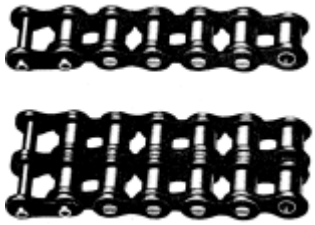
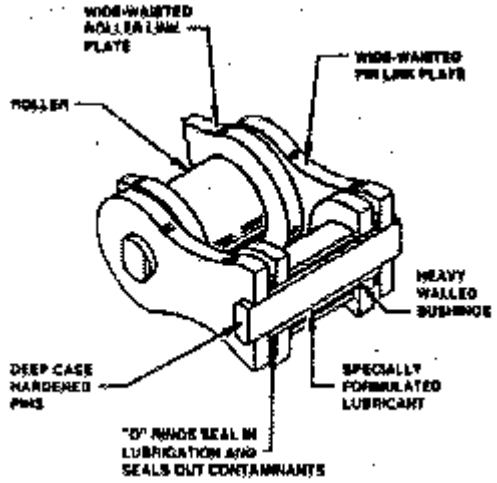
CHAIN TYPES

		Nomenclature	Chain Page No.
	ANSI STANDARD ROLLER CHAIN — **Single and Multiple Strand —** Rex standard roller chains conform to all the requirements of the ANSI. Chains may be used interchangeably with those of other manufacturers who conform to ANSI standards. Full range of attachments are available.	Chain number consists of at least two digits. Right hand digit designates style. 0=Standard roller chain 1=Lightweight roller chain 2=Carrier roller chain 5=Rollerless chain Number(s) to the left indicate pitch in 1/8" units. Example: #40 = 4 x 1/8, or 1/2" pitch #120 = 12 x 1/8, or 1-1/2" pitch For multiple strand add a dash and the number of strands. Example: 40-2 double strand 60-3 triple strand	A-8 thru A-11
	**HEAVY SERIES CHAINS —** Have link plate thickness equal to next larger ANSI chain. Used where space and weight limitations prohibit use of larger sizes. Has higher yield strength than ANSI standard and will withstand greater shock loads. Available in single or multiple strands.	Add suffix H to ANSI Standard chain. Example: 60H	A-12

 Drive  Conveyor	**DOUBLE-PITCH ROLLER CHAIN —** Manufactured to the same standards as ANSI standard series, these chains are built in the drive series with figure 8 sideplates and conveyor series with straight edge sideplates. Pitch is twice that of corresponding ANSI single pitch chain. Conveyor series is available with carrier rollers. Link plates of the conveyor series 1-1/2" pitch and over have heavy series sideplates as standard. A wide assortment of standard attachments is available.	Drive Series: Add 2,000 to the base ANSI standard number. Example: 2050 = base number 50 or 5/8" pitch x 2 = 10/8 or 1-1/4" pitch Conveyor Series: Same as Drive Series except use prefix C- Example: C-2050 On 1/2" pitch and over add suffix H for standard Example: C-2060H For Carrier Roller make right hand digit 2 Example: C-2062H	A-13 A-14 thru A-18
	**DELRIN CARRIER ROLLER CHAIN —** Delrin carrier roller replaces standard roller. Can be furnished on any double pitch chain — standard, stainless, Redi-Lube, hollow pin.	Use standard ANSI double-pitch number and add suffix D for Delrin roller. Example: C-2042D C-2052SSD	A-19
 	**ULTR-O-LIFE™ O-RING ROLLER CHAIN —** 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.	Add " — OR" to ANSI number. Example: 60 OR RIV	A-20

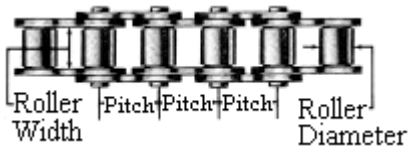
 Drive  Conveyor	**REDI-LUBE™ CHAIN —** Self-lubricating, heavy walled, oil-impregnated, sintered steel bushings replace bushing and roller of standard ANSI chain. Available in single and double-pitch. Full range of standard attachments also available.	Add suffix L to ANSI standard single pitch or double-pitch. Example: 50L, 2050L, C-2050L	A-21 thru A-22

ROLLER CHAIN CONSTRUCTION

The principal dimensions of roller chain are:

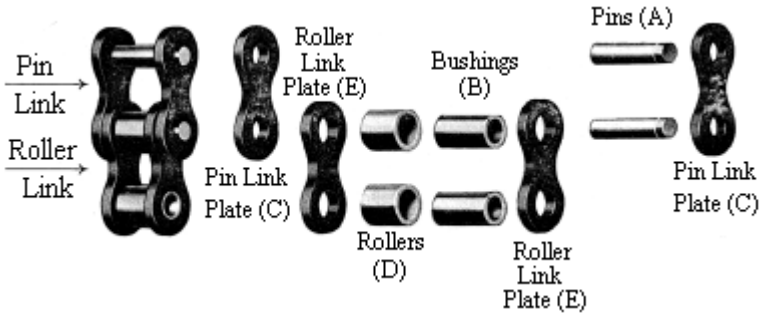
(A) Pitch, (B) Roller Width, (C) Roller Diameter

The pitch is the distance in inches between the centers of the adjacent jointmembers in a taunt chain. In roller chain, the pitch is the distance between the centers of the bushings or rollers.



Roller width, or chain width, is the distance between the inner faces of the roller link plates. Chain width is not the width of the chain over the link plates or pins.

Roller diameter is the outside diameter of the roller.



Roller chain is made up of alternating links:

Roller links consist of six members. Two bushings (B) are press-fitted into the link plates (E). Two free-rotating rollers (D) are assembled over the bushings. The bushings are positively locked into the link plates to prevent rotation.

Pin links consist of four parts, into the pin link plates (C) are press-fitted two pins (A). Very accurate control of this press-fit between the pins and the pin link plate is important to prevent rotative wear in the plate holes and consequent pitch elongation.

As the chain flexes, turning occurs only between the pin and bushing since the two are fixed in their respective link plates.

The pins and bushings (journal bearings), therefore, are the basic wear resistant members of the chain. The link plates are primarily tension members which hold the journals (pins) and bearings (bushings) in place. The rollers are shock absorbers to reduce the effects of impact as the chain engages the sprocket and to provide rolling engagement with the sprocket teeth.

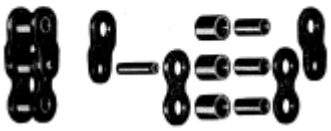
TYPICAL TYPES OF ROLLER CHAIN LINKS

ANSI Standard Single Pitch

Offset Link

An offset link is a combination of a roller link and a pin link and is used when there are an odd number of pitches in a chain strand. Through a carefully designed bend in the link plate and a pin with milled flat fitting into a "D"- shaped hole in the link plate, this offset link offers high fatigue strength and long life. Where an offset is used, no connecting link is required.

Riveted Offset Section



Under severe operating conditions where an unequal number of pitches are required, a riveted offset section should be used. Press fits of the pins in the link plates increase fatique strength. By preventing motion between plate and pin, wear is eliminated in the plate hose.

⚠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.

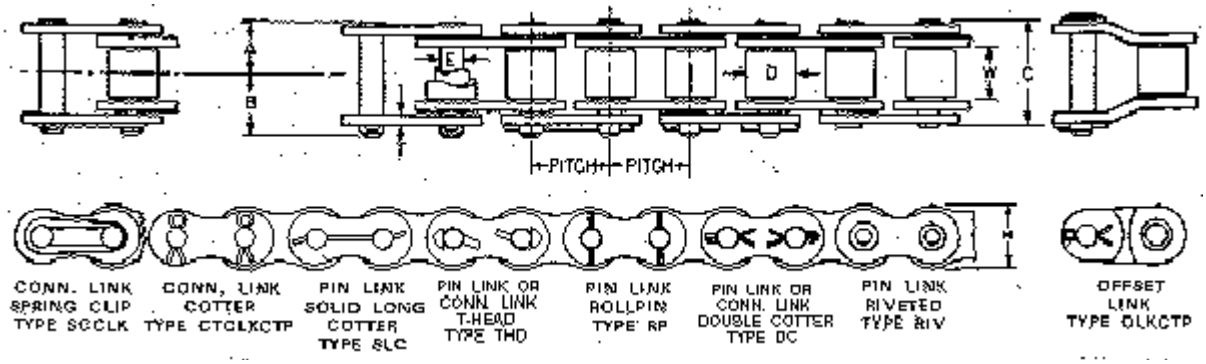
APPLICATION OF ROLLER CHAIN:
Roller chain is a very versatile and efficient means of power transmission if it is maintained and selected properly. Its life, however, could be shortened greatly if the chain is repaired in the field and/or improperly installed. In fact, in certain maintenance and repair operations there can be physical injury incurred by personnel if they do not follow certain safety precautions.

Although we show ultimate strength numbers for roller chain in the catalog, chains are never applied at ultimate strength. They are applied at working loads based on the horsepower tables and these are usually much less than half the ultimate strength. It is a good practice to follow the recommended horsepower selections and sprocket sizes as shown in the catalog.

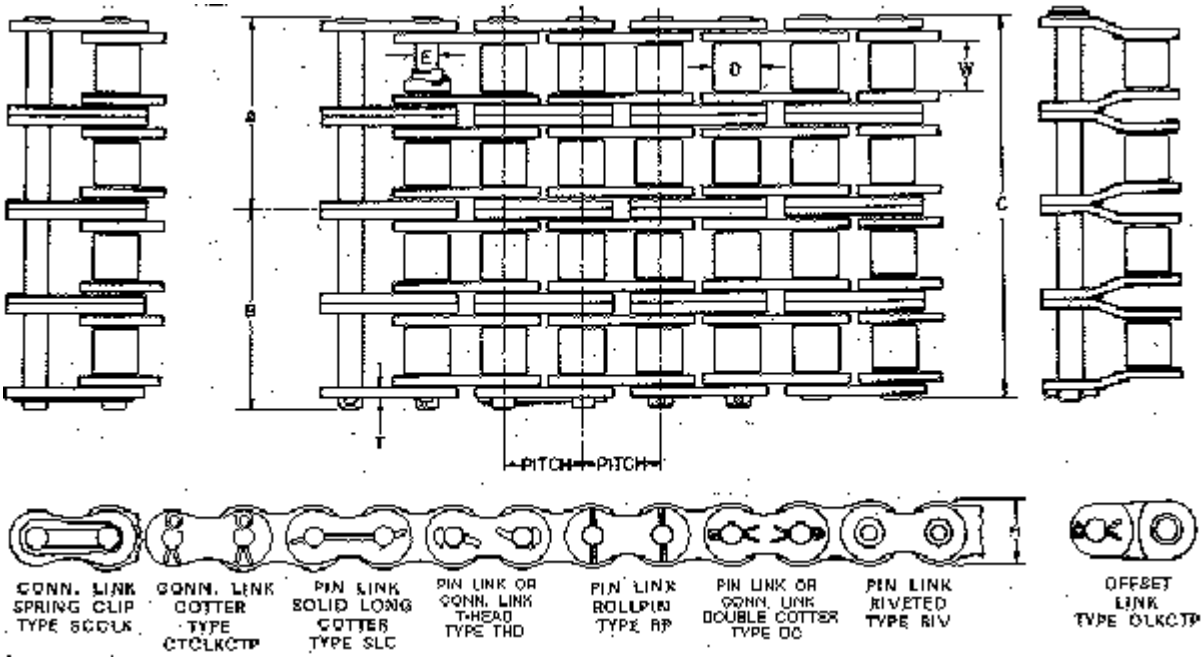
If it is necessary to evaluate other loads, then it is important to work through the Rexnord Roller Chain Operation for application assistance.

ANSI STANDARD ROLLER CHAIN

Single Strand



Quadruple Strand — Other Multiple Strands Available As Listed



Dimensions, Strengths, and Weights

Rex Chain No.	Pitch	Roller/ Bushing		Riv. End to Center Line	Conn. End to Center Line	Over-All Width C		Link Plate		Pin. Diam.	Average Ultimate Strength ANSI Std. Lbs.	Minimum Ultimate Strength ANSI Std. Lbs.	Aver-age Weight Per Foot, Lbs.	Std Typ of Pin Link
		Width	Diam.					Height	Thick-ness					
		W	D	A	B	Riv.	Cot.	H	T	E				
*25	.250	.13	0.130	.16	.19	.31	.34	.23	0.030	0.091	940	781	0.085	Riv
*25-2				.28	.31	.56	.59				1,880	1,564	0.18	
*25-3				.41	.44	.81	.84				2,820	2,343	0.27	
*25-4				.53	.56	1.06	1.09				3,760	3,124	0.35	

*35	.375	.19	0.200	.23	.31	.47	.55	.36	0.050	0.141	2,100	1,758	0.22	Riv
*35-2				.45	.50	.88	.95				4,200	3,516	0.44	
*35-3				.64	.70	1.28	1.34				6,300	5,274	0.66	
*35-4				.78	.91	1.67	1.75				8,400	7,032	0.88	
*35-5				1.03	1.11	2.08	2.14				10,500	8,790	1.10	
*35-6				1.23	1.31	2.47	2.55				12,600	10,548	1.32	
41	.500	.25	0.306	.28	.33	.55	.61	.39	0.050	0.141	2,000	1,500	0.28	Riv
40	.500	.31	0.312	.33	.41	.66	.73	.47	0.060	0.156	3,700	3,125	0.41	Riv
40-2				.61	.69	1.22	1.28				7,400	6,250	0.82	
40-3				.89	.97	1.78	1.86				11,100	9,375	1.26	
40-4				1.17	1.25	2.34	2.42				14,800	12,500	1.64	

* Rollerless chains. NOTE: If an offset link is required for #25 chain, it is supplied with a 2 Pitch Riveted Offset Section as standard.

Note: Dimensions subject to change.
Assembly approval drawings of ordered material furnished on request upon receipt of order.

Rexnord

ANSI STANDARD ROLLER CHAIN

Dimensions, Strengths, and Weights — Cont'd

Rex Chain No.	Pitch	Roller/ Bushing		Riv. End to Center Line	Conn. End to Center Line	Over-All Width C		Link Plate		Pin Diam.	Average Ultimate Strength, Lbs.	Minimum Ultimate Strength ANSI Std. Lbs.	Aver-age Weight Per Foot, Lbs.	Std. Type of Pin Link
		Width	Diam.					Height	Thick-ness					
		W	D	A	B	Riv.	Cot.	H	T	E				
50	.625	.38	0.400	.41	.48	.81	.89	.59	0.080	0.200	6,100	4,882	0.68	Riv
50-2				.77	.83	1.52	1.59				12,200	9,764	1.38	
50-3				1.11	1.20	2.23	2.31				18,300	14,646	2.04	
50-4				1.47	1.55	2.95	3.02				24,400	19,528	2.72	
50-5				1.83	1.91	3.66	3.73				30,500	24,410	3.44	
50-6				2.19	2.27	4.38	4.45				36,600	29,292	4.14	
60	.750	.50	0.469	.50	.59	1	1.09	.70	0.094	0.234	8,500	7,030	1.04	Riv
60-2				.94	1.05	1.89	1.98				17,000	14,060	1.94	
60-3				1.39	1.48	2.78	2.89				25,500	21,090	2.90	
60-4				1.84	1.94	3.69	3.78				34,000	28,120	3.80	
60-5				2.30	2.39	4.59	4.69				42,500	35,150	4.70	
60-6				2.73	2.84	5.48	5.58				51,000	42,180	5.60	
80	1.000	.63	0.625	.66	.75	1.31	1.47	.95	0.125	0.312	14,500	12,500	1.7	DC
80-2				1.25	1.34	2.50	2.59				29,000	25,000	3.3	
80-3				1.84	1.94	3.69	3.78				43,500	37,500	4.9	
80-4				2.42	2.52	4.84	4.94				58,000	50,000	6.7	
80-5				3.00	3.08	5.98	6.08				72,500	62,500	8.1	
80-6				3.58	3.67	7.14	7.23				87,000	75,500	9.7	
100	1.250	.75	0.750	.80	.92	1.58	1.72	1.16	0.156	0.375	24,000	19,530	2.7	DC
100-2				1.53	1.66	3.06	3.19				48,000	39,060	5.2	
100-3				2.23	2.38	4.47	4.61				72,000	58,590	7.8	
100-4				2.94	3.08	5.86	6.00				96,000	78,120	10.4	
100-5				3.64	3.78	7.28	7.42				120,000	97,650	12.8	
100-6				4.36	4.48	8.70	8.83				144,000	117,180	15.4	
100-8				5.77	5.89	11.53	11.66				192,000	156,240	20.8	
100-10				7.19	7.33	14.38	14.52				240,000	195,300	26.5	
100-12				8.59	8.73	17.20	17.33				288,000	234,360	31.5	
120	1.500	1.00	0.875	.98	1.16	1.97	2.14	1.41	0.187	0.437	34,000	28,125	4.0	DC
120-2				1.91	2.08	3.83	4.00				68,000	56,250	7.9	
120-3				2.81	2.97	5.63	5.78				102,000	84,375	11.8	
120-4				3.70	3.84	7.39	7.55				136,000	112,500	15.6	
120-5				4.59	4.77	9.17	9.34				170,000	140,625	19.6	
120-6				5.48	5.64	10.97	11.13				204,000	168,750	23.5	
120-8				7.28	7.44	14.55	14.70				272,000	225,500	31.0	
120-10				9.08	9.22	18.14	18.30				340,000	281,250	38.5	
140	1.750	1.00	1.000	1.02	1.22	2.03	2.23	1.41	0.220	0.500	46,000	38,280	4.69	DC
140-2				1.98	2.17	3.97	4.16				92,000	76,560	9.25	
140-3				2.95	3.13	5.91	6.08				138,000	114,840	13.8	
140-4				3.91	4.09	7.81	8.00				184,000	153,120	18.4	
140-5				4.86	5.05	9.72	9.91				230,000	191,400	22.9	
140-6				5.83	6.02	11.66	11.84				276,000	229,680	27.4	
160	2.000	1.25	1.125	1.23	1.41	2.47	2.64	1.81	0.250	0.563	58,000	50,000	6.1	DC
160-2				2.38	2.56	4.75	4.94				116,000	100,000	12.5	
160-3				3.98	3.72	7.03	7.23				174,000	150,000	18.6	
160-4				4.67	4.86	9.34	9.53				232,000	200,000	24.8	

180	2.250	1.41	1.406	1.39	1.56	2.78	2.95	2.14	0.281	0.688	80,000	63,280	9.1	DC
180-2				2.69	2.86	5.38	5.55				160,000	126,560	17.6	
180-3				3.98	4.16	7.97	8.14				240,000	189,840	26.9	
180-4				5.28	5.45	10.56	10.73				320,000	253,120	35.8	
200	2.500	1.50	1.563	1.55	1.89	3.09	3.44	2.31	0.312	0.781	95,000	78,125	10.9	THD
200-2				2.97	3.31	5.94	6.28				190,000	156,250	21.0	
200-3				4.38	4.73	8.75	9.11				285,000	234,375	31.5	
200-4				5.80	6.14	11.59	11.94				380,000	312,500	43.2	
240	3.000	1.88	1.875	1.86	2.20	3.72	4.06	2.81	0.375	0.938	130,000	112,250	16.4	THD
240-2				3.58	3.94	7.16	7.52				260,000	225,000	32.2	
240-3				5.31	5.75	10.63	11.06				390,000	337,500	49.4	
240-4				7.05	7.38	14.09	14.42				520,000	450,000	65.7	

Note: Dimensions subject to change.
Assembly approval drawings of ordered material furnished on request upon receipt of order.
