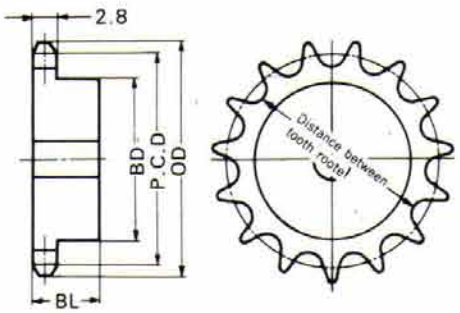
ANSI 25 SPROCKETS



Single Strand B Type

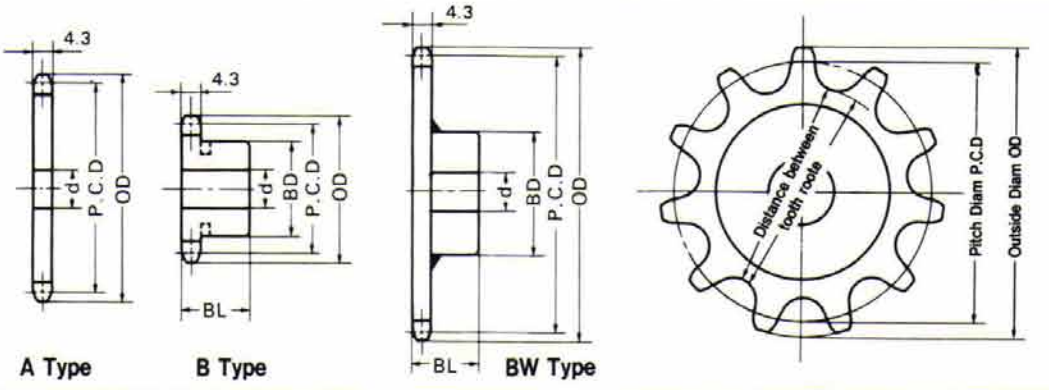
Dimensions (millimeters)

No. of Teeth	Outside Diam. OD	Pitch Diam. P.C.D	Bottom or Caliper Diam.	Stock Bore	Type "B" SINGLE STRAND					
					HUB		BORE		Wt. kg	Material
					Diam. BD	Length Thru Bore BL	Min.	Max.		
10	23	20.55	17.25	6.5	14	15	8	8.5	0.03	S35C
11	25	22.54	19.01	6.5	15	15	8	8.5	0.03	
12	28	24.53	21.23	7.5	15	15	8	9.5	0.03	
13	30	26.53	23.04	7.5	18	15	9.5	10	0.05	
14	32	28.54	25.24	7.5	20	15	9.5	10	0.05	
15	34	30.54	27.07	7.5	20	15	9.5	10	0.05	
16	36	32.55	29.25	9.5	25	15	11.5	12	0.06	
17	38	34.56	31.11	9.5	25	15	11.5	12	0.07	
18	40	36.57	33.27	9.5	25	15	11.5	12	0.07	
19	42	38.58	35.15	9.5	28	15	11.5	16	0.08	
20	44	40.59	37.29	9.5	28	15	11.5	16	0.08	
21	46	42.61	39.19	9.5	28	15	11.5	16	0.09	
22	48	44.62	41.32	9.5	30	15	11.5	16	0.10	
23	50	46.63	43.23	9.5	30	15	11.5	16	0.11	
24	52	48.65	45.35	9.5	30	15	11.5	16	0.12	
25	54	50.66	47.27	9.5	35	15	11.5	20	0.14	
26	56	52.68	49.38	9.5	35	15	11.5	20	0.14	
27	58	54.70	51.30	9.5	35	15	11.5	20	0.15	
28	60	56.71	53.41	9.5	35	15	11.5	20	0.15	
29	62	58.73	55.35	9.5	35	15	11.5	20	0.16	
30	64	60.75	57.45	9.5	35	15	11.5	20	0.16	
31	66	62.77	59.39	10.5	40	20	12.5	22	0.20	
32	68	64.78	61.48	10.5	40	20	12.5	22	0.20	
33	70	66.80	63.43	10.5	40	20	12.5	22	0.20	
34	72	68.82	65.52	10.5	40	20	12.5	22	0.21	
35	74	70.84	67.47	10.5	40	20	12.5	22	0.21	
36	76	72.86	69.56	10.5	40	20	12.5	22	0.22	
37	78	74.88	71.51	10.5	40	20	12.5	22	0.26	
38	80	76.90	73.60	10.5	40	20	12.5	22	0.26	
39	82	78.91	75.55	10.5	40	20	12.5	22	0.27	
40	84	80.93	77.63	10.5	40	20	12.5	22	0.27	
41	87	82.95	79.59	10.5	50	20	12.5	30	0.32	
42	89	84.97	81.67	10.5	50	20	12.5	30	0.32	
43	91	86.99	83.63	10.5	50	20	12.5	30	0.40	
44	93	89.01	85.71	10.5	50	20	12.5	30	0.41	
45	95	91.03	87.68	10.5	50	20	12.5	30	0.41	
48	101	97.09	93.79	10.5	50	20	12.5	30	0.43	
50	105	101.13	97.83	10.5	50	20	12.5	30	0.46	
54	113	109.21	105.91	10.5	50	20	12.5	30	0.47	
60	125	121.33	118.03	10.5	50	20	12.5	30	0.52	
65	135	131.43	128.09	11.5	50	30	13.5	30	0.72	
70	145	141.54	138.24	11.5	50	30	13.5	30	0.77	
75	155	151.64	148.31	11.5	50	30	13.5	30	0.82	
80	165	161.74	158.44	11.5	50	30	13.5	30	0.88	

NOTES: · Data in colored box imply S35C machined without teeth hardening.
· Other sprockets than listed may be manufactured. For details, contact us.
· Shaft hole, key groove and tap hole may be machined upon request.

ANSI 35 SPROCKETS

Teeth	groove measure	
	Width	Diam
9		17
10		20
11	4.4	23
12		26
13		29

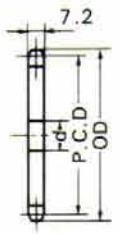


No. of Teeth	Outside Diam. OD	Pitch Diam. P.C.D	Bottom or Caliper Diam.	Stock Bore	Type "B" SINGLE STRAND						Type "A"		
					HUB		BORE		Wt. kg	Material	Stock d	Wt. kg	Material
					Diam. BD	Length Thru Bore BL	Min.	Max.					
9	32	27.85	22.35	8.5	★21.5	20	10.5	11	0.06				
10	34	30.82	25.74	8.5	★24.5	20	10.5	12	0.08		10.5	0.02	
11	38	33.81	28.38	8.5	★27	20	10.5	14	0.09		10.5	0.03	
12	41	36.80	31.72	9.5	★30.5	20	11.5	16	0.12		11.5	0.03	
13	44	39.80	34.43	9.5	★32	20	11.5	18	0.12		11.5	0.04	
14	47	42.81	37.73	9.5	32	20	11.5	18	0.12		11.5	0.04	
15	51	45.81	40.48	9.5	35	20	11.5	20	0.16		11.5	0.05	
16	54	48.82	43.74	9.5	37	20	11.5	20	0.19		11.5	0.05	
17	57	51.84	46.54	11.5	41	20	13.5	25	0.22		13.5	0.07	
18	60	54.85	49.77	11.5	44	20	13.5	25	0.25		13.5	0.07	
19	63	57.87	52.59	11.5	47	20	13.5	28	0.28		13.5	0.09	
20	66	60.89	55.81	11.5	50	20	13.5	30	0.32		13.5	0.09	
21	69	63.91	58.65	11.5	53	20	13.5	32	0.36		13.5	0.11	
22	72	66.93	61.85	11.5	56	20	13.5	35	0.37		13.5	0.11	
23	75	69.95	64.71	11.5	60	20	13.5	38	0.38		13.5	0.11	
24	78	72.97	67.89	11.5	53	22	13.5	32	0.43	S35C	13.5	0.14	
25	81	76.00	70.77	11.5	53	22	13.5	32	0.44		13.5	0.16	
26	84	79.02	73.94	11.5	53	22	13.5	32	0.45		13.5	0.16	
27	87	82.05	76.83	11.5	53	22	13.5	32	0.46		13.5	0.17	
28	90	85.07	79.99	11.5	53	22	13.5	32	0.48		13.5	0.18	
29	93	88.10	82.89	11.5	53	22	13.5	32	0.49				
30	96	91.12	86.04	11.5	53	22	13.5	32	0.51		13.5	0.23	
31	99	94.15	88.95	11.5	53	22	13.5	32	0.53				
32	102	97.18	92.10	11.5	53	22	13.5	32	0.54		13.5	0.27	
33	105	100.20	95.01	11.5	53	22	13.5	32	0.56		13.5	0.28	SS41
34	109	103.23	98.15	11.5	53	22	13.5	32	0.57		13.5	0.29	
35	112	106.26	101.07	11.5	53	22	13.5	32	0.59		13.5	0.30	
36	115	109.29	104.21	12.5	53	22	14.5	32	0.61		14.5	0.32	
37	118	112.31	107.13	12.5	63	25	14.5	42	0.80				
38	121	115.34	110.26	12.5	63	25	14.5	42	0.82		14.5	0.41	
39	124	118.37	113.23	12.5	63	25	14.5	42	0.84				
40	127	121.40	116.32	12.5	63	25	14.5	42	0.85		14.5	0.43	
41	130	124.43	119.26	16	63	25	18	42	0.91				
42	133	127.46	122.38	16	63	25	18	42	0.93		18	0.43	
43	136	130.49	125.32	16	63	25	18	42	0.95				
44	139	133.52	128.44	16	63	25	18	42	0.97				
45	142	136.55	131.38	16	63	25	18	42	1.00		18	0.49	
46	145	139.58	134.50	16	63	25	18	42	1.01		18	0.51	
47	148	142.61	137.45	16	63	25	18	42	1.03				
48	151	145.64	140.56	16	63	25	18	42	1.05		18	0.55	
50	157	151.70	146.62	16	63	25	18	42	1.07		18	0.60	
53	166	160.78	155.63	16	63	25	18	42	1.09				
54	169	163.80	158.73	16	63	25	18	42	1.10		18	0.70	
55	172	166.85	161.70	16	63	25	18	42	1.25		18	0.71	
60	187	182.00	176.92	16	63	25	18	42	1.30		18	0.80	
64	200	194.12	189.04	16	63	25	18	42	1.46	SS41 BW type (Welding way)			
65	203	197.15	192.07	16	68	25	18	45	1.67				
70	218	212.30	207.22	16	68	25	18	45	1.80				
75	233	227.46	222.33	16	68	25	18	45	1.90				
80	248	242.61	237.53	16	68	25	18	45	2.40		18	1.50	

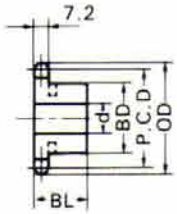
NOTES:
- Data in colored box imply teeth hardening.
- Shaft hole, key groove and tap hole can be machined upon request.
- Other sprockets than listed may be manufactured. For details, contact us.
- Sprocket marked with ★ has a groove all the external circumference of boss. See Groove Dimensions table above.

ANSI 40 SPROCKETS

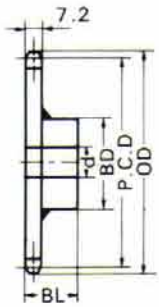
Teeth	groove measure	
	Width	Diam
8		18
9		23
10	5.2	27
11		31
12		35



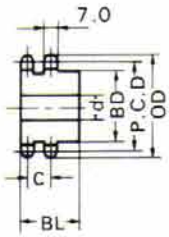
A Type



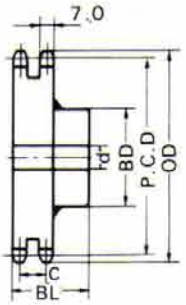
B Type



BW Type



B Type



BW Type

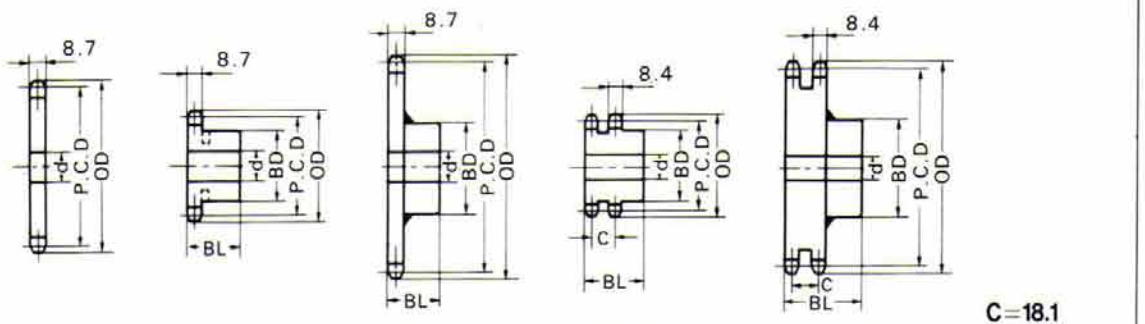
C=14.4

No. of Teeth	Outside Dia. OD	Pitch Dia. P.C.D	Bottom or Caliper Diam.	Stock Bore	Type "B" SINGLE STRAND						Type "A"			Type "B" DOUBLE STRAND					
					HUB		BORE		Wt. kg	Material	Stock d	Wt. kg	Material	HUB		BORE		Wt. kg	Material
					Diam. BD	Length Thru Bore BL	Min.	Max.						Diam. BD	Length Thru Bore BL	Min.	Max.		
8	38	33.19	25.25	8.5	★24	22	10.5	10.5	0.06										
9	42	37.13	28.62	8.5	★28	22	10.5	16	0.11										
10	46	41.10	33.15	9.5	★32	22	11.5	18	0.14		11.5	0.05		28	35	15	16	0.28	
11	51	45.08	36.67	10.5	★36	22	12.5	20	0.19		12.5	0.09		30	35	15	16	0.30	
12	55	49.07	41.12	10.5	★40	22	12.5	22	0.22		12.5	0.10		35	35	16	20	0.34	
13	59	53.07	44.73	13.5	37	22	15.5	20	0.23		15.5	0.12		39	35	16	22	0.40	
14	63	57.07	49.12	13.5	42	22	15.5	25	0.28		15.5	0.14		43	35	16	25	0.47	
15	67	61.08	52.80	13.5	46	22	15.5	28	0.34		15.5	0.16		47	35	16	28	0.55	
16	71	65.10	57.15	13.5	50	22	15.5	30	0.40		15.5	0.18		50	35	16	30	0.65	
17	76	69.12	60.87	13.5	54	22	15.5	32	0.46		15.5	0.20		54	35	16	32	0.75	
18	80	73.14	65.19	13.5	57	22	15.5	35	0.51		15.5	0.23		59	35	16	38	0.85	S35C
19	84	77.16	68.95	13.5	62	22	15.5	40	0.59		15.5	0.24		63	35	16	42	0.98	
20	88	81.18	81.18	14.5	67	25	16.5	45	0.76		16.5	0.29		67	40	16	45	1.30	
21	92	85.21	77.02	14.5	71	25	16.5	48	0.85	S35C	16.5	0.30		68	40	16	45	1.30	
22	96	89.24	81.29	14.5	75	25	16.5	51	0.95		16.5	0.35		72	40	16	48	1.50	
23	100	93.27	85.10	14.5	77	25	16.5	51	1.00		16.5	0.38		76	40	16	51	1.60	
24	104	97.30	89.35	14.5	63	25	16.5	42	0.84		16.5	0.40		80	40	16	55	1.80	
25	108	101.33	93.18	14.5	63	25	16.5	42	0.88		16.5	0.45		84	40	20	57	2.00	
26	112	105.36	97.41	14.5	63	25	16.5	42	0.92		16.5	0.49		88	40	20	60	2.20	
27	116	109.40	101.26	14.5	63	25	16.5	42	0.96		16.5	0.50		92	40	20	60	2.30	
28	120	113.43	105.48	14.5	63	25	16.5	42	1.00		16.5	0.56		96	40	20	66	2.50	
29	124	117.46	109.34	14.5	63	25	16.5	42	1.00		16.5	0.60		96	40	20	66	2.65	
30	128	121.50	113.55	14.5	63	25	16.5	42	1.10		16.5	0.63		100	40	20	66	2.80	
31	133	125.53	117.42	14.5	68	28	16.5	45	1.20		16.5	0.65	SS41	100	50	25	66	2.95	
32	137	129.57	121.62	14.5	68	28	16.5	45	1.30		16.5	0.70		100	50	25	66	3.05	
33	141	133.61	125.50	14.5	68	28	16.5	45	1.30		16.5	0.75		100	50	25	66	3.06	
34	145	137.64	129.69	14.5	68	28	16.5	45	1.30		16.5	0.80		100	50	25	66	3.08	
35	149	141.68	133.59	14.5	68	28	16.5	45	1.40		16.5	0.85		100	50	25	66	3.10	S35C
36	153	145.72	137.77	16	68	28	18	45	1.50		18	0.90		100	50	25	66	3.30	
38	161	153.79	145.84	16	68	28	18	45	1.60		18	1.00		100	50	25	66	3.50	
39	165	157.83	149.75	16	68	28	18	45	1.65		18	1.15							
40	169	161.87	153.92	16	68	28	18	45	1.70		18	1.20		100	50	25	66	3.60	
41	173	165.91	157.97	16	73	32	18	48	2.00		18	1.20							
42	177	169.95	162.01	16	73	32	18	48	2.05		18	1.25		93	50	25	63	4.00	
43	181	173.98	166.04	16	73	32	18	48	2.10		18	1.30							
44	185	178.02	170.08	16	73	32	18	48	2.17		18	1.35							
45	189	182.06	174.12	16	73	32	18	48	2.25		18	1.40		93	50	25	63	4.60	
48	201	194.18	186.24	16	73	32	18	48	2.45		18	1.63		93	50	25	63	5.00	
49	205	198.22	190.28	16	73	32	18	48	2.51		18	1.73							
50	209	202.26	194.32	16	73	32	18	48	2.60		18	1.80		93	50	25	63	5.50	
51	214	206.30	198.36	16	73	32	18	48	2.65		18	1.88						60	
52	218	210.34	202.40	16	73	32	18	48	2.72		18	1.93						00	
53	222	214.38	206.44	16	73	32	18	48	2.80		18	1.98							
54	226	218.42	210.48	16	73	32	18	48	2.90		18	2.00		93	50	25	63	5.80	
60	250	242.66	234.72	16	73	32	18	48	3.40		18	2.60		93	50	25	63	6.70	
65	270	262.87	254.93	16	83	32	18	55	4.10		18	3.00		93	50	25	63	10.20	
70	290	283.07	275.13	16	83	32	18	55	4.57		18	3.50		93	50	25	63	11.50	
72	299	291.16	283.22	20	83	32	22	55	4.80		22	3.70							
75	311	303.28	295.34	20	83	32	22	55	5.10		22	4.00							
80	331	323.49	315.55	20	88	35	22	60	5.90		22	4.60							
85	351	343.69	335.75	20	88	35	22	60	6.50		22	5.20							
90	371	363.90	355.96	20	88	35	22	60	7.15	BW type (Welding way)	22	5.80							SS41 (Welding way)

NOTES:
- Data in colored box imply teeth hardening.
- Shaft hole, key groove and tap hole can be machined upon request.
- Other sprockets than listed may be manufactured. For details, contact us.
- Sprocket marked with ★ has a groove at the external circumference of boss. See Groove Dimensions table above.
- Finished diameter of Drill hole of B-type (double-strand) sprocket is minimum shaft hole diameter minus 2 mm.

ANSI 50 SPROCKETS

Teeth	groove measure	
	Width	Diam
8	6.4	22
9		29
10		34
11		39
12		44
13		49



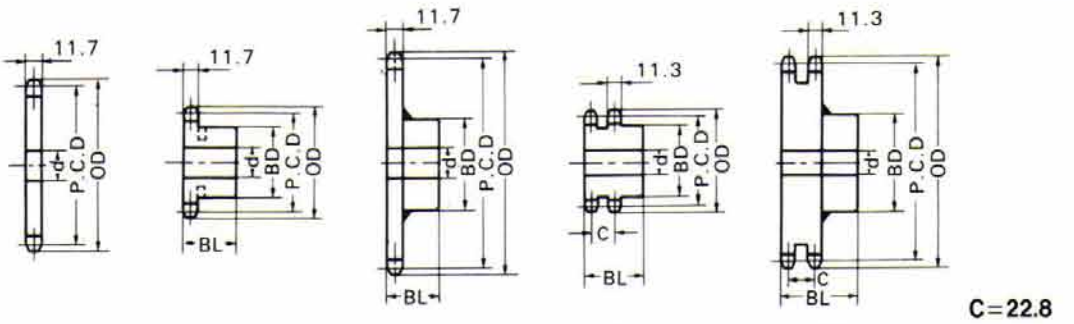
A Type | B Type | BW Type | B Type | BW Type

No. of Teeth	Outside Dia. OD	Pitch Dia. P.C.D	Bottom or Caliper Diam.	Stock Bore	Type "B"SINGLE STRAND						Type "A"			Type "B"DOUBLE STRAND					
					HUB		BORE		Wt. kg	Material	Stock d	Wt. kg	Material	HUB		BORE		Wt. kg	Material
					Diam. BD	Length Thru Bore BL	Min.	Max.						Diam. BD	Length Thru Bore BL	Min.	Max.		
8	48	41.48	31.32	11.5	★22	25	13.5	13.5	0.12										
9	53	46.42	35.55	11.5	★34	25	13.5	18	0.20										
10	58	51.37	41.21	14.5	★40	25	16.5	22	0.27		16.5	0.14		35	40	16	20	0.50	
11	64	56.35	45.61	14.5	★45.5	25	16.5	28	0.33		16.5	0.17		40	40	16	22	0.50	
12	69	61.34	51.18	14.5	★50	25	16.5	30	0.41		16.5	0.20		42	40	16	25	0.62	
13	74	66.34	55.69	14.5	★51	25	16.5	32	0.46		16.5	0.23		49	40	16	30	0.75	
14	79	71.34	61.18	14.5	52	25	16.5	32	0.52		16.5	0.27		54	40	16	32	0.90	
15	84	76.35	65.78	14.5	57	25	16.5	35	0.62		16.5	0.30		59	40	16	38	1.10	
16	89	81.37	71.21	14.5	62	25	16.5	40	0.72		16.5	0.35		64	45	16	42	1.40	S35C
17	94	86.39	75.87	14.5	67	25	16.5	45	0.83		16.5	0.40		68	45	16	45	1.60	
18	100	91.42	81.26	14.5	72	28	16.5	48	1.00		16.5	0.45		74	45	16	48	1.80	
19	105	96.45	85.96	14.5	73	28	16.5	48	1.10		16.5	0.48		79	45	16	55	2.10	
20	110	101.48	91.32	14.5	73	28	16.5	48	1.20		16.5	0.50		84	45	20	57	2.30	
21	115	106.51	96.05	14.5	73	28	16.5	48	1.20		16.5	0.60		89	45	20	60	2.60	
22	120	111.55	101.39	16	73	28	18	48	1.30	S35C	18	0.66		94	50	20	63	3.00	
23	125	116.58	106.15	16	73	28	18	48	1.30		18	0.72		99	50	20	66	3.50	
24	130	121.62	111.46	16	73	28	18	48	1.40		18	0.78		105	50	20	70	3.80	
25	135	126.66	116.25	16	73	28	18	48	1.50		18	0.85		105	50	20	70	4.20	
26	140	131.70	121.54	16	73	28	18	48	1.50		18	0.90		105	50	20	70	4.50	
27	145	136.74	126.35	16	73	28	18	48	1.50		18	1.00		105	50	20	70	4.80	
28	150	141.79	131.63	16	73	28	18	48	1.60		18	1.05		110	50	20	75	5.10	S35C
29	155	146.83	136.45	16	73	28	18	48	1.70		18	1.12		110	50	20	75	5.50	
30	161	151.87	141.71	16	73	28	18	48	1.80		18	1.20		120	50	20	80	5.80	
31	166	156.92	146.55	16	73	28	18	48	1.85		18	1.30		120	50	25	80	5.90	
32	171	161.96	151.80	16	73	28	18	48	1.90		18	1.35		120	50	25	80	6.00	
33	176	167.01	156.66	16	73	28	18	48	2.00		18	1.45		120	50	25	80	6.50	
34	181	172.05	161.89	16	73	28	18	48	2.10		18	1.55		120	50	25	80	6.80	
35	186	177.10	166.76	16	73	28	18	48	2.20		18	1.65		117	50	25	80	7.00	
36	191	182.14	171.98	16	83	35	18	55	2.85		18	1.75		117	50	25	80	7.00	
37	196	187.19	176.86	16	83	35	18	55	2.95		18	1.85	SS41						
38	201	192.24	182.08	16	83	35	18	55	3.05		18	1.95		117	50	25	80	8.00	
39	206	197.29	186.97	16	83	35	18	55	3.15		18	2.05							
40	211	202.33	192.17	16	83	35	18	55	3.25		18	2.15		117	56	25	80	9.00	
41	216	207.38	197.07	16	83	35	18	55	3.40		18	2.25							
42	221	212.43	202.27	16	83	35	18	55	3.50		18	2.40		98	56	25	66	7.00	
44	231	222.53	212.37	16	83	35	18	55	3.70		18	2.60							
45	237	227.58	217.28	16	83	35	18	55	3.85		18	2.70		98	56	25	66	7.30	
48	252	242.73	232.57	16	83	35	18	55	4.20		18	3.10		98	56	25	66	8.00	
49	257	247.78	237.49	16	83	35	18	55	4.35		18	3.27							
50	262	252.83	242.67	16	83	35	18	55	4.50		18	3.40		98	56	25	66	9.00	
54	282	273.02	262.86	16	83	35	18	55	5.05		18	3.95		98	63	25	66	9.90	
60	312	303.33	293.17	16	83	35	18	55	6.00		18	4.90		98	63	25	66	11.70	
64	333	323.53	313.37	20							22	5.60							
65	338	328.58	318.33	20	93	40	22	63	7.40		22	5.75		98	63	25	66	13.00	
68	353	343.74	333.58	20	93	40	22	63	7.94		22	6.32							
70	363	353.84	343.68	20	93	40	22	63	8.30		22	6.70		98	63	25	66	15.00	
72	373	363.94	353.78	20							22	7.05							
75	388	379.10	368.86	20	93	40	22	63	9.35		22	7.70							
80	414	404.36	394.20	20	98	45	22	66	10.50		22	8.70							
85	439	429.62	419.39	20	98	45	22	66	12.00										
90	464	454.88	444.72	20	98	45	22	66	13.20		22	11.00							

BW type (Welding way) | (Welding way)

NOTES:
- Data in colored box imply teeth hardening.
- Shaft hole, key groove and tap hole can be machined upon request.
- Other sprockets than listed may be manufactured. For details, contact us.
- Sprocket marked with ★ has a groove at the external circumference of boss. See Groove Dimensions table above.
- Finished diameter of Drill hole of B-type (double-strand) sprocket is minimum shaft hole diameter minus 2 mm.

ANSI 60 SPROCKETS

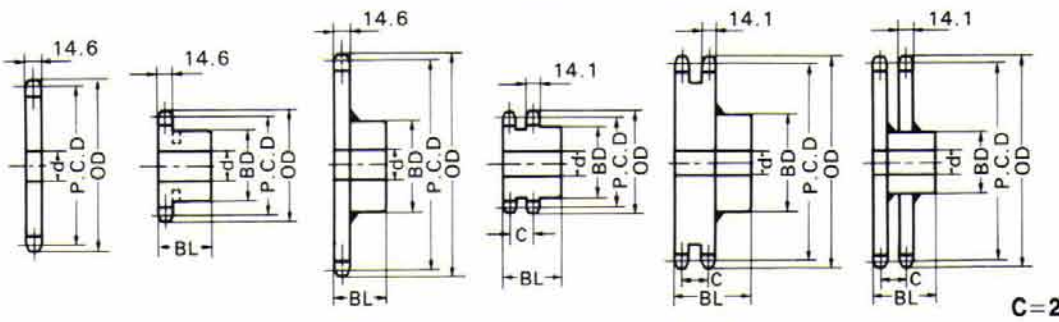


Teeth	groove measure	
	Width	Diam
8	8.0	30.2
9		32
10		37
11		45

No. of Teeth	Outside Dia. OD	Pitch Dia. P.C.D	Bottom or Caliper Diam.	Stock Bore	Type "B" SINGLE STRAND						Type "A"			Type "B" DOUBLE STRAND					
					HUB		BORE		Wt. kg	Material	Stock d	Wt. kg	Material	HUB		BORE		Wt. kg	Material
					Diam. BD	Length Thru Bore BL	Min.	Max.						Diam. BD	Length Thru Bore BL	Min.	Max.		
8	57	49.78	37.87	11.5	★26	32	13.5	14	0.23	S35C			SS41						S35C
9	63	55.70	42.94	11.5	★43	32	13.5	25	0.40										
10	70	61.65	49.74	14.5	★49	32	16.5	30	0.49		16.5	0.27		35	50	18	20	0.90	
11	76	67.62	55.02	14.5	★51	32	16.5	32	0.60		16.5	0.30		44	50	18	25	1.00	
12	83	73.60	61.69	14.5	51	32	16.5	32	0.69		16.5	0.38		50	50	18	30	1.20	
13	89	79.60	67.11	14.5	57	32	16.5	35	0.81		16.5	0.45		60	50	20	38	1.40	
14	95	85.61	73.70	16	62	32	18	40	0.96		18	0.50		66	56	20	45	1.80	
15	101	91.62	79.21	16	68	32	18	45	1.10		18	0.60		72	56	20	48	2.10	
16	107	97.65	85.74	16	73	32	18	48	1.30		18	0.65		78	56	20	51	2.50	
17	113	103.67	91.32	16	73	32	18	48	1.40		18	0.75		82	56	20	55	2.60	
18	119	109.71	97.80	16	83	40	18	55	2.00		18	0.84		90	56	20	60	3.20	
19	126	115.74	103.43	16	83	40	18	55	2.10		18	0.93		94	56	20	63	3.70	
20	132	121.78	109.87	16	83	40	18	55	2.20		18	1.05		100	56	25	66	4.20	
21	138	127.82	115.55	16	83	40	18	55	2.30		18	1.15		100	56	25	66	4.40	
22	144	133.86	121.95	16	83	40	18	55	2.50		18	1.25		100	56	25	66	4.90	
23	150	139.90	127.67	16	83	40	18	55	2.50		18	1.40		100	56	25	66	4.70	
24	156	145.95	134.04	16	83	40	18	55	2.60		18	1.50		120	56	25	80	6.00	
25	162	151.99	139.79	16	83	40	18	55	2.70		18	1.62		120	56	25	80	6.40	
26	168	158.04	146.13	16	83	40	18	55	2.90		18	1.78		120	56	25	80	6.80	
27	174	164.09	151.90	20	83	40	22	55	3.00		22	1.90		120	56	25	80	7.30	
28	180	170.14	158.23	20	83	40	22	55	3.10		22	2.05		120	56	25	80	7.80	
29	187	176.20	164.03	20	83	40	22	55	3.30		22	2.20		120	56	30	80	8.20	
30	193	182.25	170.34	20	83	40	22	55	3.40		22	2.35		130	56	30	89	9.00	
31	199	188.30	176.15	20	83	40	22	55	3.64		22	2.50		130	56	30	89	9.30	
32	205	194.35	182.44	20	83	40	22	55	3.80		22	2.68		127	56	30	89	9.50	
33	211	200.41	188.27	20	83	40	22	55	4.00		22	2.85		127	56	30	89	9.70	
34	217	206.46	194.55	20	83	40	22	55	4.15		22	3.02		127	56	30	89	10.50	
35	223	212.52	200.39	20	83	40	22	55	4.33		22	3.00		127	56	30	89	11.00	
36	229	218.57	206.66	20	83	40	22	55	4.52		22	3.40		98	56	30	66	8.50	
37	235	224.63	212.52	20	83	40	22	55	4.70		22	3.60							
38	241	230.69	218.78	20	83	40	22	55	4.90		22	3.80		98	56	30	66	9.00	
39	247	236.74	224.64	20	83	40	22	55	5.10		22	4.00							
40	253	242.80	230.89	20	83	40	22	55	5.30		22	4.20		98	56	30	66	9.70	
42	266	254.92	243.01	20	93	45	22	63	6.40		22	4.63		107	56	30	75	11.00	
43	272	260.98	248.89	20	93	45	22	63	6.60		22	4.85							
44	278	267.03	255.12	20	93	45	22	63	6.88		22	5.10							
45	284	273.09	261.02	20	93	45	22	63	7.10		22	5.30		107	71	30	75	12.80	(Welding way)
48	302	291.27	279.36	20	93	45	22	63	7.85		22	6.10		107	71	30	75	14.00	
60	375	363.99	352.08	20	93	45	22	63	11.30		22	9.50		107	71	30	75	21.50	
64	399	388.24	376.33	20	93	45	22	63	12.50										
65	405	394.30	382.28	26	107	45	28	75	13.50	SS41 BW type (Welding way)	28	11.20		107	71	30	75	24.00	
70	436	424.61	412.70	26	107	45	28	75	15.30		28	13.00		107	71	30	75	30.00	
72	448	436.73	424.82	26							28	13.70							
75	466	454.92	442.91	26	107	45	28	75	17.20		28	14.90							SS41
80	496	485.23	473.32	26	117	50	28	75	20.00		28	16.90							
85	527	515.54	503.54	26	117	50	28	75	22.30										
90	557	545.85	533.94	26	117	50	28	75	24.60		28	21.40							

NOTES:
- Data in colored box imply teeth hardening.
- Shaft hole, key groove and tap hole can be machined upon request.
- Other sprockets than listed may be manufactured. For details, contact us.
- Sprocket marked with ★ has a groove at the external circumference of boss. See Groove Dimensions table above.
- Finished diameter of Drill hole of B-type (double-strand) sprocket is minimum shaft hole diameter minus 2 mm.

ANSI 80 SPROCKETS



Teeth	groove measure	
	Width	Diam
9	10.4	44

A Type | B Type | BW Type | B Type | BW Type | BWW Type

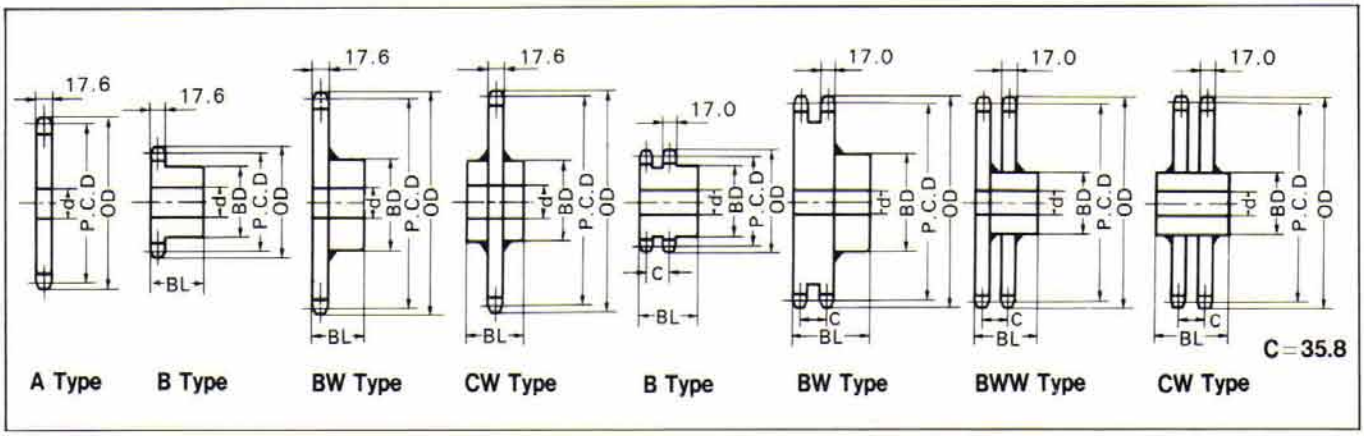
No. of Teeth	Outside Dia. OD	Pitch Dia. P.C.D	Bottom or Caliper Diam.	Stock Bore	Type "B"SINGLE STRAND						Type "A"			Type "B"DOUBLE STRAND					
					HUB		BORE		Wt. kg	Material	Stock d	Wt. kg	Material	HUB		BORE		Wt. kg	Material
					Diam. BD	Length Thru Bore BL	Min.	Max.						Diam. BD	Length Thru Bore BL	Min.	Max.		
9	85	74.27	57.27	16.5	★58	40	18.5	35	0.87	S35C									
10	93	82.19	66.31	16.5	52	40	18.5	32	1.02		18.5	0.60		58	63	23	35	2.00	
11	102	90.15	73.36	16.5	60	40	18.5	38	1.25		18.5	0.73		60	63	23	38	2.50	
12	110	98.14	82.26	16	67	40	18	45	1.60		18	0.85		69	63	25	46	2.70	S35C
13	118	106.14	89.48	16	77	40	18	51	1.90		18	1.00		80	63	25	55	3.40	
14	127	114.15	98.27	16	77	40	18	51	2.15		18	1.16		88	63	25	60	3.90	
15	135	122.17	105.62	20	93	40	22	63	2.30		22	1.30		95	63	25	63	4.40	
16	143	130.20	114.32	20	93	40	22	63	2.50		22	1.50		100	71	25	66	5.40	
17	151	138.23	121.76	20	93	40	22	63	2.95		22	1.70		100	71	25	66	6.00	
18	159	146.27	130.39	20	93	40	22	63	3.15		22	1.90		120	71	25	80	7.50	
19	167	154.32	137.91	20	93	40	22	63	3.40		22	2.10		120	71	25	80	8.00	
20	176	162.37	146.49	20	93	40	22	63	3.60		22	2.35		130	71	25	89	9.00	S35C
21	184	170.42	154.06	20	93	40	22	63	3.85		22	2.57		130	71	25	89	9.50	
22	192	178.48	162.60	26	107	45	28	75	5.00		28	2.82		117	71	35	80	8.80	
23	200	186.54	170.22	26	107	45	28	75	5.23		28	3.10		117	71	35	80	9.30	
24	208	194.60	178.72	26	107	45	28	75	5.50		28	3.35		117	80	35	80	10.50	
25	216	202.66	186.38	26	107	45	28	75	5.80		28	3.65		117	80	35	80	11.10	
26	224	210.72	194.84	26	107	45	28	75	6.10		28	3.95		117	80	35	80	11.70	
27	233	218.79	202.54	26	107	45	28	75	6.40		28	4.25							
28	241	226.86	210.98	26	107	45	28	75	6.75		28	4.60		117	80	35	80	13.50	
29	249	234.93	218.70	26	107	45	28	75	7.10		28	4.93							
30	257	243.00	227.12	26	107	45	28	75	7.40		28	5.30		117	80	35	80	14.20	
31	265	251.07	234.86	26	107	45	28	75	7.80		28	5.63							
32	273	259.14	243.26	26	107	45	28	75	8.15		28	6.00		117	80	35	80	16.50	
33	281	267.21	251.03	26	107	45	28	75	8.50		28	6.40							
34	289	275.29	259.41	26	107	45	28	75	8.90		28	6.80							
35	297	283.36	267.19	26	107	45	28	75	9.30		28	7.20		117	80	35	80	17.90	
36	306	291.43	275.55	26	117	50	28	80	10.60		28	7.60		117	80	35	80	19.00	
37	314	299.51	283.36	26	117	50	28	80	11.00		28	8.00							
38	322	307.58	291.70	26	117	50	28	80	11.40		28	8.50	SS41	127	80	40	89	21.00	
39	330	315.66	299.52	26	117	50	28	80	11.90		28	8.90							
40	338	323.74	307.86	26	117	50	28	80	12.40		28	9.40		127	90	40	89	23.70	
41	346	331.81	315.69	26	117	50	28	80	12.80		28	9.90							
42	354	339.89	324.01	26	117	50	28	80	13.30		28	10.30		127	90	40	89	26.00	
43	362	347.97	331.86	26	117	50	28	80	13.80		28	10.80							
44	370	356.04	340.16	26	117	50	28	80	14.30		28	11.40							
45	378	364.12	348.02	26	117	50	28	80	14.90		28	11.90		127	90	40	89	28.40	
48	403	388.36	372.48	26	117	50	28	80	15.80		28	13.50		127	90	40	89	32.00	
49	411	396.44	380.56	26							28	14.08							
54	451	436.84	420.96	26	117	50	28	80	20.00		28	17.10		127	90	40	89	38.50	
60	500	485.33	469.45	26	117	50	28	80	23.10		28	21.10		127	90	40	89	46.20	
64	532	517.65	501.77	26							28	24.05							
65	540	525.73	509.70	26	127	63	28	89	24.80		28	24.80		127	90	40	89	52.00	
66	548	533.82	517.94	26							28	25.58							
70	581	566.15	550.27	26	127	63	28	89	32.10		28	28.80		127	90	40	89	65.00	
75	621	606.56	590.54	26	127	63	28	89	36.20		28	33.10							
80	662	646.97	631.09	26	137	71	28	95	42.90		28	37.60							
84	694	679.31	663.43	26							28	41.50							
90	743	727.80	711.92	26							28	47.60							

SS41 BW type (Welding way)

SS41 (Welding way)

NOTES:
- Data in colored box imply teeth hardening.
- Shaft hole, key groove and tap hole can be machined upon request.
- Other sprockets than listed may be manufactured. For details, contact us.
- Sprocket marked with ★ has a groove at the external circumference of boss. See Groove Dimensions table above.
- Finished diameter of Drill hole of B-type (double-strand) sprocket is minimum shaft hole diameter minus 2 mm.

ANSI 100 SPROCKETS

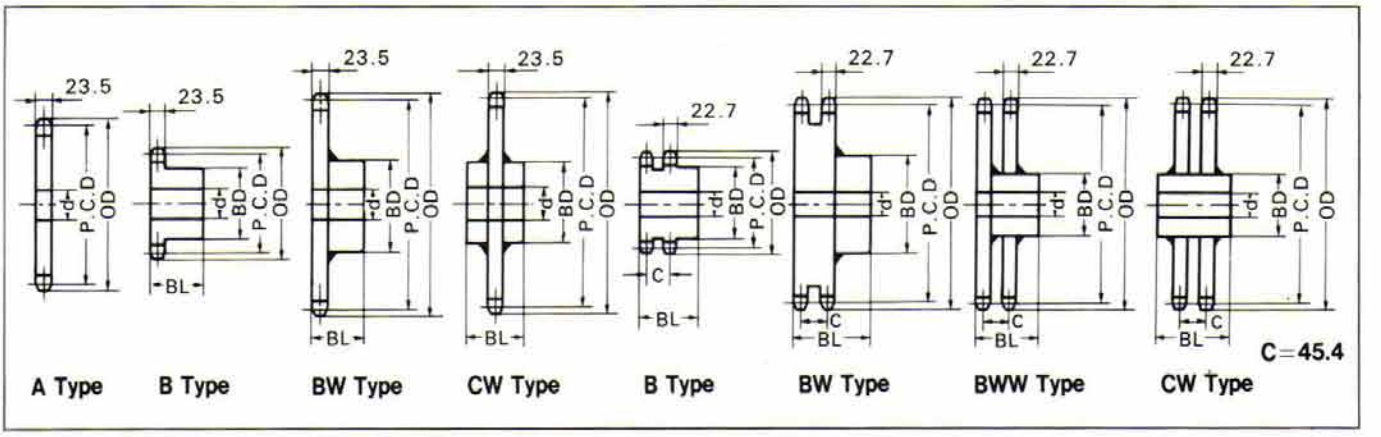


A Type | B Type | BW Type | CW Type | B Type | BW Type | BWW Type | CW Type

No. of Teeth	Outside Dia. OD	Pitch Dia. P.C.D	Bottom or Caliper Diam.	Stock Bore	Type "B" SINGLE STRAND						Type "A"			Type "B" DOUBLE STRAND					
					HUB		BORE		Wt. kg	Material	Stock d	Wt. kg	Material	HUB		BORE		Wt. kg	Material
					Diam. BD	Length Thru Bore BL	Min.	Max.						Diam. BD	Length Thru Bore BL	Min.	Max.		
9	106	92.84	72.40	20	62	50	22	40	1.60										
10	117	102.74	83.69	20	65	50	22	45	1.90		22	1.10		70	80	24	46	3.50	
11	127	112.70	92.50	20	75	50	22	51	2.30		22	1.30		80	80	24	55	4.20	
12	138	122.67	103.62	20	86	50	22	57	2.90		22	1.60		90	80	30	60	5.00	S35C
13	148	132.67	112.65	20	94	50	22	63	3.10		22	1.90		100	80	30	66	6.00	
14	158	142.68	123.63	20	98	50	22	66	3.60		22	2.15		110	80	30	75	7.00	
15	168	152.71	132.82	20	98	50	22	66	4.20	S35C	22	2.50		120	80	30	80	7.10	
16	179	162.74	143.69	20	98	50	22	66	4.60		22	2.83		130	80	30	89	7.70	
17	189	172.79	153.00	20	107	50	22	75	5.30		22	3.20		130	80	30	89	8.90	
18	199	182.84	163.79	20	107	50	22	75	5.70		22	3.60		130	80	30	89	9.60	S35C
19	209	192.90	173.19	20	107	50	22	75	6.10		22	4.00		130	90	30	89	12.80	
20	220	202.96	183.91	20	107	50	22	75	6.50		22	4.40		130	90	30	89	13.50	
21	230	213.03	193.38	20	107	50	22	75	7.00		22	4.90		130	90	30	89	14.30	
22	240	223.10	204.05	20	117	56	22	80	7.90		22	5.35		127	90	30	89	15.50	
23	250	233.17	213.58	20	117	56	22	80	8.50		22	5.80		127	90	30	89	16.60	
24	260	243.25	224.20	20	117	56	22	80	8.80		22	6.40		137	90	40	95	17.80	
25	270	253.32	233.78	20	117	56	22	80	9.30		22	6.90		137	90	40	95	18.50	
26	281	263.40	244.35	20	117	56	22	80	9.80		22	7.50		137	90	40	95	19.80	
27	291	273.49	253.97	20	117	56	22	80	10.30		22	8.10							
28	301	283.57	264.52	20	117	56	22	80	10.90		22	8.70		137	90	40	95	22.00	
29	311	293.66	274.18	20	117	56	22	80	11.50		22	9.30							
30	321	303.75	284.70	26	117	56	28	80	12.10		28	10.00		137	90	40	95	24.30	
31	331	313.83	294.38	26							28	10.65							
32	341	323.92	304.87	26	117	56	28	80	13.40		28	11.35	SS41	137	90	40	95	27.00	
33	352	334.01	314.59	26	117	56	28	80	14.50		28	12.00							
34	362	344.11	325.06	26	117	56	28	80	16.10		28	12.80							
35	372	354.20	334.79	26	127	63	28	89	16.60		28	13.50		137	90	40	95	30.90	
36	382	364.29	345.24	26	127	63	28	89	17.50		28	14.40		137	90	40	95	32.50	
37	392	374.38	355.00	26	127	63	28	89	18.00		28	15.10							SS41 (Welding way)
38	402	384.48	365.43	26	127	63	28	89	18.90		28	16.00		137	90	40	95	36.00	
39	412	394.57	375.20	26							28	16.80							
40	422	404.67	385.62	26	127	63	28	89	20.40		28	17.70		147	100	40	103	40.70	
41	433	414.77	395.41	26	127	63	28	89	21.50		28	18.60							
42	443	424.86	405.81	26	127	63	28	89	22.60		28	19.50		147	100	40	103	45.00	
43	453	434.96	415.62	26							28	20.50							
44	463	445.06	426.01	26							28	21.45							
45	473	455.16	435.83	26	127	63	28	89	24.70	SS41 BW type (Welding way)	28	22.40		147	100	40	103	49.30	
46	483	465.25	446.20	26							28	23.40							
47	493	475.35	456.30	26	127	63	28	89	26.70										
48	503	485.45	466.40	26	127	63	28	89	27.50		28	25.50		147	100	40	103	53.00	
50	524	505.65	486.60	26	127	63	28	89	30.00		28	27.70		147	100	40	103	58.00	
52	544	525.85	506.80	26							28	29.90							
54	564	546.05	527.00	26	147	80	28	103	37.40		28	32.30		147	100	40	103	63.00	
55	574	556.15	537.10	26	147	80	28	103	41.60										
60	625	606.66	587.61	26	147	80	28	103	44.30		28	39.90		● 147	125	40	103	68.30	
65	675	657.17	637.93	26	147	80	28	103	44.50		28	46.80							
70	726	707.68	688.63	26	147	100	28	103	44.70		28	54.30							
75	777	758.20	738.98	26	147	100	28	103	47.00		28	62.30							
80	827	808.71	789.66	26							28	70.90							
90	928	909.75	890.70	26							28	88.70							

NOTES:
- Data in colored box imply teeth hardening.
- Shaft hole, key groove and tap hole can be machined upon request.
- Other sprockets than listed may be manufactured. For details, contact us.
- Sprocket marked with ● has a groove at the external circumference of boss. See Groove Dimensions table above.
- Finished diameter of Drill hole of B-type (double-strand) sprocket is minimum shaft hole diameter minus 2 mm.

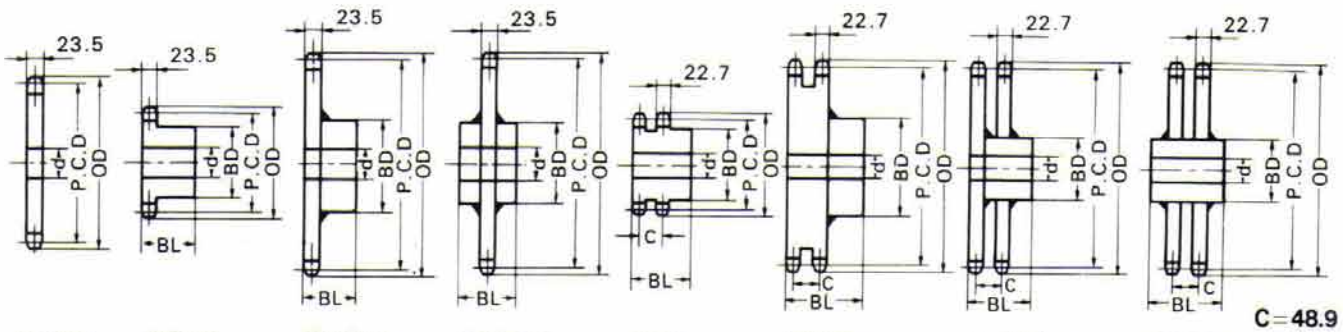
ANSI 120 SPROCKETS



No. of Teeth	Outside Dia. OD	Pitch Dia. P.C.D	Bottom or Caliper Diam.	Stock Bore	Type "B" SINGLE STRAND						Type "A"			Type "B" DOUBLE STRAND					
					HUB		BORE		Wt. kg	Material	Stock d	Wt. kg	Material	HUB		BORE		Wt. kg	Material
					Diam. BD	Length Thru Bore BL	Min.	Max.						Diam. BD	Length Thru Bore BL	Min.	Max.		
9	127	111.40	87.47	20	70	56	22	46	2.70	S35C			SS41		1				S35C
10	140	123.29	101.06	20	78	56	22	51	3.20		22	2.16		80	100	28	55	8.00	
11	153	135.24	111.63	20	91	56	22	60	4.00		22	2.60		90	100	28	60	8.70	
12	165	147.21	124.98	20	98	56	22	66	4.80		22	3.10		100	100	30	66	9.20	
13	177	159.20	135.81	20	98	56	22	66	5.30		22	3.60		115	100	30	75	10.90	
14	190	171.22	148.99	20	107	56	22	75	6.30		22	4.20		120	100	30	80	11.40	
15	202	183.25	160.02	20	117	63	22	80	7.80		22	4.80		120	100	40	80	13.20	
16	214	195.29	173.06	20	117	63	22	80	8.40		22	5.50		140	100	40	95	16.50	
17	227	207.35	184.23	20	117	63	22	80	9.10		22	6.20		140	100	40	95	19.00	
18	239	219.41	197.18	20	117	63	22	80	9.90		22	6.95		150	100	40	103	21.00	
19	251	231.48	208.46	20	117	63	22	80	10.70		22	7.70		150	100	40	103	23.00	
20	263	243.55	221.32	20	127	63	22	89	12.10		22	8.55		150	100	40	103	26.00	
21	276	255.63	232.69	20	127	63	22	89	13.00		22	9.40		150	100	40	103	28.00	
22	288	267.72	245.49	26	127	63	28	89	13.40		28	10.30		147	100	40	103	30.00	
23	300	279.80	256.92	26	127	63	28	89	14.50		28	11.30		147	100	40	103	33.00	
24	312	291.90	269.67	26	127	63	28	89	15.20		28	12.30		157	100	40	110	31.00	
25	324	303.99	281.16	26	127	63	28	89	16.20		28	13.30		157	100	40	110	33.00	
26	337	316.09	293.86	26	127	63	28	89	17.20		28	14.40		157	100	40	110	35.00	
27	349	328.19	305.40	26							28	15.50							
28	361	340.29	318.06	26	137	71	28	95	20.90		28	16.70		157	100	40	110	39.00	
29	373	352.39	329.64	26							28	17.80							
30	385	364.50	342.27	26	137	71	28	95	23.20		28	19.20		157	100	40	110	43.90	
31	398	376.60	353.89	26							28	20.40							
32	410	388.71	366.48	26	137	71	28	95	25.70		28	21.80		157	100	40	110	47.00	
33	422	400.82	378.13	26	137	71	28	95	28.40		28	23.20							
34	434	412.93	390.70	26							28	24.60							
35	446	425.04	402.38	26	137	71	28	95	29.70		28	26.10		157	100	40	110	56.80	
36	458	437.15	414.92	26	137	71	28	95	32.00		28	27.60		157	100	40	110	60.00	
38	483	461.38	439.15	26	137	71	28	95	35.00		28	30.80		157	100	40	110	67.00	
40	507	485.60	463.37	26	147	80	28	103	38.20		28	34.10		● 177	140	45	125	84.30	
42	531	509.84	487.61	26	147	80	28	103	42.00		28	37.60		● 177	140	45	125	87.00	
44	556	534.07	511.84	26							28	41.20							
45	568	546.19	523.62	26	147	80	28	103	47.60	SS41 BW type (welding way)	28	43.10		● 177	140	45	125	98.50	SS41 (welding way)
46	580	558.30	536.07	26							28	45.10							
48	604	582.54	560.31	26	147	80	28	103	53.00		28	49.00		● 177	140	45	125	104.00	
50	628	606.78	584.55	26	147	80	28	103	58.00		28	53.30		● 177	140	45	125	115.00	
54	677	655.26	633.03	26	● 147	100	28	103	65.20		28	62.10		● 177	140	45	125	121.00	
60	750	727.99	705.76	26	● 167	100	28	103	78.00		28	76.70		● 177	160	45	125	131.60	
63	786	764.35	742.12	26							28	84.50							
70	871	849.22	826.99	26							28	104.30							
75	932	909.84	887.41	26							28	119.80							
80	993	970.46	948.23	26							28	136.30							

NOTES:
- Data in colored box imply teeth hardening.
- Shaft hole, key groove and tap hole can be machined upon request.
- Other sprockets than listed may be manufactured. For details, contact us.
- Sprocket marked with ● has a groove at the external circumference of boss. See Groove Dimensions table above.
- Finished diameter of Drill hole of B-type (double-strand) sprocket is minimum shaft hole diameter minus 2 mm.

ANSI 140 SPROCKETS

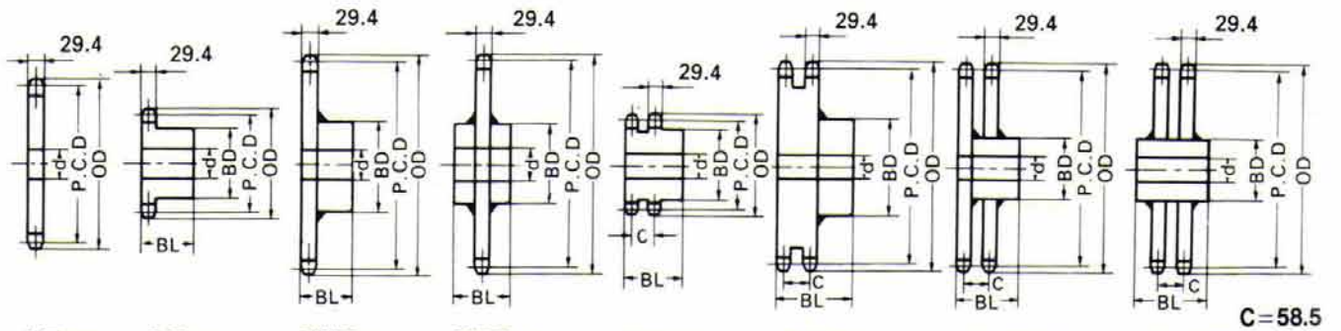


A Type | B Type | BW Type | CW Type | B Type | BW Type | BWW Type | CW Type

No. of Teeth	Outside Diam. OD	Pitch Diam. P.C.D	Bottom or Caliper Diam.	Stock Bore	Type "B" SINGLE STRAND						Type "A"		
					HUB		BORE		Wt. kg	Material	Stock d	Wt. kg	Material
					Diam. BD	Length Thru Bore BL	Min.	Max.					
10	163	143.84	118.44	26	98	56	28	66	4.90	S35C	28	2.90	SS41
11	178	157.78	130.77	26	106	56	28	70	5.50		28	3.60	
12	193	171.74	146.34	26	117	56	28	80	6.60		28	4.20	
13	207	185.74	158.98	26	117	63	28	80	7.90		28	4.90	
14	221	199.76	174.36	26	127	63	28	89	9.30		28	5.70	
15	236	213.79	187.22	26	127	63	28	89	10.10		28	6.60	
16	250	227.84	202.44	26	127	63	28	89	11.00		28	7.50	
17	264	241.91	215.47	26	127	63	28	89	12.00		28	8.40	
18	279	255.98	230.58	26	127	63	28	89	13.00		28	9.40	
19	293	270.06	243.74	26	137	71	28	95	15.60		28	10.50	
20	307	284.15	258.75	26	137	71	28	95	16.70		28	11.60	
21	322	298.24	272.00	26	137	71	28	95	17.90		28	12.80	
22	336	312.34	286.94	26	137	71	28	95	18.40		28	14.10	
23	350	326.44	300.28	26	137	71	28	95	20.10	SS41 BW type (welding way)	28	15.30	
24	364	340.54	315.14	26	137	71	28	95	20.90		28	16.70	
25	379	354.65	328.56	26	147	80	28	103	24.10		28	18.10	
26	393	368.77	343.37	26	147	80	28	103	25.50		28	19.60	
27	407	382.88	356.83	26	147	80	28	103	28.20				
28	421	397.00	371.60	26	147	80	28	103	30.10				
30	450	425.24	399.84	26	147	80	28	103	31.50		28	26.00	
32	478	453.49	428.09	26	147	80	28	103	36.00		28	29.70	
35	521	495.88	369.98	26	157	90	28	110	42.90		28	35.60	
36	535	510.01	484.61	26	157	90	28	110	47.40		28	37.60	
38	563	538.27	512.87	26	157	90	28	110	51.00		28	41.90	
40	591	566.54	541.14	26	157	90	28	110	53.10		28	46.40	
42	620	594.81	569.41	26	157	90	28	110	60.00		28	51.10	
45	662	637.22	611.43	26	● 167	100	28	118	68.00		28	58.80	
48	705	679.63	654.23	26	● 167	100	28	118	75.00		28	66.90	
50	733	707.91	682.51	26	● 167	100	28	118	85.30		28	72.50	
54	790	764.47	739.07	26	● 167	100	28	118	97.40		28	84.60	
60	875	849.32	823.92	26	● 167	112	28	118	119.30		28	104.00	

NOTES:
- Data in colored box imply S35C machined without teeth hardening.
- Sprocket marked with ● is C-type (welded).
- Material of B-type with number of teeth of 14 to 21 is S35C, and that of boss is SS41 without teeth hardening.
- For sprockets with 14 to 21 teeth, its material may be changed to forged steel (S35C) without notice according to material or manufacturing situations.
- Shaft hole, key groove and tap hole may be machined upon request.
- Other sprockets than listed may be manufactured. For details, contact us.

ANSI 160 SPROCKETS



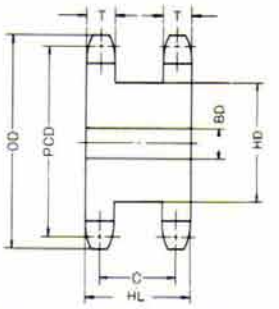
A Type | B Type | BW Type | CW Type | B Type | BW Type | BWW Type | CW Type

No. of Teeth	Outside Diam. OD	Pitch Diam. P.C.D	Bottom or Caliper Diam.	Stock Bore	Type "B" SINGLE STRAND						Type "A"		
					HUB		BORE		Wt. kg	Material	Stock d	Wt. kg	Material
					Diam. BD	Length Thru Bore BL	Min.	Max.					
10	186	164.39	135.81	26	105	63	28	70	6.80	S35C	28	4.85	SS41
11	204	180.31	149.90	26	117	63	28	80	8.30		28	5.85	
12	220	196.28	167.70	26	127	63	28	89	9.90		28	6.90	
13	237	212.27	182.14	26	137	71	28	95	12.50		28	8.10	
14	253	228.30	199.72	26	137	71	28	95	13.80		28	9.40	
15	269	244.33	214.42	26	137	71	28	95	15.20		28	10.80	
16	286	260.39	231.81	26	147	71	28	103	17.40		28	12.25	
17	302	276.46	246.71	26	147	71	28	103	18.90		28	13.80	
18	319	292.55	263.97	26	147	71	28	103	20.60		28	15.50	
19	335	308.64	279.00	26	147	71	28	103	22.30		28	17.20	
20	351	324.74	296.16	26	147	71	28	103	24.20		28	19.00	
21	368	340.84	311.31	26	147	71	28	103	26.10		28	21.00	
22	384	356.96	328.38	26	167	80	28	118	30.20	SS41 BW type (welding way)	28	23.00	
23	400	373.07	343.62	26							28	25.10	
24	416	389.19	360.61	26	167	80	28	118	34.40		28	27.40	
25	433	405.32	375.94	26	167	80	28	118	36.60		28	29.70	
26	449	421.45	392.87	26	167	80	28	118	38.90		28	32.10	
28	481	453.72	425.14	26									
30	514	485.99	457.41	26	167	100	28	118	52.30		28	42.70	
32	546	518.28	489.70	26	167	100	28	118	59.00		28	48.70	
35	595	566.71	537.57	26	167	100	28	118	66.90		28	58.10	
38	644	615.17	586.59	26							28	68.50	
40	676	647.47	618.89	26	167	112	●28	118	88.00		28	75.10	
42	708	679.78	651.20	26							28	83.60	
45	757	728.25	699.23	26	187	125	●28	132	93.00		28	96.00	
48	806	776.72	748.14	26	187	125	●28	132	101.00		28	109.00	
50	838	809.04	780.46	26	187	125	●28	132	138.70		28	118.50	
54	903	873.68	845.10	26	187	125	●28	132	158.40		28	138.20	
60	1000	970.65	942.07	26	187	125	●28	132	190.80		28	170.00	

NOTES:
- Data in colored box imply S35C machined without teeth hardening.
- Sprocket marked with ● is C-type (welded).
- Material of B-type with number of teeth of 14 to 21 is S35C, and that of boss is SS41 without teeth hardening.
- For sprockets with 14 to 21 teeth, its material may be changed to forged steel (S35C) without notice according to material or manufacturing situations.
- Shaft hole, key groove and tap hole may be machined upon request.
- Other sprockets than listed may be manufactured. For details, contact us.

SINGLE DOUBLE SPROCKET

Our Standard A Type Single Double-Sprockets are designed for use with two single strand chains. The sprockets are made of carbon steel (SAE 1035) and hardened teeth. The maximum bore diameters shown below are based on general operating conditions using standard keys and key tapping procedure. Actual bore diameter should be determined using common machine design considerations. Key surface pressure should be checked on the same basis as above.



Material: SAE 1040 Dimension: inch & mm

	No. of Teeth	Outside Dia (OD)		Pitch Dia (P.C.D)		C		Bore (BD)				Hub				Approx. Weight (kg)
								Stock		Max.		HD		HL		
		inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	
40SD	12	2.17	55	1.932	49.07	1.094	27.8	0.43	11	0.67	17	1.339	34	1.378	35	0.33
	13	2.33	59	2.089	53.07			0.55	14	0.79	20	1.496	38			0.40
	14	2.49	63	2.247	57.07			0.55	14	0.94	24	1.654	42			0.49
	15	2.65	67	2.405	61.08			0.55	14	0.98	25	1.811	46			0.57
	16	2.81	71	2.563	65.10			0.55	14	1.10	28	1.969	50			0.66
	17	2.98	76	2.721	69.12			0.55	14	1.26	32	2.126	54			0.76
	18	3.14	80	2.879	73.14			0.55	14	1.38	35	2.323	59			0.89
	19	3.30	84	3.038	77.16			0.55	14	1.46	37	2.480	63			1.00
	20	3.46	88	3.196	81.18			0.59	15	1.57	40	2.638	67			1.14
	21	3.62	92	3.355	85.21			0.59	15	1.69	43	2.795	71			1.23
50SD	12	2.72	69	2.415	61.34	1.232	31.3	0.59	15	0.94	24	1.693	43	1.575	40	0.63
	13	2.91	74	2.612	66.34			0.59	15	0.98	25	1.890	48			0.75
	14	3.11	79	2.809	71.34			0.59	15	1.18	30	2.087	53			0.90
	15	3.31	84	3.006	76.35			0.59	15	1.38	35	2.283	58			1.04
	16	3.50	89	3.204	81.37			0.59	15	1.46	37	2.480	63			1.22
	17	3.70	94	3.401	86.39			0.59	15	1.65	42	2.677	68			1.41
	18	3.94	100	3.599	91.42			0.59	15	1.73	44	2.874	73			1.61
	19	4.13	105	3.797	96.45			0.59	15	1.81	46	3.110	79			1.80
	20	4.33	110	3.995	101.48			0.59	15	1.97	50	3.307	84			1.95
	21	4.53	115	4.193	106.51			0.59	15	2.13	54	3.504	89			2.27
60SD	12	3.25	83	2.898	73.60	1.508	38.3	0.59	15	1.10	28	2.008	51	1.969	50	1.14
	13	3.49	89	3.134	79.60			0.59	15	1.38	35	2.244	57			1.39
	14	3.74	95	3.371	85.61			0.67	17	1.46	37	2.520	64			1.63
	15	3.98	101	3.607	91.62			0.67	17	1.69	43	2.756	70			1.93
	16	4.22	107	3.844	97.65			0.67	17	1.81	46	2.992	76			2.20
	17	4.46	113	4.082	103.67			0.67	17	1.97	50	3.228	82			2.56
	18	4.70	119	4.319	109.71			0.67	17	2.09	53	3.465	88			2.90
	19	4.95	126	4.557	115.74			0.67	17	2.17	55	3.701	94			3.26
	20	5.19	132	4.794	121.78			0.67	17	2.28	58	3.937	100			3.70
	21	5.43	138	5.032	127.82			0.67	17	2.48	63	4.213	107			4.30
80SD	12	4.33	110	3.864	98.14	1.787	45.4	0.83	21	1.65	42	2.716	69	2.362	60	2.52
	13	4.66	118	4.178	106.14			0.83	21	1.81	46	3.031	77			3.04
	14	4.98	127	4.494	114.15			0.83	21	1.97	50	3.346	85			3.60
	15	5.31	135	4.810	122.17			0.83	21	2.17	55	3.661	93			4.16
	16	5.63	143	5.126	130.20			0.83	21	2.28	58	4.016	102			4.89
	17	5.95	151	5.442	148.23			0.83	21	2.56	65	4.331	110			5.61
	18	6.27	159	5.759	156.27			0.83	21	2.68	68	4.646	118			6.36
	19	6.59	167	6.076	164.32			0.87	22	2.95	75	4.961	126			7.13
	20	6.91	176	6.393	162.37			0.87	22	3.23	82	5.276	134			8.03
	21	7.24	184	6.710	170.42			0.87	22	3.54	90	5.591	142			8.88
100SD	12	5.42	138	4.830	122.67	2.063	52.4	0.87	22	1.97	50	3.386	86	2.756	70	4.68
	13	5.82	148	5.223	132.67			0.87	22	2.05	52	3.780	96			5.10
	14	6.23	158	5.618	142.68			0.87	22	2.44	62	4.213	107			6.65
	15	6.63	168	6.012	152.71			0.87	22	2.68	68	4.606	117			7.83
	16	7.03	179	6.407	162.74			0.87	22	2.95	75	5.000	127			9.00
	17	7.44	189	6.803	172.79			0.87	22	3.35	85	5.000	127			10.30
	18	7.84	199	7.199	182.84			0.87	22	3.74	95	5.827	148			11.80
	19	8.24	209	7.594	192.90			1.02	26	3.94	100	6.220	158			13.20
	20	8.64	220	7.990	202.96			1.02	26	4.33	110	6.614	168			14.70
	21	9.04	230	8.387	213.03			1.02	26	4.72	120	6.693	170			16.40

- Sprockets other than those shown above are manufactured on request.
- Bores, Keyways and Setscrews will be machined upon request.

STAINLESS STEEL SPROCKET

Our Stainless Sprockets are made of stainless steel (304-Stainless) and are ideal for applications where anticorrosive considerations against damp and chemicals are critical. They are recommended for use with our Stainless Roller Chains. Each size is immediately available from stock.

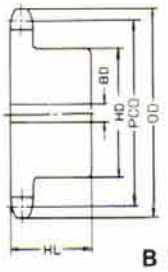
Material : SUS 304

Dimension: inch & mm

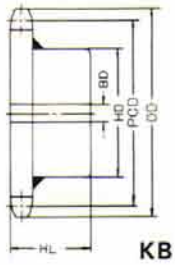
	No. of Teeth	Outside Dia (OD)		Pitch Dia (P.C.D)		Bore (BD) Min.		Bore (BD) Max.		Hub HD		Hub HL		Approx. Weight (kg)
		inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	
35SS	13	1.73	44	1.567	39.80	0.47	12	0.71	18	1.260	32	0.787	20	0.13
	14	1.85	47	1.685	42.81	0.47	12	0.71	18	1.260	32	0.787	20	0.13
	15	2.01	51	1.804	45.81	0.47	12	0.79	20	1.378	35	0.787	20	0.16
	16	2.13	54	1.922	48.82	0.47	12	0.79	20	1.457	37	0.787	20	0.18
	17	2.24	57	2.041	51.84	0.55	14	0.98	25	1.614	41	0.787	20	0.21
	18	2.36	60	2.159	54.85	0.55	14	0.98	25	1.732	44	0.787	20	0.25
	19	2.48	63	2.278	57.87	0.55	14	1.10	28	1.850	47	0.787	20	0.28
	20	2.60	66	2.397	60.89	0.55	14	1.18	30	1.969	50	0.787	20	0.32
	21	2.72	69	2.516	63.91	0.55	14	1.26	32	2.087	53	0.787	20	0.36
	22	2.83	72	2.635	66.93	0.55	14	1.38	35	2.205	56	0.787	20	0.40
	23	2.95	75	2.754	69.95	0.55	14	1.50	38	2.362	60	0.787	20	0.46
	24	3.07	78	2.873	72.97	0.55	14	1.26	32	2.087	53	0.866	22	0.43
	25	3.19	81	2.992	76.00	0.55	14	1.26	32	2.087	53	0.866	22	0.44
	26	3.31	84	3.111	79.02	0.55	14	1.26	32	2.087	53	0.866	22	0.45
	30	3.78	96	3.587	91.12	0.55	14	1.26	32	2.087	53	0.866	22	0.50
	32	4.02	102	3.826	97.18	0.55	14	1.26	32	2.087	53	0.866	22	0.53
	35	4.41	112	4.183	106.26	0.55	14	1.26	32	2.087	53	0.866	22	0.58
	40	5.00	127	4.780	121.40	0.59	15	1.65	42	2.480	63	0.984	25	0.87
40SS	13	2.32	59	2.089	53.07	0.63	16	0.79	20	1.457	37	0.866	22	0.22
	14	2.48	63	2.247	57.07	0.63	16	0.98	25	1.654	42	0.866	22	0.28
	15	2.64	67	2.405	61.08	0.63	16	1.10	28	1.811	46	0.866	22	0.33
	16	2.80	71	2.563	65.10	0.63	16	1.18	30	1.969	50	0.866	22	0.39
	17	2.99	76	2.721	69.12	0.63	16	1.26	32			0.866	22	0.45
	18	3.15	80	2.880	73.14	0.63	16	1.38	35	2.244	57	0.866	22	0.50
	19	3.31	84	3.038	77.16	0.63	16	1.57	40	2.441	62	0.866	22	0.58
	20	3.46	88	3.196	81.18	0.67	17	1.77	45	2.638	67	0.984	25	0.75
	21	3.62	92	3.355	85.21	0.67	17	1.89	48	2.795	71	0.984	25	0.84
	22	3.78	96	3.513	89.24	0.67	17	2.01	51	2.953	75	0.984	25	0.93
	23	3.94	100	3.672	93.27	0.67	17	2.01	51	3.031	77	0.984	25	1.00
	24	4.09	104	3.831	97.30	0.67	17	1.65	42	2.480	63	0.984	25	0.82
	25	4.25	108	3.989	101.33	0.67	17	1.65	42	2.480	63	0.984	25	0.85
	26	4.41	112	4.148	105.36	0.67	17	1.65	42	2.480	63	0.984	25	0.89
	30	5.04	128	4.783	121.50	0.67	17	1.65	42	2.480	63	0.984	25	1.05
	32	5.39	137	5.101	129.57	0.67	17	1.77	45	2.677	68	1.102	28	1.29
	35	5.87	149	5.578	141.68	0.67	17	1.77	45	2.677	68	1.102	28	1.44
	40	6.65	169	6.373	161.87	0.75	19	1.77	45	2.677	68	1.102	28	1.70

- Shaded area indicate B Type and the rest indicate KB Type.
- Sprockets with dimensions other than those shown above are manufactured upon request.
- Bores, Keyways and Setscrews will be machined upon request.

STAINLESS STEEL SPROCKET



B TYPE



KB (WELDED) TYPE

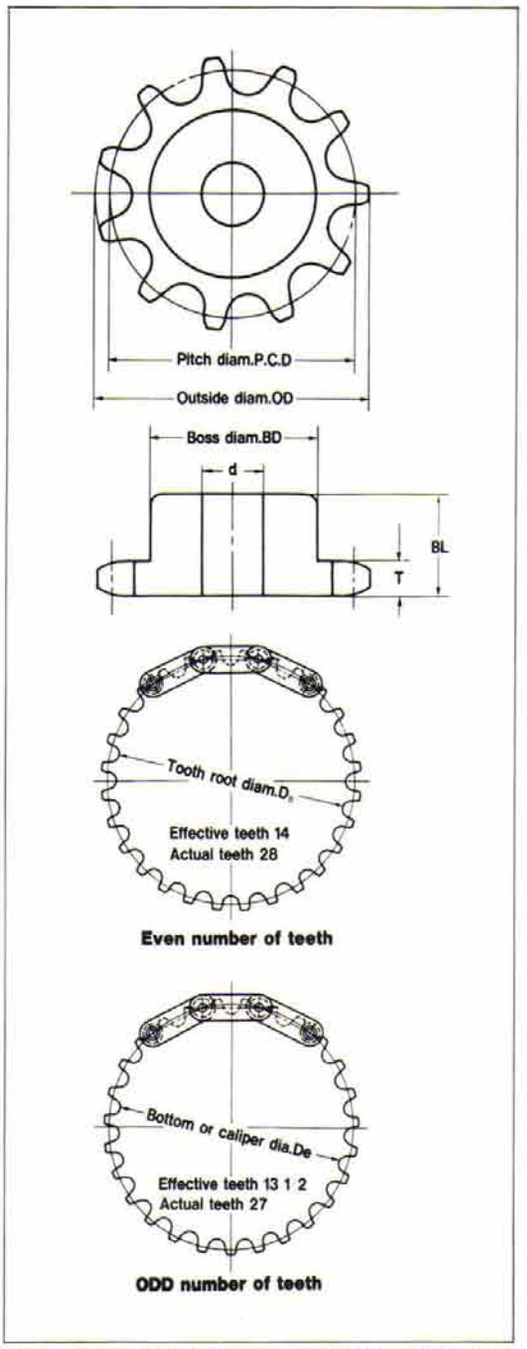
Dimension: inch & mm

	No. of Teeth	Outside Dia (OD)		Pitch Dia (P.C.D)		Bore (BD) Min.		Bore (BD) Max.		Hub HD		Hub HL		Approx. Weight (kg)
		inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	
50SS	13	2.91	74	2.612	66.34	0.67	17	1.26	32	2.008	51	0.984	25	0.46
	14	3.11	79	2.809	71.34	0.67	17	1.26	32	2.047	52	0.984	25	0.51
	15	3.31	84	3.006	76.35	0.67	17	1.38	35	2.244	57	0.984	25	0.60
	16	3.50	89	3.204	81.37	0.67	17	1.57	40	2.441	62	0.984	25	0.70
	17	3.70	94	3.401	86.39	0.67	17	1.77	45	2.638	67	0.984	25	0.81
	18	3.94	100	3.599	91.42	0.67	17	1.89	48	2.835	72	1.102	28	1.02
	19	4.13	105	3.797	96.45	0.67	17	1.89	48	2.874	73	1.102	28	1.09
	20	4.33	110	3.995	101.48	0.67	17	1.89	48	2.874	73	1.102	28	1.14
	21	4.53	115	4.193	106.51	0.67	17	1.89	48	2.874	73	1.102	28	1.20
	22	4.72	120	4.392	111.55	0.75	19	1.89	48	2.874	73	1.102	28	1.24
	23	4.92	125	4.590	116.58	0.75	19	1.89	48	2.874	73	1.102	28	1.30
	24	5.12	130	4.788	121.62	0.75	19	1.89	48	2.874	73	1.102	28	1.37
	25	5.31	135	4.987	126.66	0.75	19	1.89	48	2.874	73	1.102	28	1.44
	26	5.51	140	5.185	131.70	0.75	19	1.89	48	2.874	73	1.102	28	1.50
	30	6.34	161	5.979	151.87	0.75	19	1.89	48	2.874	73	1.102	28	1.81
	32	6.73	171	6.376	161.96	0.75	19	1.89	48	2.874	73	1.102	28	1.98
	35	7.32	186	6.972	177.10	0.75	19	1.89	48	2.874	73	1.102	28	2.25
	40	8.31	211	7.966	202.33	0.87	22	2.17	55	3.268	83	1.378	35	3.21
60SS	13	3.50	89	3.134	79.60	0.67	17	1.38	35	2.244	57	1.260	32	0.81
	14	3.74	95	3.370	85.61	0.75	19	1.57	40	2.441	62	1.260	32	0.95
	15	3.98	101	3.607	91.62	0.75	19	1.77	45	2.677	68	1.260	32	1.12
	16	4.21	107	3.844	97.65	0.75	19	1.89	48	2.874	73	1.260	32	1.29
	17	4.45	113	4.081	103.67	0.75	19	1.89	48	2.874	73	1.260	32	1.38
	18	4.69	119	4.319	109.71	0.75	19	2.17	55	3.268	83	1.575	40	1.99
	19	4.96	126	4.557	115.74	0.75	19	2.17	55	3.268	83	1.575	40	2.08
	20	5.20	132	4.794	121.78	0.75	19	2.17	55	3.268	83	1.575	40	2.19
	21	5.43	138	5.032	127.82	0.75	19	2.17	55	3.268	83	1.575	40	2.29
	22	5.67	144	5.270	133.86	0.75	19	2.17	55	3.268	83	1.575	40	2.41
	23	5.91	150	5.508	139.90	0.75	19	2.17	55	3.268	83	1.575	40	2.53
	24	6.14	156	5.746	145.95	0.75	19	2.17	55	3.268	83	1.575	40	2.65
	25	6.38	162	5.984	151.99	0.75	19	2.17	55	3.268	83	1.575	40	2.78
	26	6.61	168	6.222	158.04	0.75	19	2.17	55	3.268	83	1.575	40	2.91
	30	7.60	193	7.175	182.25	0.91	23	2.17	55	3.268	83	1.575	40	3.47
	32	8.07	205	7.652	194.35	0.91	23	2.17	55	3.268	83	1.575	40	3.79
	35	8.78	223	8.367	212.52	0.91	23	2.17	55	3.268	83	1.575	40	4.32
	40	9.96	253	9.559	242.80	0.91	23	2.17	55	3.268	83	1.575	40	5.31

DOUBLE-PITCH ROLLER CHAIN SPROCKET

●Double Pitch Roller Chain Sprockets

The number of teeth of the sprocket is determined so that the chain meshes with one of every two teeth of sprocket per turn of the sprocket. This number of teeth is termed "number pf working teeth."
In case of odd number of teeth, each tooth of the sprocket meshes with the chain per two turns of the sprocket, thus extending service life of the sprocket.



NOTES: · Bottom diameter for even number of teeth, Caliper diameter for odd number of teeth.
SHADED ZONE is hardened teeth stock sprockets.

C2040 (T=7.2) Chain pitch 25.40, Distance between inside links 7.95mm, roller diam. 7.95mm

No. of teeth	No. of working teeth	Pitch diam. P.C.D	Pitch Diam. OD	Tooth root diam. ▲	Shaft hole diam d		Boss		Approx weight kg
					Original hole dia.	Max	Diam. BD	Length BL	
15	7½	62.45	67	54.16					
17	8½	70.31	76	62.06					
18	9	74.26	80	66.31					
19	9½	78.23	84	70.01	12.7	30	50	30	0.59
20	10	82.20	88	74.25	12.7	35	56	40	0.90
21	10½	86.17	92	77.98	12.7	35	56	40	0.93
22	11	90.16	96	82.21	12.7	35	56	40	0.96
23	11½	94.15	100	85.98	12.7	35	56	40	0.99
24	12	98.14	104	90.19	12.7	35	56	40	1.02
25	12½	102.14	108	93.98	12.7	35	56	40	1.06
26	13	106.14	112	98.19	12.7	35	56	40	1.10
27	13½	110.14	116	102.00	12.7	35	56	40	1.13
28	14	114.15	120	106.20	12.7	35	56	40	1.17
29	14½	118.16	124	110.03	12.7	35	56	40	1.21

C2050 (T=8.7) Chain pitch 31.75, Distance between inside links 9.53mm, roller diam. 10.16mm

15	7½	78.06	84	67.47					
17	8½	87.89	94	77.36					
18	9	92.83	100	82.67					
19	9½	97.78	105	87.29	12.7	42	65	40	1.29
20	10	102.75	110	92.59	19.1	46	70	45	1.56
21	10½	107.72	115	97.26	19.1	46	70	45	1.62
22	11	112.70	120	102.54	19.1	46	70	45	1.68
23	11½	117.68	125	107.25	19.1	46	70	45	1.74
24	12	122.67	130	112.51	19.1	46	70	45	1.80
25	12½	127.67	135	117.26	19.1	46	70	45	1.87
26	13	132.67	140	122.51	19.1	46	70	45	1.94
27	13½	137.67	145	127.28	19.1	46	70	45	2.01
28	14	142.68	150	132.52	19.1	46	70	45	2.09
29	14½	147.69	155	137.32	19.1	46	70	45	2.16

C2060 (T=11.7) Chain pitch 38.10, Distance between inside links 12.70mm, roller diam. 11.91mm

15	7½	93.67	101	81.25					
17	8½	105.47	113	93.11					
18	9	111.40	119	99.49					
19	9½	117.34	126	105.03	19.1	46	70	40	1.76
20	10	123.30	132	111.39	19.1	52	80	45	2.31
21	10½	129.26	138	116.99	19.1	52	80	45	2.42
22	11	135.24	144	123.33	19.1	52	80	45	2.53
23	11½	141.22	150	128.98	19.1	52	80	45	2.65
24	12	147.21	156	135.30	19.1	52	80	45	2.78
25	12½	153.20	162	140.99	19.1	52	80	45	2.91
26	13	159.20	168	147.29	19.1	52	80	45	3.04
27	13½	165.21	174	153.02	19.1	52	80	45	3.18
28	14	171.22	181	159.31	19.1	57	85	45	3.50
29	14½	177.23	187	165.06	19.1	57	85	45	3.65

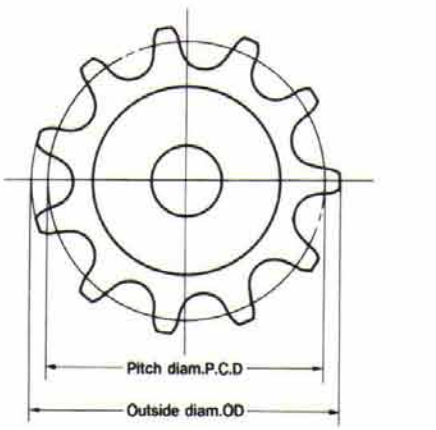
C2080 (T=14.6) Chain pitch 50.80, Distance between inside links 15.88mm, roller diam. 15.88mm

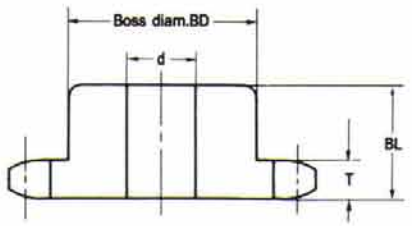
15	7½	124.90	135	108.33					
17	8½	140.62	151	124.15					
18	9	148.53	159	132.65					
19	9½	156.45	167	140.04	25.4	60	90	50	3.77
20	10	164.39	176	148.51	25.4	60	90	60	4.46
21	10½	172.34	184	155.99	25.4	60	90	60	4.70
22	11	180.31	192	164.43	25	60	92	59	5.02
23	11½	188.29	200	171.97	25	60	92	59	5.28
24	12	196.28	208	180.40	25	60	92	59	5.56
25	12½	204.27	216	187.99	25	60	92	59	5.85
26	13	212.27	224	196.39	25	60	92	59	6.15
27	13½	220.28	233	204.03	25	60	92	59	6.46
28	14	228.30	241	212.42	25	60	92	59	6.78
29	14½	236.31	249	220.09	25	60	92	59	7.12

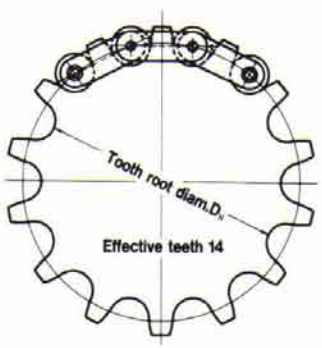
DOUBLE-PITCH ROLLER CHAIN SPROCKET R TYPE

●R-type Roller Chain Sprockets

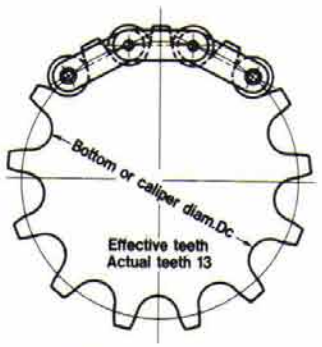
The R-type roller chain sprockets are exclusively designed for the double pitch roller chain.







Even number of teeth



ODD number of teeth

NOTES: · Bottom diameter for even number of teeth, Caliper diameter for odd number of teeth.
· SHADED ZONE is hardened teeth stock sprockets.

C2042 (T=7.2) Chain pitch 25.40, Distance between inside links 7.95mm, roller diam. 15.88mm

No. of working teeth	Pitch diam. P.C.D	Pitch Diam. OD	Tooth root diam. ▲	Shaft hole diam d		Boss		Approx weight kg
				Original hole diam.	Max	Diam. BD	Length BL	
10	82.20	93	66.32	19.1	35	56	40	0.85
11	90.16	102	73.36	19.1	35	56	40	0.91
12	98.14	110	82.26	19.1	35	56	40	0.97
13	106.14	118	89.48	19.1	35	56	40	1.05
14	114.15	127	98.27	19.1	35	56	40	1.12
15	122.17	135	105.62	19.1	42	65	40	1.43
16	130.20	143	114.32	19.1	42	65	40	1.52
18	146.27	159	130.39	19.1	42	65	40	1.72
20	162.37	176	146.49	19.1	46	70	45	2.21
24	194.60	208	178.72	25	50	75	50	2.97
25	202.66	216	186.38	25	50	75	50	3.12
26	210.72	224	194.84	25	50	75	50	3.26
28	226.86	241	210.98	25	50	75	50	3.58
30	243.00	257	227.12	25	50	75	50	3.91

C2052 (T=8.7) Chain pitch 31.75, Distance between inside links 9.53mm, roller diam. 19.05mm

10	102.75	117	83.70	25.4	46	70	45	1.49
11	112.70	127	92.50	25.4	46	70	45	1.60
12	112.67	138	103.62	25.4	46	70	46	1.73
13	132.67	148	112.65	25.4	46	70	45	1.86
14	142.68	158	123.63	25.4	46	70	45	2.01
15	152.71	168	132.82	25.4	46	70	45	2.17
16	162.74	179	143.69	25.4	46	70	45	2.24
18	182.84	199	163.79	25.4	46	70	45	2.71
20	202.96	220	183.91	25.4	50	75	50	3.45
24	243.25	260	224.20	25	57	85	60	5.23
25	253.32	270	233.78	25	57	85	60	5.50
26	263.40	281	244.35	25	57	85	60	5.78
28	283.57	301	264.52	25	57	85	60	6.37
30	303.75	321	284.70	25	57	85	60	7.00

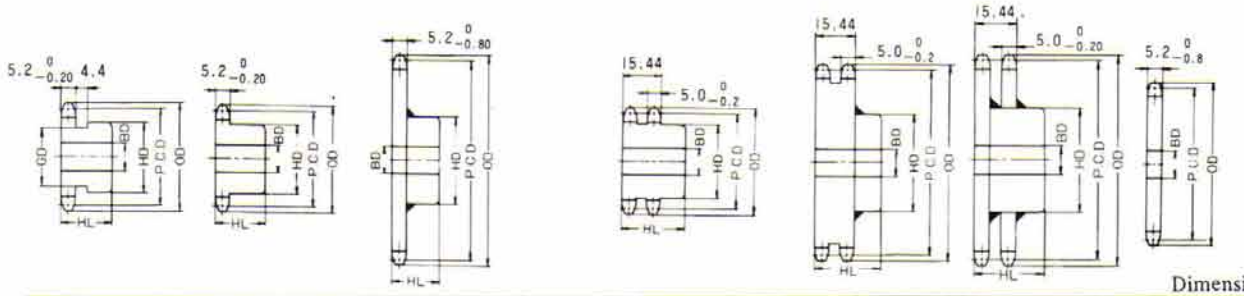
C2062 (T=11.7) Chain pitch 38.10, Distance between inside links 12.70mm, roller diam. 22.23mm

10	123.30	140	101.07	25.4	52	80	45	2.23
11	135.24	153	111.63	25.4	52	80	45	2.45
12	147.21	165	124.98	25.4	52	80	45	2.70
13	159.20	177	135.81	25.4	52	80	45	2.97
14	171.22	190	148.99	25.4	52	80	45	3.25
15	183.25	202	160.02	25	57	85	50	3.94
16	195.29	214	173.06	25	57	85	50	4.27
18	219.41	239	197.18	25	57	85	55	5.19
20	243.55	263	221.32	25	57	85	55	6.00
24	291.90	312	269.67	25	57	85	55	7.87
25	303.99	324	281.16	25	57	85	55	8.39
26	316.09	337	293.86	25	57	85	55	8.93
28	340.29	361	318.06	25	63	95	65	11.1
30	364.50	385	342.27	25	63	95	65	12.3

C2082 (T=14.6) Chain pitch 50.80, Distance between inside links 15.88mm, roller diam. 28.58mm

10	164.39	187	135.81	25	63	95	65	4.90
11	180.31	204	149.90	25	63	95	65	5.48
12	196.28	220	167.70	25	63	95	65	6.02
13	212.27	237	182.14	25	63	95	65	6.61
14	228.30	253	199.72	25	63	95	65	7.25
15	244.33	269	214.42	25	63	95	65	7.93
16	260.39	286	231.81	25	63	95	65	8.66
18	292.55	319	263.97	25	72	105	75	11.5
20	324.74	351	296.16	25	72	105	75	13.3
24	389.19	416	360.61	25	72	105	75	17.5
25	405.32	433	375.94	25	72	105	75	18.6
26	421.45	449	392.87	25	72	105	75	19.8
28	453.72	481	425.14	25	78	115	85	23.9
30	485.99	514	457.41	25	78	115	85	26.7

06B EUROPEAN STANDARD SPROCKET



Dimensions: mm

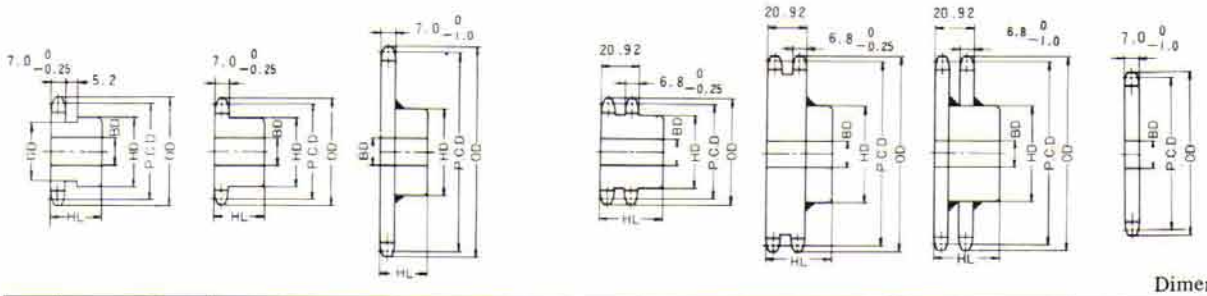
No. of Teeth	Pitch Dia. (P.C.D)	Out-side Dia. (OD)	SINGLE B TYPE						DOUBLE B TYPE						SINGLE A TYPE			No. of Teeth
			Bore (BD)		Hub		Approx. Weight (kg)	Mate-rials	Bore (BD)		Hub		Approx. Weight (kg)	Mate-rials	Bore (BD) Stock	Approx. Weight (kg)	Mate-rials	
			Stock	Max.	HD	HL			Stock	Max.	HD	HL						
9	27.84	32	9	11	★ 22	20	0.06	SAE 1040						SAE 1040	9	0.02	Mild Steel (SS 41)	9
10	30.84	34	9	12	★ 25	20	0.08								9	0.02		10
11	33.81	38	9	14	★ 27	20	0.09								9	0.03		11
12	36.80	41	10	16	★ 31	20	0.12		10	16	26	32	0.18		10	0.03		12
13	39.80	44	10	18	★ 32	20	0.12		10	18	32	32	0.21		10	0.04		13
14	42.81	47	10	18	32	20	0.12		12	19	35	32	0.25		10	0.05		14
15	45.81	51	10	20	35	20	0.16		12	19	35	32	0.28		10	0.05		15
16	48.82	54	10	20	37	20	0.19		12	20	37	32	0.32		10	0.06		16
17	51.84	57	12	25	41	20	0.22		12	24	41	32	0.38		12	0.07		17
18	54.85	60	12	25	44	20	0.25		12	25	44	32	0.44		12	0.08		18
19	57.87	63	12	28	47	20	0.28		12	28	47	32	0.49		12	0.09		19
20	60.89	66	12	30	50	20	0.32		13	30	50	35	0.60		12	0.10		20
21	63.91	69	12	30	53	20	0.36		13	32	53	35	0.67		12	0.10		21
22	66.93	72	12	35	56	20	0.37		13	37	55	35	0.73		12	0.11		22
23	69.95	75	12	38	60	20	0.38		15	38	57	35	0.78		12	0.13		23
24	72.97	78	12	32	53	22	0.43		15	38	57	35	0.83		12	0.14		24
25	76.00	81	12	32	53	22	0.44		15	38	57	35	0.87		12	0.15		25
26	79.02	84	12	32	53	22	0.45		15	38	57	35	0.91		12	0.16		26
27	82.05	87	12	32	53	22	0.46		15	38	57	35	0.98		12	0.18		27
28	85.07	90	12	32	53	22	0.48		15	38	57	35	1.03		12	0.19		28
29	88.10	93	12	32	53	22	0.49								12	0.20		29
30	91.12	96	12	32	53	22	0.51		15	38	57	35	1.07		12	0.22		30
31	94.15	99	12	32	53	22									12	0.23		31
32	97.18	102	12	32	53	22	0.54		15	38	57	35	1.17		12	0.25		32
33	100.20	105	12	32	53	22									12	0.26		33
34	103.23	109	12	32	53	22	0.57								12	0.28		34
35	106.26	112	12	32	53	22	0.59		15	38	57	35	1.33		12	0.29		35
36	109.29	115	13	32	53	22	0.61		15	38	57	35	1.38		13	0.31		36
37	112.31	118	13	42	63	25									13	0.33		37
38	115.34	121	13	42	63	25	0.82		15	38	57	35	1.55		13	0.35		38
39	118.37	124	13	42	63	25									13	0.36		39
40	121.40	127	13	42	63	25	0.85		19	48	73	40	2.05		13	0.38		40
41	124.43	130	16	42	63	25	0.91								16	0.40		41
42	127.46	133	16	42	63	25	0.93		19	48	73	40	2.18		16	0.43		42
43	130.48	136	16	42	63	25	0.95								16	0.45		43
44	133.52	139	16	42	63	25	0.97								16	0.47		44
45	136.55	142	16	42	63	25	1.00		19	48	73	40	2.38		16	0.49		45
48	145.64	151	16	42	63	25	1.07		19	48	73	40	2.60		16	0.55		48
50	151.70	157	16	42	63	25	1.10		19	48	73	40	2.90		16	0.60		50
54	163.81	169	16	42	63	25	1.20		19	48	73	40	3.07		16	0.70		54
55	166.85	172	16	42	63	25	1.25								16	0.71		55
60	182.00	187	16	42	63	25	1.30		19	48	73	40	3.51		16	0.80		60
65	197.15	203	18	45	68	25	1.60		19	48	73	40	4.10		18	1.00		65
70	212.30	218	18	45	68	25	1.80		19	48	73	40	4.64		18	1.20		70
75	227.46	233	18	45	68	25	1.90								18	1.30		75
80	242.61	248	18	45	68	25	2.40								18	1.50		80

Mild Steel SS41 (Welded hub)

Mild Steel SS41 (Welded hub)

- The maximum bore dia. shows the general application and please decide your bore dia. by the normal designing of industrial machines. Please also check the face pressure of keyway.
- Sprockets (B-type only) in color shaded show "with hardened teeth."
- Bores, keyways and setscrews will be machined upon request.
- Sprockets shown with an asterick (*) have a recessed groove in hub for chain clearance. Groove dimensions (GD) are 9T = 16, 10T = 18, 11T = 22, 12T = 24 and 13T = 28
- Also available are sprockets other than those shown above.

08B EUROPEAN STANDARD SPROCKET

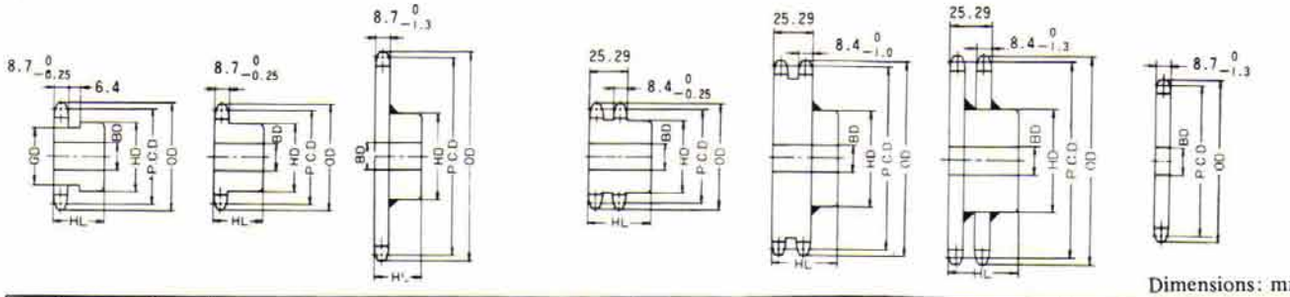


Dimensions: mm

No. of Teeth	Pitch Dia. (P.C.D)	Out-side Dia. (OD)	SINGLE B TYPE						DOUBLE B TYPE						SINGLE A TYPE			No. of Teeth
			Bore (BD)		Hub		Approx. Weight (kg)	Mate-rials	Bore (BD)		Hub		Approx. Weight (kg)	Mate-rials	Bore (BD)	Approx. Weight (kg)	Mate-rials	
			Stock	Max.	HD	HL			Stock	Max.	HD	HL			Stock			
9	37.13	42	9	16	★28	22	0.11	SAE 1040							9	0.06	Mild Steel (SS 41)	9
10	41.10	46	10	18	★32	22	0.14		13	16	28	35	0.28	SAE 1040	10	0.07		10
11	45.08	51	11	20	★37	22	0.19		13	16	30	35	0.30		11	0.09		11
12	49.07	55	11	22	★40	22	0.22		14	20	35	35	0.34		11	0.10		12
13	53.07	59	14	20	37	22	0.23		14	22	39	35	0.40		14	0.12		13
14	57.07	63	14	25	42	22	0.28		14	25	43	35	0.47		14	0.14		14
15	61.08	67	14	28	46	22	0.34		14	28	47	35	0.55		14	0.16		15
16	65.10	71	14	30	50	22	0.40		14	30	50	35	0.65		14	0.18		16
17	69.12	76	14	32	54	22	0.46		14	32	54	35	0.75		14	0.20		17
18	73.14	80	14	35	57	22	0.51		14	38	59	35	0.85		14	0.23		18
19	77.16	84	14	40	62	22	0.59		14	42	63	35	0.98		14	0.26		19
20	81.18	88	15	45	67	25	0.76		14	45	67	40	1.30		15	0.29		20
21	85.21	92	15	48	71	25	0.85		14	45	68	40	1.30		15	0.30		21
22	89.24	96	15	51	75	25	0.95		14	48	72	40	1.50		15	0.35		22
23	93.27	100	15	51	77	25	1.00		14	51	76	40	1.60		15	0.38		23
24	97.30	104	15	42	63	25	0.84		14	55	80	40	1.80		15	0.40		24
25	101.33	108	15	42	63	25	0.88		18	57	84	40	2.00		15	0.45		25
26	105.36	112	15	42	63	25	0.92		18	60	88	40	2.20		15	0.49		26
27	109.40	116	15	42	63	25	0.96		18	60	92	40	2.30		15	0.50		27
28	113.43	120	15	42	63	25	1.00		18	66	96	40	2.50		15	0.56		28
29	117.46	124	15	42	63	25	1.05								15	0.60		29
30	121.50	128	15	42	63	25	1.10		18	66	100	40	2.80		15	0.63		30
31	125.53	133	15	45	68	28	1.20								15	0.65		31
32	129.57	137	15	45	68	28	1.30		23	66	100	50	3.05		15	0.70		32
33	133.61	141	15	45	68	28	1.30								15	0.75		33
34	137.64	145	15	45	68	28	1.30								15	0.80		34
35	141.68	149	15	45	68	28	1.40		23	66	100	50	3.10	SAE 1040	15	0.85		35
36	145.72	153	17	45	68	28	1.50		23	66	100	50	3.30		18	0.90		36
37	149.75	157	17	45	68	28	1.55								18	0.99		37
38	153.79	161	17	45	68	28	1.60		23	66	100	50	3.50		18	1.00		38
39	157.83	165	17	45	68	28	1.60								18	1.10		39
40	161.87	169	17	45	68	28	1.70		23	66	100	50	3.60		18	1.15		40
41	165.91	173	18	48	73	32	2.00								18	1.20		41
42	169.95	177	18	48	73	32	2.05		23	66	100	50	4.00		18	1.25		42
43	173.98	181	18	48	73	32	2.10								18	1.30		43
44	178.02	185	18	48	73	32	2.00								18	1.35		44
45	182.06	189	18	48	73	32	2.25		23	63	93	50	4.60		18	1.40		45
48	194.18	201	18	48	73	32	2.45		23	63	93	50	5.00		18	1.63		48
50	202.26	209	18	48	73	32	2.60		23	63	93	50	5.50		18	1.80		50
54	218.42	226	18	48	73	32	2.90		23	63	93	50	5.20		18	2.00		54
60	242.66	250	18	48	73	32	3.40		23	63	93	50	6.70		18	2.60		60
65	262.87	270	20	55	83	32	4.10		23	63	93	50	10.20		20	3.00		65
70	283.07	290	20	55	83	32	4.57		23	63	93	50	11.50		20	3.50		70
72	291.16	299	20	55	83	32	4.80								20	3.70		72
75	303.28	311	20	55	83	32	5.10								20	4.00		75
80	323.49	331	20	60	88	35	5.90								20	4.60		80
84	339.65	347	20	60	88	35	6.40								20	5.10		84
85	343.69	351	20	60	88	35	6.50								20	5.20		85
90	363.90	371	20	60	88	35	7.15								20	5.80		90
92	371.99	379	20	60	88	35	7.40								20	6.10		92
95	384.11	392	20	60	88	35	7.80								20	6.50		95
96	388.15	396	20	60	88	35	8.00	Mild Steel SS41 (Welded hub)						Mild Steel SS41 (Welded hub)	20	6.60		96

- The maximum bore dia. shows the general application and please decide your bore dia. by the normal designing of industrial machines. Please also check the face pressure of keyway.
- Sprockets (B-type only) in color shaded show "with hardened teeth."
- Bores, keyways and setscrews will be machined upon request.
- Sprockets shown with an asterick (★) have a recessed groove in hub for chain clearance. Groove dimensions (GD) are 9T = 27, 10T = 32, 11T = 37, 12T = 42 and 13T = 47
- Also available are sprockets other than those shown above.

10B EUROPEAN STANDARD SPROCKET

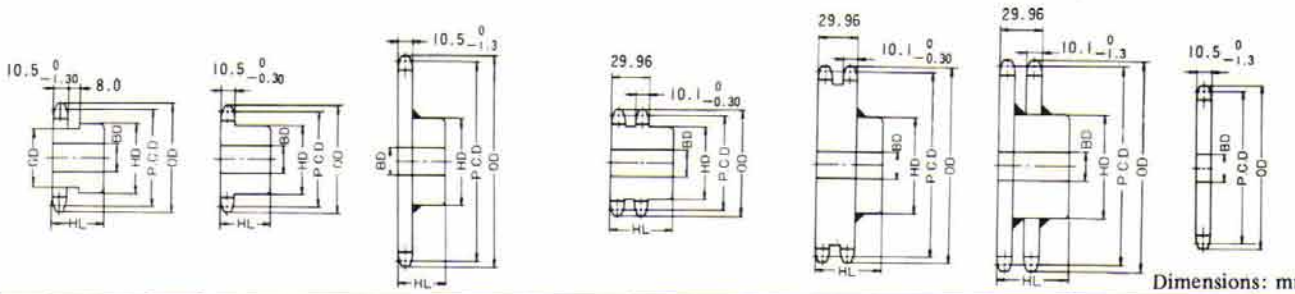


Dimensions: mm

No. of Teeth	Pitch Dia. (P.C.D)	Out-side Dia. (OD)	SINGLE B TYPE						DOUBLE B TYPE						SINGLE A TYPE			No. of Teeth
			Bore (BD)		Hub		Approx. Weight (kg)	Mate-rials	Bore (BD)		Hub		Approx. Weight (kg)	Mate-rials	Bore (BD)	Approx. Weight (kg)	Mate-rials	
			Stock	Max.	HD	HL			Stock	Max.	HD	HL			Stock			
9	46.41	53	12	18	★34	25	0.20	SAE 1040							12	0.11	Mild Steel (SS 41)	9
10	51.38	58	15	22	★40	25	0.27		14	20	35	40	0.50	SAE 1040	15	0.14		10
11	56.35	64	15	28	★46	25	0.33		14	22	40	40	0.50		15	0.17		11
12	61.34	69	15	32	★51	25	0.41		14	25	42	40	0.62		15	0.20		12
13	66.34	74	15	32	★51	25	0.46		14	30	49	40	0.75		15	0.23		13
14	71.34	79	15	32	52	25	0.52		14	32	54	40	0.90		15	0.27		14
15	76.35	84	15	35	57	25	0.62		14	38	59	40	1.10		15	0.30		15
16	81.37	89	15	40	62	25	0.72		14	42	64	45	1.40		15	0.35		16
17	86.39	94	15	45	67	25	0.83		14	45	68	45	1.60		15	0.40		17
18	91.42	100	15	48	72	28	1.00		14	48	74	45	1.80		15	0.45		18
19	96.45	105	15	48	73	28	1.10		14	55	79	45	2.11		15	0.48		19
20	101.48	110	15	48	73	28	1.20		18	57	84	45	2.30		15	0.50		20
21	106.51	115	15	48	73	28	1.20		18	60	89	45	2.60		15	0.60		21
22	111.55	120	17	48	73	28	1.30		18	63	94	50	3.00		17	0.66		22
23	116.58	125	17	48	73	28	1.30		18	66	99	50	3.50		17	0.72		23
24	121.62	130	17	48	73	28	1.40		18	70	105	50	3.80		17	0.78		24
25	126.66	135	17	48	73	28	1.50		18	70	105	50	4.20		17	0.85		25
26	131.70	140	17	48	73	28	1.50		18	70	105	50	4.50	SAE 1040	17	0.90		26
27	136.74	145	17	48	73	28	1.50		18	70	105	50	4.80		17	1.00		27
28	141.79	150	17	48	73	28	1.60		18	75	110	50	4.10		17	1.05		28
29	146.83	155	17	48	73	28	1.70								17	1.12		29
30	151.87	161	17	48	73	28	1.80		18	80	120	50	4.80		17	1.20		30
31	156.92	166	17	48	73	28	1.85								17	1.30		31
32	161.96	171	17	48	73	28	1.90		23	80	120	50	6.00		17	1.35		32
33	167.01	176	17	48	73	28	2.00								17	1.45		33
34	172.05	181	17	48	73	28	2.10								17	1.55		34
35	177.10	186	17	48	73	28	2.20		23	80	117	50	7.00		17	1.65		35
36	182.14	191	20	55	83	35	2.85	Mild Steel SS41 (Welded hub)	23	80	117	50	7.55		20	1.75		36
37	187.19	196	20	55	83	35	2.95								20	1.85		37
38	192.24	201	20	55	83	35	3.05		23	80	117	50	8.00		20	1.95		38
39	197.29	206	20	55	83	35	3.15								20	2.05		39
40	202.33	211	20	55	83	35	3.25		23	80	117	56	9.00		20	2.15		40
41	207.38	216	20	55	83	35	3.40								20	2.25		41
42	212.43	221	20	55	83	35	3.50		23	66	98	56	7.00	Mild Steel SS41 (Welded hub)	20	2.40		42
43	217.48	226	20	55	83	35	3.60								20	2.50		43
44	222.53	231	20	55	83	35	3.70								20	2.60		44
45	227.58	237	20	55	83	35	3.85		23	66	98	56	7.30		20	2.70		45
48	242.73	252	20	55	83	35	4.20		23	66	98	56	8.00		20	3.10		48
50	252.83	262	20	55	83	35	4.50		23	66	98	56	9.00		20	3.40		50
54	273.02	282	20	55	83	35	3.10		23	66	98	63	9.90		20	3.95		54
60	303.33	312	20	55	83	35	6.00		23	66	98	63	11.70		20	4.90		60
65	328.58	338	23	63	93	40	7.40		23	66	98	63	11.30		23	5.75		65
70	353.84	363	23	63	93	40	8.30		23	66	98	63	15.00		23	6.70		70
72	363.94	373	23	63	93	40	8.70								23	7.05		72
75	379.10	388	23	63	93	40	9.35								23	7.70		75
80	404.36	414	23	65	98	45	10.50								23	8.70		80
84	424.57	434	23	65	98	45	11.50								23	9.60		84
85	429.62	439	23	65	98	45	12.00								23	9.95		85
90	454.88	464	23	65	98	45	13.20								23	11.00		90
92	464.98	474	23	65	98	45	13.70								23	11.50		92
95	480.14	489	23	65	98	45	14.40								23	12.30		95
96	485.19	494	23	65	98	45	14.70								23	12.50		96

- The maximum bore dia. shows the general application and please decide your bore dia. by the normal designing of industrial machines. Please also check the face pressure of keyway.
- Sprockets (B-type only) in color shaded show "with hardened teeth."
- Bores, keyways and setscrews will be machined upon request.
- Sprockets shown with an asterick (★) have a recessed groove in hub for chain clearance. Groove dimensions (GD) are 9T = 27, 10T = 32, 11T = 37, 12T = 42, 13T = 47
- Also available are sprockets other than those shown above.

12B EUROPEAN STANDARD SPROCKET

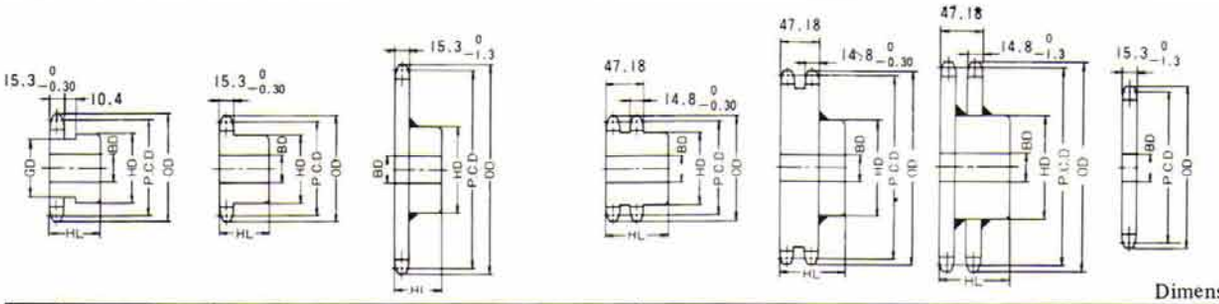


Dimensions: mm

No. of Teeth	Pitch Dia. (P.C.D)	Out-side Dia. (OD)	SINGLE B TYPE						DOUBLE B TYPE						SINGLE A TYPE			No. of Teeth
			Bore (BD)		Hub		Approx. Weight (kg)	Mate-rials	Bore (BD)		Hub		Approx. Weight (kg)	Mate-rials	Bore (BD)	Approx. Weight (kg)	Mate-rials	
			Stock	Max.	HD	HL			Stock	Max.	HD	HL			Stock			
9	55.70	63	12	25	★43	32	0.40	SAE 1040							12	0.22	Mild Steel (SS 41)	9
10	61.65	70	15	30	★49	32	0.49		16	20	35	50	0.90	SAE 1040	15	0.27		10
11	67.62	76	15	32	★51	32	0.60		16	25	44	50	1.00		15	0.30		11
12	73.60	83	15	32	51	32	0.69		16	30	50	50	1.20		15	0.38		12
13	79.60	89	15	35	57	32	0.81		18	38	60	50	1.40		15	0.45		13
14	85.61	95	17	40	62	32	0.96		18	45	66	56	1.80		17	0.50		14
15	91.62	101	17	45	68	32	1.10		18	48	72	56	2.10		17	0.60		15
16	97.65	107	17	48	73	32	1.30		18	51	78	56	2.50		17	0.65		16
17	103.67	113	17	48	73	32	1.40		18	55	82	56	2.60		17	0.75		17
18	109.71	119	17	55	83	40	2.00		18	60	90	56	3.20		17	0.84		18
19	115.74	126	17	55	83	40	2.10		18	63	94	56	3.70		17	0.93		19
20	121.78	132	17	55	83	40	2.20		23	66	100	56	4.20		17	1.05		20
21	127.82	138	17	55	83	40	2.30		23	66	100	56	4.40		17	1.15		21
22	133.86	144	17	55	83	40	2.50		23	66	100	56	4.90		17	1.25		22
23	139.90	150	17	55	83	40	2.50		23	66	100	56	4.70		17	1.40		23
24	145.95	156	17	55	83	40	2.60		23	89	120	56	6.00		17	1.50		24
25	151.99	162	17	55	83	40	2.70		23	89	120	56	6.40	SAE 1040	17	1.62		25
26	158.04	168	17	55	83	40	2.90		23	89	120	56	6.80		17	1.78		26
27	164.09	174	21	55	83	40	3.00		23	89	120	56	7.30		21	1.90		27
28	170.14	180	21	55	83	40	3.10		23	89	120	56	7.80		21	2.05		28
29	176.20	187	21	55	83	40	3.30								21	2.20		29
30	182.25	193	21	55	83	40	3.40		28	89	130	56	9.00		21	2.35		30
31	188.30	199	21	55	83	40	3.64								21	2.50		31
32	194.35	205	21	55	83	40	3.80		28	89	127	56	9.50		21	2.68		32
33	200.41	211	21	55	83	40	4.00								21	2.85		33
34	206.46	217	21	55	83	40	4.15								21	3.02		34
35	212.52	223	21	55	83	40	4.33		28	89	127	56	11.00		21	3.00		35
36	218.57	229	21	55	83	40	4.52		28	66	98	56	8.50		21	3.40		36
37	224.63	235	21	55	83	40	4.70								21	3.60		37
38	230.69	241	21	55	83	40	4.90		28	66	98	56	9.00		21	3.80		38
39	236.74	247	21	55	83	40	5.10								21	4.00		39
40	242.80	253	21	55	83	40	5.30		28	66	98	56	9.70		21	4.20		40
41	248.86	260	23	63	93	45	6.00								23	4.45		41
42	254.92	266	23	63	93	45	6.40		28	75	107	56	11.00		23	4.63		42
43	260.98	272	23	63	93	45	6.60								23	4.85		43
44	267.03	278	23	63	93	45	6.88								23	5.10		44
45	273.09	284	23	63	93	45	7.10		28	75	107	71	12.80		23	5.30		45
48	291.27	302	23	63	93	45	7.85		28	75	107	71	14.00		23	6.10		48
50	303.39	314	23	63	93	45	8.40		28	75	107	71	16.00		23	6.60		50
54	327.63	338	23	63	93	45	9.50		28	75	107	71	18.00		23	7.70		54
60	363.99	375	23	63	93	45	11.30		28	75	107	71	21.50		23	9.50		60
65	394.30	405	26	70	107	45	13.50		28	75	107	71	24.00		26	11.20		65
70	424.61	436	26	70	107	45	15.30		28	75	107	71	30.00		26	13.00		70
72	436.73	448	26	70	107	45	16.00								26	13.70		72
75	454.92	466	26	70	107	45	17.20								26	14.90		75
80	485.23	496	30	80	117	50	20.00								30	16.90		80
84	509.48	521	30	80	117	50	21.90								30	18.70		84
85	515.54	527	30	80	117	50	22.30								30	19.10		85
90	545.85	557	30	80	117	50	24.60								30	21.40		90
92	557.98	569	30	80	117	50	25.60								30	22.40		92
95	576.17	587	30	80	117	50	27.10								30	23.90		95
96	582.23	593	30	80	117	50	26.70								30	24.40		96

- The maximum bore dia. shows the general application and please decide your bore dia. by the normal designing of industrial machines. Please also check the face pressure of keyway.
- Sprockets (B-type only) in color shaded show "with hardened teeth."
- Bores, keyways and setscrews will be machined upon request.
- Sprockets shown with an asterick (★) have a recessed groove in hub for chain clearance. Groove dimensions (GD) are 9T = 32, 10T = 37, 11T = 45
- Also available are sprockets other than those shown above.

16B EUROPEAN STANDARD SPROCKET



Dimensions: mm

No. of Teeth	Pitch Dia. (P.C.D)	Out-side Dia. (OD)	SINGLE B TYPE						DOUBLE B TYPE						SINGLE A TYPE			No. of Teeth
			Bore (BD)		Hub		Approx. Weight (kg)	Mate-rials	Bore (BD)		Hub		Approx. Weight (kg)	Mate-rials	Bore (BD)	Approx. Weight (kg)	Mate-rials	
			Stock	Max.	HD	HL			Stock	Max.	HD	HL			Stock			
9	74.27	85	17	35	★58	40	0.87								17	0.49		9
10	82.19	93	17	32	52	40	0.97		21	35	58	63	2.00		17	0.60		10
11	90.15	102	17	38	60	40	1.20		21	38	60	63	2.50		17	0.73		11
12	98.14	110	21	45	67	40	1.50		23	46	69	63	2.70		21	0.85		12
13	106.14	118	21	51	77	40	1.90		23	55	80	63	3.40		21	1.00		13
14	114.15	127	21	51	77	40	2.00		23	60	88	63	3.90		21	1.16		14
15	122.17	135	21	63	93	40	2.60		23	63	95	63	4.40		21	1.30		15
16	130.20	143	21	63	93	40	2.80		23	66	100	71	5.40		21	1.50		16
17	138.23	151	21	63	93	40	3.00		23	66	100	71	6.00		21	1.70		17
18	146.27	159	21	63	93	40	3.20		23	80	120	71	7.50		21	1.90		18
19	154.32	167	22	63	93	40	3.40		23	80	120	71	8.00		22	2.10		19
20	162.37	176	22	63	93	40	3.60		23	80	130	71	9.00		22	2.35		20
21	170.42	184	22	63	93	40	3.80		23	80	130	71	9.50		22	2.57		21
22	178.48	192	26	75	107	45	5.00		33	80	117	71	8.80		26	2.82		22
23	186.54	200	26	75	107	45	5.23		33	80	117	71	9.30		26	3.10		23
24	194.60	208	26	75	107	45	5.50		33	80	117	80	10.50		26	3.35		24
25	202.66	216	26	75	107	45	5.80		33	80	117	80	11.10		26	3.65		25
26	210.72	224	26	75	107	45	6.10		33	80	117	80	11.70		26	3.95		26
27	218.79	233	26	75	107	45	6.40		33	80	117	80	12.50		26	4.25		27
28	226.86	241	26	75	107	45	6.75		33	80	117	80	13.50		26	4.60		28
29	234.93	249	26	75	107	45	7.10								26	4.93		29
30	243.00	257	26	75	107	45	7.40		33	80	117	80	14.20		26	5.30		30
31	251.07	265	26	75	107	45	7.80								26	5.63		31
32	259.14	273	26	75	107	45	8.15		33	80	117	80	16.50		26	6.00		32
33	267.21	281	26	75	107	45	8.50								26	6.40		33
34	275.29	289	26	75	107	45	8.90								26	6.80		34
35	283.36	297	26	75	107	45	9.30		33	80	117	80	17.90		26	7.20		35
36	291.43	306	30	80	117	50	10.60		33	80	117	80	19.00		30	7.60		36
37	299.51	314	30	80	117	50	11.00								30	8.00		37
38	307.58	322	30	80	117	50	11.40		38	89	127	80	21.00		30	8.50		38
39	315.66	330	30	80	117	50	11.90								30	8.90		39
40	323.74	338	30	80	117	50	12.40		38	89	127	90	23.70		30	9.40		40
41	331.81	346	30	80	117	50	12.80								30	9.90		41
42	339.89	354	30	80	117	50	13.30		38	89	127	90	26.00		30	10.30		42
43	347.97	362	30	80	117	50	13.80								30	10.80		43
44	356.04	370	30	80	117	50	14.30								30	11.40		44
45	364.12	378	30	80	117	50	14.90		38	89	127	90	28.40		30	11.90		45
48	388.36	403	30	80	117	50	15.80		38	89	127	90	32.00		30	13.50		48
50	404.52	419	30	80	117	50	17.65		38	89	127	90	34.00		30	14.70		50
54	436.84	451	30	80	117	50	20.00		38	89	127	90	38.50		30	17.10		54
60	485.33	500	30	80	117	50	23.10		38	89	127	90	46.20		30	21.10		60
65	525.73	540	38	85	127	63	28.80		38	89	127	90	52.00		38	24.80		65
70	566.15	581	38	85	127	63	32.10		38	89	127	90	65.00		38	28.80		70
72	582.31	597	38	85	127	63	34.50								38	30.50		72
75	606.56	621	38	85	127	63	36.20								38	33.10		75
80	646.97	662	38	90	137	71	42.90								38	37.60		80
84	679.31	694	38	90	137	71	46.70								38	41.50		84
85	687.39	702	38	90	137	71	47.70								38	42.50		85
90	727.80	743	38	90	137	71	52.90								38	47.60		90
92	743.97	759	38	90	137	71	55.00								38	49.80		92
95	768.22	783	38	90	137	71	58.30								38	53.10		95
96	776.31	791	38	90	137	71	59.40								38	54.20		96

SAE 1040 (SINGLE B TYPE)

Mild Steel SS41 (Welded hub) (SINGLE B TYPE)

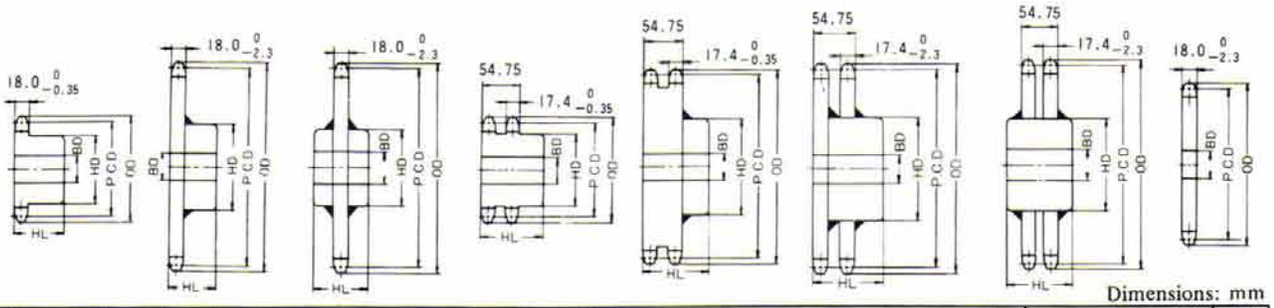
SAE1040 (Welded hub) (DOUBLE B TYPE)

Mild Steel SS41 (Welded hub) (DOUBLE B TYPE)

Mild Steel (SS 41) (SINGLE A TYPE)

- The maximum bore dia. shows the general application and please decide your bore dia. by the normal designing of industrial machines. Please also check the face pressure of keyway.
- Sprockets (B-type only) in color shaded show "with hardened teeth."
- Bores, keyways and setscrews will be machined upon request.
- Sprockets shown with an asterick (★) have a recessed groove in hub for chain clearance. Groove dimensions (GD) are 9T = 44
- Also available are sprockets other than those shown above.

20B EUROPEAN STANDARD SPROCKET

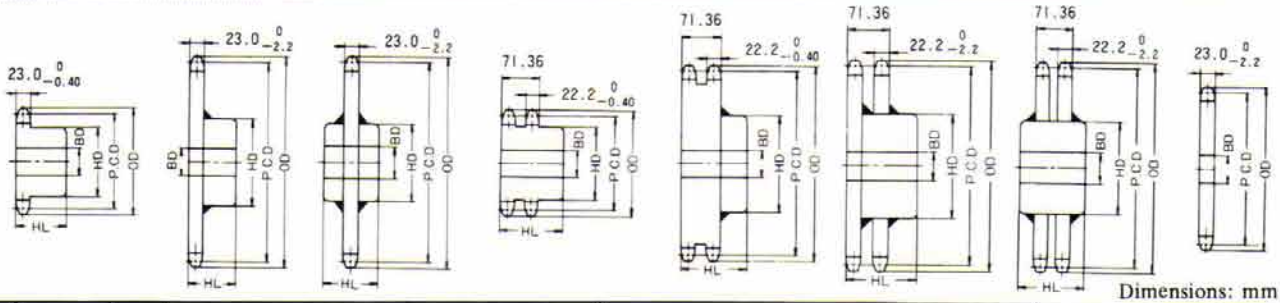


Dimensions: mm

No. of Teeth	Pitch Dia. (P.C.D)	Out-side Dia. (OD)	SINGLE B TYPE						DOUBLE B TYPE						SINGLE A TYPE			No. of Teeth
			Bore (BD)		Hub		Approx. Weight (kg)	Mate-rials	Bore (BD)		Hub		Approx. Weight (kg)	Mate-rials	Bore (BD) Stock	Approx. Weight (kg)	Mate-rials	
			Stock	Max.	HD	HL			Stock	Max.	HD	HL						
9	92.84	106	21	40	62	50	1.60	SAE 1040							21	0.90	Mild Steel (SS 41)	9
10	102.74	117	22	45	65	50	1.90		22	46	70	80	3.50	SAE 1040	22	1.10		10
11	112.70	127	22	51	75	50	2.30		22	55	80	80	4.20		22	1.33		11
12	122.67	138	22	57	86	50	2.90		28	60	90	80	5.00		22	1.60		12
13	132.67	148	22	63	94	50	3.10		28	66	100	80	6.00		22	1.90		13
14	142.68	158	22	66	98	50	3.60		28	75	110	80	7.00		22	2.15		14
15	152.71	168	22	66	98	50	4.20		28	80	120	80	7.10	SAE 1040 (Welded hub)	22	2.50		15
16	162.74	179	22	66	98	50	4.60		28	89	130	80	7.70		22	2.83		16
17	172.79	189	22	75	107	50	5.30		28	89	130	80	8.90		22	3.20		17
18	182.84	199	22	75	107	50	5.70		28	89	130	80	9.60		22	3.60		18
19	192.90	209	26	75	107	50	6.10		28	89	130	90	12.80		26	4.00		19
20	202.96	220	26	75	107	50	6.50		28	89	130	90	13.50		26	4.40		20
21	213.03	230	26	75	107	50	7.00		28	89	130	90	14.30		26	4.90		21
22	223.10	240	30	80	117	56	7.90	Mild Steel SS 41 (Welded hub)	28	89	127	90	15.50	Mild Steel SS41 (Welded hub)	30	5.35		22
23	233.17	250	30	80	117	56	8.50		28	89	127	90	16.60		30	5.80		23
24	243.25	260	30	80	117	56	8.80		38	95	137	90	17.80		30	6.40		24
25	253.32	270	30	80	117	56	9.30		38	95	137	90	18.50		30	6.90		25
26	263.40	281	30	80	117	56	9.80		38	95	137	90	19.80		30	7.50		26
27	273.49	291	30	80	117	56	10.30		38	95	137	90	21.00		30	8.10		27
28	283.57	301	30	80	117	56	10.90		38	95	137	90	22.00		30	8.70		28
29	293.66	311	30	80	117	56	11.50								30	9.30		29
30	303.75	321	30	80	117	56	12.10		38	95	137	90	24.00		30	10.00		30
31	313.83	331	35	80	117	56	13.00								35	10.65		31
32	323.92	341	35	80	117	56	13.40		38	95	137	90	27.30		35	11.35		32
33	334.01	352	35	80	117	56	14.50								35	12.00		33
34	344.11	362	35	80	117	56	16.10								35	12.80		34
35	354.20	372	35	89	127	63	16.60		38	95	137	90	30.00		35	13.50		35
36	364.29	382	35	89	127	63	17.50		38	95	137	90	32.90		35	14.40		36
37	374.38	392	35	89	127	63	18.00								35	15.10		37
38	384.48	402	35	89	127	63	18.90		38	95	137	90	36.50		35	16.00		38
39	394.57	412	35	89	127	63	20.00								35	16.80		39
40	404.67	422	35	89	127	63	20.40		38	103	147	100	40.00		35	17.70		40
41	414.77	433	35	89	127	63	21.50								35	18.60		41
42	424.86	443	35	89	127	63	22.60		38	103	147	100	45.70		35	19.50		42
43	434.96	453	35	89	127	63	23.50								35	20.50		43
44	445.06	463	35	89	127	63	24.00								35	21.45		44
45	455.16	473	35	89	127	63	24.70		38	103	147	100	49.00		35	22.40		45
48	485.45	503	35	89	127	63	27.50		38	103	147	100	53.30		35	25.50		48
50	505.65	524	38	89	127	63	30.00								38	27.70		50
54	546.05	564	38	103	147	80	37.40		38	103	147	100	63.00		38	32.30		54
60	606.66	625	38	103	147	80	44.30		38	103	※147	125	68.30		38	39.90		60
65	657.17	675	38	103	147	80	53.00								38	46.80		65
70	707.68	726	38	103	※147	100	44.70								38	54.30		70
72	727.89	746	38	103	※147	100	46.00								38	57.40		72
75	758.20	777	38	103	※147	100	47.00								38	62.30		75

- The maximum bore dia. shows the general application and please decide your bore dia. by the normal designing of industrial machines. Please also check the face pressure of keyway.
- Sprockets (B-type only) in color shaded show "with hardened teeth."
- Bores, keyways and setscrews will be machined upon request.
- Also available are sprockets other than those shown above.
- ※ Marked item shows C-type

24B EUROPEAN STANDARD SPROCKET



Dimensions: mm

No. of Teeth	Pitch Dia. (P.C.D)	Out-side Dia. (OD)	SINGLE B TYPE						DOUBLE B TYPE						SINGLE A TYPE			No. of Teeth
			Bore (BD)		Hub		Approx. Weight (kg)	Mate-rials	Bore (BD)		Hub		Approx. Weight (kg)	Mate-rials	Bore (BD) Stock	Approx. Weight (kg)	Mate-rials	
			Stock	Max.	HD	HL			Stock	Max.	HD	HL						
10	123.29	140	26	51	78	56	3.20	SAE 1040	26	55	80	100	8.00	SAE 1040	26	2.16	Mild Steel (SS 41)	10
11	135.24	153	26	60	91	56	4.00		26	60	90	100	8.70		26	2.60		11
12	147.21	165	26	66	98	56	4.80		28	66	100	100	9.20		26	3.10		12
13	159.20	177	26	66	98	56	5.30		28	75	115	100	10.90		26	3.60		13
14	171.22	190	26	75	107	56	6.30		28	80	120	100	11.40	SAE 1040 (Welded hub)	26	4.20		14
15	183.25	202	30	80	117	63	7.80		38	80	120	100	13.20		30	4.80		15
16	195.29	214	30	80	117	63	8.40		38	95	140	100	16.50		30	5.50		16
17	207.35	227	30	80	117	63	9.10		38	95	140	100	19.00		30	6.20		17
18	219.41	239	30	80	117	63	9.90		38	103	150	100	21.00		30	6.95		18
19	231.48	251	30	80	117	63	10.70		38	103	150	100	23.00		30	7.70		19
20	243.55	263	30	89	127	63	12.10		38	103	150	100	26.00		30	8.55		20
21	255.63	276	30	89	127	63	13.00		38	103	150	100	28.00		30	9.40		21
22	267.72	288	35	89	127	63	13.40	Mild Steel SS 41 (Welded hub)	38	103	147	100	30.00	Mild Steel SS 41 (Welded hub)	35	10.30		22
23	279.80	300	35	89	127	63	14.50		38	103	147	100	33.00		35	11.30		23
24	291.90	312	35	89	127	63	15.20		38	110	157	100	31.00		35	12.30		24
25	303.99	324	35	89	127	63	16.20		38	110	157	100	33.00		35	13.30		25
26	316.09	337	35	89	127	63	17.20		38	110	157	100	35.00		35	14.40		26
27	328.19	349	35	89	127	63	19.00		38	110	157	100	37.00		35	15.50		27
28	340.29	361	38	95	137	71	20.90		38	110	157	100	39.00		38	16.70		28
30	364.50	385	38	95	137	71	23.20		38	110	157	100	43.90		38	19.20		30
32	388.71	410	38	95	137	71	25.70		38	110	157	100	47.00		38	21.80		32
35	425.04	446	38	95	137	71	29.70		38	110	157	100	56.80		38	26.10		35
36	437.15	458	38	95	137	71	32.00		38	110	157	100	60.00		38	27.60		36
38	461.38	483	38	95	137	71	35.00		38	110	157	100	67.00		38	30.80		38
40	485.60	507	38	103	147	80	38.20		43	125	※177	140	81.30		38	34.10		40
42	509.84	531	38	103	147	80	42.00		43	125	※177	140	87.00		38	37.60		42
45	546.19	568	38	103	147	80	47.60		43	125	※177	140	98.50		38	43.10		45
48	582.54	604	38	103	147	80	53.00		43	125	※177	140	104.00		38	49.00		48
50	606.78	628	38	103	147	80	58.00		43	125	※177	140	115.00		38	53.30		50
54	655.26	677	38	103	※147	100	70.00		43	125	※177	140	121.00		38	62.10		54
60	727.99	750	38	118	※167	100	88.00		43	125	※177	160	131.60		38	76.70		60
65	788.60	811	38	118	※167	100	100.00								38	90.00		65
70	849.22	871	38	118	※167	112	117.00								38	104.00		70
75	909.84	932	38	118	※167	112	130.00								38	119.00		75

- The maximum bore dia. shows the general application and please decide your bore dia. by the normal designing of industrial machines. Please also check the face pressure of keyway.
- Sprockets (B-type only) in color shaded show "with hardened teeth."
- Bores, keyways and setscrews will be machined upon request.
- Also available are sprockets other than those shown above.
- ※ Marked item shows C-type

CONVEYOR SPROCKETS

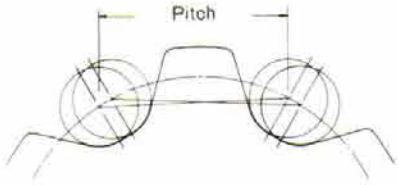
Our Standard Conveyor Sprockets are manufactured by precision flame-cutting technique. The special tooth profile designed by us minimizes the play of the roller and permits smooth normal and reverse action. Our Standard Conveyor Sprockets are available in A, B and C types from stock. A standard or special hub can be easily welded to the sprocket. If large strength and/or high wear resistance is required, the teeth may be hardened on request.

STYLE R • F

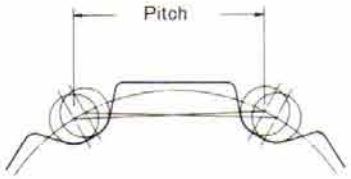
STYLE S

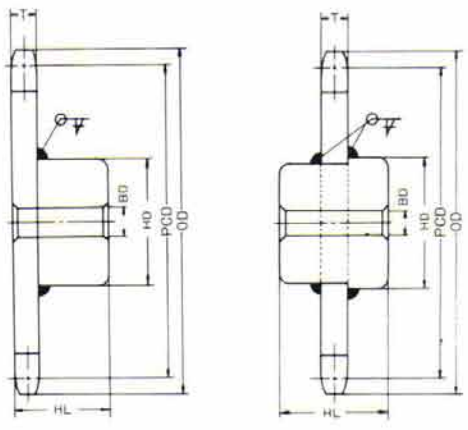
MATERIAL
Plates: SAE 1035 steel
Hubs: SAE 1020 steel

STYLE R • F



STYLE S





TYPE B TYPE C

Dimensions: mm

3075-S.R.F

No. of Teeth	Style	Teeth Face (T)	OD	P.C.D	Type B HD	Type B HL	Type B Bore Dia Min	Type B Bore Dia Max	Type B Weight Each	Type C HD	Type C HL	Type C Bore Dia Min	Type C Bore Dia Max	Type C Weight Each	Type A Weight Each
6	S	12	158	150.00	65	52	25	40	2.7	75	60	25	45	3.3	1.7
	R		158						2.2	70	55	25	40	2.5	1.2
	F	9				49			1.9					2.3	0.9
7	S	12	183	172.86	70	57	25	45	3.6	85	70	25	50	4.8	2.3
	R		184						3.0	75	60	25	45	3.4	1.7
	F	9				54			2.6					3.0	1.3
8	S	12	206	195.92	70	57	25	45	4.2	85	70	25	50	5.5	2.9
	R		209						3.7	75	60	25	45	4.0	2.3
	F	9				54			3.1					3.5	1.7
9	S	12	229	219.30	75	62	25	50	5.3	85	70	25	50	6.2	3.6
	R		234						4.7					5.6	3.0
	F	9				59			4.0					5.0	2.3
10	S	12	252	242.27	75	62	25	50	6.1	85	70	25	50	7.0	4.4
	R		259						5.5					6.4	3.8
	F	9				59			4.6					5.6	2.9
11	S	12	276	266.24	75	62	25	50	7.0	85	70	25	50	7.9	5.1
	R		283						6.4					7.2	4.7
	F	9				59			5.2					6.2	3.5
12	S	12	299	289.80	75	62	25	50	8.0	85	70	25	50	8.8	6.2
	R		308						7.4					8.2	5.6
	F	9				59			6.0					6.9	4.2
3100-S.R.F															
6	S	12	210	200.00	70	57	25	45	4.4	75	60	25	45	4.7	3.1
	R		206						3.8					4.1	2.4
	F	9				54			3.2					3.6	1.8
7	S	12	240	230.48	75	62	25	50	5.8	85	70	25	50	6.6	4.0
	R		240						5.2					6.0	3.4
	F	9				59			4.3					5.3	2.6
8	S	12	269	261.23	75	62	25	50	6.8	85	70	25	50	7.7	5.1
	R		272						6.3					7.1	4.5
	F	9				59			5.1					6.1	3.4
9	S	12	302	292.40	75	62	25	50	8.2	85	70	25	50	9.0	6.4
	R		303						7.5					8.3	5.7
	F	9				59			6.0					7.0	4.3
10	S	12	333	323.62	75	62	25	50	9.6	85	70	25	50	10.4	7.9
	R		336						8.9					9.8	7.2
	F	9				59			7.1					8.1	5.4
11	S	12	365	354.99	85	67	25	55	11.9	90	75	25	50	12.6	9.5
	R		369						11.3					11.9	8.9
	F	9				64			9.1					9.9	6.8
12	S	12	396	386.40	85	67	25	55	13.7	90	75	25	55	14.4	11.2
	R		401						13.0					13.7	10.5
	F	9				64			10.3					11.2	7.9
5100-S.R.F															
6	S	16	212	200.00	90	76	25	60	7.0	100	80	30	60	7.9	4.0
	R		205						5.6					6.6	2.6
	F	12				72			5.0					6.2	2.0
7	S	16	244	230.48	100	81	30	65	9.4	110	90	30	70	10.8	5.3
	R		240						7.9					9.5	3.9
	F	12				77			7.0					8.8	3.0
8	S	16	273	261.23	100	81	30	65	10.7	110	90	30	70	12.2	6.7
	R		273						9.4					10.9	5.4
	F	12				77			8.0					9.8	4.0
9	S	16	306	292.40	100	81	30	65	12.5	110	90	30	70	14.1	8.5
	R		307						11.1					12.6	7.1
	F	12				77			9.3					11.1	5.3
10	S	16	337	323.62	100	81	30	65	14.4	110	90	30	70	16.0	10.4
	R		340						12.9					14.4	8.9
	F	12				77			10.7					12.5	6.7
11	S	16	368	354.99	110	91	30	75	18.1	120	100	30	75	20.0	12.5
	R		373						16.6					18.5	11.0
	F	12				87			13.8					16.1	8.3
12	S	16	400	386.40	110	91	30	75	20.5	120	100	30	75	22.3	14.9
	R		405						18.8					20.7	13.2
	F	12				87			15.5					17.7	9.9

• Bores and keys will be machined upon request.

Dimensions: mm

5150-S.R.F

No. of Teeth	Style	Teeth Face (T)	OD	P.C.D	Type B HD	Type B HL	Type B Bore Dia Min	Type B Bore Dia Max	Type B Weight Each	Type C HD	Type C HL	Type C Bore Dia Min	Type C Bore Dia Max	Type C Weight Each	Type A Weight Each
6	S	16	310	300.00	100	81	30	65	13.0	110	90	30	70	14.5	9.0
	R		304						11.6					13.1	7.6
	F	12				77			9.7					11.5	5.7
7	S	16	359	345.72	110	91	30	75	17.8	120	100	35	75	19.6	12.2
	R		352						16.1					17.9	10.5
	F	12				87			13.4					15.7	7.9
8	S	16	405	391.85	110	91	30	75	21.2	120	100	35	75	23.0	15.6
	R		402						19.5					21.4	14.0
	F	12				87			16.0					18.3	10.5
9	S	16	452	438.60	120	96	35	80	26.6	130	105	35	80	28.7	19.5
	R		450						24.8					27.0	17.7
	F	12				92			20.4					23.0	13.3
10	S	16	499	485.44	120	96	35	80	30.9	130	105	35	80	33.1	23.8
	R		500						29.3					31.5	22.2
	F	12				92			23.7					26.3	16.6
11	S	16	543	532.48	130	101	35	85	37.1	140	115	40	90	40.2	28.2
	R		548						35.8					38.9	26.9
	F	12				97			29.0					32.6	20.2
12	S	16	592	579.60	130	101	35	85	42.5	140	115	40	90	45.6	33.7
	R		596						40.9					44.0	32.1
	F	12				97			32.9					36.5	24.1

7100-S.R.F

6	S	19	214	200.00	100	81	30	65	8.7	110	90	30	70	10.1	4.9
	R		210						7.0					8.4	3.2
	F	12				73			5.7					7.7	1.9
7	S	19	242	230.48	110	91	30	75	11.7	120	100	35	75	13.5	6.4
	R		243						10.0					11.8	4.7
	F	12				83			8.1					10.6	2.8
8	S	19	276	261.23	110	91	30	75	13.7	120	100	35	75	15.5	8.4
	R		276						11.7					13.5	6.4
	F	12				83			9.1					11.7	3.9
9	S	19	308	292.40	120	101	35	80	17.7	130	110	35	80	20.0	10.6
	R		310						15.7					17.9	8.5
	F	12				93			12.3					15.3	5.1
10	S	19	339	323.62	120	101	35	80	20.1	130	110	35	80	22.3	13.0
	R		343						18.0					20.2	10.8
	F	12				93			13.7					16.7	6.5
11	S	19	370	354.99	130	111	35	85	25.0	140	120	40	90	27.6	15.5
	R		376						22.8					25.4	13.4
	F	12				103			17.5					21.1	8.0
12	S	19	402	386.40	130	111	35	85	28.0	140	120	40	90	30.6	18.5
	R		408						25.6					28.2	16.1
	F	12				103			19.1					22.7	9.7

10100-S.R.F

6	S	22	217	200.00	110	97	30	75	10.9	120	100	35	75	12.2	5.3
	R		214						8.6					9.9	3.0
	F	16				91			7.7					9.6	2.2
7	S	22	248	230.48	110	97	30	75	12.7	120	100	35	75	14.0	7.1
	R		248						10.1					11.5	4.6
	F	16				91			8.9					10.8	3.3
8	S	22	279	261.23	110	97	30	75	14.7	120	100	35	75	16.1	9.7
	R		282						12.1					13.4	6.5
	F	16				91			10.3					12.2	4.7
9	S	22	310	292.40	120	102	35	80	18.5	130	105	35	80	20.1	11.4
	R		316						15.8					17.3	8.7
	F	16				91			13.0					15.6	6.3
10	S	22	341	323.62	120	102	35	80	21.1	130	105	35	80	22.7	14.0
	R		349						18.2					19.8	11.1
	F	16				96			15.2					17.4	8.1
11	S	22	372	354.99	130	107	35	85	25.7	140	115	40	90	28.1	16.8
	R		382						22.7					25.1	13.9
	F	16				101			18.9					22.1	10.1
12	S	22	404	386.40	130	107	35	85	28.9	140	115	40	90	31.3	20.0
	R		414						25.6					28.0	16.8
	F	16				101			21.1					24.2	12.2

* Bores and keys will be machined upon request.

Dimensions: mm

10150-S.R.F

No. of Teeth	Style	Teeth Face (T)	OD	P.C.D	Type B HD	Type B HL	Type B Bore Dia Min	Type B Bore Dia Max	Type B Weight Each	Type C HD	Type C HL	Type C Bore Dia Min	Type C Bore Dia Max	Type C Weight Each	Type A Weight Each
6	S	22	316	300.00	120	102	35	80	19.6	130	105	35	80	21.1	12.5
	R		309						16.8					18.3	9.7
	F	16				96			14.2					16.3	7.1
7	S	22	363	345.72	130	107	35	85	25.5	140	115	40	90	27.9	16.6
	R		359						22.6					24.9	13.7
	F	16				101			18.8					21.9	10.0
8	S	22	409	391.85	130	107	35	85	30.1	140	115	40	90	32.5	21.3
	R		408						27.1					29.5	18.3
	F	16				101			22.1					25.2	13.3
9	S	22	456	438.60	140	117	40	95	38.9	150	125	40	100	35.3	26.6
	R		453						34.5					37.3	23.0
	F	16				111			28.2					31.8	16.7
10	S	22	503	485.44	140	117	40	95	44.0	150	125	40	100	46.8	32.6
	R		506						40.8					43.6	29.3
	F	16				111			33.5					36.5	21.3
11	S	22	550	532.48	150	122	40	100	53.1	150	125	40	100	53.6	39.3
	R		552						49.8					50.2	35.9
	F	16				116			40.0					41.3	26.1
12	S	22	597	579.60	150	122	40	100	60.1	150	125	40	100	60.5	46.2
	R		601						56.4					56.8	42.5
	F	16				116			44.8					46.1	30.9

430-S.R

6	S	16	215	203.20	85	71	25	55	6.6	90	75	25	55	7.1	4.2
	R		211						5.5					6.0	3.0
7	S	16	246	234.21	90	76	25	60	8.5	100	80	30	60	9.4	5.5
	R		246						7.4					8.3	4.4
8	S	16	277	265.41	90	76	25	60	10.0	100	80	30	60	11.0	7.1
	R		277						8.8					9.7	5.8
9	S	16	309	297.08	100	81	30	65	12.8	110	90	30	70	14.4	9.8
	R		311						11.5					13.0	7.5
10	S	16	341	328.80	100	81	30	65	14.8	110	90	30	70	16.3	10.8
	R		345						13.5					15.0	9.5
11	S	16	373	360.67	100	81	30	65	17.0	110	90	30	70	18.5	13.0
	R		378						15.6					17.1	11.6
12	S	16	405	392.58	100	81	30	65	19.4	110	90	30	70	20.9	15.4
	R		411						18.0					19.5	14.0

450-S.R.F

6	S	19	217	203.20	90	79	25	60	7.9	100	80	30	60	8.7	4.9
	R		217						6.4					7.1	3.4
	F	16				76			6.5					7.0	3.5
7	S	19	248	234.21	100	84	30	65	10.6	110	90	30	70	11.8	6.6
	R		252						9.0					10.3	5.0
	F	16				81			8.3					9.7	4.2
8	S	19	279	265.41	100	84	30	65	12.4	110	90	30	70	13.7	8.4
	R		286						10.8					12.1	6.6
	F	16				81			9.7					11.2	5.7
9	S	19	310	297.08	110	94	30	75	16.0	120	100	35	75	17.6	10.4
	R		320						14.4					16.0	8.8
	F	16				91			13.0					14.9	7.4
10	S	19	342	328.80	110	94	30	75	18.4	120	100	35	75	20.0	12.8
	R		354						16.8					18.4	11.2
	F	16				91			15.0					16.9	9.4
11	S	19	374	360.67	110	94	30	75	21.0	120	100	35	75	22.6	15.4
	R		387						19.3					20.9	13.7
	F	16				91			17.1					19.0	11.5
12	S	19	406	392.58	110	94	30	75	23.8	120	100	35	75	25.4	18.2
	R		419						21.9					23.5	16.4
	F	16				91			19.4					21.2	13.8