-	40	38.237	36.487	39.918
23	22.032	20.282	23.627	-	-	-	Larger sizes available.			

Hub length thru bore

Sprocket Type	Number of teeth	Hub length, thru bore, inches	Sprocket Type	Number of teeth	Hub length, thru bore, inches
B	6	2.00	C	7 to 18	3.50
	7 to 8	2.25		19 to 23	3.75
	9 to 17	2.50		24 to 30	4.00
	18 to 26	2.75		31 to 36	4.25
	27 to 36	3.00		37 to 40	4.50
	37 to 40	3.25			

Standard bore tolerances, keyseat dimensions, eccentricity tolerances, and similar data, page G-2.

Δ Non-functional dimension that may vary with the type of cutter used.
▲ Based on maximum hub diameter.

Tooth dimensions

T = .924" + .000", –.016" for machined sprockets.
T = .924" + .000", –.057" for hot rolled plate sprockets or unfinished forgings.

Sprockets

C 2160H sprockets 4.000" pitch

Sprockets are usually furnished with twice the required number of teeth, virtually doubling sprocket life. Sprockets with only the required number of teeth can also be furnished.

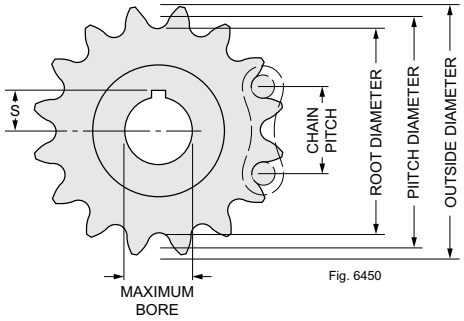
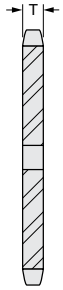


Fig. 6450



Type A

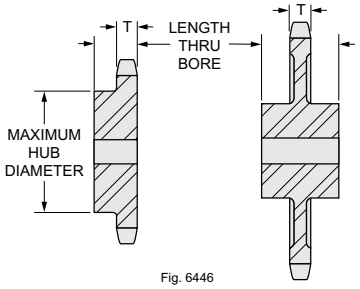


Fig. 6446

Type B Type C

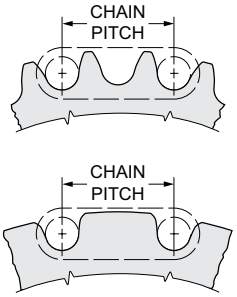


Fig. 8382

Number of effective teeth ❉	Pitch dia., inches	Root dia., inches	Outside dia., inches Δ	Maximum hub diameter, inches	Maximum bore with standard keyseat, inches ▲	S max., inches	Number of effective teeth ❉	Pitch dia., inches	Root dia., inches	Outside dia., inches Δ
6	8.000	6.875	8.664	4.891	3.438	2.156	20	25.570	24.445	26.613
6 1/2	8.608	7.483	9.272	5.578	3.750	2.344	20 1/2	26.204	25.079	27.247
7	9.220	8.095	9.963	6.266	4.250	2.625	21	26.839	25.713	27.889
7 1/2	9.834	8.709	10.577	6.953	4.938	3.031	21 1/2	27.472	26.347	28.523
8	10.452	9.327	11.252	7.625	5.500	3.375	22	28.106	26.981	29.163
8 1/2	11.072	9.947	11.874	8.281	6.125	3.813	22 1/2	28.742	27.617	29.799
9	11.696	10.571	12.543	8.953	6.313	3.969	23	29.376	28.251	30.439
9 1/2	12.320	11.195	13.167	9.609	6.875	4.188	23 1/2	30.010	28.885	31.037
10	12.944	11.819	13.827	10.266	7.188	4.344	24	30.646	29.521	61.715
10 1/2	13.570	12.445	14.453	10.938	7.750	4.750	24 1/2	31.280	30.155	32.349
11	14.198	13.073	15.110	11.578	8.250	4.906	25	31.916	30.791	32.990
11 1/2	14.826	13.701	15.738	12.234	8.625	5.125	25 1/2	32.550	31.425	33.624
12	15.454	14.329	16.391	12.891	9.125	5.438	26	33.186	32.061	34.264
12 1/2	16.084	14.959	17.021	13.547	9.938	5.938	26 1/2	33.820	32.695	34.898
13	16.714	15.589	17.671	14.155	-	-	27	34.456	33.331	35.539
13 1/2	17.344	16.219	18.305	14.844	-	-	27 1/2	35.090	33.965	36.173
14	17.976	16.851	18.951	15.484	-	-	28	36.360	35.235	37.448
14 1/2	18.608	17.483	19.583	16.141	-	-	28 1/2	36.360	35.235	37.448
15	19.240	18.115	20.229	16.781	-	-	29	36.996	36.871	38.088
15 1/2	19.872	18.747	20.861	17.422	-	-	29 1/2	37.632	36.507	38.724
16	20.504	19.379	21.507	18.078	-	-	30	38.268	37.143	39.363
16 1/2	21.136	20.011	22.139	18.719	-	-	30 1/2	38.902	37.777	39.997
17	21.770	20.645	22.784	19.359	-	-	31	39.538	38.413	40.637
17 1/2	22.402	21.277	23.416	20.000	-	-	31 1/2	40.174	39.049	41.273
18	23.039	21.941	24.061	20.650	-	-	32	40.810	39.685	41.941
18 1/2	23.668	22.543	24.693	21.297	-	-	32 1/2	41.446	40.321	42.547
19	24.302	23.177	25.336	21.938	-	-	33	42.080	40.955	43.185
19 1/2	29.934	23.809	25.968	22.578	-	-	33 1/2	42.716	41.591	43.821
							34	43.352	42.227	44.460
								Larger sizes available.		

Hub length thru bore

Sprocket Type	Number of effective teeth	Hub length, thru bore, inches	Sprocket Type	Number of effective teeth	Hub length, thru bore, inches
B	6	2.25	C	6 to 13 1/2	4.00
	6 1/2 to 7 1/2	2.50		14 to 18 1/2	4.25
	8 to 12 1/2	2.75		19 to 23	4.50
	13 to 17 1/2	3.00		23 1/2 to 24	5.00
	18 to 25 1/2	3.25			
	26 to 34	3.50			

Tooth dimensions

T = 1.156" + .000", –.019" for machined sprockets.

T = 1.156" + .000", –.062" for hot rolled plate sprockets or unfinished forgings.

Recommended standard bore tolerances, keyseat dimensions, eccentricity tolerances, and similar data, page G-2.

❉ "Effective" describes the number of teeth that engage the chain rollers during each revolution of the sprocket. See Fig. 8382 above. The effective number is used to calculate chain speed. Sprockets are normally furnished with twice the effective number listed. When the actual number of teeth is 24 or more, sprockets for No. 160 roller chain may be used. See page C-29 for sprocket data.

Δ Non-functional dimension that may vary with the type of cutter used.

▲ Based on maximum hub diameter.

C 2162H sprockets 4.000" pitch

Sprockets for large diameter roller chains can also be furnished only with the actual number of teeth required.

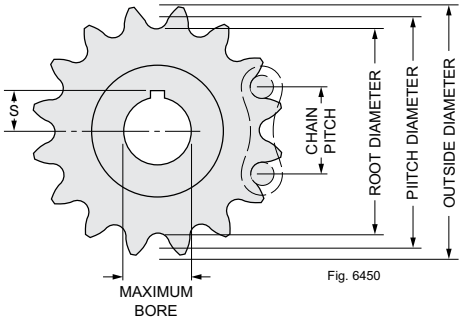
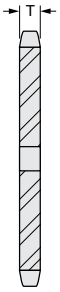


Fig. 6450



Type A

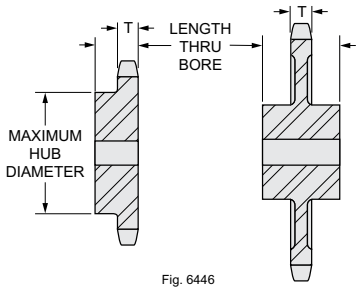


Fig. 6446

Type B Type C

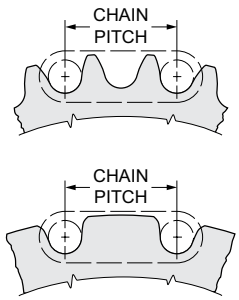


Fig. 8382

Number of teeth ❉	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ	Maximum hub diameter, inches	Maximum bore with standard keyseat, inches ▲	S max., inches	Number of teeth ❉	Pitch diameter, inches	Root diameter, inches	Outside diameter, inches Δ
6	8.000	5.750	9.33	4.891	3.438	2.156	20	25.570	23.320	27.66
7	9.220	6.970	10.71	6.266	4.250	2.625	21	26.838	24.588	28.94
8	10.452	8.202	12.06	7.625	5.500	3.375	22	28.106	25.856	30.22
9	11.696	9.446	13.39	8.953	6.313	3.969	23	29.376	27.126	31.50
10	12.944	10.694	14.71	10.266	7.188	4.344	24	30.646	28.396	32.78
11	14.198	11.948	16.02	11.578	8.250	4.906	25	31.916	29.666	34.06
12	15.454	13.204	17.33	12.891	9.125	5.438	26	33.186	30.936	35.34
13	16.714	14.464	18.63	14.188	-	-	27	34.456	32.206	36.62
14	17.976	15.726	19.93	15.484	-	-	28	35.726	33.476	37.90
15	19.240	16.990	21.22	16.781	-	-	29	36.996	34.746	39.18
16	20.504	18.254	22.51	18.078	-	-	30	38.268	36.018	40.46
17	21.770	19.520	23.80	19.359	-	-	31	39.538	37.288	41.74
18	23.036	20.786	25.08	20.650	-	-	32	40.810	38.560	43.01
19	24.302	22.053	26.37	21.938	-	-	33	42.080	39.830	44.29
							34	43.352	41.102	45.57
								Larger sizes available.		

Hub length thru bore

Sprocket Type	Number of teeth	Hub length, thru bore, inches	Sprocket Type	Number of teeth	Hub length, thru bore, inches
B	6	2.25	C	6 to 13	4.00
	7	2.50		14 to 18	4.25
	8 to 12	2.75		19 to 23	4.50
	13 to 17	3.00		24 to 24	5.00
	18 to 25	3.25			
	26 to 34	3.50			

Standard bore tolerances, keyseat dimensions, eccentricity tolerances, and similar data, page G-2.

Δ Non-functional dimension that may vary with the type of cutter used.
▲ Based on maximum hub diameter.

Tooth dimensions

T = 1.156" + .000", –.019" for machined sprockets.
T = 1.156" + .000", –.062" for hot rolled plate sprockets or unfinished forgings.

NOTES

Link-Belt and Rexnord British Standard Roller Chain

Single Strand (DIN 8187/ISO 606)

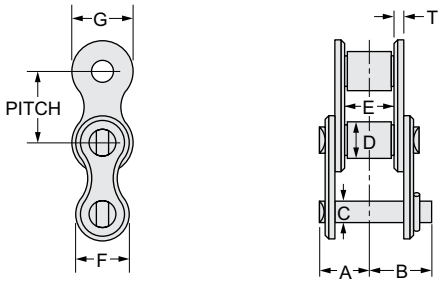


Fig. 6453

ISO No.	Pitch		Bearing Area	Required Ultimate Strength min	Weight	Dimensions, Millimeters						
	inch	mm	cm^2	N	Lb/ft	A max mm	B max mm	C max mm	D max mm	E min mm	G max mm	T min mm
04	0.236	6.0	0.08	3,000	0.08	7.4	10.3	1.85	4.0	2.8	5.0	4.1
05 B - 1	0.315	8.0	0.11	5,000	0.12	8.6	11.7	2.31	5.0	3.0	7.1	4.77
06 B - 1	0.375	9.525	0.28	9,000	0.28	13.5	16.8	3.28	6.35	5.72	8.3	8.53
081	0.50	12.7	0.21	8,200	0.19	10.2	11.7	3.66	7.75	3.3	9.9	5.80
083	0.50	12.7	0.32	12,000	0.28	12.9	14.4	4.09	7.75	4.88	10.3	7.9
084	0.50	12.7	0.326	16,000	0.40	14.8	16.3	4.09	7.75	4.88	11.1	8.8
085	0.50	12.7	0.32	6,800	0.26	14.0	16.0	3.58	7.77	6.38	9.9	9.07
08 B - 1	0.50	12.7	0.50	18,000	0.47	17.0	19.0	4.45	8.51	7.75	11.6	11.3
10 B - 1	0.625	15.875	0.67	22,400	0.60	19.6	22.0	5.08	10.16	9.65	14.6	13.28
12 B - 1	0.75	19.05	0.89	29,000	0.77	22.7	25.1	5.72	12.07	11.68	15.9	15.62
16 B - 1	1.00	25.4	2.1	60,000	1.75	36.1	42.4	8.28	15.88	17.02	20.5	25.4
20 B - 1	1.25	31.75	2.96	95,000	2.49	40.4	47.6	10.19	19.05	19.56	25.7	29.0
24 B - 1	1.50	38.1	5.54	160,000	4.64	53.8	60.6	14.63	25.4	25.4	33.0	37.9
28 B - 1	1.75	44.45	7.39	200,000	5.78	63.3	72.8	15.90	27.94	3.99	37.0	46.5
32 B - 1	2.00	50.8	8.1	250,000	6.38	65.1	73.6	17.81	29.21	30.8	41.2	45.5
40 B - 1	2.50	63.5	12.75	355,000	10.15	78.9	91.3	22.89	39.37	38.1	51.5	55.7
48 B - 1	3.00	76.2	20.61	560,000	16.46	98.5	124.0	29.24	48.26	45.72	63.5	70.5
56 B - 1	3.50	88.9	27.90	850,000	24.53	114.7	140.0	34.32	53.98	53.34	77.0	81.3

Double Strand (DIN 8187/ISO 606)

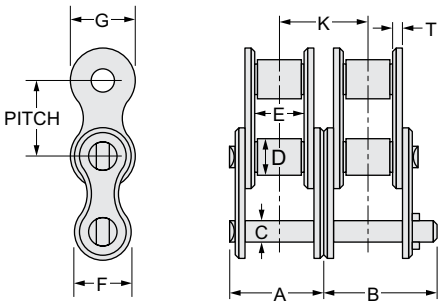
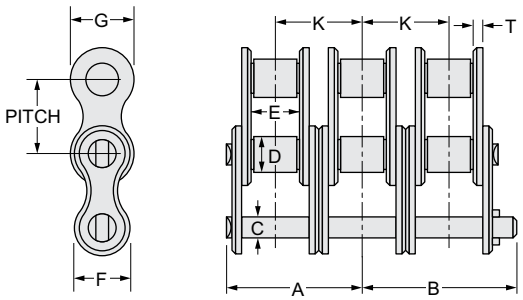


Fig. 6445

ISO No.	Pitch		Bearing Area	Required Ultimate Strength min	Weight	Dimensions, Millimeters							
	inch	mm	cm^2	N	Lb/ft	A max mm	B max mm	C max mm	D max mm	E min mm	G max mm	K mm	T min mm
06 B - 2	0.375	9.525	0.56	16,900	0.52	23.8	27.1	3.28	6.35	5.72	8.2	10.24	8.53
08 B - 2	0.50	12.7	1.01	32,000	0.94	31.0	33.0	4.45	8.51	7.75	11.6	13.92	11.3
10 B - 2	0.625	15.875	1.34	44,500	1.21	36.2	38.6	5.08	10.16	9.65	14.6	16.59	13.28
12 B - 2	0.75	19.05	1.79	57,800	1.55	42.2	44.4	5.72	12.07	11.68	15.9	19.46	15.62
16 B - 2	1.00	25.4	4.21	106,000	3.56	68.0	74.0	8.28	15.88	17.02	20.5	31.88	25.4
20 B - 2	1.25	31.75	5.91	170,000	4.87	76.9	83.6	10.19	1905	19.56	25.7	36.45	29.0
24 B - 2	1.50	38.1	11.09	280,000	9.24	102.2	112.7	14.63	25.4	25.4	33.0	48.36	37.9
28 B - 2	1.75	44.45	14.79	360,000	11.63	122.8	132.7	15.90	27.94	30.99	37.0	59.56	46.5
32 B - 2	2.00	50.8	16.21	450,000	12.63	123.6	132.4	17.81	29.21	30.8	41.2	58.55	45.5
40 B - 2	2.50	63.5	25.5	630,000	20.09	151.2	163.8	22.89	39.37	38.1	51.5	72.29	55.7
48 B - 2	3.00	76.2	41.23	1,000,000	32.66	189.7	215.2	29.24	48.26	45.72	63.5	91.21	70.5
56 B - 2	3.50	88.9	55.8	1,600,000	48.72	221.3	246.5	34.32	53.98	53.34	77.0	106.6	81.3

Triple Strand (DIN 8187/ISO 606)



ISO No.	Pitch		Bearing Area	Required Ultimate Strength min	Weight	Dimensions, Millimeters							
	inch	mm	cm^2	N	Lb/ft	A max mm	B max mm	C max mm	D max mm	E min mm	G max mm	K mm	T min mm
06 B - 3	0.375	9.525	0.84	24,900	0.79	34	37.3	3.28	6.35	5.72	8.3	10.24	8.53
08 B - 3	0.5	12.7	1.51	47,500	1.41	44.9	47.2	4.45	8.51	7.75	11.6	13.92	11.3
10 B - 3	0.625	15.875	2.02	66,700	1.75	52.8	55.6	5.08	10.16	9.65	14.6	16.59	13.28
12 B - 3	0.75	19.05	2.68	86,700	2.28	61.7	65.2	5.72	12.07	11.68	15.9	19.46	15.62
16 B - 3	1	25.4	6.31	160,000	5.24	99.9	107.2	8.28	15.88	17.02	20.5	31.88	25.4
20 B - 3	1.25	31.75	8.87	250,000	7.29	113.4	121.2	10.19	1905	19.56	25.7	36.45	29
24 B - 3	1.5	38.1	16.63	425,000	13.78	150.5	160.4	14.63	25.4	25.4	33	48.36	37.9
28 B - 3	1.75	44.45	22.18	530,000	17.3	182.3	192.2	15.9	27.94	30.99	37	59.56	46.5
32 B - 3	2	50.8	24.31	670,000	18.78	182.2	181	17.81	29.21	30.8	41.2	58.55	45.5
40 B - 3	2.5	63.5	38.25	950,000	30.1	223.5	236.1	22.89	39.37	38.1	51.5	72.29	55.7
48 B - 3	3	76.2	61.84	1,500,000	48.72	281	306.5	29.24	48.26	45.72	63.5	91.21	70.5
56 B - 3	3.5	88.9	83.71	2,240,000	73.24	328	353.2	34.32	53.98	53.34	77	106.6	81.3

Dimensions subject to change. Certified dimensions of ordered material furnished on request.
Minimum order quantities may be required on some parts. Other sizes available upon request.

Metric Standard

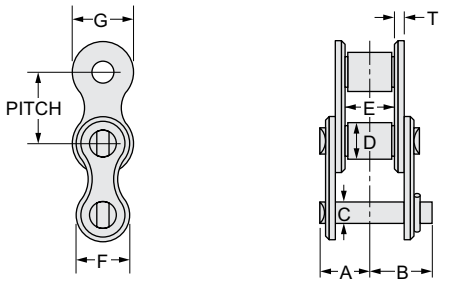


Fig. 6453

ISO No.	Pitch		Bearing Area	Required Ultimate Strength min	Weight	Dimensions, Millimeters							
	inch	mm	cm^2	N	Lb/ft	A max mm	B max mm	C max mm	D max mm	E min mm	G max mm	K mm	T min mm
Re 217	0.5	12.7	0.44	18,000	0.45	15.4	18.9	4.45	8.51	6.4	11.6	-	9.93
Re 317	0.625	15.875	0.51	23,600	0.54	16	20	5.08	10.16	6.48	14.7	-	10.08
Re 425	0.75	19.05	1.12	33,500	1.05	27	31.8	5.72	12.07	13.5	16.8	-	19.4
Re 480	0.75	19.05	1.05	40,000	0.97	25	29.5	6.1	12.07	11.68	16.8	-	17.23
Re 487	0.787	20	1.35	35,500	1.34	32.1	35.9	6	12	16	19	-	22.5
He 488	0.787	20	1.8	35,500	1.34	32.5	37.3	8	12.01	16	19	-	22.5
Re 514	1	25.4	1.33	45,000	1.17	27.3	33.1	7	14	12.7	19.7	-	19.07
Re 516	1	25.4	1.74	63,000	1.61	30.8	37.6	8.28	15.88	12.71	20.6	-	21.07
Re 519	1	25.4	2.29	80,000	2.12	36	39.8	9	15.88	17.02	24.1	-	25.4
Rz 519	1	25.4	4.58	160,000	4.2	67.8	72	9	15.88	17.02	24.1	31.88	25.4
Re 525	1	25.4	1.33	45,000	1.07	27.4	32.5	7	12.7	12.7	20.8	-	19.07
Re 626	1.18	30	2.1	63,000	1.57	35.5	41.9	8.28	15.88	17.02	20.5	-	25.4

Roller Chains for Heavy Drives and Lifting Applications

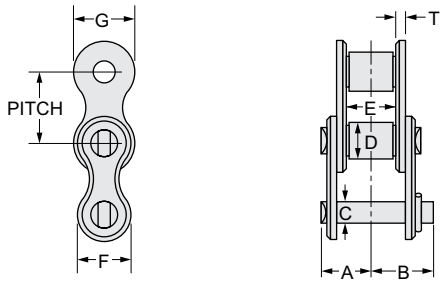


Fig. 6453

ISO No.	Pitch		Bearing Area	Required Ultimate Strength min	Weight	Dimensions, Millimeters						
	inch	mm	cm^2	N	Lb/ft	A max mm	B max mm	C max mm	D max mm	E min mm	G max mm	T min mm
KRV 12	1	25.4	2.61	117,500	2.96	40.1	-	10.19	19.5	12.7	24	25.7
R 38 SH	1.5	38.1	5.85	235,000	5.24	56.7	-	14.63	25.4	25.4	37.2	40
R 44 SH	1.75	44.45	7.39	270,000	6.59	66.3	-	15.9	27.94	30.99	40.8	46.5

British Standard with Straight Link Plates

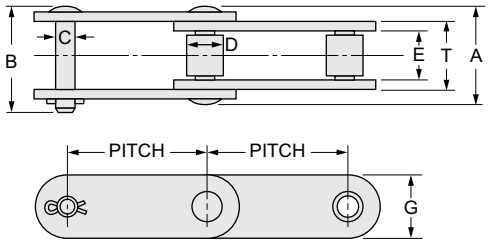


Fig. 5074b

ISO No.	Pitch		Bearing Area	Required Ultimate Strength min	Weight	Dimensions, Millimeters							
	inch	mm	cm^2	N	Lb/ft	A max mm	B max mm	C max mm	D max mm	E min mm	G max mm	K mm	T min mm
06 B - 1 GL	0.375	9.525	0.28	9,000	0.28	12.8	15.8	3.28	6.35	5.72	8.1	-	8.53
06 B - 2 GL	0.375	9.525	0.56	16,000	0.52	23.1	26	3.28	6.35	5.72	8.1	10.24	8.53
8 B - 1 GL	0.5	12.7	0.5	18,000	0.5	17	19	4.45	8.51	7.75	12	-	11.3
10 B - 1 GL	0.625	15.875	0.67	22,400	0.67	18.9	22	5.08	10.16	9.65	13.9	-	13.28
10 B - 2 GL	0.625	15.875	1.34	44,500	1.28	35.5	38.6	5.08	10.16	9.65	13.9	16.59	13.28
12 B - 1 GL	0.75	19.05	0.89	29,000	0.89	22.3	25.1	5.72	12.07	11.68	15.9	-	15.62
12 B - 2 GL	0.75	19.05	1.79	57,800	1.75	41.7	44.4	5.72	12.07	11.68	15.9	19.46	15.62
16 B - 1 GL	1	25.4	2.1	60,000	1.92	35.4	42.4	8.28	15.88	17.02	20.3	-	25.4
16 B - 2 GL	1	25.4	4.21	106,000	3.9	37.4	74	8.28	15.88	17.02	20.3	31.88	25.4
20 B - 1 GL	1.25	31.75	2.96	95,000	2.69	40.4	47.6	10.19	19.05	19.56	25.8	-	29
24 B - 1 GL	1.5	38.1	5.54	160,000	5.04	53.8	60.6	14.63	25.4	25.4	33	-	37.9
32 B - 1 GL	2	50.8	7.1	250,000	6.99	65.1	73.6	17.81	29.21	30.8	41.2	-	45.5

Dimensions subject to change. Certified dimensions of ordered material furnished on request.
Minimum order quantities may be required on some parts. Other sizes available upon request.

Link-Belt and Rexnord British Standard Roller Chain
with Thermoplastic Bearings

Single Strand

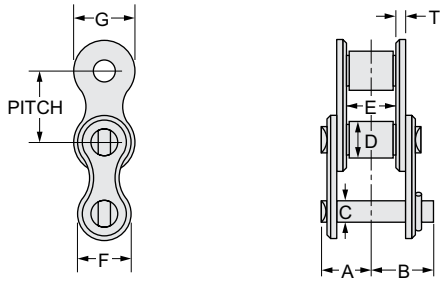


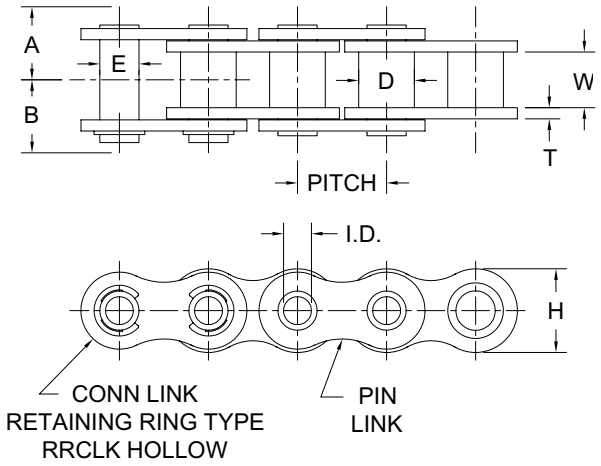
Fig. 6453

ISO No.	Pitch		Bearing Area	Required Ultimate Strength min	Weight	Dimensions, Millimeters							
	inch	mm	cm^2	N	Lb/ft	A max mm	B max mm	C max mm	D max mm	E min mm	G max mm	K mm	T min mm
08 B - 1 KL	0.5	12.7	0.5	14,000	0.46	16.7	20.3	4.45	8.51	7.75	11.6	-	11.3
10 B - 1 KL	0.625	15.875	0.67	19,000	0.6	18.9	23.2	5.08	10.16	9.65	14.7	-	13.28
12 B - 1 KL	0.75	1905	0.89	25,000	0.77	22.3	25	5.72	12.07	11.68	15.9	-	15.62
16 B - 1 KL	1	25.4	2.1	53,000	1.75	35.4	41.9	8.28	15.88	17.02	20.6	-	25.45

Double Strand

ISO No.	Pitch		Bearing Area	Required Ultimate Strength min	Weight	Dimensions, Millimeters							
	inch	mm	cm^2	N	Lb/ft	A max mm	B max mm	C max mm	D max mm	E min mm	G max mm	K mm	T min mm
08 B - 2 KL	0.5	12.7	1.01	28,000	0.86	30.6	34.3	4.45	8.51	7.75	11.6	13.62	11.3
10 B - 2 KL	0.625	15.875	1.34	38,000	1.16	35.5	40	5.08	10.16	9.65	14.7	16.59	13.28
12 B - 2 KL	0.75	1905	1.79	50,000	1.53	41.7	45.5	5.72	12.07	11.68	15.9	19.46	15.62
16 B - 2 KL	1	25.4	4.21	106,000	3.43	67.4	73.9	8.28	15.88	17.02	20.6	31.88	25.45

Hollow Pin Chains



Single Strand

Main Dimensions acc. to European and American Standard

ISO No.	Pitch		Bearing Area	Required Ultimate Strength min	Weight	Rivet Width	Overall Width	Bushing Diameter	Pin Diameter		Link Plate Height	Transverse	Inner Width	Bushing Width
	inch	mm	cm^2	N	Lb/ft	A max mm	C max mm	D max mm	E max mm	I.D. mm	H max mm	K min mm	T min mm	W min mm
10 B - 1 HB	0.625	15.875	1.14	17,000	0.54	19.3	21.1	10.16	5.94	4	14.7	-	13.9	9.65
12 B - 1 HB	0.75	19.05	1.06	21,000	0.74	22.4	24	12.07	6.5	4	15.9	-	16.3	11.68

Double Strand

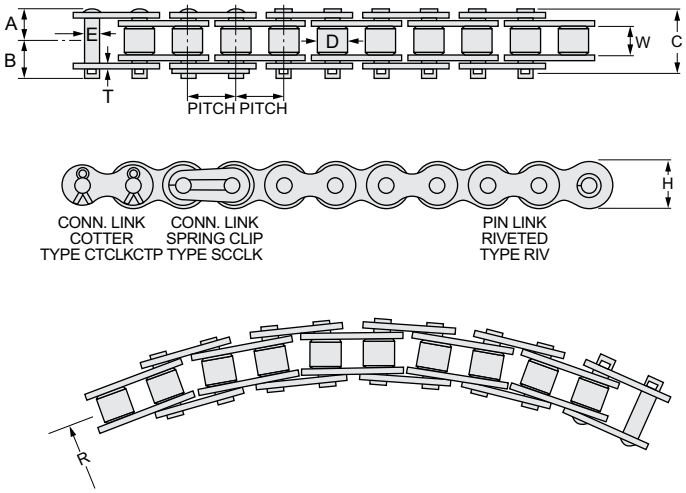
Main Dimensions acc. to European and American Standard

ISO No.	Pitch		Bearing Area	Required Ultimate Strength min	Weight	Rivet Width	Overall Width	Bushing Diameter	Pin Diameter		Link Plate Height	Transverse	Inner Width	Bushing Width
	inch	mm	cm^2	N	Lb/ft	A max mm	C max mm	D max mm	E max mm	I.D. mm	H max mm	K min mm	T min mm	W min mm
10 B - 2 HB	0.625	15.875	2.08	33,500	1.08	37.3	39	10.16	5.94	4	14.7	17.08	13.9	9.65
12 B - 2 HB	0.75	19.05	2.12	42,500	1.48	43	45	12.07	6.5	4	15.9	20.6	16.3	11.68

Dimensions subject to change. Certified dimensions of ordered material furnished on request.
Minimum order quantities may be required on some parts. Other sizes available upon request.

Side Bow

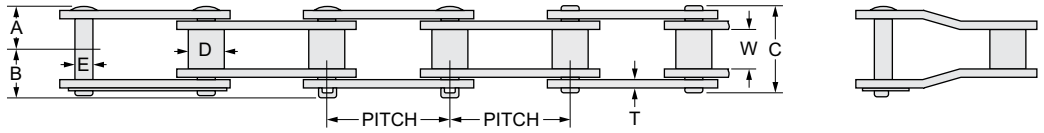
Side Bow Roller Chains, Main Dimensions acc. to European Standard (DIN 8188)

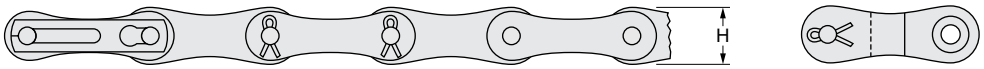


ISO No.	Pitch		Required Ultimate Strength min	Weight	Pin Width	Overall Width	Roller Diameter	Pin Diameter	Link Plate Height	Radius	Inner Width	Roller Width
	inch	mm	N	Lb/ft	A max mm	C max mm	D max mm	E max mm	H max mm	R min	T min mm	W min mm
08 B - 1 SB	0.5	12.7	11,200	0.48	17.1	18.3	8.51	4.45	11.8	315	11.3	7.75
10 B - 1 SB	0.625	15.875	15,000	0.062	19.4	20.6	10.16	5.08	14.7	400	13.28	9.65
12 B - 1 SB	0.75	19.05	20,000	0.81	22.5	23.7	12.07	5.72	15.9	500	15.61	11.68

Connecting links and offset are also available for all the chains.

Double-Pitch Roller Chains





CONNECTING LINK SPRING CLIP TYPE SCCLK

CONNECTING LINK COTTER TYPE CTCLKCTP

PIN LINK RIVETED TYPE RIV

OFFSET LINK TYPE OLKCTP

British Standard

ISO No.	Pitch		Bearing Area	Required Ultimate Strength min	Weight	Rivet Width	Overall Width	Bushing Diameter	Pin Diameter	Link Plate Height	Inner Width	Bushing Width
	inch	mm	cm^2	N	Lb/ft	A max mm	B max mm	D max mm	E max mm	H max mm	T min mm	W min mm
208 B	1	25.4	0.5	18,000	0.3	16.7	19	8.51	4.45	11.5	11.3	7.75
210 B	1.25	31.75	0.67	22,400	0.4	18.9	21.9	10.16	5.08	14.5	13.28	9.65
212 B	1.5	38.1	0.89	29,000	0.5	22.3	24.7	12.07	5.72	15.9	15.62	11.68
216 B	2	50.8	2.1	60,000	1.15	35.4	38.5	15.88	8.28	21.4	25.4	17.02

Dimensions subject to change. Certified dimensions of ordered material furnished on request.
Minimum order quantities may be required on some parts. Other sizes available upon request.

Sprockets
General Specifications



The standard sprockets used with Rexnord chains, both physical and dimensional, are based on sound engineering principles. They reflect the practical experience gained from applying drives over the last century.

Material and hardness

Sprocket materials and tooth hardness along with accurate machining, are as important to drive life as proper chain selection or adequate lubrication. Material and hardness have a strong influence on the rate of tooth wear and, therefore, the maintenance of optimum chain and sprocket interaction.

The severity and frequency of tooth loading, environment, and similar operating conditions form the basis for material selection. For example, the small sprocket is usually made of higher carbon, more wear-resistant steel because its teeth contact the chain more often than those on the large sprocket. The frequency of contact is in direct proportion to the speeds of the driving and driven shafts. With these and other operating conditions in mind, the following standards have been established.

Recommended Sprocket

Materials are indicated in the table below. Material and tooth hardness recommendations are based on chain speed, number of teeth, and operating conditions. When drives are designed for short-term operation, it may be desirable to specify a lower hardness than indicated in the table.

Chain speed FPM	Number of teeth	Recommended material and hardness	
		Normal operating conditions ▲	Severe operating conditions ■
Up to 600	25 or less	Medium carbon steel with an approximate hardness of 170 Brinell	Medium carbon steel with teeth hardened to 35C Rockwell minimum
	26 or more	Medium carbon steel with an approximate hardness of 170 Brinell; or cast iron with a minimum hardness of 183 Brinell	Medium carbon steel with teeth hardened to 35C Rockwell minimum; or Alloy cast iron
Over 600	25 or less	Medium carbon steel with teeth hardened to 35C Rockwell minimum	Medium carbon steel with teeth hardened to 35C Rockwell minimum
	26 or more	Medium carbon steel with an approximate hardness of 170 Brinell; or cast iron with a minimum hardness of 183 Brinell	Medium carbon steel with teeth hardened to 35C Rockwell minimum; or Alloy cast iron

▲ Operating conditions are considered normal when drives are enclosed and adequately lubricated, or when open drives operated in a clean atmosphere with ample lubrication.

■ Operating conditions are considered severe when drives are subject to frequent heavy overloads, shock or pulsating loads, inadequate lubrication, or when open running drives operate in an abrasive or corrosive atmosphere.

Sprocket Reference Data

Bore tolerances

Bores will be furnished within the standard tolerances listed below, unless otherwise specified.

Bore diameter, inches	Tolerance, inches	Maximum bore length, inches*
Up to and including 1"	+.001 –.000	4
1 1/16" to 2"	+.002 –.000	6
2 1/16" to 3"	+.003 –.000	7
Over 3 1/16"	+.004 –.000	8

*Applies to tolerances listed. For greater bore lengths, consult Rexnord.

Maximum face run-out tolerances

Root diameter of sprocket, inches	Maximum face run-out total indicator reading, inches	
	Fully machined sprockets	Sprockets with unfinished faces (forged or hot-rolled steel plate)
Up to 10.000	.010	.003 × root diameter (.020 minimum, .090 maximum)
10.001 to 40.000	.001 per inch of root dia.	
40.001 or more	.040	

Standard keyseat and setscrew sizes

Diameter of Shaft	Keyway Width × Depth	Setscrew	Diameter of Shaft	Keyway Width × Depth	Setscrew
1/2 – 9/16	1/8 × 1/16	10 – 24	2 5/16 – 2 3/4	5/8 × 5/16	5/8*
5/8 – 7/8	3/16 × 3/32	1/4	2 13/16 – 3 1/4	3/4 × 3/8	5/8*
15/16 – 1 1/4	1/4 × 1/8	5/16	3 5/16 – 3 3/4	7/8 × 7/16	3/4
1 5/16 – 1 3/8	5/16 × 5/32	5/16	3 13/16 – 4 1/2	1 × 1/2	3/4
1 7/16 – 1 3/4	3/8 × 3/16	3/8	4 9/16 – 5 1/2	1 1/4 × 5/8	3/4
1 13/16 – 2 1/4	1/2 × 1/4	1/2*	5 9/16 – 6 1/2	1 1/2 × 3/4	3/4

* Hub size may require smaller setscrews in some cases.

Maximum pitch line eccentricity tolerances

Commercial sprockets will be furnished within the eccentricity tolerances tabled below.

Root diameter of sprocket, inches	Maximum face run-out total indicator reading, inches	
	Fully machined sprockets	Sprockets with unfinished faces (forged or hot-rolled steel plate)
Up to 4.000	.006	.003 × root diameter (.020 minimum, .090 maximum)
4.001 to 6.000	.008	
6.001 to 10.000	.010	
10.001 to 26.000	.001 per inch of root dia.	
26.001 or more	.026	

Standard keyseat tolerances

Keyseats will be furnished within these standard tolerances, unless otherwise specified.

Bore diameter, inches	Tolerance, inches
Width of keyseat	+.002 – .000
Depth of straight keyseat	+.010 – .000
Depth of taper keyseat	+.000 – .010

Sprockets for high speed drives or other applications requiring a minimum amount of pitch line eccentricity can be furnished within the following tolerances at a reasonable extra cost.

Root diameter of sprocket, inches	Maximum eccentricity total indicator reading, inches
Up to 4.000	+.002 – .000
4.001 to 8.000	+.010 – .000
8.001 to 30.000	+.000 – .010

Negative tolerance on root diameters*

Number of teeth	Chain Number													
	25	35	40	41	50	60	80	100	120	140	160	180	200	240
Up to 15	.004	.004	.004	.004	.005	.005	.006	.007	.007	.008	.009	.010	.010	.012
16 to 24	.004	004	.005	.005	.005	.006	.007	.008	.009	.010	.011	.012	.013	.015
25 to 35	.004	.004	.005	.005	.006	.007	.008	.009	.010	.012	.013	.014	.015	.018
36 to 48	.005	.005	.006	.006	.007	.008	.009	.010	.012	.013	.015	.016	.018	.021
49 to 63	.005	.005	.006	.006	.008	.009	.010	.012	.013	.015	.017	.018	.020	.024
64 to 80	.005	.006	.007	.007	.009	.010	.011	.013	.015	.017	.019	.012	.023	.027
81 to 99	.005	.006	.007	.007	.009	.010	.012	.014	.016	.019	.021	.023	.025	.030
100 to 120	.006	.006	.008	.008	.009	.011	.013	.016	.018	.020	.023	.025	.028	.033
121 to 143	.006	.007	.008	.008	.010	.012	.014	.017	.019	.022	.025	.028	.030	.036
144 and up	.006	.007	.009	.009	.011	.013	.015	.018	.021	.024	.027	.030	.033	.039

* No plus tolerances

Chain and parts packaging

Roller chains, chain parts, and sprockets are packaged for protection against damage and for convenience in handling and storing. Products remain factory-fresh, ready for immediate use. Packages are individually labeled with a complete description of contents, in order to simplify receiving and warehousing operations.

Chain



Chain 10' coiled and boxed



Chain 50' and 100' reeled and cartoned

Chain parts



10' lengths are packaged in unique double-walled boxes, telescoping boxes, or slotted cartons, depending on size and weight. Each container is designed for excellent stacking strength and for protection against dust and/or dirt penetration.

50' and 100' lengths are wound on expendable reels and sealed in protective cartons. Carton flaps have an opening in the center to make reel center holes accessible for lifting with a rod or hook.

Connecting, roller, and offset links for all standard and Double Pitch chains are individually sealed in air and moisture-tight plastic bags for maximum protection against dirt and rust. Parts for the more popular chain sizes are boxed in convenient quantities for ease of ordering and storage.

See table on following page for sizes available and quantity per box.

Chain number	Weight, pounds	Chain number	Weight, pounds	Chain number	Weight, pounds
25	.9	60H	12.6	160	63.9
25SS	.9	60SS	10.6	160-2	131.5
				160-3	192.0
35	2.3	80	17.6	160SU	70.6
35-2	4.6	80-2	34.4	160TF	67.0
35-3	6.9	80-3	50.9	160SU-TF	73.1
35-4	8.9	80-4	67.8		
35SS	2.3	80SU	20.1	180	93.0
		80SN	17.6		
40	4.2			200	108.2
40-2	8.4	100	26.6	200-2	210.3
40-3	12.5	100-2	52.4	200-3	315.3
40-4	16.5	100-3	79.8		
40SS	4.2	100-4	104.8	240	163.6
		100SU	30.2	264	122.0
41	2.8				
41SS	2.8	120	38.6	2040	3.1
		120-2	78.2	C 2040	3.5
50	7.2	120-3	116.0	C 2040SS	3.5
50-2	14.3	120-4	151.5		
50-3	21.5	120SU	42.4	2050	4.4
50-4	28.7			C 2050	5.4
50SS	7.2	140	47.2	C 2050SS	5.4
		140-2	95.8		
60	10.6	140-3	136.9	2060	6.9
60-2	20.9	140SU	51.2	C 2060	8.4
60-3	31.1	140TF	49.8	C 2060H	10.9
60-4	41.0			C 2060H-SS	10.9

Chain number	Weight, pounds	
	50'	100'
25	-	10.3
35	13.8	25.4
40	23.2	44.0
41	15.5	29.8
50	38.1	78.5
60	58.2	116.0
60H	68.7	137.0
80	95.2	180.0s
2040	15.6s	30.0s
C 2040	-	39.8s
2050	24.0s	47.0s
C 2050	-	57.0s
2060	-	67.5
C 2060H	58.8s	111.3s
C 2080H	89.8s	-

Connecting links furnished with riveted chain One connecting link for each 10 feet of chain is furnished in all packages of riveted chain to replace the loss of a pin link each time the strand is cut.

Chain part standards

Attachments



All standard and double pitch attachments listed in this book are individually packaged in plastic bags.

Slip-fit connecting links

Spring clip type is standard for all single and multiple strand standard roller chains from .250" to .750" pitch.



Cotter type is standard for all single strand Standard Roller chains from 1.000" to 2.000" pitch, and for all Double Pitch chains.



Press-fit connecting links

Cotter type is standard for all single strand Standard Roller chains of 2.250" pitch and larger, and for all multiple strand Standard Roller chains of .750" pitch and larger.



Offset links

Offset links are standard for all single and multiple strand Standard Roller chains except .250" pitch, and for all Double Pitch chains.



Offset assemblies

Offset assemblies are standard for .250" pitch Standard Roller chain and are furnished on request for all other Standard Roller chains.



Roller links

Roller links, Standard Roller chain components, can be furnished individually. For multiple strand chains, one roller link is required for each strand.



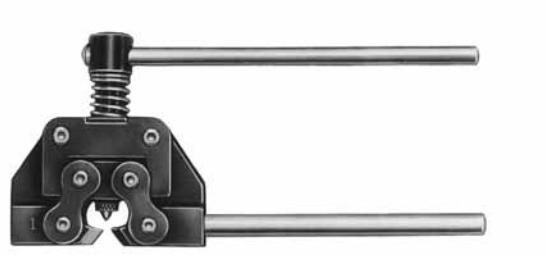
Chain number	Slip-fit connecting links				Press-fit connecting links, cotter type		Roller links		Offset links	
	Spring clip type		Cotter type							
	Quantity per box	Weight, pounds	Quantity per box	Weight, pounds	Quantity per box	Weight, pounds	Quantity per box	Weight, pounds	Quantity per box	Weight, pounds
25	25	.3	-	-	-	-	25	.2	25 ▲	.3
35	25	.4	-	-	-	-	25	.4	25	.4
40	25	.6	-	-	-	-	25	.7	25	.5
41	25	.5	-	-	-	-	25	.5	25	.5
50	25	1.1	-	-	-	-	25	1.2	25	1.2
60	25	1.7	25	1.7	-	-	25	2.0	25	2.0
80	10	1.6	10	1.6	-	-	10	1.9	10	1.8
100	-	-	10	2.7	-	-	10	3.3	10	3.3
120	-	-	10	4.2	-	-	10	5.7	10	5.5
140	-	-	10	6.3	-	-	10	8.1	10	7.8
160	-	-	5	4.9	-	-	5	6.4	5	6.2
35-2	25	.9	-	-	-	-	Double strand chains use two standard roller links per pitch		25	.6
40-2	25	1.0	-	-	-	-			25	1.1
50-2	25	1.9	-	-	-	-			25	2.1
60-2	-	-	-	-	20	2.4			20	2.9
80-2	-	-	-	-	10	2.5			10	3.2
2040	25	.8	25	.8	-	-	25	.8	25	.7
2050	25	1.3	25	1.3	-	-	25	1.4	25	1.4
2060	25	2.1	25	2.1	-	-	25	2.9	25	2.4
2060H	-	-	25	2.5	-	-	25	2.9	25	2.9
2080	-	-	10	1.9	-	-	10	2.4	10	2.3
C 2040	25	.9	25	.9	-	-	25	.9	25	.9
C 2050	25	1.4	25	1.4	-	-	25	1.6	25	1.6
C 2060	-	-	25	2.8	-	-	25	2.8	25	1.9
C 2060H	25	3.5	25	3.4	-	-	25	3.4	25	3.4
C 2080H	-	-	10	3.0	-	-	10	3.1	10	3.0
C 2100H	-	-	5	2.8	-	-	5	2.9	5	2.8
C 2120H	-	-	5	4.4	-	-	5	4.7	5	4.6

▲ Two-pitch offset assembly.

Chain Repair Tools

Chain Breakers

Chain Breakers are quality tools with forged jaws. The "push-out" pins are of tempered alloy steel. They simplify the disassembly of roller chain and are available in two sizes.



Overall length .....6 inches
Overall width.....3 inches
Weight .....11 oz.

For disassembly of:
Single pitch chains Nos. 25 through 60 ($^1/_4$-, $^3/_8$-, $^1/_2$-, $^5/_8$-, and $^3/_4$-inch pitch)
Double-Pitch chains, 1- and $1^1/_4$-inch pitch.

Note: Breakers cannot be used with Carrier Roller Chain.

WARNING

To avoid personal injury or property damage, persons connecting or disconnecting chain, and other personnel in the vicinity, must:

- Always lock out equipment power switches before removing or installing chains.
- Always use safety glasses to protect eyes. Wear protective clothing, gloves and safety shoes.
- Support the chain to prevent uncontrolled movement of the chain and parts.
- Maintain tools in proper condition and assure their proper use. Use of pressing equipment is recommended.
- Not attempt to connect or disconnect chain unless chain construction is clearly known and understood.
- Use only subassemblies, as opposed to individual component parts, built by the chain manufacturer for assembling chain strands.
- Not use any sections of damaged chains because they may have been overloaded and yielded.

NOTES

Technical Data

Formulas for engineering calculations

The following formulas cover the basic calculations used in chain drive and chain conveyor engineering. For convenience, the formulas are expressed in both English and metric units of measure.

In the International System of Units (S.I. system), which is the official scientific metric standard, power is expressed in watts and both weight and force are expressed in newtons. Nevertheless, English horsepower and kilograms are more commonly used today to express these values.

For this reason, the chain ratings shown in this catalog are given in English horsepower, or pound-feet/second. English-metric conversion factors, however, are tabled on page H-2 so that English values can be translated to S.I. metric units.

Convenient engineering formulas

Desired calculation	Formula English units	*Formula Metric units*
Power	$H = \frac{LS}{33{,}000} = \frac{LTPN}{396{,}000} = \frac{QN}{63{,}025} = \frac{KN}{5252}$	$W = \frac{LS}{60} = \frac{LTPN}{60{,}000} = \frac{QN}{9.549}$
Torque	$Q = \frac{63{,}025H}{N} = LR$ $K = \frac{5252H}{N} = \frac{LR}{12}$	$Q = \frac{9.549W}{N} = \frac{LR}{1000}$
Working Load	$L = \frac{33{,}000H}{S} = \frac{396{,}000H}{TPN} = \frac{Q}{R}$	$L = \frac{1000Q}{R} = \frac{60W}{S} = \frac{60{,}000W}{TPN}$
Chain Speed	$S\ (exact) = \frac{TPN}{12}$ $S\ (approx.) = \frac{3.14ND}{12}$	$S\ (exact) = \frac{TPN}{1000}$ $S\ (approx.) = \frac{3.14ND}{1000}$
Sprocket Speed	$N\ (exact) = \frac{12S}{TP}$ $N\ (approx.) = \frac{12S}{3.14D}$	$N\ (exact) = \frac{1000S}{TP}$ $N\ (approx.) = \frac{1000S}{3.14D}$
Sprocket Pitch Diameter	$D = \frac{P}{\sin\left(\frac{180°}{T}\right)}$	$D = \frac{P}{\sin\left(\frac{180°}{T}\right)}$
Factor of Safety	$F = \frac{U}{L}$	$F = \frac{U}{L}$
Chain Sag and Catenary Pull	See page E-1.	See page E-1.

Symbols used in formulas	English units	Metric units
D = Sprocket pitch diameter	Inches	Millimeters
F = Factor of safety	-	-
H = Power	Horsepower	-
K = Torque	Pound-feet	Newton-meters
L = Working load	Pounds	Newtons
N = Sprocket speed	Revolutions per minute	Revolutions per minute
P = Chain pitch	Inches	Millimeters
Q = Torque	Pound-inches	Newton-meters
R = Sprocket pitch radius	Inches	Millimeters
S = Chain speed	Feet per minute	Meters per minute
T = Number of sprocket teeth	-	-
U = Ultimate chain strength	Pounds	Newtons
W = Power	-	Watts (Nm per second)

English-metric conversions factors

Multiply the base unit by the factor shown to obtain the desired conversion.

Base unit		Factor	Conversion	
inch	in	25.4	millimeter	mm
millimeter	mm	.03937	inch	in
foot	ft	.3048	meter	m
meter	m	3.281	foot	ft
pound	lb	4.448	newton	N
newton	N	.225	pound	lb
pound	lb	.454	kilogram	kg
kilogram	kg	2.205	pound	lb
kilogram	kg	9.807	newton	N
newton	N	.102	kilogram	kg
pounds per foot	lb/ft	1.488	kilograms per meter	kg/m
kilograms per meter	kg/m	.672	pounds per foot	lb/ft
pound-feet	lb-ft	1.356	newton-meter	Nm
newton-meter	Nm	.737	pound-feet	lb-ft
pound-feet	lb-ft	.1384	kilogram-meter	kg-m
kilogram-meter	kg m	7.234	pound-feet	lb-ft
horsepower (English)	hp	745.7	watt	W
watt	W	.00134	horsepower	hp

Decimal equivalents of fractions

Decimal equivalent, inches		Fraction, inches	Decimal equivalent, inches		Fraction, inches	Decimal equivalent, inches		Fraction, inches
2-place	3-place		2-place	3-place		2-place	3-place	
.02	.016	1/64	.39	.391	25/64	.70	.703	45/64
.03	.031	1/32	.41	.406	13/32	.72	.719	23/32
.05	.047	3/64	.42	.422	27/64	.73	.734	47/64
.06	.063	1/16	.44	.438	7/16	.75	.750	3/4
.08	.078	5/64	.45	.453	29/64	.77	.766	49/64
.09	.094	3/32	.47	.469	15/32	.78	.781	25/32
.11	.109	7/64	.48	.484	31/64	.80	.797	51/64
.13	.125	1/8	.50	.500	1/2	.81	.813	13/16
.14	.141	9/64	.52	.516	33/64	.83	.828	53/64
.16	.156	5/32	.53	.531	17/32	.84	.844	27/32
.17	.172	11/64	.55	.547	35/64	.86	.859	55/64
.19	.188	3/16	.56	.563	9/16	.88	.875	7/8
.20	.203	13/64	.58	.578	37/64	.89	.891	57/64
.22	.219	7/32	.59	.594	19/32	.91	.906	29/32
.23	.234	15/64	.61	.609	39/64	.92	.922	59/64
.25	.250	1/4	.63	.625	5/8	.94	.938	15/16
.27	.266	17/64	.64	.641	41/64	.95	.953	61/64
.28	.281	9/32	.66	.656	21/32	.97	.969	31/32
.30	.297	19/64	.67	.672	43/64	.98	.984	63/64
.31	.313	5/16	.69	.688	11/16	1.00	1.000	1
.33	.328	21/64						
.34	.344	11/32						
.36	.359	22/64						
.38	.375	3/8						

Chain and Sprocket Index

Chain Number	Page references		Chain Number	Page references		Chain Number	Page references	
	Chain	Sprocket data		Chain	Sprocket data		Chain	Sprocket data
25	B-1	C-10	100-5	B-3	C-24	C 2049	D-11	E-11
25SS	B-6	C-10	100-6	B-3	C-24	1058	D-11	C-18
35	B-1, D-3, G-3	C-12	100 L	D-9	C-24	C 2058	D-11	E-12
35-2	B-1	C-12	100 OR	B-7	C-24	C 2059	D-11	E-13
35-3	B-2	C-12	100 SN	B-6	C-24	1068	D-11	C-20
35-4	B-2	C-12	100 SU	B-4	B-4	C 2068	D-11	E-14
35-5	B-3	C-12	105	G-3	*	C 2069	D-11	E-15
35-6	B-3	C-12	120	B-1, D-3	C-26	1088	D-11	C-22
35 SB	D-15	C-12	120-2	B-1	C-26	C 2088 H	D-11	E-16
35 SS	B-6	C-12	120-3	B-2	C-26	C 2089 H	D-11	E-17
40	B-1, D-3	C-14	120-4	B-2	C-26	2040	B-5	C-38
40-2	B-1	C-14	120-5	B-3	C-26	2040 L	D-9	C-38
40-3	B-2	C-14	120-6	B-3	C-26	C 2040	D-5	E-10
40-4	B-2	C-14	120 SU	B-4	B-4	C 2040 L	D-10	E-10
40-5	B-3	C-14	125	G-3	*	C 2040 SS	D-5	E-10
40-6	B-4	C-14	140	B-1, D-3	C-28	C 2042	D-6	E-11
40 L	D-9	C-14	140-2	B-1	C-28	C 2042 L	D-10	E-11
40 SB	D-15	C-14	140-3	B-2	C-28	C 2042 SS	D-6	E-11
40 SS	B-6	C-14	140-4	B-2	C-28	2050	B-5	C-40
41	B-1	C-16	140-5	B-3	C-28	2050 L	D-9	C-40
41 SS	B-6	C-16	140-6	B-3	C-28	C 2050	D-5	E-12
45	G-3	*	140 SU	B-4	B-4	C 2050 L	D-10	E-12
50	B-1, D-3	C-18	140 TF	B-5	C-28	C 2050 SS	D-5	E-12
50-2	B-1	C-18	145	G-3	*	C 2052	D-5	E-12
50-3	B-2	C-18	160	B-1, D-3	C-30	C 2052 L	D-10	E-12
50-4	B-3	C-18	160-2	B-1	C-30	C 2052 SS	D-6	E-13
50-5	B-3	C-18	160-3	B-2	C-30	2060	B-5	C-42
50-6	B-3	C-18	160-4	B-2	C-30	2060 L	D-9	C-42
50 L	D-9	C-18	160-5	B-3	C-30	2060 H	B-5	C-42
50 OR	B-7	C-18	160-6	B-3	C-30	2060 HL	D-9	C-42
50 SB	D-15	C-18	160 SU	B-4	B-4	C 2060 H	D-5	E-14
50 SS	B-6	C-18	160 TF	B-5	C-30	C 2060 HL	D-10	E-14
55	G-3	*	160 SUTF	B-5	B-4	C 2060 HSS	D-5	E-14
60	B-1, D-3	C-20	165	G-3	*	C 2060 L	D-10	C-42
60-2	B-1	C-20	180	B-1	C-32	C 2062 H	D-6	E-15
60-3	B-2	C-20	180-2	B-1	C-32	C 2062 HL	D-10	E-15
60-4	B-2	C-20	180-3	B-2	C-32	C 2062 HSS	D-6	E-15
60-5	B-3	C-20	180-4	B-2	C-32	2080	B-5	C-44
60-6	B-3	C-20	180-5	B-3	C-32	C 2080 H	D-5	E-16
60 EC	D-22	C-20	180-6	B-3	C-32	C 2080 HL	D-10	E-16
60 H	B-4	B-4	180 SU	B-4	B-4	C 2080 HSN	D-5	E-16
60 HL	D-9	C-20	185	G-3	*	C 2082 H	D-6	E-17
60 L	D-9	C-20	200	B-1	C-34	C 2082 HL	D-10	E-17
60 OR	B-7	C-20	200-2	B-1	C-34	C 2082 HSN	D-6	E-17
60 SB	D-15	C-20	200-3	B-2	C-34	C 2100 H	D-5	E-18
60 SS	B-6	C-20	200-4	B-2	C-34	C 2100 HSN	D-5	E-18
65	G-3	*	200-5	B-3	C-34	C 2102 H	D-6	E-19
80	B-1, D-3	C-22	200-6	B-3	C-34	C 2102 HSN	D-6	E-19
80-2	B-1	C-22	205	G-3	*	C 2120 H	D-5	E-20
80-3	B-2	C-22	240	B-1	C-36	C 2120 HSN	D-5	E-20
80-4	B-2	C-22	240-2	B-1	C-36	C 2122 H	D-6	E-21
80-5	B-3	C-22	240-3	B-2	C-36	C 2122 HSN	D-6	E-21
80-6	B-3	C-22	240-4	B-2	C-36	C 2160 H	D-5	E-22
80 HL	D-9	C-22	240-5	B-3	C-36	C 2160 HSN	D-5	E-22
80 L	D-9	C-22	240-6	B-3	C-36	C 2162 H	D-6	E-23
80 OR	B-7	C-22	245	G-3	*	C 2162 HSN	D-6	E-23
80 SB	D-15	C-22	264	B-4	B-4	L 502	D-16	*
80 SN	B-6	C-22	B 502	D-15	*	L 503	D-16	*
80 SU	B-4	B-4	B 503	D-15	*	L 504	D-16	*
85	G-3	*	B 504	D-15	*	L 505	D-16	*
100	B-1, D-3	C-24	B 505	D-15	*	L 505 SS	D-16	*
100-2	B-1	C-24	B 506	D-15	*	L 506	D-16	*
100-3	B-2	C-24	1048	D-11	C-14			
100-4	B-2	C-24	C 2048	D-11	E-10			

* Not Applicable

NOTES

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