

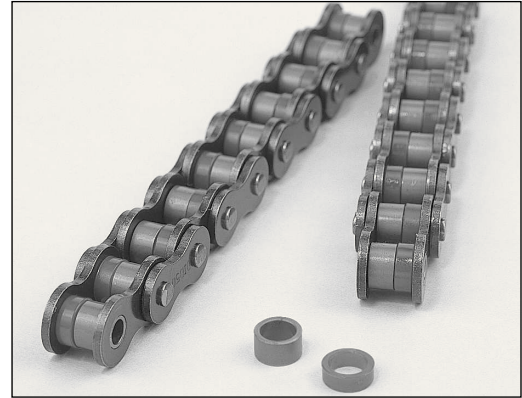
2-5 DID[®] Low Noise Chain Series

The demand for and lower equipment noise in the working significant environment is growing. The chain greatly enhanced in silencing effect to meet such demands is the DID Low Noise Chain Series.

In printing, packaging, engineering, parking and various conveyors, low noise chain provides a silencing effect.

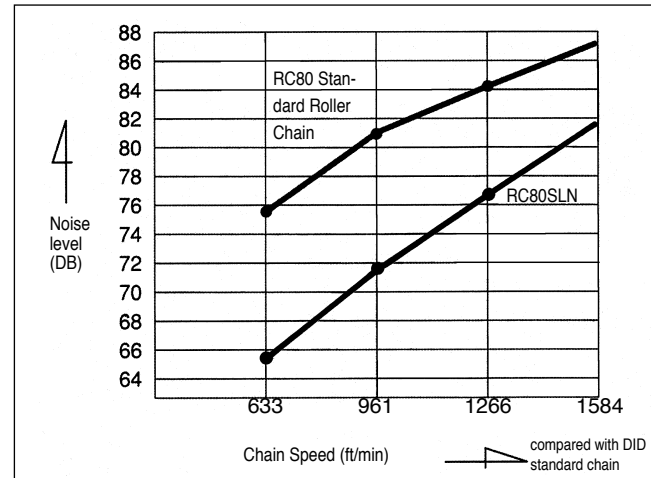
2-5-1 DID[®] Super Low Noise Chain

A "two piece roller structure" achieves a significant noise reduction effect. When the chain is engaged with a sprocket, the audible shock is reduced by the elastic deformation of rollers, made of special elastomer, achieving a silencing effect as much as 10 DB. When the chain is used for conveying, the sliding noise between the rails and the rollers is effectively reduced. Available sizes are RC40SLN to 80SLN.



Note: Color of elastomer roller may be changed for the required specification.

Noise Reduction Efficiency Chart



Design of chain transmission

For selecting a proper low noise chain, refer to "general selection". Also refer to the tables of maximum horsepower ratings for SLN chain (P.57 & 58).

For SLN chain, "Slow-speed selection" cannot be used. The maximum allowable load in the tables of dimensions considers only the tensile strength of the chain, and neglects roller

Connecting links and offset links

For low noise connecting links, the standard chain can be used. Both Half link and 2P Offset link are available. Please specify "for SLN chain".

Sprockets

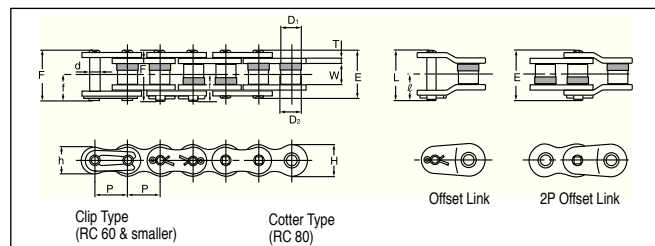
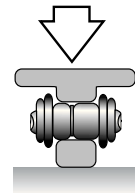
Standard sprockets can be used.

Max. Allowable Load in Roller

Unit: N(lbs) /pc

Chain No.	Allowable Load
RC40SLN	78 18
RC50SLN	117 26
RC60SLN	196 44
RC80SLN	313 70

*1 Roller (1pc of steel rollers and 1pc of rubber roller)



Dimensions

Chain No. DID	Pitch P	Roller Link Width W	Roller Dia.		Pin							Plate			DID Avg. Tensile Strength lbs	DID Max. Allowable Load lbs	Approx. Weight (lbs/FT)
			D ₁	D ₂	d	E	F	f	L	I	T	H	h				
RC40SLN	0.500	0.313	0.304	0.321	0.156	0.650	0.693	0.374	0.7600	.417	0.059	0.472	0.409	4290	836	0.396	
RC50SLN	0.625	0.375	0.388	0.409	0.200	0.799	0.862	0.457	0.9090	.476	0.079	0.591	0.512	6930	1540	0.657	
RC60SLN	0.750	0.500	0.455	0.478	0.235	1.000	1.059	0.563	1.1810	.618	0.094	0.713	0.614	9900	2090	0.959	
RC80SLN	1.000	0.625	0.604	0.634	0.313	1.291	1.390	0.748	1.4610	.768	0.126	0.945	0.819	17600	3300	1.583	

Note: Above Max. allowable load is determined only by link plates and pin, and roller is not considered for the chain.

Super Low-Noise Chain Max. Horsepower Ratings (RC40SLN, RC50SLN)

RC40SLN

Unit (HP)

N.T	Revolutions per minute - Small Sprocket (rpm)																			
	10	20	30	50	70	100	150	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1500
11	0.07	0.12	0.17	0.27	0.36	0.50	0.70	0.67	0.64	0.63	0.62	0.60	0.59	0.59	0.58	0.58	0.56	0.56	0.56	0.55
12	0.07	0.13	0.19	0.29	0.40	0.55	0.79	0.76	0.74	0.71	0.70	0.68	0.68	0.67	0.66	0.66	0.64	0.64	0.63	
13	0.08	0.15	0.20	0.32	0.44	0.60	0.87	0.87	0.83	0.80	0.79	0.78	0.76	0.75	0.75	0.74	0.72	0.72		
14	0.08	0.15	0.21	0.35	0.47	0.66	0.94	0.97	0.92	0.90	0.88	0.87	0.86	0.84	0.83	0.82	0.82			
15	0.09	0.16	0.24	0.38	0.51	0.70	1.01	1.07	1.03	1.01	0.98	0.97	0.95	0.94	0.92	0.91	0.90			
16	0.09	0.17	0.25	0.40	0.55	0.75	1.09	1.18	1.14	1.10	1.07	1.06	1.05	1.03	1.02	1.01				
17	0.11	0.19	0.27	0.43	0.59	0.80	1.15	1.30	1.25	1.21	1.18	1.15	1.14	1.13	1.11					
18	0.11	0.20	0.29	0.46	0.62	0.86	1.23	1.41	1.35	1.31	1.29	1.26	1.25	1.23	1.21					
19	0.12	0.21	0.31	0.48	0.66	0.91	1.30	1.53	1.47	1.42	1.39	1.37	1.35	1.33						
20	0.12	0.23	0.32	0.51	0.70	0.95	1.38	1.65	1.58	1.54	1.50	1.47	1.46	1.43						
21	0.12	0.24	0.34	0.54	0.74	1.01	1.46	1.78	1.70	1.66	1.62	1.60	1.57							
22	0.13	0.25	0.36	0.56	0.76	1.06	1.53	1.90	1.82	1.78	1.74	1.70	1.68							
23	0.13	0.27	0.38	0.60	0.80	1.11	1.61	2.04	1.96	1.90	1.86	1.82	1.80							
24	0.15	0.27	0.39	0.63	0.84	1.17	1.68	2.17	2.08	2.02	1.98	1.94								
25	0.15	0.28	0.42	0.66	0.88	1.22	1.76	2.28	2.21	2.16	2.10	2.06								
28	0.17	0.32	0.47	0.74	1.01	1.38	1.98	2.57	2.63	2.55	2.49									
30	0.19	0.35	0.50	0.79	1.07	1.49	2.14	2.77	2.91	2.83	2.76									
32	0.20	0.38	0.54	0.86	1.15	1.60	2.29	2.98	3.20	3.12	3.04									
35	0.21	0.42	0.59	0.94	1.27	1.76	2.52	3.27	3.67	3.57										
40	0.25	0.47	0.68	1.09	1.47	2.02	2.92	3.78	4.49	4.36										
45	0.29	0.54	0.78	1.23	1.66	2.31	3.31	4.29	5.35											
50	0.32	0.60	0.87	1.38	1.86	2.57	3.71	4.81	6.27											
55	0.36	0.67	0.97	1.53	2.08	2.86	4.12	5.34	7.23											
60	0.39	0.74	1.06	1.68	2.28	3.14	4.52	5.86												

TRANSMISSION ROLLER CHAIN
LOW NOISE CHAIN SERIES

RC50SLN

Unit (HP)

N.T	Revolutions per minute - Small Sprocket (rpm)																			
	10	20	30	50	70	100	150	200	250	300	350	400	450	500	600	700	800	900	1000	1200
11	0.15	0.28	0.40	0.64	0.87	1.21	1.73	1.76	1.72	1.69	1.66	1.64	1.62	1.61	1.57	1.55	1.53	1.51	1.50	1.47
12	0.16	0.31	0.44	0.71	0.97	1.33	1.90	2.00	1.96	1.92	1.89	1.86	1.85	1.82	1.80	1.77	1.74	1.73	1.70	
13	0.19	0.34	0.48	0.78	1.05	1.45	2.08	2.25	2.21	2.17	2.13	2.10	2.08	2.06	2.02	2.00	1.97	1.94	1.92	
14	0.20	0.36	0.52	0.84	1.14	1.57	2.25	2.52	2.47	2.43	2.39	2.36	2.33	2.31	2.27	2.23	2.20	2.17		
15	0.21	0.40	0.58	0.90	1.22	1.69	2.43	2.80	2.73	2.68	2.64	2.61	2.59	2.56	2.51	2.47	2.44			
16	0.23	0.43	0.62	0.97	1.31	1.81	2.60	3.08	3.02	2.96	2.91	2.88	2.84	2.82	2.76	2.72	2.68			
17	0.24	0.46	0.66	1.03	1.39	1.93	2.77	3.38	3.30	3.24	3.19	3.15	3.11	3.08	3.03	2.98				
18	0.25	0.48	0.70	1.10	1.49	2.05	2.95	3.67	3.59	3.54	3.49	3.43	3.39	3.35	3.30	3.24				
19	0.27	0.51	0.74	1.17	1.58	2.17	3.14	3.99	3.90	3.83	3.77	3.73	3.67	3.65	3.58					
20	0.29	0.54	0.78	1.23	1.66	2.29	3.31	4.29	4.21	4.14	4.08	4.02	3.97	3.93	3.86					
21	0.31	0.56	0.82	1.30	1.76	2.43	3.49	4.52	4.53	4.45	4.38	4.33	4.28	4.24	4.16					
22	0.32	0.60	0.86	1.37	1.85	2.55	3.67	4.76	4.87	4.77	4.71	4.64	4.58	4.53	4.45					
23	0.34	0.63	0.90	1.43	1.94	2.67	3.85	4.99	5.20	5.11	5.03	4.96	4.91	4.85						
24	0.35	0.66	0.95	1.50	2.02	2.80	4.03	5.23	5.54	5.44	5.36	5.28	5.23	5.17						
25	0.36	0.68	0.99	1.57	2.12	2.92	4.21	5.46	5.88	5.78	5.70	5.62	5.55	5.50						
28	0.42	0.78	1.11	1.77	2.40	3.31	4.76	6.17	6.98	6.85	6.74	6.66	6.58							
30	0.44	0.83	1.21	1.90	2.59	3.57	5.13	6.65	7.75	7.60	7.48	7.39								
32	0.48	0.90	1.29	2.05	2.77	3.82	5.50	7.13	8.53	8.38	8.24	8.14								
35	0.54	0.99	1.42	2.25	3.06	4.21	6.06	7.86	9.60	9.58	9.44									
40	0.62	1.14	1.65	2.60	3.53	4.85	7.00	9.06	11.09	11.70										
45	0.70	1.30	1.86	2.96	4.01	5.52	7.95	10.29	12.59											
50	0.78	1.45	2.09	3.31	4.49	6.18	8.90	11.54	14.10											
55	0.86	1.61	2.32	3.67	4.97	6.85	9.87	12.79												
60	0.95	1.77	2.55	4.03	5.46	7.53	10.84	14.05												

Super Low-Noise Chain Max. Horsepower Ratings (RC60SLN, RC80SLN)

RC60SLN

Unit (HP)

Revolutions per minute - Small Sprocket (rpm)																			
10	20	30	50	70	100	150	200	250	300	350	400	450	500	550	600	700	800	900	1000
0.24	0.44	0.64	1.01	1.37	1.88	2.71	2.95	2.88	2.83	2.79	2.75	2.71	2.68	2.65	2.64	2.60	2.56	2.53	2.51
0.25	0.48	0.70	1.11	1.50	2.06	2.98	3.35	3.28	3.22	3.18	3.12	3.10	3.06	3.03	3.00	2.96	2.92	2.88	
0.28	0.54	0.76	1.21	1.64	2.25	3.24	3.78	3.70	3.63	3.58	3.53	3.49	3.45	3.42	3.39	3.34	3.30		
0.31	0.58	0.83	1.31	1.77	2.44	3.51	4.22	4.13	4.06	3.99	3.94	3.90	3.86	3.82	3.78	3.73			
0.34	0.62	0.88	1.41	1.90	2.63	3.79	4.69	4.58	4.50	4.44	4.37	4.32	4.28	4.24	4.20	4.13			
0.36	0.66	0.95	1.51	2.05	2.83	4.06	5.16	5.05	4.96	4.88	4.81	4.76	4.71	4.66	4.62				
0.38	0.71	1.02	1.61	2.18	3.02	4.34	5.62	5.54	5.43	5.35	5.28	5.21	5.16	5.11	5.07				
0.40	0.75	1.09	1.72	2.32	3.20	4.61	5.98	6.02	5.91	5.83	5.75	5.68	5.62	5.56	5.52				
0.43	0.80	1.15	1.82	2.47	3.39	4.89	6.34	6.53	6.42	6.31	6.23	6.17	6.10	6.05					
0.46	0.84	1.22	1.93	2.60	3.59	5.17	6.70	7.05	6.93	6.82	6.73	6.65	6.58	6.53					
0.48	0.88	1.29	2.02	2.75	3.78	5.46	7.06	7.59	7.45	7.35	7.24	7.16	7.08						
0.50	0.94	1.34	2.13	2.88	3.98	5.74	7.43	8.14	7.99	7.87	7.76	7.68	7.60						
0.52	0.98	1.41	2.24	3.03	4.18	6.02	7.79	8.70	8.55	8.42	8.30	8.20							
0.55	1.03	1.47	2.35	3.18	4.37	6.30	8.16	9.28	9.12	8.97	8.85	8.75							
0.58	1.07	1.54	2.45	3.31	4.57	6.58	8.53	9.87	9.68	9.53	9.41								
0.64	1.22	1.74	2.76	3.74	5.16	7.44	9.64	11.7	11.5	11.3									
0.70	1.31	1.88	2.98	4.03	5.56	8.02	10.4	12.7	12.7	12.5									
0.75	1.41	2.02	3.19	4.33	5.97	8.59	11.1	13.6	14.0										
0.83	1.54	2.23	3.53	4.77	6.57	9.46	12.3	15.0	16.0										
0.95	1.78	2.57	4.06	5.51	7.59	10.9	14.2	17.3											
1.09	2.02	2.92	4.62	6.26	8.62	12.4	16.1												
1.22	2.27	3.27	5.17	7.01	9.66	13.9	18.0												
1.35	2.52	3.62	5.74	7.76	10.7	15.4	20.0												
1.47	2.76	3.98	6.30	8.54	11.8	16.9													

RC80SLN

Unit (HP)

Revolutions per minute - Small Sprocket (rpm)																			
10	20	30	40	50	60	70	80	100	120	150	180	200	250	300	400	500	600	700	750
0.58	1.07	1.54	2.00	2.44	2.88	3.31	3.74	4.57	5.38	6.02	5.91	5.86	5.72	5.62	5.46	5.34	5.24	5.16	5.13
0.63	1.18	1.70	2.20	2.68	3.16	3.63	4.10	5.01	5.91	6.86	6.74	6.68	6.53	6.41	6.22	6.09	5.98		
0.68	1.29	1.85	2.40	2.94	3.46	3.97	4.48	5.47	6.45	7.73	7.60	7.52	7.36	7.23	7.02	6.86	6.74		
0.75	1.39	2.01	2.60	3.18	3.74	4.30	4.84	5.92	6.98	8.53	8.50	8.40	8.22	8.07	7.84	7.67			
0.80	1.50	2.16	2.80	3.42	4.03	4.62	5.21	6.38	7.52	9.20	9.42	9.32	9.12	8.95	8.70	8.51			
0.86	1.61	2.32	3.00	3.67	4.32	4.96	5.60	6.84	8.06	9.85	10.4	10.3	10.0	9.87	9.58	9.37			
0.92	1.72	2.47	3.20	3.91	4.61	5.29	5.98	7.31	8.61	10.5	11.4	11.2	11.0	10.8	10.5				
0.98	1.82	2.63	3.40	4.17	4.91	5.63	6.35	7.77	9.16	11.2	12.4	12.3	12.0	11.8	11.4				
1.03	1.93	2.79	3.61	4.41	5.20	5.98	6.74	8.23	9.71	11.9	13.4	13.3	13.0	12.8	12.4				
1.10	2.05	2.95	3.82	4.66	5.50	6.31	7.12	8.70	10.3	12.5	14.5	14.4	14.0	13.8	13.4				
1.15	2.16	3.11	4.02	4.92	5.79	6.66	7.51	9.18	10.8	13.2	15.6	15.4	15.1	14.8					
1.22	2.27	3.27	4.24	5.17	6.10	7.00	7.90	9.65	11.4	13.9	16.4	16.6	16.2	15.9					
1.27	2.37	3.43	4.44	5.43	6.39	7.35	8.28	10.1	11.9	14.6	17.2	17.7	17.3	17.0					
1.34	2.49	3.59	4.65	5.68	6.69	7.69	8.67	10.6	12.5	15.3	18.0	18.9	18.4	18.1					
1.39	2.60	3.75	4.85	5.94	7.00	8.04	9.06	11.1	13.1	16.0	18.8	20.1	19.6	19.3					
1.58	2.94	4.24	5.48	6.72	7.91	9.09	10.2	12.5	14.8	18.0	21.2	23.4	23.2						
1.70	3.16	4.57	5.91	7.23	8.51	9.79	11.0	13.5	15.9	19.4	22.9	25.2	25.8						
1.82	3.39	4.89	6.34	7.75	9.13	10.5	11.8	14.5	17.0	20.8	24.5	27.0	28.4						
2.01	3.74	5.39	6.98	8.54	10.1	11.6	13.0	15.9	18.8	22.9	27.0	29.7							
2.32	4.33	6.23	8.07	9.87	11.6	13.4	15.1	18.4	21.7	26.5	31.2	34.3							
2.63	4.91	7.08	9.17	11.2	13.2	15.2	17.1	20.9	24.6	30.1	35.5								
2.95	5.50	7.92	10.3	12.5	14.8	17.0	19.2	23.4	27.6	33.7									
3.27	6.10	8.78	11.4	13.9	16.4	18.8	21.2	26.0	30.6	37.4									
3.59	6.70	9.65	12.5	15.3	18.0	20.7	23.3	28.5	33.6										

TRANSMISSION ROLLER CHAIN
LOW NOISE CHAIN SERIES