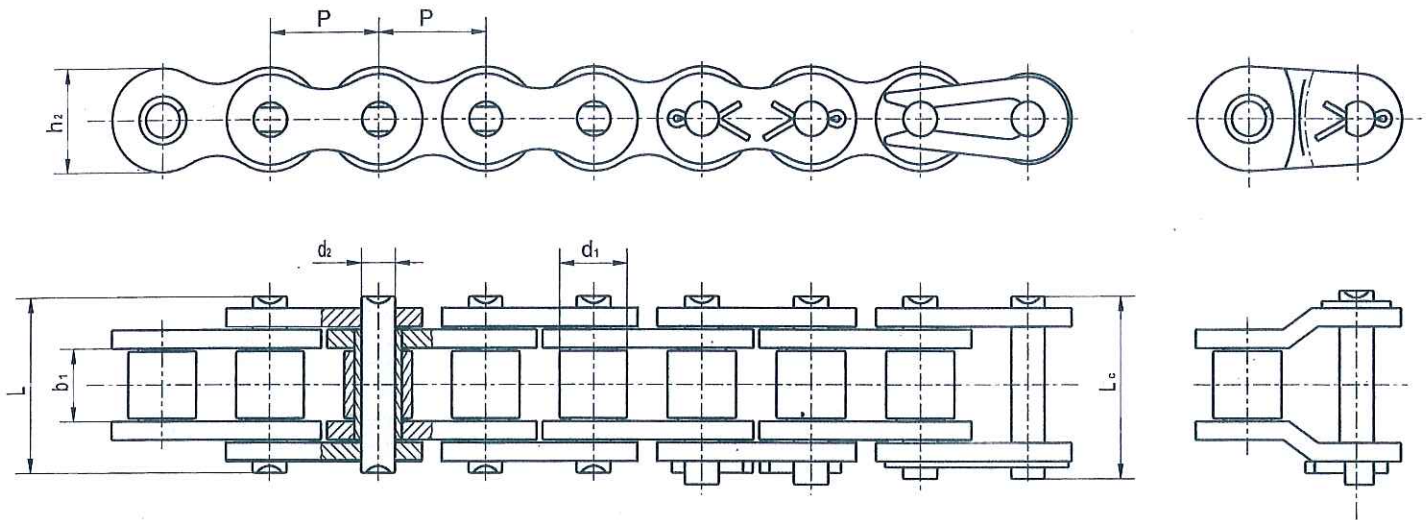


A SERIES SINGLE-STRAND ROLLER CHAIN AND BUSHING CHAINS



DIN/ISO	ANSI	Pitch	Roller diameter	Width between inner plates	Pin diameter	Pin length		Inner plate depth	Ultimate tensile strength	Average tensile strength	Weight per meter
DIN/ISO Chain No.	ANSI Chain No.	P	d ₂ max	b ₁ min	d ₂ max	L max	L _c max	h _c max	Q min	Q _o	q
		mm	mm	mm	mm	mm	mm	mm	kN	kN	kg/m
	*10	3.175	1.7	1.6	1.16	4.45		2.90	1.2	1.30	0.039
	*15	4.7625	2.48	2.4	1.62	6.25		4.30	1.8	2.00	0.089
*04C-1	*25	6.35	3.30	3.10	2.31	7.80	8.90	5.90	3.5	4.60	0.15
*06C-1	*35	9.525	5.08	4.77	3.58	12.15	13.10	8.70	7.9	10.80	0.34
085-1	41	12.70	7.77	6.25	3.58	13.75	15.00	9.91	6.8	12.60	0.53
08A-1	40	12.70	7.92	7.85	3.96	16.30	17.75	12.00	14.1	17.50	0.63
10A-1	50	15.875	10.16	9.48	5.08	20.20	22.20	15.00	22.2	29.40	1.02
12A-1	60	19.05	11.91	12.57	5.94	25.90	27.50	18.00	31.8	41.50	1.59
16A-1	80	25.40	15.88	15.75	7.92	32.80	34.50	24.00	56.7	69.40	2.69
20A-1	100	31.75	19.05	18.90	9.53	40.00	43.40	30.10	88.5	109.20	4.04
24A-1	120	38.10	22.23	25.22	11.10	50.45	53.50	36.10	127.0	156.30	5.91
28A-1	140	44.45	25.40	25.22	12.70	54.40	58.70	42.10	172.4	212.00	7.78
32A-1	160	50.80	28.58	31.55	14.27	64.50	68.70	48.10	226.8	278.90	10.37
36A-1	180	57.15	35.71	35.48	17.46	72.80	78.60	53.60	280.2	341.80	13.6
40A-1	200	63.50	39.68	37.85	19.84	79.50	85.50	60.00	353.8	431.60	16.84
48A-1	240	76.2	47.63	47.4	23.81	95.50	102.50	71.80	510.3	622.50	24.42

1. Bushing chain: d₁ in the table indicate the external diameter of the bushing.
2. Copper-plated, zinc-plated, nickel-plated and chrome-plated chain, stainless steel chain and multiple strands chain available.

ANSI SPROCKET DIMENSIONS

DRIVE CHAIN

No. of Teeth	RS 25		RS 35		RS 41		RS 40		RS 50		RS 60		RS 80	
	Pitch Dia.	Outside Dia.	Pitch Dia.	Outside Dia.	Pitch Dia.	Outside Dia.	Pitch Dia.	Outside Dia.	Pitch Dia.	Outside Dia.	Pitch Dia.	Outside Dia.	Pitch Dia.	Outside Dia.
11	22.54	25	33.81	38	45.08	51	45.08	51	56.35	64	67.62	76	90.16	102
12	24.53	28	36.80	41	49.07	55	49.07	55	61.34	69	73.60	83	98.14	110
13	26.53	30	39.80	44	53.07	59	53.07	59	66.34	74	79.60	89	106.14	118
14	28.54	32	42.81	47	57.07	63	57.07	63	71.34	79	85.61	95	114.15	127
15	30.54	34	45.81	51	61.08	67	61.08	67	76.35	84	91.62	101	122.17	135
16	32.55	36	48.82	54	65.10	71	65.10	71	81.37	89	97.65	107	130.20	143
17	34.56	38	51.84	57	69.12	76	69.12	76	86.39	94	103.67	113	138.23	151
18	36.57	40	54.85	60	73.14	80	73.14	80	91.42	100	109.71	119	146.27	159
19	38.58	42	57.87	63	77.16	84	77.16	84	96.45	105	115.74	126	154.32	167
20	40.59	44	60.89	66	81.18	88	81.18	88	101.48	110	121.78	132	162.37	176
21	42.61	46	63.91	69	85.21	92	85.21	92	106.51	115	127.82	138	170.42	184
22	44.62	48	66.93	72	89.24	96	89.24	96	111.55	120	133.86	144	178.48	192
23	46.63	50	69.95	75	93.27	100	93.27	100	116.58	125	139.90	150	186.54	200
24	48.65	52	72.97	78	97.30	104	97.30	104	121.62	130	145.95	156	194.60	208
25	50.66	54	76.00	81	101.33	108	101.33	108	126.66	135	151.99	162	202.66	216
26	52.68	56	79.02	84	105.36	112	105.36	112	131.70	140	158.04	168	210.72	224
27	54.70	58	82.05	87	109.40	116	109.40	116	136.74	145	164.09	174	218.79	233
28	56.71	60	85.07	90	113.43	120	113.43	120	141.79	150	170.14	180	226.86	241
29	58.73	62	88.10	93	117.46	124	117.46	124	146.83	155	176.20	187	234.93	249
30	60.75	64	91.12	96	121.50	128	121.50	128	151.87	161	182.25	193	243.00	257
31	62.77	66	94.15	99	125.53	133	125.53	133	156.92	166	188.30	199	251.07	265
32	64.78	68	97.18	102	129.57	137	129.57	137	161.96	171	194.35	205	259.14	273
33	66.80	70	100.20	105	133.61	141	133.61	141	167.01	176	200.41	211	267.21	281
34	68.82	72	103.23	109	137.64	145	137.64	145	172.05	181	206.46	217	275.29	289
35	70.84	74	106.26	112	141.68	149	141.68	149	177.10	186	212.52	223	283.36	297
36	72.86	76	109.29	115	145.72	153	145.72	153	182.14	191	218.57	229	291.43	306
37	74.88	78	112.31	118	149.75	157	149.75	157	187.19	196	224.63	235	299.51	314
38	76.90	80	115.34	121	153.79	161	153.79	161	192.24	201	230.69	241	307.58	322
39	78.91	82	118.37	124	157.83	165	157.83	165	197.29	206	236.74	247	315.66	330
40	80.93	84	121.40	127	161.87	169	161.87	169	202.33	211	242.80	253	323.74	338
41	82.95	87	124.43	130	165.91	173	165.91	173	207.38	216	248.86	260	331.81	346
42	84.97	89	127.46	133	169.95	177	169.95	177	212.43	221	254.92	266	339.89	354
43	86.99	91	130.49	136	173.98	181	173.98	181	217.48	226	260.98	272	347.97	362
44	89.01	93	133.52	139	178.02	185	178.02	185	222.53	231	267.03	278	356.04	370
45	91.03	95	136.55	142	182.06	189	182.06	189	227.58	237	273.09	284	364.12	378
46	93.05	97	139.58	145	186.10	193	186.10	193	232.63	242	279.15	290	372.20	387
47	95.07	99	142.61	148	190.14	197	190.14	197	237.68	247	285.21	296	380.28	395
48	97.09	101	145.64	151	194.18	201	194.18	201	242.73	252	291.27	302	388.36	403
49	99.11	103	148.67	154	198.22	205	198.22	205	247.78	257	297.33	308	396.44	411
50	101.13	105	151.70	157	202.26	209	202.26	209	252.83	262	303.39	314	404.52	419
51	103.15	107	154.73	160	206.30	214	206.30	214	257.88	267	309.45	320	412.60	427
52	105.17	109	157.75	163	210.34	218	210.34	218	262.92	272	315.51	326	420.68	435
53	107.19	111	160.78	166	214.38	222	214.38	222	267.97	277	321.57	332	428.76	443
54	109.21	113	163.81	169	218.42	226	218.42	226	273.02	282	327.63	338	436.84	451
55	111.23	115	166.85	172	222.46	230	222.46	230	278.08	287	333.69	345	444.92	459
56	113.25	117	169.88	175	226.50	234	226.50	234	283.13	292	339.75	351	453.00	468
57	115.27	119	172.91	178	230.54	238	230.54	238	288.18	297	345.81	357	461.08	476
58	117.29	121	175.94	181	234.58	242	234.58	242	293.23	302	351.87	363	469.16	484
59	119.31	123	178.97	184	238.62	246	238.62	246	298.28	307	357.93	369	477.25	492
60	121.33	125	182.00	187	242.66	250	242.66	250	303.33	312	363.99	375	485.33	500
61	123.35	127	185.03	191	246.70	254	246.70	254	308.38	318	370.06	381	493.41	508
62	125.37	129	188.06	194	250.74	258	250.74	258	313.43	323	376.12	387	501.49	516
63	127.39	131	191.09	197	254.78	262	254.78	262	318.48	328	382.18	393	509.57	524
64	129.41	133	194.12	200	258.83	266	258.83	266	323.53	333	388.24	399	517.65	532
65	131.43	135	197.15	203	262.87	270	262.87	270	328.58	338	394.30	405	525.73	540

RS 100		RS 120		RS 140		RS 160		RS 180		RS 200		RS 240		No. of Teeth
Pitch Dia.	Outside Dia.	Pitch Dia.	Outside Dia.	Pitch Dia.	Outside Dia.	Pitch Dia.	Outside Dia.	Pitch Dia.	Outside Dia.	Pitch Dia.	Outside Dia.	Pitch Dia.	Outside Dia.	
112.70	127	135.24	153	157.78	178	180.31	204	202.85	229	225.39	254	270.47	305	11
122.67	138	147.21	165	171.74	193	196.28	220	220.81	248	245.34	275	294.41	330	12
132.67	148	159.20	177	185.74	207	212.27	237	238.81	266	265.34	296	318.41	355	13
142.68	158	171.22	190	199.76	221	228.30	253	256.83	285	285.37	316	342.44	380	14
152.71	168	183.25	202	213.79	236	244.33	269	274.87	303	305.42	337	366.50	404	15
162.74	179	195.29	214	227.84	250	260.39	286	292.94	322	325.49	357	390.59	429	16
172.79	189	207.35	227	241.91	264	276.46	302	311.02	340	345.58	378	414.70	453	17
182.84	199	219.41	239	255.98	279	292.55	319	329.12	358	365.68	398	438.82	478	18
192.90	209	231.48	251	270.06	293	308.64	335	347.21	377	385.79	419	462.95	502	19
202.96	220	243.55	263	284.15	307	324.74	351	365.33	395	405.92	439	487.11	527	20
213.03	230	255.63	276	298.24	322	340.84	368	383.45	413	426.05	459	511.26	551	21
223.10	240	267.72	288	312.34	336	356.96	384	401.58	432	446.20	480	535.43	576	22
233.17	250	279.80	300	326.44	350	373.07	400	419.70	450	466.34	500	559.61	600	23
243.25	260	291.90	312	340.54	364	389.19	416	437.84	468	486.49	520	583.79	625	24
253.32	270	303.99	324	354.65	379	405.32	433	455.98	487	506.65	541	607.98	649	25
263.40	281	316.09	337	368.77	393	421.45	449	474.13	505	526.81	561	632.17	673	26
273.49	291	328.19	349	382.88	407	437.58	465	492.28	523	546.98	581	656.37	698	27
283.57	301	340.29	361	397.00	421	453.72	481	510.43	541	567.14	602	680.57	722	28
293.66	311	325.39	373	411.12	435	469.85	498	528.59	560	587.32	622	704.78	746	29
303.75	321	364.50	385	425.24	450	485.99	514	546.74	578	607.49	642	728.99	771	30
313.83	331	376.60	398	439.37	464	502.13	530	564.90	596	627.67	663	753.20	795	31
323.92	341	388.71	410	453.49	478	518.28	546	583.06	615	647.85	683	777.42	819	32
334.01	352	400.82	422	467.62	492	534.42	562	601.22	633	668.03	703	801.63	844	33
344.11	362	412.93	434	481.75	506	550.57	579	619.39	651	688.21	723	825.86	868	34
354.20	372	425.04	446	495.88	521	566.71	595	637.55	669	708.39	744	850.07	892	35
364.29	382	437.15	458	510.01	535	582.86	611	655.72	688	728.58	764	874.30	917	36
374.38	392	449.26	470	524.14	549	599.01	627	673.89	706	748.77	784	898.52	941	37
384.48	402	461.38	483	538.27	563	615.17	644	692.06	724	768.96	804	922.75	965	38
394.57	412	473.49	495	552.40	577	631.32	660	710.23	742	789.15	825	946.98	990	39
404.67	422	485.60	507	566.54	591	647.47	676	728.41	760	809.34	845	971.21	1014	40
414.77	433	497.72	519	580.67	606	663.63	692	746.58	779	829.53	865	995.44	1038	41
424.86	443	509.84	531	594.81	620	679.78	708	764.75	797	849.73	885	1019.67	1063	42
434.96	453	521.95	543	608.94	634	695.93	725	782.93	815	869.92	906	1043.90	1087	43
445.06	463	534.07	556	623.08	648	712.09	741	801.10	833	890.11	926	1068.13	1111	44
455.16	473	546.19	568	637.22	662	728.25	757	819.28	852	910.31	946	1092.37	1135	45
465.25	483	558.30	580	651.35	676	744.40	773	837.45	870	930.50	966	1116.60	1160	46
475.35	493	570.42	592	665.49	691	760.56	789	855.63	888	950.70	987	1140.84	1184	47
485.45	503	582.54	604	679.63	705	776.72	806	873.81	906	970.90	1007	1165.08	1208	48
495.55	514	594.66	616	693.77	719	792.88	822	891.99	924	991.10	1027	1189.32	1233	49
505.65	524	606.78	628	707.91	733	809.04	838	910.17	943	1011.30	1047	1213.56	1257	50
515.75	534	618.90	641	722.05	747	825.20	854	928.35	961	1031.50	1068	1237.82	1281	51
525.85	544	631.02	653	736.19	762	841.36	870	946.53	979	1051.70	1088	1262.04	1305	52
535.95	554	643.14	665	750.33	776	857.52	887	964.71	997	1071.90	1108	1286.28	1330	53
546.05	564	655.26	677	764.47	790	873.68	903	982.89	1015	1092.10	1128	1310.52	1354	54
556.15	574	667.38	689	778.61	804	889.84	919	1001.07	1034	1112.30	1149	1334.76	1378	55
566.25	584	679.50	701	792.75	818	906.00	935	1019.25	1052	1132.50	1169	1359.00	1403	56
576.35	595	691.63	713	806.90	832	922.17	951	1037.44	1070	1152.71	1189	1383.25	1427	57
586.45	605	703.75	726	821.04	847	938.33	967	1055.62	1088	1172.91	1209	1407.49	1451	58
596.56	615	715.87	738	835.18	861	954.49	984	1073.80	1107	1193.11	1230	1431.74	1475	59
606.66	625	727.99	750	849.32	875	970.65	1000	1091.98	1125	1213.31	1250	1455.98	1500	60
616.76	635	740.11	762	863.46	889	986.82	1016	1110.17	1143	1233.52	1270	1480.22	1524	61
626.86	645	752.23	774	877.61	903	1002.98	1032	1128.35	1161	1253.72	1290	1504.47	1548	62
636.96	655	764.35	786	891.75	917	1019.14	1048	1146.53	1179	1273.92	1310	1528.71	1573	63
647.06	665	776.48	798	905.89	931	1035.30	1065	1164.72	1198	1294.13	1331	1552.96	1597	64
657.17	675	788.60	811	920.03	946	1051.47	1081	1182.90	1216	1314.34	1351	1577.20	1621	65

No. of Teeth	RS 25		RS 35		RS 41		RS 40		RS 50		RS 60		RS 80	
	Pitch Dia.	Outside Dia.	Pitch Dia.	Outside Dia.	Pitch Dia.	Outside Dia.	Pitch Dia.	Outside Dia.	Pitch Dia.	Outside Dia.	Pitch Dia.	Outside Dia.	Pitch Dia.	Outside Dia.
66	133.45	137	200.18	206	266.91	274	266.91	274	333.64	343	400.36	411	533.82	548
67	135.47	139	203.21	209	270.95	278	270.95	278	338.69	348	406.42	417	541.90	557
68	137.50	141	206.24	212	274.99	282	274.99	282	343.74	353	412.49	423	549.98	565
69	139.52	143	209.27	215	279.03	286	279.03	286	348.79	358	418.55	430	558.06	573
70	141.54	145	212.30	218	283.07	290	283.07	290	353.84	363	424.61	436	566.15	581
71	143.56	147	215.34	221	287.11	294	287.11	294	358.89	368	430.67	442	574.23	589
72	145.58	149	218.37	224	291.16	299	291.16	299	363.94	373	436.73	448	582.31	597
73	147.60	151	221.40	227	295.20	303	295.20	303	369.00	378	442.79	454	590.39	605
74	149.62	153	224.43	230	299.24	307	299.24	307	374.05	383	448.86	460	598.47	613
75	151.64	155	227.46	233	303.28	311	303.28	311	379.10	388	454.92	466	606.56	621
76	153.66	157	230.49	236	307.32	315	307.32	315	384.15	393	460.98	472	614.64	629
77	155.68	159	233.52	239	311.36	319	311.36	319	389.20	398	467.04	478	622.72	637
78	157.70	161	236.55	242	315.40	323	315.40	323	394.25	403	473.10	484	630.81	646
79	159.72	163	239.58	245	319.44	327	319.44	327	399.31	409	479.17	490	638.89	654
80	161.74	165	242.61	248	323.49	331	323.49	331	404.36	414	485.23	496	646.97	662
81	163.76	167	245.65	251	327.53	335	327.53	335	409.41	419	491.29	502	655.06	670
82	165.78	169	248.68	254	331.57	339	331.57	339	414.46	424	497.35	508	663.14	678
83	167.81	171	251.71	257	335.61	343	335.61	343	419.51	429	503.42	514	671.22	686
84	169.83	174	254.74	260	339.65	347	339.65	347	424.57	434	509.48	521	679.31	694
85	171.85	176	257.77	263	343.69	351	343.69	351	429.62	439	515.54	527	687.39	702
86	173.87	178	260.80	266	347.73	355	347.73	355	434.67	444	521.60	533	695.47	710
87	175.89	180	263.83	269	351.78	359	351.78	359	439.72	449	527.67	539	703.55	718
88	177.91	182	266.86	272	355.82	363	355.82	363	444.77	454	533.73	545	711.64	726
89	179.93	184	269.90	275	359.86	367	359.86	367	449.83	459	539.79	551	719.72	735
90	181.95	186	272.93	278	363.90	371	363.90	371	454.88	464	545.85	557	727.80	743
91	183.97	188	275.96	282	367.94	375	367.94	375	459.93	469	551.92	563	735.89	751
92	185.99	190	278.99	285	371.99	379	371.99	379	464.98	474	557.98	569	743.97	759
93	188.01	192	282.02	288	376.03	383	376.03	383	470.03	479	564.04	575	752.06	767
94	190.03	194	285.05	291	380.07	387	380.07	387	475.09	484	570.10	581	760.14	775
95	192.06	196	288.08	294	384.11	392	384.11	392	480.14	489	576.17	587	768.22	783
96	194.08	198	291.11	297	388.15	396	388.15	396	485.19	494	582.23	593	776.31	791
97	196.10	200	294.15	300	392.20	400	392.20	400	490.24	500	588.29	599	784.39	799
98	198.12	202	297.18	303	396.24	404	396.24	404	495.30	505	594.35	605	792.47	807
99	200.14	204	300.21	306	400.28	408	400.28	408	500.35	510	600.42	612	800.56	815
100	202.16	206	303.24	309	404.32	412	404.32	412	505.40	515	606.48	618	808.64	823
101	204.18	208	306.27	312	408.36	416	408.36	416	510.45	520	612.54	624	816.72	832
102	206.20	210	309.30	315	412.40	420	412.40	420	515.50	525	618.60	630	824.81	840
103	208.22	212	312.33	318	416.45	424	416.45	424	520.56	530	624.67	636	832.89	848
104	210.24	214	315.37	321	420.49	428	420.49	428	525.61	535	630.73	642	840.98	856
105	212.26	216	318.40	324	424.53	432	424.53	432	530.66	540	636.79	648	849.06	864
106	214.29	218	321.43	327	428.57	436	428.57	436	535.71	545	642.86	654	857.14	872
107	216.31	220	324.46	330	432.61	440	432.61	440	540.77	550	648.92	660	865.23	880
108	218.33	222	327.49	333	436.66	444	436.66	444	545.82	555	654.98	666	873.31	888
109	220.35	224	330.52	336	440.70	448	440.70	448	550.87	560	661.05	672	881.40	896
110	222.37	226	333.55	339	444.74	452	444.74	452	555.92	565	667.11	678	889.48	904
111	224.39	228	336.59	342	448.78	456	448.78	456	560.98	570	673.17	684	897.56	912
112	226.41	230	339.62	345	452.82	460	452.82	460	566.03	575	679.24	690	905.65	921
113	228.43	232	342.65	348	456.87	464	456.87	464	571.08	580	685.30	696	913.73	929
114	230.45	234	345.68	351	460.91	468	460.91	468	576.13	585	691.36	703	921.81	937
115	232.47	236	348.71	354	464.95	472	464.95	472	581.19	591	697.42	709	929.90	945
116	234.50	238	351.74	357	468.99	476	468.99	476	586.24	596	703.49	715	937.98	953
117	236.52	240	354.77	360	473.03	480	473.03	480	591.29	601	709.55	721	946.07	961
118	238.54	242	357.81	363	477.08	485	477.08	485	596.34	606	715.61	727	954.15	969
119	240.56	244	360.84	366	481.12	489	481.12	489	601.40	611	721.68	733	962.24	977
120	242.58	246	363.87	369	485.16	493	485.16	493	606.45	616	727.74	739	970.32	985

RS 100		RS 120		RS 140		RS 160		RS 180		RS 200		RS 240		No. of Teeth
Pitch Dia.	Outside Dia.	Pitch Dia.	Outside Dia.	Pitch Dia.	Outside Dia.	Pitch Dia.	Outside Dia.	Pitch Dia.	Outside Dia.	Pitch Dia.	Outside Dia.	Pitch Dia.	Outside Dia.	
667.27	686	800.72	823	934.18	960	1067.63	1097	1201.09	1234	1334.54	1371	1601.45	1645	66
677.37	696	812.85	835	948.32	974	1083.80	1113	1219.27	1252	1354.75	1391	1625.70	1670	67
687.48	706	824.97	847	962.47	988	1099.96	1129	1237.46	1270	1374.95	1412	1649.94	1694	68
697.58	716	837.10	859	976.61	1002	1116.13	1145	1255.64	1289	1395.16	1432	1674.19	1718	69
707.68	726	849.22	871	990.75	1016	1132.29	1162	1273.83	1307	1415.36	1452	1698.44	1742	70
717.78	736	861.34	883	1004.90	1031	1148.46	1178	1292.01	1325	1435.57	1472	1722.68	1767	71
727.89	746	873.47	896	1019.04	1045	1164.62	1194	1310.20	1343	1455.78	1493	1746.93	1791	72
737.99	756	885.59	908	1033.19	1059	1180.79	1210	1328.38	1361	1475.98	1513	1771.18	1815	73
748.09	766	897.71	920	1047.33	1073	1196.95	1226	1346.57	1380	1496.19	1533	1795.42	1840	74
758.20	777	909.84	932	1061.47	1087	1213.11	1243	1364.75	1398	1516.39	1553	1819.67	1864	75
768.30	787	921.96	944	1075.62	1101	1229.28	1259	1382.94	1416	1536.60	1573	1843.92	1888	76
778.41	797	934.09	956	1089.77	1116	1245.45	1275	1401.13	1434	1556.81	1594	1868.17	1912	77
788.51	807	946.21	968	1103.91	1130	1261.61	1291	1419.31	1452	1577.02	1614	1892.42	1937	78
798.61	817	958.33	980	1118.06	1144	1277.78	1307	1437.50	1471	1597.22	1634	1916.67	1961	79
808.71	827	970.46	993	1132.20	1158	1293.94	1323	1455.68	1489	1617.43	1654	1940.91	1985	80
818.82	837	982.58	1005	1146.35	1172	1310.11	1340	1473.88	1507	1637.64	1674	1965.17	2009	81
828.92	847	994.71	1017	1160.49	1186	1326.28	1356	1492.02	1525	1657.85	1695	1989.41	2034	82
839.03	857	1006.83	1029	1174.64	1200	1342.45	1372	1510.25	1543	1678.06	1715	2013.67	2058	83
849.13	868	1018.96	1041	1188.78	1215	1358.61	1388	1528.44	1562	1698.26	1735	2037.92	2082	84
859.23	878	1031.08	1053	1202.93	1229	1374.78	1404	1546.62	1580	1718.47	1755	2062.16	2106	85
869.34	888	1043.20	1065	1217.07	1243	1390.94	1420	1564.78	1598	1738.67	1776	2086.41	2131	86
879.44	898	1055.33	1078	1231.22	1257	1407.11	1437	1583.00	1616	1758.89	1796	2110.66	2155	87
889.55	908	1067.46	1090	1245.36	1271	1423.27	1453	1601.18	1634	1779.09	1816	2134.91	2179	88
899.65	918	1079.58	1102	1259.51	1285	1439.44	1469	1619.37	1653	1799.30	1836	2159.17	2204	89
909.75	928	1091.71	1114	1273.66	1300	1455.61	1485	1637.56	1671	1819.51	1856	2183.41	2228	90
919.86	938	1103.83	1126	1287.81	1314	1471.78	1501	1655.75	1689	1839.72	1877	2207.67	2252	91
929.96	948	1115.96	1138	1301.95	1328	1487.94	1518	1673.93	1707	1859.93	1897	2231.91	2276	92
940.07	959	1128.08	1150	1316.10	1342	1504.11	1534	1692.13	1725	1880.14	1917	2256.17	2301	93
950.17	969	1140.21	1162	1330.24	1356	1520.28	1550	1710.31	1744	1900.35	1937	2280.41	2325	94
960.28	979	1152.33	1175	1344.39	1370	1536.44	1566	1728.50	1762	1920.55	1958	2304.66	2349	95
970.38	989	1164.46	1187	1358.53	1384	1552.61	1582	1746.69	1780	1940.76	1987	2328.92	2373	96
980.49	999	1176.59	1199	1372.68	1399	1568.78	1598	1764.88	1798	1960.98	1998	2353.17	2398	97
990.59	1009	1188.71	1211	1386.83	1413	1584.94	1615	1783.06	1816	1981.18	2018	2377.42	2422	98
1000.70	1019	1200.84	1223	1400.98	1427	1601.11	1631	1801.25	1835	2001.39	2038	2401.67	2446	99
1010.80	1029	1212.96	1235	1415.12	1441	1617.28	1647	1819.44	1853	2021.60	2059	2425.92	2470	100
1020.91	1039	1225.09	1247	1429.27	1455	1633.45	1663	1837.63	1871	2041.81	2079	2450.17	2495	101
1031.01	1050	1237.21	1259	1443.41	1469	1649.61	1679	1855.81	1889	2062.02	2099	2474.42	2519	102
1041.11	1060	1249.34	1272	1457.56	1484	1665.78	1696	1874.01	1907	2082.23	2119	2498.67	2543	103
1051.22	1070	1261.46	1284	1471.71	1498	1681.95	1712	1892.20	1926	2102.44	2140	2522.93	2567	104
1061.32	1080	1273.59	1296	1485.85	1512	1698.12	1728	1910.38	1944	2122.65	2160	2547.18	2592	105
1071.43	1090	1285.71	1308	1500.00	1526	1714.29	1744	1928.57	1962	2142.86	2180	2571.43	2616	106
1081.54	1100	1297.84	1320	1514.15	1540	1730.46	1760	1946.76	1980	2163.07	2200	2595.68	2640	107
1091.64	1110	1309.97	1332	1528.29	1554	1746.62	1776	1964.95	1998	2183.28	2220	2619.93	2665	108
1101.74	1120	1322.09	1344	1542.44	1568	1762.79	1793	1983.14	2017	2203.49	2241	2644.19	2689	109
1111.85	1130	1334.22	1357	1556.59	1583	1778.96	1809	2001.32	2035	2223.69	2261	2668.43	2713	110
1121.95	1141	1346.34	1369	1570.73	1597	1795.12	1825	2019.52	2053	2243.91	2281	2692.69	2737	111
1132.06	1151	1358.47	1381	1584.88	1611	1811.29	1841	2037.71	2071	2264.12	2301	2716.94	2762	112
1142.16	1161	1370.60	1393	1599.03	1625	1827.46	1857	2055.90	2089	2284.33	2322	2741.20	2786	113
1152.27	1171	1382.72	1405	1613.17	1639	1843.63	1873	2074.08	2108	2304.54	2342	2765.44	2810	114
1162.37	1181	1394.85	1417	1627.32	1653	1859.80	1890	2092.27	2126	2324.75	2362	2789.70	2834	115
1172.48	1191	1406.98	1429	1641.47	1668	1875.97	1906	2110.46	2144	2344.96	2382	2813.95	2859	116
1182.58	1201	1419.10	1441	1655.62	1682	1892.13	1922	2128.65	2162	2365.17	2402	2838.20	2883	117
1192.69	1211	1431.23	1454	1669.76	1696	1908.30	1938	2146.84	2180	2385.38	2423	2862.45	2907	118
1202.79	1221	1443.35	1466	1683.91	1710	1924.47	1954	2165.03	2199	2405.59	2443	2886.71	2931	119
1212.90	1232	1455.48	1478	1698.06	1724	1940.64	1970	2183.22	2217	2425.80	2463	2910.96	2956	120

No. of Pitches	Chain No.												No. of Pitches	
	RS25	RS35	RS40 RS41	RS50	RS60	RS80	RS100	RS120	RS140	RS160	RS200	RS240		
		RS06B	RS08B	RS10B	RS12B	RS16B	RS20B	RS24B	RS28B	RS32B	RS40B			
1	0.006	0.010	0.013	0.016	0.019	0.025	0.032	0.038	0.044	0.051	0.064	0.076	1	
2	0.013	0.019	0.025	0.032	0.038	0.051	0.064	0.076	0.089	0.102	0.127	0.152	2	
3	0.019	0.029	0.038	0.048	0.057	0.076	0.095	0.114	0.133	0.152	0.191	0.229	3	
4	0.025	0.038	0.051	0.064	0.076	0.102	0.127	0.152	0.176	0.203	0.254	0.305	4	
5	0.032	0.048	0.064	0.079	0.095	0.127	0.159	0.191	0.222	0.254	0.318	0.381	5	
6	0.038	0.057	0.076	0.095	0.114	0.152	0.191	0.229	0.267	0.311	0.381	0.457	6	
7	0.044	0.067	0.089	0.111	0.133	0.176	0.222	0.267	0.311	0.356	0.445	0.533	7	
8	0.051	0.076	0.102	0.127	0.152	0.203	0.254	0.305	0.356	0.400	0.508	0.610	8	
9	0.057	0.086	0.114	0.143	0.171	0.229	0.286	0.343	0.400	0.457	0.572	0.686	9	
10	0.064	0.095	0.127	0.159	0.191	0.254	0.318	0.381	0.445	0.508	0.635	0.762	10	
11	0.070	0.105	0.140	0.175	0.210	0.279	0.349	0.419	0.489	0.559	0.699	0.839	11	
12	0.076	0.114	0.152	0.191	0.229	0.305	0.381	0.457	0.533	0.610	0.762	0.914	12	
13	0.083	0.124	0.165	0.206	0.248	0.330	0.413	0.495	0.578	0.660	0.826	0.991	13	
14	0.089	0.133	0.178	0.222	0.267	0.356	0.445	0.533	0.622	0.711	0.889	1.067	14	
15	0.095	0.143	0.191	0.238	0.286	0.381	0.476	0.572	0.667	0.762	0.953	1.143	15	
16	0.102	0.152	0.203	0.254	0.305	0.406	0.508	0.610	0.711	0.813	1.016	1.219	16	
17	0.108	0.162	0.216	0.270	0.324	0.432	0.540	0.648	0.756	0.864	1.080	1.295	17	
18	0.114	0.171	0.229	0.286	0.343	0.457	0.572	0.686	0.800	0.914	1.143	1.372	18	
19	0.121	0.181	0.241	0.302	0.361	0.483	0.603	0.724	0.845	0.965	1.207	1.448	19	
20	0.127	0.191	0.254	0.318	0.381	0.508	0.635	0.762	0.889	1.016	1.270	1.524	20	
21	0.133	0.200	0.267	0.333	0.400	0.533	0.667	0.800	0.933	1.067	1.334	1.600	21	
22	0.140	0.210	0.279	0.349	0.419	0.559	0.699	0.839	0.978	1.118	1.397	1.676	22	
23	0.146	0.219	0.292	0.365	0.438	0.584	0.730	0.876	1.022	1.168	1.461	1.753	23	
24	0.152	0.229	0.305	0.381	0.457	0.610	0.762	0.914	1.067	1.219	1.524	1.829	24	
25	0.159	0.238	0.318	0.397	0.476	0.635	0.794	0.953	1.111	1.270	1.588	1.905	25	
26	0.165	0.248	0.330	0.413	0.495	0.660	0.826	0.991	1.156	1.321	1.651	1.981	26	
27	0.171	0.257	0.343	0.429	0.514	0.686	0.857	1.029	1.200	1.372	1.715	2.057	27	
28	0.178	0.267	0.356	0.445	0.533	0.711	0.889	1.067	1.245	1.422	1.778	2.134	28	
29	0.184	0.276	0.368	0.461	0.552	0.737	0.921	1.105	1.289	1.473	1.842	2.210	29	
30	0.191	0.286	0.381	0.476	0.572	0.762	0.953	1.143	1.334	1.524	1.905	2.286	30	
31	0.197	0.295	0.394	0.492	0.591	0.787	0.984	1.181	1.378	1.575	1.969	2.363	31	
32	0.203	0.305	0.406	0.508	0.610	0.813	1.016	1.219	1.422	1.626	2.032	2.432	32	
33	0.210	0.314	0.419	0.524	0.629	0.838	1.048	1.257	1.467	1.676	2.096	2.515	33	
34	0.216	0.324	0.432	0.540	0.648	0.864	1.080	1.295	1.511	1.727	2.159	2.591	34	
35	0.222	0.333	0.445	0.556	0.667	0.889	1.111	1.334	1.556	1.778	2.223	2.667	35	
36	0.229	0.343	0.457	0.572	0.686	0.914	1.143	1.372	1.600	1.829	2.286	2.743	36	
37	0.235	0.352	0.470	0.588	0.705	0.940	1.175	1.410	1.645	1.880	2.350	2.819	37	
38	0.241	0.362	0.483	0.603	0.724	0.965	1.207	1.448	1.689	1.930	2.413	2.896	38	
39	0.248	0.371	0.495	0.619	0.743	0.991	1.238	1.486	1.734	1.981	2.477	2.972	39	
40	0.254	0.381	0.508	0.635	0.762	1.016	1.270	1.524	1.778	2.032	2.540	3.048	40	
41	0.260	0.391	0.521	0.651	0.781	1.041	1.302	1.562	1.822	2.083	2.604	3.124	41	
42	0.267	0.400	0.533	0.667	0.800	1.067	1.334	1.600	1.867	2.134	2.667	3.200	42	
43	0.273	0.410	0.546	0.683	0.819	1.092	1.365	1.638	1.911	2.184	2.731	3.277	43	
44	0.279	0.419	0.559	0.699	0.838	1.118	1.397	1.676	1.956	2.235	2.794	3.353	44	
45	0.286	0.429	0.572	0.715	0.857	1.143	1.429	1.715	2.000	2.286	2.858	3.429	45	
46	0.292	0.438	0.584	0.730	0.876	1.168	1.461	1.753	2.045	2.337	2.921	3.505	46	
47	0.298	0.448	0.597	0.746	0.895	1.194	1.492	1.791	2.089	2.388	2.985	3.581	47	
48	0.305	0.457	0.610	0.762	0.914	1.219	1.524	1.829	2.134	2.438	3.048	3.658	48	
49	0.311	0.467	0.622	0.778	0.933	1.245	1.556	1.867	2.176	2.489	3.112	3.734	49	
50	0.318	0.476	0.635	0.794	0.953	1.270	1.588	1.905	2.223	2.540	3.175	3.810	50	
51	0.324	0.486	0.648	0.810	0.972	1.295	1.619	1.943	2.267	2.591	3.239	3.886	51	
52	0.330	0.495	0.660	0.826	0.991	1.321	1.651	1.981	2.311	2.642	3.302	3.962	52	
53	0.337	0.505	0.673	0.842	1.010	1.346	1.683	2.019	2.358	2.692	3.366	4.039	53	
54	0.343	0.514	0.686	0.858	1.029	1.372	1.715	2.057	2.400	2.743	3.429	4.115	54	
55	0.349	0.524	0.699	0.873	1.048	1.397	1.746	2.096	2.445	2.784	3.493	4.191	55	
56	0.356	0.533	0.711	0.889	1.067	1.422	1.778	2.134	2.489	2.845	3.556	4.267	56	
57	0.362	0.543	0.724	0.905	1.086	1.448	1.810	2.172	2.534	2.896	3.620	4.343	57	
58	0.368	0.552	0.737	0.921	1.105	1.473	1.842	2.210	2.578	2.946	3.683	4.420	58	
59	0.375	0.562	0.749	0.937	1.124	1.499	1.873	2.248	2.623	2.997	3.747	4.496	59	
60	0.381	0.572	0.762	0.953	1.143	1.524	1.905	2.286	2.667	3.048	3.810	4.572	60	
61	0.387	0.581	0.775	0.969	1.162	1.549	1.937	2.324	2.711	3.099	3.874	4.648	61	
62	0.394	0.591	0.787	0.985	1.181	1.575	1.969	2.363	2.756	3.150	3.937	4.724	62	
63	0.400	0.600	0.800	1.000	1.200	1.600	2.000	2.400	2.800	3.200	4.001	4.801	63	
64	0.406	0.610	0.813	1.016	1.219	1.626	2.032	2.438	2.845	3.251	4.064	4.877	64	
65	0.413	0.619	0.826	1.032	1.238	1.651	2.064	2.477	2.889	3.302	4.126	4.953	65	
66	0.419	0.629	0.838	1.048	1.257	1.676	2.096	2.515	2.934	3.353	4.191	5.029	66	
67	0.425	0.638	0.851	1.064	1.276	1.702	2.127	2.553	2.978	3.404	4.255	5.105	67	
68	0.432	0.648	0.864	1.080	1.295	1.727	2.159	2.591	3.023	3.454	4.318	5.182	68	
69	0.438	0.657	0.876	1.096	1.314	1.753	2.191	2.629	3.067	3.505	4.382	5.258	69	
70	0.445	0.667	0.889	1.112	1.334	1.778	2.223	2.667	3.112	3.556	4.445	5.334	70	
71	0.451	0.676	0.902	1.127	1.353	1.803	2.254	2.705	3.156	3.607	4.509	5.410	71	
72	0.457	0.686	0.914	1.143	1.372	1.829	2.286	2.743	3.200	3.658	4.572	5.486	72	
73	0.464	0.695	0.927	1.159	1.391	1.854	2.318	2.781	3.245	3.708	4.636	5.563	73	
74	0.470	0.705	0.940	1.175	1.410	1.900	2.350	2.819	3.289	3.759	4.699	5.639	74	
75	0.476	0.714	0.953	1.191	1.429	1.905	2.361	2.858	3.334	3.810	4.763	5.715	75	
76	0.483	0.724	0.965	1.207	1.448	1.930	2.391	2.896	3.378	3.861	4.826	5.791	76	
77	0.489	0.734	0.978	1.223	1.467	1.956	2.445	2.934	3.423	3.912	4.890	5.867	77	
78	0.495	0.743	0.991	1.239	1.486	1.981	2.477	2.972	3.467	3.962	4.953	5.943	78	
79	0.502	0.752	1.003	1.255	1.505	2.007	2.508	3.010	3.512	4.013	5.017	6.020	79	
80	0.508	0.762	1.016	1.270	1.524	2.032	2.540	3.048	3.556	4.064	5.080	6.096	80	
81	0.514	0.772	1.029	1.286	1.543	2.057	2.572	3.086	3.600	4.115	5.144	6.172	81	
82	0.521	0.781	1.041	1.302	1.562	2.083	2.604	3.124	3.645	4.166	5.207	6.248	82	
83	0.527	0.791	1.054	1.318	1.581	2.108	2.635	3.152	3.689	4.216	5.271	6.324	83	
84	0.533	0.800	1.067	1.334	1.600	2.134	2.667	3.200	3.734	4.267	5.334	6.401	84	
85	0.540	0.810	1.080	1.350	1.619	2.159	2.699	3.239	3.778	4.318	5.398	6.477	85	
86	0.546	0.819	1.092	1.366	1.638	2.184	2.731	3.277</						