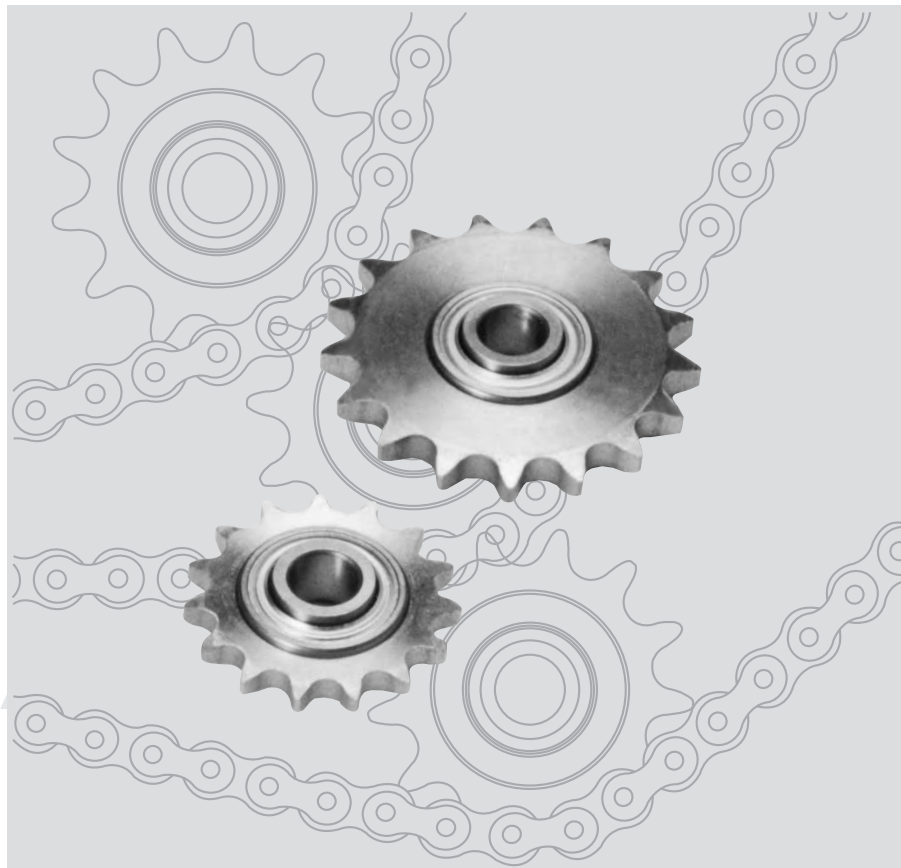
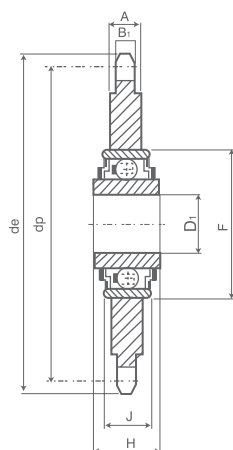


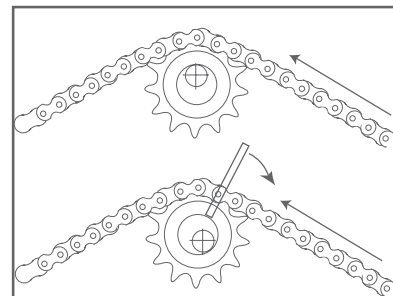
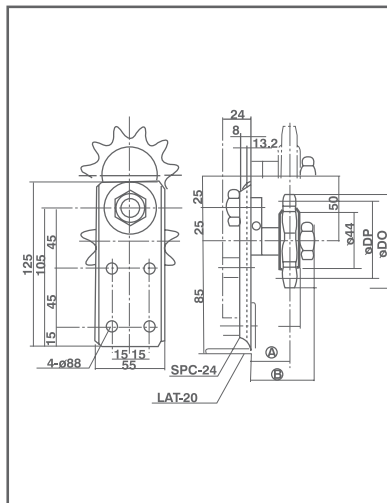
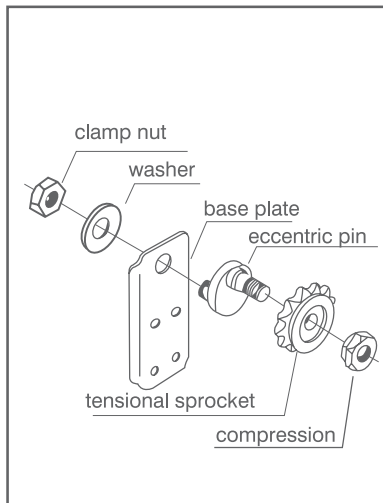
Tensional Sprockets



Z	PITCH	de	dp	B1	A	D1	F	H	J
23	8X1/8"	62	58.75	2.8	7	16 ^{+0.26} _{+0.13}	40	18.3	12
21	3/8"X7/32"	68	63.91	5.3	7	16 ^{+0.26} _{+0.13}	40	18.3	12
18	1/2"X1/8"	78.9	73.14	3	7	16 ^{+0.26} _{+0.13}	40	18.3	12
18	1/2"X3/16"	78.9	73.14	4.5	7	16 ^{+0.26} _{+0.13}	40	18.3	12
16	1/2"X5/16"	69.5	65.10	7.2	7.2	16 ^{+0.26} _{+0.13}	40	18.3	12
18	1/2"X5/16"	77.8	73.14	7.2	7.2	16 ^{+0.26} _{+0.13}	40	18.3	12
14	5/8"X3/8"	78.0	71.34	9.1	9.1	16 ^{+0.26} _{+0.13}	40	18.3	12
17	5/8"X3/8"	93.0	86.30	9.1	9.1	16 ^{+0.26} _{+0.13}	40	18.3	12
13	3/4"X7/16"	87.5	79.59	11.1	11.1	16 ^{+0.26} _{+0.13}	40	18.3	12
15	3/4"X7/16"	99.8	91.63	11.1	11.1	16 ^{+0.26} _{+0.13}	40	18.3	12
12	1"X17.02	109.0	98.14	16.2	16.2	20 ⁰ _{-0.01}	47	17.7	14
13	1"1/4X3/4"	147.8	132.65	18.5	18.5	25 ⁰ _{-0.01}	52	21	15

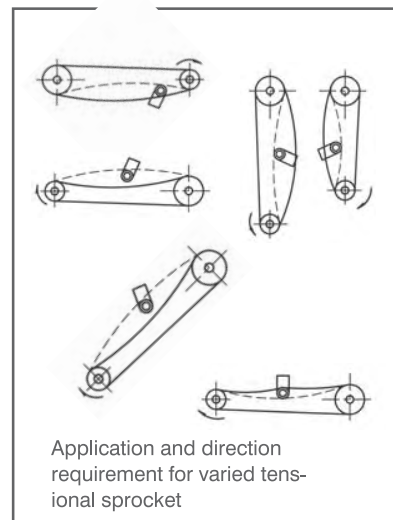
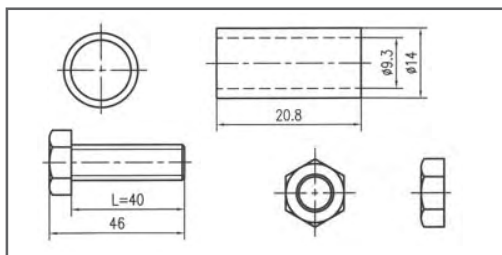
Tensional Sprockets **T holder**

Type	Pitch	A	B
TH-B-06	P=3/8	26	47
TH-B-08	P=1/2	26	47
TH-B-10	P=5/8	26	47
TH-B-12	P=3/4	26	47
TH-B-16	P=1	30	51



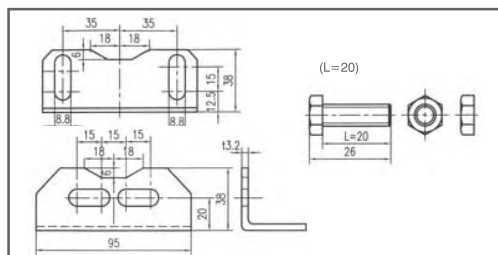
When a tensional sprocket is assembled, tension the chain according to drawing a fist, then tightening the compression nut. After this, turn the eccentric pin to the tensional situation by using an iron bar. Tighten the clamp nut last.

installed attachment A

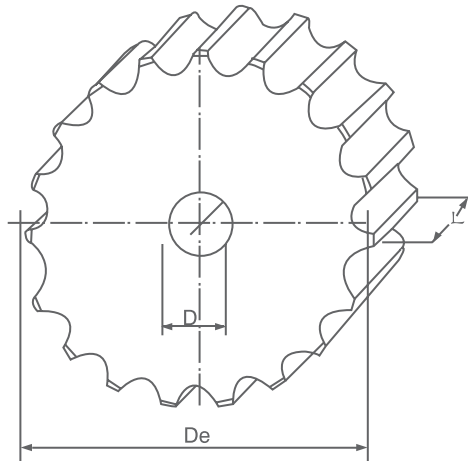


Application and direction requirement for varied tensional sprocket

installed attachment B

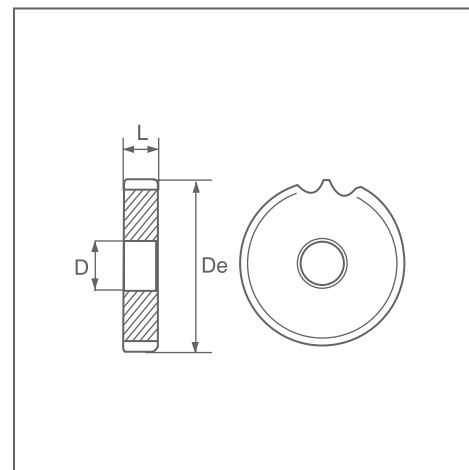


Wheels for hinge



P=1 1/2"

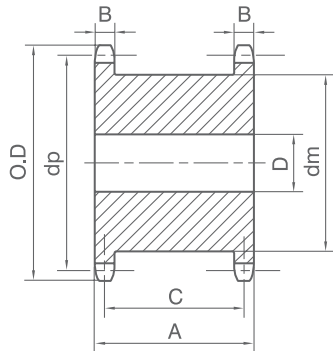
Z	De	D	L
13*	78.98	16	43.5
15	92.9	16	43.5
17	104.7	16	43.5
19	116.6	16	43.5
21	129.7	20	43.5
23	141.6	20	43.5
25	153.6	20	43.5
27	165.6	20	43.5
29	177.7	20	43.5
31	189.7	20	43.5



Material can be C45.SUS304.GG25. nylon.steel or cast iron.Surface can be treated as oxidizing,phosphating or zinc-plating

Double simplex sprockets

FOR ROLLER CHAINS DIN8187-ISOIR 606



DS12B 3/4"x7/16"						
Z	OD	dp	C	D	dm	A
12	81.8	73.60	33.9	16	52	45
13	87.8	79.59		16	58	
14	93.8	85.61		16	64	
15	99.8	91.63		16	70	
16	105.8	97.65		16	76	
17	111.9	103.67		16	82	
18	117.9	109.71		16	88	
19	123.9	115.75		16	94	
20	130.0	121.78		16	100	
21	136.0	127.82		20	106	
22	142.0	133.86		20	112	
23	148.1	139.90		20	118	
24	154.1	145.94		20	124	
25	160.2	152.00		20	130	

DS08B 1/2"x5/16"						
Z	OD	dp	C	D	dm	A
12	53.9	49.07	23.8	10	33	31
13	57.90	53.06		10	37	
14	61.9	57.07		10	41	
15	65.9	61.09		10	45	
16	69.9	65.10		12	50	
17	74.0	69.11		12	52	
18	78.0	73.14		12	56	
19	82.0	77.16		12	60	
20	86.0	81.19		12	64	
21	90.1	85.22		14	68	
22	94.1	89.24		14	72	
23	98.1	93.27		14	76	
24	102.1	97.29		14	80	
25	106.2	101.33		14	84	

DS16B 1"x17.02mm						
Z	OD	dp	C	D	dm	A
12	109.7	98.14	47.3	16	69	63.5
13	117.7	106.12		16	78	
14	125.7	114.15		16	85	
15	133.7	122.17		16	93	
16	141.8	130.20		20	102	
17	149.8	138.22		20	110	
18	157.8	146.28		20	118	
19	165.8	154.38		20	126	
20	173.9	162.38		20	134	
21	182.0	170.43		20	142	
22	190.1	178.48		20	150	
23	198.1	186.53		20	158	
24	206.2	194.59		20	166	
25	214.2	202.66		20	174	

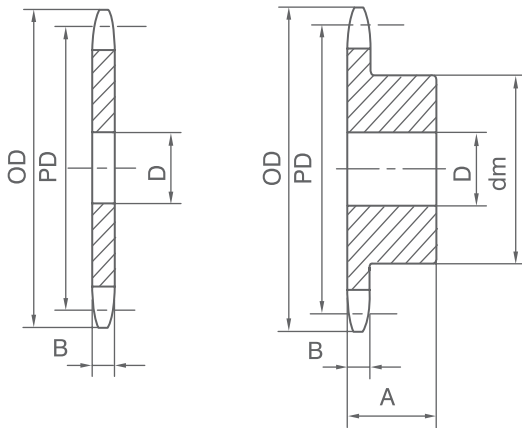
DS10B 5/8"x3/8"						
Z	OD	dp	C	D	dm	A
12	68.2	61.34	27.3	12	42	36.5
13	73.2	66.32		12	47	
14	78.2	71.34		12	52	
15	83.2	76.36		12	57	
16	88.3	81.37		12	63	
17	93.3	86.39		12	68	
18	98.3	91.42		14	73	
19	103.3	96.45		14	78	
20	108.4	101.49		14	83	
21	113.4	106.52		16	88	
22	118.4	111.55		16	93	
23	123.5	116.58		16	98	
24	128.5	121.62		16	103	
25	133.6	126.66		16	108	

DS20B 1 1/4"x3/4"						
Z	OD	dp	C	D	dm	A
12	137.0	122.68	51.5	20	88	70
13	147.5	132.65		20	98	
14	157.6	142.68		20	108	
15	167.7	152.72		20	118	
16	177.7	162.75		25	128	
17	187.7	172.78		25	138	
18	197.8	182.85		25	148	
19	207.9	192.91		25	158	
20	217.9	202.98		25	168	
21	228.0	213.04		30	178	
22	238.1	223.11		30	188	
23	248.2	233.17		30	198	
24	258.3	243.23		30	208	
25	268.4	253.32		30	218	

sprockets

ISO1275-1984

double pitch precision roller chains and chainwheels for transmission and conveyors



S208B		P=25.4 B=7.10 ROLLER=∅ 8.51				
Z		OD	D	PD	dm	A
15	7 1/2	67	12	62.45	45	28
17	8 1/2	76	12	70.31	50	28
18	9	80	12	74.26	52	28
19	9 1/2	84	12	78.23	56	28
20	10	88	12	82.20	60	28
21	10 1/2	92	14	86.17	64	28
22	11	96	14	90.16	68	28
23	11 1/2	100	14	94.15	70	28
24	12	104	14	98.14	70	28
25	12 1/2	108	14	102.14	70	28
26	13	112	16	106.14	70	30
27	13 1/2	116	16	110.14	70	30
28	14	120	16	114.15	70	30
29	14 1/2	124	16	118.16	80	30

S212B		P=38.1 B=11.10 ROLLER=∅ 12.07				
Z		OD	D	PD	dm	A
15	7 1/2	101	16	93.67	70	35
17	8 1/2	113	16	105.47	80	35
18	9	119	16	111.40	80	35
19	9 1/2	126	16	117.34	80	35
20	10	132	16	123.30	80	35
21	10 1/2	138	20	129.26	90	40
22	11	144	20	135.24	90	40
23	11 1/2	150	20	141.22	90	40
24	12	156	20	147.21	90	40
25	12 1/2	162	20	153.20	90	40
26	13	168	20	159.20	95	40
27	13 1/2	174	20	165.21	95	40
28	14	181	20	171.22	95	40
29	14 1/2	187	20	177.23	95	40

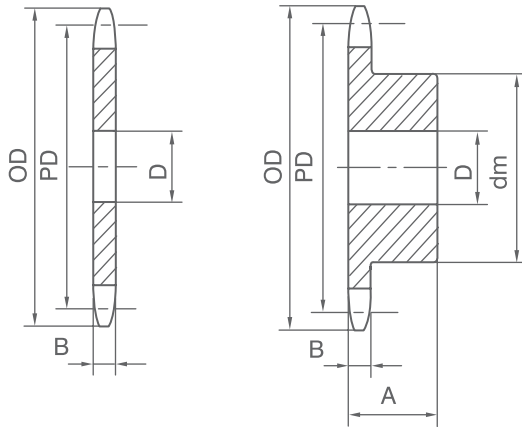
S210B		P=31.75 B=8.90 ROLLER=∅10.16				
Z		OD	D	PD	dm	A
15	7 1/2	84	12	78.06	57	30
17	8 1/2	94	12	87.89	60	30
18	9	100	14	92.83	70	30
19	9 1/2	105	14	97.78	70	30
20	10	110	14	102.72	75	30
21	10 1/2	115	16	107.72	75	30
22	11	120	16	112.70	80	30
23	11 1/2	125	16	117.68	80	30
24	12	130	16	122.67	80	30
25	12 1/2	135	16	127.67	80	30
26	13	140	20	132.67	85	35
27	13 1/2	145	20	137.67	85	35
28	14	150	20	142.68	90	35
29	14 1/2	155	20	147.69	90	35

S216B		P=50.8 B=15.80 ROLLER=∅15.875				
Z		OD	D	PD	dm	A
15	7 1/2	135	16	124.90	92	45
17	8 1/2	151	20	140.62	100	45
18	9	159	20	148.53	100	45
19	9 1/2	167	20	156.45	100	45
20	10	176	20	164.39	100	45
21	10 1/2	184	20	172.35	100	45
22	11	192	20	180.31	100	45
23	11 1/2	200	20	188.24	110	45
24	12	208	20	196.28	110	45
25	12 1/2	216	20	204.27	110	45
26	13	224	20	212.27	120	45
27	13 1/2	233	20	220.28	120	45
28	14	241	20	228.30	120	45
29	14 1/2	249	20	236.31	120	45

sprockets

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double pitch precision roller chains and chainwheels for transmission and conveyors



S2040		P=25.4 B=7.20 ROLLER=ø 7.95				
Z		OD	D	PD	dm	A
15	7 1/2	67	12	62.45	45	30
17	8 1/2	76	12	70.31	50	30
18	9	80	12	74.26	52	30
19	9 1/2	84	12	78.23	56	30
20	10	88	12	82.20	60	40
21	10 1/2	92	14	86.17	64	40
22	11	96	14	90.16	68	40
23	11 1/2	100	14	94.15	70	40
24	12	104	14	98.14	70	40
25	12 1/2	108	14	102.14	70	40
26	13	112	16	106.14	70	40
27	13 1/2	116	16	110.14	70	40
28	14	120	16	114.15	70	40
29	14 1/2	124	14	118.16	80	40

S2060		P=38.1 B=11.60 ROLLER=ø 11.91				
Z		OD	D	PD	dm	A
15	7 1/2	101	16	93.67	70	40
17	8 1/2	113	16	105.47	80	40
18	9	119	16	111.40	80	40
19	9 1/2	126	16	117.34	80	40
20	10	132	16	123.30	80	45
21	10 1/2	138	20	129.26	90	45
22	11	144	20	135.24	90	45
23	11 1/2	150	20	141.22	90	45
24	12	156	20	147.21	90	45
25	12 1/2	162	20	153.20	90	45
26	13	168	20	159.20	95	45
27	13 1/2	174	20	165.21	95	45
28	14	181	20	171.22	95	45
29	14 1/2	187	20	177.23	95	45

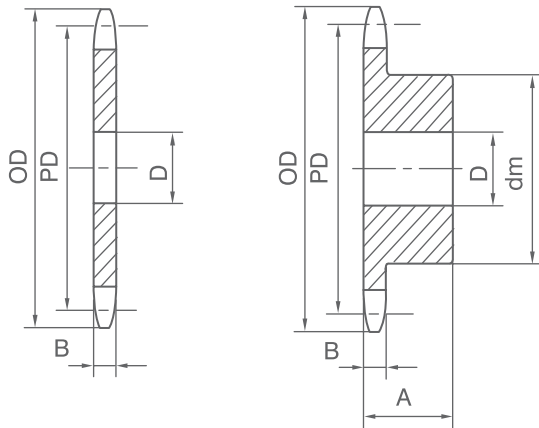
S2050		P=31.75 B=8.70 ROLLER=ø10.16				
Z		OD	D	PD	dm	A
15	7 1/2	84	12	78.06	57	40
17	8 1/2	94	12	87.89	60	40
18	9	100	14	92.83	70	40
19	9 1/2	105	14	97.78	70	40
20	10	110	14	102.72	75	45
21	10 1/2	115	16	107.22	75	45
22	11	120	16	112.70	80	45
23	11 1/2	125	16	117.68	80	45
24	12	130	16	122.67	80	45
25	12 1/2	135	16	127.67	80	45
26	13	140	20	132.67	85	45
27	13 1/2	145	20	137.67	85	45
28	14	150	20	142.68	90	45
29	14 1/2	155	20	147.69	90	45

S2080		P=50.80 B=14.60 ROLLER=ø15.875				
Z		OD	D	PD	dm	A
15	7 1/2	135	16	124.90	90	50
17	8 1/2	151	20	140.62	100	50
18	9	159	20	148.53	100	50
19	9 1/2	167	20	156.45	100	50
20	10	176	20	164.39	100	60
21	10 1/2	184	20	172.35	100	60
22	11	192	20	180.31	100	60
23	11 1/2	200	20	188.24	110	60
24	12	208	20	196.28	110	60
25	12 1/2	216	20	204.27	110	60
26	13	224	20	212.27	120	60
27	13 1/2	233	20	220.28	120	60
28	14	241	20	228.30	120	60
29	14 1/2	249	20	236.31	120	60

sprockets

ISO1275-1984

double pitch precision roller chains and chainwheels for transmission and conveyors



R2042		P=25.40 B=7.20 ROLLER= \varnothing 15.875				
Z	OD	PD	D	De	dm	A
10	93	82.19	20	66.32	55	40
11	102	90.16	20	73.36	61	40
12	108	98.14	20	82.26	69	40
13	118	106.14	20	89.48	78	40
14	127	114.15	20	98.27	84	40
15	135	122.17	20	105.62	92	40
16	143	130.20	20	114.32	100	40
18	159	146.27	20	130.39	100	40
20	176	162.37	20	146.49	100	40
24	208	194.60	25	178.72	110	50
25	216	202.66	25	186.38	110	50
26	224	210.72	25	194.84	120	50
28	241	226.86	25	210.98	120	50
30	257	243.00	25	227.12	120	50

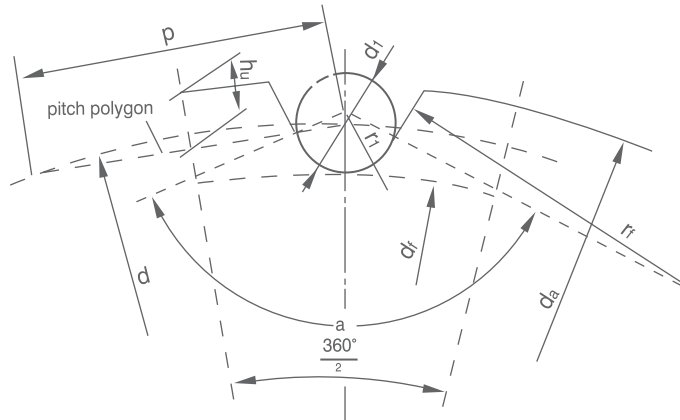
R2062		P=38.10 B=11.60 ROLLER= \varnothing 22.225				
Z	OD	PD	D	De	dm	A
10	140	123.30	25	101.07	80	45
11	153	135.00	25	111.63	90	45
12	165	147.21	25	124.98	100	45
13	177	159.20	25	135.81	110	45
14	190	171.22	25	148.99	125	45
15	202	183.25	25	160.02	145	50
16	214	195.29	30	173.06	160	50
18	239	219.41	30	197.18	160	60
20	263	243.55	30	221.32	160	60
24	312	291.90	30	269.67	160	60
25	324	303.99	30	281.16	160	60
26	337	316.09	30	293.86	160	60
28	361	340.29	30	318.06	160	65
30	385	364.50	30	342.27	160	65

R2052		P=31.75 B=8.70 ROLLER= \varnothing 19.05				
Z	OD	PD	D	De	dm	A
10	116	102.75	20	83.70	70	45
11	127	112.70	20	92.50	77	45
12	138	122.67	20	103.62	88	45
13	148	132.67	20	112.65	98	45
14	158	142.68	20	123.68	108	45
15	168	152.71	20	132.82	118	45
16	179	162.75	25	143.69	120	45
18	199	182.84	25	163.79	120	45
20	220	202.96	25	183.91	120	45
24	260	243.25	30	224.20	140	60
25	270	253.32	30	233.78	140	60
26	281	263.40	30	244.35	150	60
28	301	283.57	30	264.52	150	60
30	321	303.75	30	284.70	150	60

R2082		P=50.80 B=14.60 ROLLER= \varnothing 28.575				
Z	OD	PD	D	De	dm	A
10	187	164.39	30	135.81	115	65
11	204	181.31	30	149.90	125	65
12	220	196.28	30	167.70	135	65
13	237	212.27	30	182.14	145	65
14	253	228.30	30	199.72	145	65
15	269	244.30	30	214.42	145	65
16	286	260.39	30	231.81	160	75
18	319	292.55	30	263.97	180	75
20	351	324.19	40	296.16	180	75
24	416	389.19	40	360.61	180	75
25	433	405.32	40	375.94	180	75
26	449	421.45	40	392.87	180	75
28	481	453.72	40	425.14	180	85
30	514	485.99	40	457.41	180	85

Sprockets - Chain

ISO 1275-1995

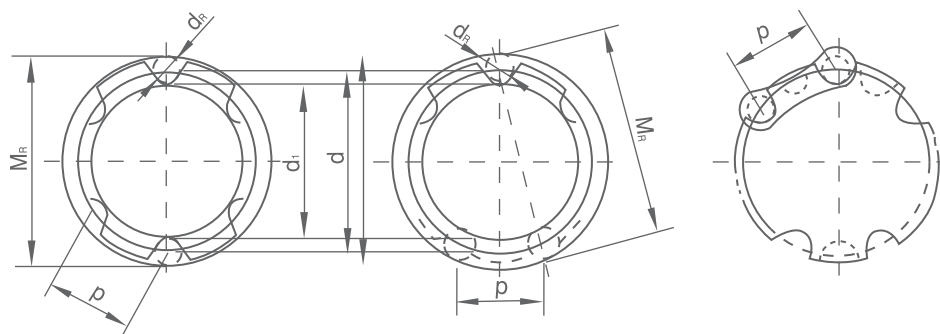


- Z=Teeth**
- P=Pitch**
- d₁=Roller Diameter**
- d_a=Addendum Circle**
- d=Graduated Circle**
- d_f=Diameter of dedendum Circle**
- r_e=Arc radius of teeth flank**
- r_i=Arc radius of teeth root**

sprocket diameter formula

name	code	formula	note
Pitch reference cylinder	d	$d = \frac{P}{\sin \frac{180^\circ}{Z}}$	P=Pitch Z=Teeth
tip diameter	d _a	$d_a = P(0.6 + \text{ctg} \frac{180^\circ}{Z})$	
root diameter	d _f	$d_f = d - d_1$	d ₁ =Roller Diameter
hub diameter	MHD	$MHD = P(\text{ctg} \frac{180^\circ}{Z} - 1) - 0.76$	

Checking method for tooth space accuracy



even number

odd number

even number of teeth

odd number of teeth

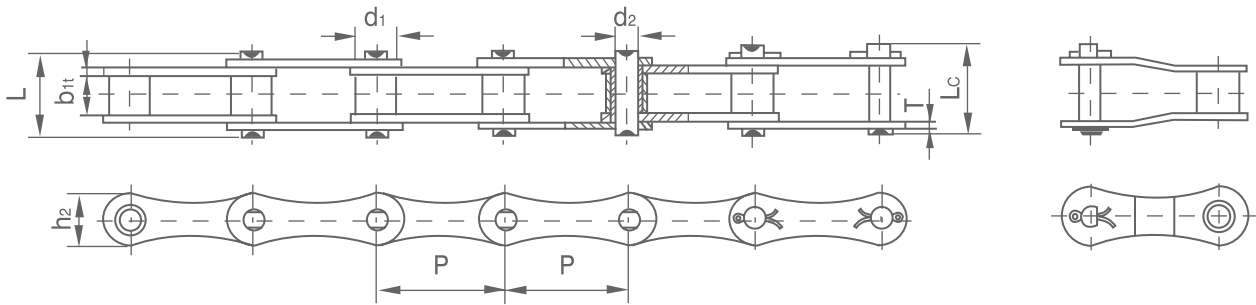
$$M_R = d + d_1$$

$$M_R = d \cos \frac{90^\circ}{Z} + d_1$$

Sprockets - Chain

ISO 1275-1995

Double pitch transmission chains



DIN ISO Chain No.	ANSI Chain No.	Pitch	Roller diameter	Width between inner plates	Pin diameter	Pin length		Inner plate depth	Plate thickness	Ultimate tensile strength	Average tensile strength	Weight per meter
		P	d ₁ max	b ₁ min	d ₂ max	L max	L _c max	h ₂ max	t/T max	Q min	Q ₀	q
		mm	mm	mm	mm	mm	mm	mm	mm	kN	kN	kg/m
208A	2040	25.40	7.95	7.85	3.96	16.6	17.8	12.07	1.50	14.1	16.7	0.42
208B		25.40	8.51	7.75	4.45	16.7	18.2	11.81	1.60	18.0	19.4	0.45
210A	2050	31.75	10.16	9.40	5.08	20.7	22.2	15.09	2.03	22.2	28.1	0.73
210B		31.75	10.16	9.65	5.08	19.5	20.9	14.7	1.70	22.4	27.5	0.65
212A	2060	38.10	11.91	12.57	5.94	25.9	27.7	18.08	2.42	31.8	36.8	1.02
212B		38.10	12.07	11.68	5.72	22.5	25.2	16.0	1.85	29.0	32.2	0.76
216A	2080	50.80	15.88	15.75	7.92	32.7	36.5	24.13	3.25	56.7	65.7	1.70
216AH		50.80	15.88	15.75	7.92	36.2	39.4	24.0	4.00	56.7	70.0	2.17
216B		50.80	15.88	17.02	8.28	36.1	39.1	21.0	4.15/3.1	60.0	72.8	1.75
220A	2100	63.50	19.05	18.90	9.53	40.4	44.7	30.48	4.00	88.5	102.6	2.55
220B		63.50	19.05	19.54	10.19	41.3	45.0	26.4	4.5/3.5	95.0	106.7	2.62
224A	2120	76.20	22.23	25.22	11.10	50.3	54.3	36.55	4.80	127.0	147.3	4.06
224B		76.20	25.40	25.40	14.63	53.4	57.8	33.2	6.0/4.8	160.0	178.0	4.70
228B		88.90	27.94	30.99	15.90	65.1	69.5	36.7	7.5/6.0	200.0	222.0	6.23
232B		101.60	29.21	30.99	17.81	66.0	71.0	42.0	7.0/6.0	250.0	277.5	6.72