

同步帶輪 Synchronous Pulley

產品特點 The product characteristics

同步帶輪與同步帶配套，具有傳動準確、平衡、噪音小、無滑差又節能的特點，而且結構緊湊、宜於多軸傳動、耐油、耐潮、不需要潤滑等優點。

Synchronous Pulley Matches With Synchronous Belt.

It Features As Accurate And Balanced Drive, little Noise, none Slip Differential, sound Energy-saving.

It Has The Advantages Such As Compact Structure.

Multi-axial Drive, oil And Damping Resistance, non-lubrication Etc.

產品種類(按使用材質分):

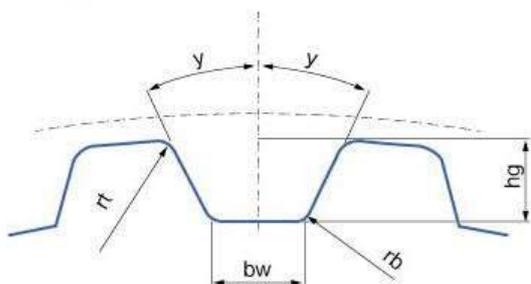
碳素鋼材、鑄鐵、鋁合金、工程塑料及特種材質。

Product category(divided according to materials used):

Carbon steel, castiron, aluminum alloy, engineering plastics, special materials.

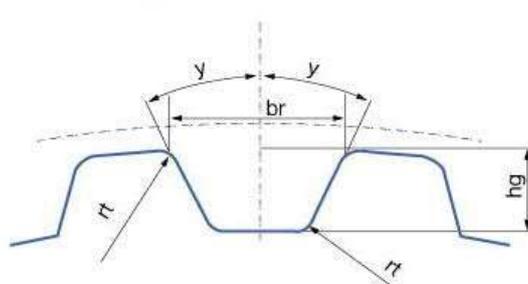
梯形齒同步帶輪齒形尺寸(單位mm)

Trapezoidal toothed synchronous pulley tooth size (unit:mm)



T形齒同步帶輪齒形尺寸(單位mm)

T-toothed synchronous pulley tooth size (unit:mm)



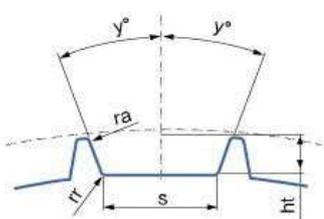
型號 Type	漸開綫齒形 Involute tooth profile	齒形角 tooth angle	齒底寬 Width of booth bottom	齒高 ht(tooth height)	齒根圓角 Fillet	齒頂圓角 Tip
	節距PB	$2y^\circ$	bw	hg	半徑rb	半徑rt
MXL	2.032	50	(0.61)0.67	0.64	0.30	0.23
XXL	3.175		0.96	0.84	0.30	0.28
XL	5.080		1.27	1.40	0.61	0.61
L	9.525		3.10	2.13	0.86	0.53
H	12.700	40	4.24	2.59	1.47	(1.04)1.42
XH	22.225		7.59	6.88	2.01	1.93
XXH	31.750		11.61	10.29	2.69	2.82

型號 Type	節距 Pitch	齒形角 tooth angle	齒槽頂寬 Top tooth width	齒深 tooth depth	齒根圓角 Fillet	齒頂圓角 Tip
	PB	$2y^\circ$	br	hg	半徑rt	半徑rb
T2.5	2.50	50	1.83	1.00	0.20	0.30
T5	5.00		3.32	1.95	0.40	0.60
T10	10.00		6.57	3.40	0.60	0.80
T20	20.00		12.6	6.00	0.80	1.20

注:MXL型括號內為23齒以下尺寸，H型括號內為19齒以下尺寸。

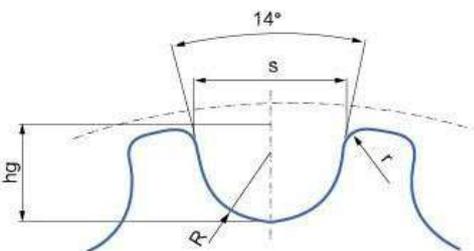
同步帶輪 Synchronous Pulley

AT齒同步帶輪齒形尺寸(單位mm)
AT-toothed synchronous pulley tooth size (unit:mm)



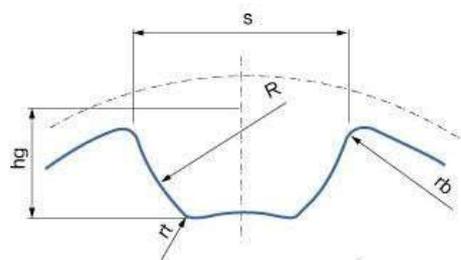
型號 Type	節距 Pitch	齒形角 tooth angle	齒槽頂寬 Top tooth width	齒深 tooth depth	齒根圓角 Fillet	齒頂圓角 Tip
	Pb	2y°	S	hg	半徑rr	半徑ra
AT3	3.00	50	1.50	1.00	0.20	0.30
AT5	5.00		2.70	1.10	0.40	0.70
AT10	10.00		5.40	2.35	0.50	1.20
AT20	20.00		10.00	5.00	1.75	2.50

圓弧齒同步帶輪齒形尺寸(單位mm)
Arc-toothed synchronous pulley tooth size (unit:mm)



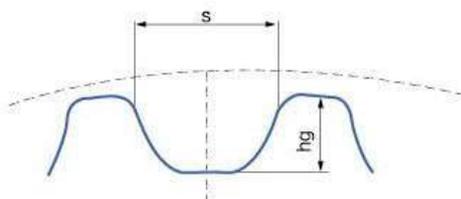
型號 Type	節距 Pitch	齒槽寬 Groove width	齒高 Tooth height	底圓 Clearance circle	齒頂圓角 Tip
	Pb	S	hg	半徑R	半徑r
3M	3.00	1.90	1.28	0.91	0.26~0.35
5M	5.00	3.25	2.16	1.56	0.48~0.52
8M	8.00	5.35	3.54	2.57	0.78~0.84
14M	14.00	9.80	6.20	4.65	1.36~1.50
20M	20.00	14.80	8.60	6.84	1.95~2.25

S齒同步帶輪齒形尺寸(單位mm)
S-toothed synchronous pulley tooth size (unit:mm)



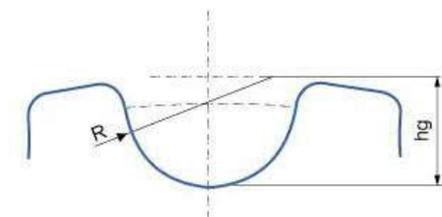
型號 Type	節距 Pitch	齒槽寬 Groove width	齒高 Tooth height	底圓 Clearance circle	齒根圓角 Fillet	齒頂圓角 Tip
	Pb	S	hg	半徑R	半徑rt	半徑rb
S2M	2.00	1.30	0.76	1.325	0.10	0.19
S3M	3.00	1.95	1.11	1.975	0.15	0.28
S4.5M	4.50	2.93	1.59	2.980	0.20	0.38
S5M	5.00	3.25	1.77	3.275	0.25	0.55
S8M	8.00	5.20	2.83	5.300	0.40	0.75
S14M	14.00	9.10	4.95	9.280	0.75	1.31

拋物線齒同步帶輪齒形尺寸(單位mm)
Parabolic-toothed synchronous pulley tooth size (unit:mm)



型號 Type	節距 Pitch	齒槽寬 Groove width	齒高 Tooth height
	Pb	S	hg
P2M	2.00	1.33	0.73
P3M	3.00	2.00	1.09
P5M	5.00	3.32	1.81
P8M	8.00	5.35	2.90

G,Y齒同步帶輪齒形尺寸(單位mm)
G,Y-toothed synchronous pulley tooth size (unit:mm)



型號 Type	節距 Pitch	齒槽寬 Groove width	齒高 Tooth height
	Pb	hg	半徑R
G2M	2.00	0.75	1.00
G3M	3.00	1.14	1.52
G5M	5.00	1.93	2.54
Y8M	8.00	3.02	3.80

MXL同步帶輪 MXL Synchronous Pulley

標準同步帶寬度	K	W	L
019=4.8mm	6	10	16.5
025=6.4mm	7.5	11.5	18
037=9.5mm	11	15	22
050=12.7mm	14	18	25

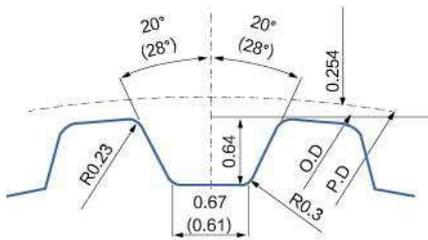
M*螺紋孔尺寸表: (軸孔規格P、N)

M*Threaded hole size table: (Axle hole specifications P、N)

dh7軸孔內徑 Inner diameter of dh7 axle hole	3~5	6~18	19~21
M粗牙螺紋 M coarse thread	M3	M4	M5

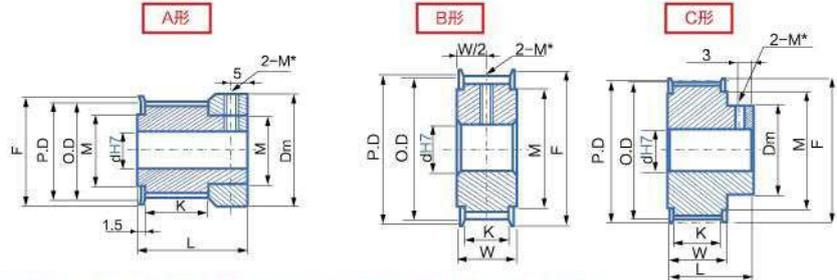
MXL輪齒形圖

MXL Pulley tooth profile figure



帶輪形狀

Pulley shape



齒槽尺寸會因齒數不同而略有差別(節距2.032mm) 注:單邊尺寸超過50mm 建議做減輕處理。
Tooth space size slightly varies according to different teeth (pitch=2.032mm) Note: Single side dimension exceeds 50mm, it is recommended to do lightening treatment.

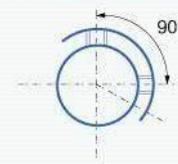
規格 Type	形狀 Shape	節徑 P.D	外徑 O.D	檔邊外徑 F	檔邊內徑 M	輪轂直徑 Dm	內孔DH7 Inner Hole DH7				
							A形 A-shaped		B、C形 B、C-shaped		
							H	C.N	H	P	C.N
14MXL	C	9.06	8.55	12	6	12	3、4	-	3、4	3、4	-
15MXL		9.70	9.19	12	6	12	3、4	-	3、4	3、4	-
16MXL		10.35	9.84	14	8	14	3、4、5	-	3、4、5	3、4、5	-
17MXL		11.00	10.49	14	8	14	3、4、5	-	3、4、5	3、4、5	-
18MXL		11.64	11.14	14	8	14	3、4、5	-	3、4、5	3、4、5	-
19MXL		12.29	11.78	14	8	14	3、4、5	-	3、4、5	3、4、5	-
20MXL		12.94	12.43	18	11	9	3-6	-	4-6	4、5	-
21MXL	A	13.58	13.08	18	11	9	3-6	-	4-6	4、5	-
22MXL		14.23	13.72	18	11	9	3-6	-	4-6	4、5	-
23MXL		14.88	14.37	20	12	11	3-8	-	4-7	3-7	-
24MXL		15.52	15.02	20	12	11	3-8	-	4-7	3-7	-
25MXL		16.17	15.66	20	12	11	3-8	-	4-7	3-7	-
26MXL		16.82	16.31	23	13	12	3-9	-	4-8	3-8	-
27MXL		17.46	16.96	23	13	12	4-9	-	4-8	4-8	-
28MXL		18.11	17.60	23	13	12	4-9	-	4-8	4-8	-
30MXL		19.40	18.90	25	16	14	4-11	8	4-10	4-8	-
32MXL		20.70	20.19	25	16	14	4-11	8	4-10	4-8	-
34MXL	21.99	21.48	25	16	14	4-11	8	4-10	4-8	-	
36MXL	23.29	22.78	28	18	16	5-13	8-11	5-12	5-10	8	
38MXL	B	24.58	24.07	28	18	16	5-13	8-11	5-12	5-10	8
40MXL		25.87	25.36	31	20	18	5-15	8-13	5-14	5-10	8-10
42MXL		27.17	26.66	31	20	18	5-15	8-13	5-14	5-10	8-10
44MXL		28.46	27.95	33	22	20	5-18	8-16	5-16	5-12	8-12
46MXL		29.75	29.24	33	22	20	5-18	8-16	5-16	5-12	8-12
48MXL		31.05	30.54	35	24	22	5-20	8-18	5-18	5-13	8-13
50MXL		32.34	31.83	35	24	22	5-20	8-19	5-18	5-13	8-13
60MXL		38.81	38.30	44	32	28	5-27	8-25	5-24	5-20	8-16
72MXL		46.57	46.06	52	38	30	5-35	8-33	5-26	5-21	8-18

軸孔規格 Axle hole specifications



變更止動螺絲角度用KC90表示

Kc90 shows alteration of stop screw angle



XL同步带轮 XL Synchronous Pulley

標準同步帶寬度	K	W	L
025=6.4mm	7.5	12.5	21
031=7.9mm	9	14	23
037=7.9mm	11	16	25
050=12.7mm	14	19	28

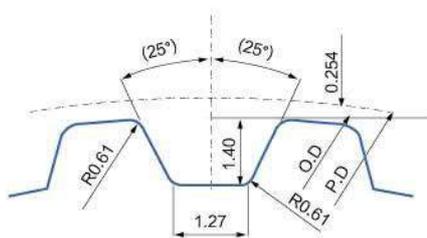
M*螺紋孔尺寸表: (軸孔規格P、N)

M*Threaded hole size table: (Axle hole specifications P、N)

dh7軸孔內徑 Inner diameter of dh7 axle hole	4	5~12	13~17	18~30
M粗牙螺紋 M coarse thread	M3	M4	M5	M6

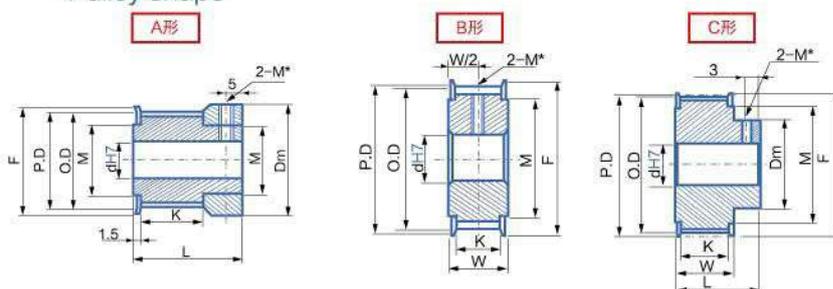
XL輪齒形圖

XL Pulley tooth profile figure



帶輪形狀

Pulley shape



齒槽尺寸會因齒數不同而略有差別(節距5.08mm) 注: 單邊尺寸超過50mm 建議做減輕處理。
Tooth space size slightly varies according to different teeth (pitch=5.08mm)

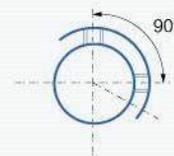
規格 Type	形狀 Shape	節徑 P.D	外徑 O.D	檔邊外徑 F	檔邊內徑 M	輪轂直徑 Dm	內孔DH7 Inner Hole DH7					
							A形 A-shaped			B形 B-shaped		
							H	P	C.N	H	P	C.N
10XL	A	16.17	15.66	23	13	10	4~7	-	-	5、6	5、6	-
11XL		17.79	17.28	23	13	10	4~7	-	-	5、6	5、6	-
12XL		19.40	18.89	25	14	12	4~10	4~6	-	6~8	5、6	-
14XL		22.64	22.13	28	18	15	5~13	5~9	8	6~11	6~8	8
15XL		24.26	23.75	32	20	17	5~13	5~11	8~10	6~13	6~10	8、10
16XL		25.87	25.36	32	20	17	6~13	6~13	8~13	6~13	6~10	8、10
18XL		29.11	28.60	35	24	21	6~16	6~15	8~15	6~16	6~13	8~13
19XL		30.72	30.21	35	24	21	6~16	6~15	8~15	6~16	6~15	8~13
20XL		32.34	31.83	38	26	24	8~19	8~16	8~16	8~19	8~15	8~15
21XL		33.96	33.45	38	26	24	8~19	8~18	8~18	8~19	8~16	8~16
22XL	B	35.57	35.06	44	32	26	8~22	8~20	8~20	8~22	8~18	8~18
24XL		38.81	38.30	44	32	26	8~22	8~22	8~22	8~22	8~18	8~18
25XL		40.43	39.92	48	36	30	8~27	8~22	8~22	8~26	8~19	8~19
26XL		42.04	41.53	48	36	30	8~27	8~23	8~23	8~26	8~20	8~20
28XL		45.28	44.77	55	39	35	8~32	8~25	8~25	8~31	8~25	8~20
30XL		48.51	48.00	55	39	35	10~32	10~30	10~30	10~31	10~25	10~20
32XL		51.74	51.23	60	46	40	10~37	10~30	10~30	10~36	10~30	10~25
34XL		54.98	54.47	60	46	40	10~38	10~30	10~30	10~36	10~30	10~25
36XL		58.21	57.70	67	50	40	10~42	10~30	10~30	10~36	10~30	10~25
38XL		61.45	60.94	67	50	40	10~43	10~30	10~30	10~36	10~30	10~25
40XL	64.68	64.17	74	53	40	10~50	10~30	10~30	10~36	10~30	10~25	
42XL	67.91	67.40	74	53	40	10~50	10~30	10~30	10~36	10~30	10~25	
44XL	71.15	70.64	78	58	40	10~52	10~30	10~30	10~36	10~30	10~25	
46XL	74.38	73.87	78	58	40	10~55	10~30	10~30	10~36	10~30	10~25	
48XL	77.62	77.11	87	68	40	10~59	10~30	10~30	10~36	10~30	10~25	
50XL	80.85	80.34	87	68	40	10~59	10~30	10~30	10~36	10~30	10~25	
60XL	97.02	96.51	105	84	40	10~76	10~30	10~30	10~36	10~30	10~25	
72XL	116.43	115.92	123	101	40	10~80	10~30	10~30	10~36	10~30	10~25	

軸孔規格 Axle hole specifications



變更止動螺絲角度用KC90表示

Kc90 shows alteration of stop screw angle



L同步帶輪 L Synchronous Pulley

標準同步帶寬度	K	W	L	L60齒以下	L60齒以上
050=12.7mm	14	19	5	31	39
075=19.1mm	21	26	8	38	46
100=25.4mm	27	32	11	44	53
150=38.1mm	40	45	14	57	-

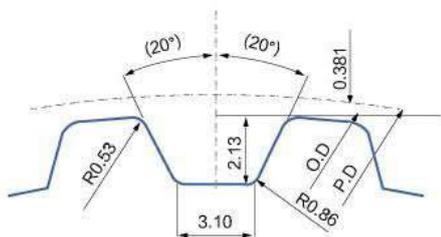
M*螺紋孔尺寸表: (軸孔規格P、N)

M*Threaded hole size table: (Axle hole specifications P、N)

dh7軸孔內徑 Inner diameter of dh7 axle hole	6-12	13-17	18-30	31-45	46-65
M粗牙螺紋 M coarse thread	M4	M5	M6	M8	M10

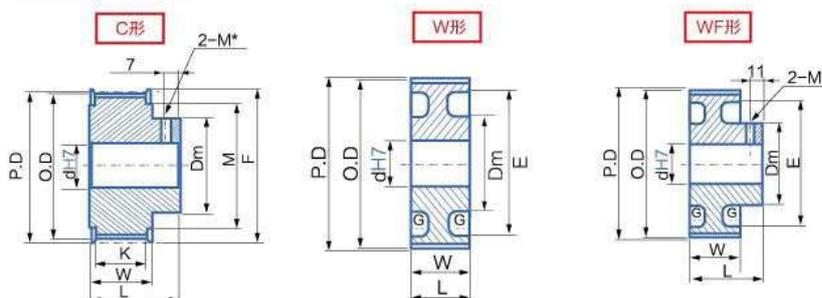
L輪齒形圖

L Pulley tooth profile figure



帶輪形狀

Pulley shape



齒槽尺寸會因齒數不同而略有差別(節距9.525mm) 注: 單邊尺寸超過50mm 建議做減輕處理。

Tooth space size slightly varies according to different teeth (pitch=9.525mm)

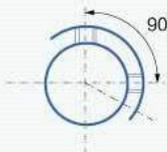
規格 Type	形狀 Shape	節徑 P.D	外徑 O.D	檔邊 外徑 F	檔邊 內徑 M	透孔 外徑 E	輪殼直徑 Dm	內孔DH7 Inner Hole DH7					
								A形 A-shaped			B、W形 B、W-shaped		
								H	P	C.N	H	P	C.N
12L	A	36.38	35.62	44	32	-	27	8-22	8-18	8-18	8-22	8-18	8-18
14L		42.45	41.69	48	36	-	30	8-27	8-21	8-21	8-26	8-20	8-20
15L		45.48	44.72	48	36	-	30	8-27	8-23	8-23	8-26	8-20	8-20
16L		48.51	47.75	55	39	-	32	10-32	10-26	10-23	10-28	10-22	10-22
17L		51.54	50.78	55	39	-	34	10-32	10-26	10-26	10-30	10-24	10-23
18L		54.57	53.81	60	46	-	36	10-37	10-29	10-29	10-32	10-26	10-23
19L		57.61	56.85	67	50	-	38	12-42	12-34	12-30	12-34	12-28	12-25
20L		60.64	59.88	67	50	-	40	12-42	12-34	12-30	12-36	12-30	12-26
21L		63.67	62.91	70	55	-	42	12-48	12-40	12-32	12-38	12-30	12-26
22L		66.70	65.94	78	58	-	45	12-52	12-42	12-34	12-41	12-33	12-30
24L	B	72.77	72.01	87	68	-	50	12-59	12-49	12-41	12-46	12-38	12-30
25L		75.80	75.04	87	68	-	50	12-59	12-49	12-41	12-46	12-38	12-30
26L		78.83	78.07	87	68	-	50	12-59	12-49	12-41	12-46	12-38	12-30
28L		84.89	84.13	94	74	-	50	12-67	12-57	12-49	12-46	12-38	12-30
30L		90.96	90.20	99	78	-	56	12-72	12-62	12-50	12-52	12-42	12-34
32L		97.02	96.26	105	84	-	56	14-76	14-65	14-50	14-52	14-42	14-34
34L		103.08	102.32	112	90	-	63	14-80	14-65	14-50	14-59	14-49	14-41
36L		109.15	108.39	123	101	-	63	14-80	14-65	14-50	14-59	14-49	14-41
38L		115.22	114.46	126	100	-	63	16-80	16-65	16-50	16-59	16-49	16-50
40L		121.28	120.52	131	111	-	63	16-80	16-65	16-50	16-67	16-49	16-41
42L	127.34	126.58	135	115	-	71	16-80	16-65	16-50	16-67	16-57	16-41	
44L	133.40	132.64	136	118	-	71	16-80	16-65	16-50	16-67	16-57	16-49	
46L	139.47	137.71	144	111	-	71	16-80	16-65	16-50	16-67	16-57	16-49	
48L	145.53	144.77	152	134	-	71	16-80	16-65	16-50	16-67	16-57	16-49	
50L	151.60	150.84	160	140	-	71	16-80	16-65	16-50	16-67	16-57	16-49	
60L	W	181.91	181.15	-	-	160	71	16-100	16-65	16-50	16-67	16-57	16-49
72L		218.30	217.54	-	-	197	71	16-100	16-65	16-50	16-67	16-57	16-49

軸孔規格 Axle hole specifications



變更止動螺絲角度用KC90表示

Kc90 shows alteration of stop screw angle



H同步帶輪 H Synchronous Pulley

標準同步帶寬度	K	W	G	L	L38齒 ~70齒	L72齒 以上
075=19.1mm	21	26	7	41	-	-
100=25.4mm	27	32	11	47	53	58
150=38.1mm	40	45	14	60	65	70
200=50.8mm	54	59	18	74	-	-

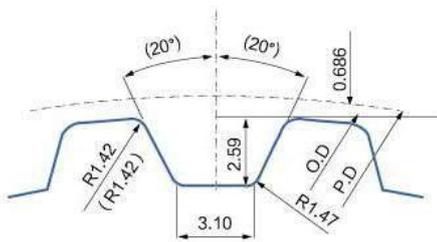
M*螺紋孔尺寸表: (軸孔規格P、N)

M*Threaded hole size table: (Axle hole specifications P、N)

dh7軸孔內徑 Inner diameter of dh7 axle hole	12	13~17	18~30	31~45	46~65
M粗牙螺紋 M coarse thread	M4	M5	M6	M8	M10

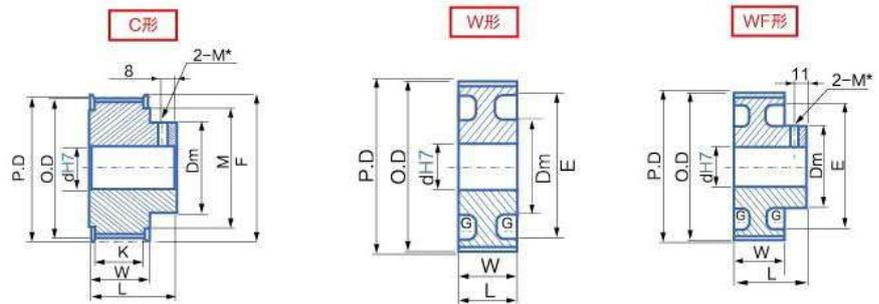
H輪齒形圖

H Pulley tooth profile figure



帶輪形狀

Pulley shape



齒槽尺寸會因齒數不同而略有差別(節距12.70mm) 注: 單邊尺寸超過50mm 建議做減輕處理。

Tooth space size slightly varies according to different teeth (pitch=12.70mm)

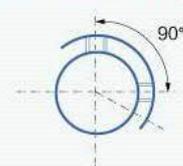
規格 Type	形狀 Shape	節徑 P.D	外徑 O.D	檔邊 外徑 F	檔邊 內徑 M	透孔 外徑 E	輪轂直徑 Dm	內孔DH7 Inner Hole DH7					
								A形 A-shaped			B、W形 B、W-shaped		
								H	P	C.N	H	P	C.N
14H	A	56.60	55.22	60	46	-	39	12~37	12~30	12~29	12~35	12~29	12~25
15H		60.64	59.27	67	50	-	45	12~42	12~34	12~30	12~41	12~33	12~29
16H		64.68	63.31	70	55	-	48	12~48	12~40	12~35	12~44	12~36	12~30
17H		68.72	67.35	80	60	-	48	12~52	12~44	12~40	12~44	12~36	12~30
18H		72.77	71.39	80	60	-	50	12~52	12~44	12~43	12~46	12~38	12~35
19H		76.81	75.44	87	68	-	50	14~59	14~49	14~47	14~46	14~38	14~35
20H		80.85	79.48	87	68	-	58	14~59	14~50	14~50	14~54	14~46	14~38
21H		84.89	83.52	94	74	-	58	14~67	14~57	14~50	14~54	14~46	14~38
22H		88.94	87.56	94	74	-	58	14~67	14~57	14~50	16~54	14~46	14~38
24H		97.02	95.65	105	84	-	58	16~76	16~65	16~50	16~59	16~46	16~38
25H	B	101.06	99.69	112	90	-	63	16~80	16~65	16~50	20~59	16~49	16~41
26H		105.11	103.73	112	90	-	63	20~80	20~65	20~50	20~59	20~49	20~41
28H		113.19	111.82	123	101	-	63	20~80	20~65	20~50	20~59	20~49	20~41
30H		121.28	119.90	126	100	-	63	20~80	20~65	20~50	20~59	20~49	20~41
32H		129.36	127.99	135	115	-	63	20~80	20~65	20~50	20~67	20~49	20~43
34H		137.45	136.07	144	111	-	71	20~80	20~65	20~50	20~67	20~57	20~49
36H		145.53	144.16	152	134	-	71	20~80	20~65	20~50	20~67	20~57	20~49
38H		153.62	152.24	165	136	126	88	20~80	20~65	20~50	20~67	20~57	20~49
40H		161.70	160.33	170	150	135	88	20~80	20~65	20~50	20~67	20~57	20~49
42H		169.79	168.41	180	155	143	88	20~80	20~65	20~50	20~67	20~57	20~49
44H	177.87	176.50	190	161	152	88	20~80	20~65	20~50	20~67	20~57	20~49	
48H	194.04	192.67	205	180	168	88	20~80	20~65	20~50	20~67	20~57	20~49	
50H	W	202.13	200.76	210	185	175	88	20~100	20~65	20~50	20~67	20~57	25~49
60H		242.55	241.18	-	-	216	88	-	-	-	25~67	20~57	25~49
60H		242.55	241.18	-	-	216	88	-	-	-	25~67	20~57	25~49
72H		291.06	289.69	-	-	265	88	-	-	-	25~67	20~57	25~49

軸孔規格 Axle hole specifications



變更止動螺絲角度用KC90表示

Kc90 shows alteration of stop screw angle



T2.5同步帶輪 T2.5 Synchronous Pulley

標準同步帶寬度	K	W	L
06=6mm	7	11	18
10=10mm	11	15	22
15=15mm	16	20	27

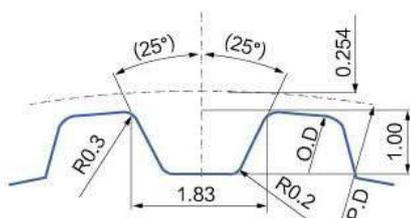
M*螺紋孔尺寸表: (軸孔規格P、N)

M*Threaded hole size table: (Axle hole specifications P、N)

dh7軸孔內徑 Inner diameter of dh7 axle hole	3-5	6-18	19-21
M粗牙螺紋 M coarse thread	M3	M4	M5

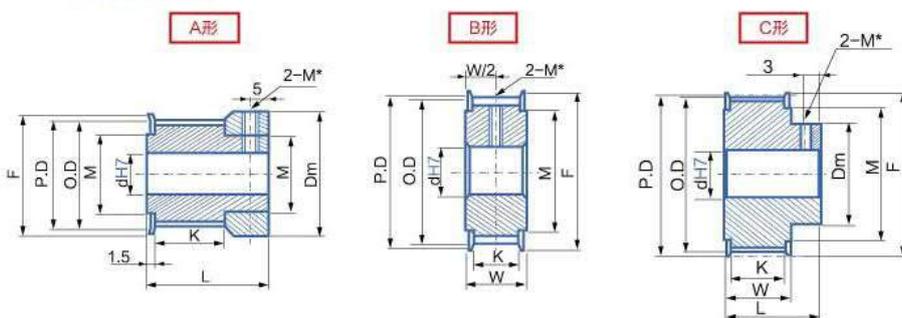
T2.5輪齒形圖

T2.5 Pulley tooth profile figure



帶輪形狀

Pulley shape



齒槽尺寸會因齒數不同而略有差別(節距2.50mm) 注: 單邊尺寸超過50mm 建議做減輕處理。

Tooth space size slightly varies according to different teeth (pitch=2.50mm)

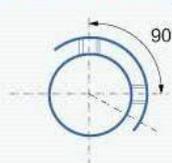
規格 Type	形狀 Shape	節徑 P.D	外徑 O.D	檔邊 外徑 F	檔邊 內徑 M	輪轂直徑 Dm	內孔DH7 Inner Hole DH7				
							A形 A-shaped		B、C形 B、C-shaped		
							H	C.N	H	P	C.N
T2.5x16	C	12.73	12.22	16	9.5	16	3、4、5	-	3、4、5	3、4、5	-
T2.5x18		14.32	13.81	18	11	18	3-6	-	4-6	4、5	-
T2.5x20		15.92	15.41	20	12	20	3-6	-	4-6	4、5	-
T2.5x21		16.71	16.20	21	13	21	3-6	-	4-6	4、5	-
T2.5x22		17.51	17.00	23	13	23	3-6	-	4-6	4、5	-
T2.5x23		18.30	17.79	25	14	25	3-8	-	4-7	3-7	-
T2.5x24		19.10	18.59	25	14	25	3-8	-	4-7	3-7	-
T2.5x25		19.89	19.38	25	16	13	3-8	-	4-7	3-7	-
T2.5x26	A	20.69	20.18	25	16	13	3-9	-	4-8	3-8	-
T2.5x27		21.49	20.98	25	16	14	4-9	-	4-8	4-8	-
T2.5x28		22.28	21.77	25	16	13	4-9	-	4-8	4-8	-
T2.5x30		23.87	23.36	28	18	16	4-11	8	4-10	4-8	-
T2.5x32		25.47	24.96	32	20	16	4-11	8	4-10	4-8	-
T2.5x34		27.06	26.55	35	24	18	4-11	8	4-10	4-8	-
T2.5x36		28.65	28.14	35	24	20	5-13	8-11	5-12	5-10	8
T2.5x38		30.24	29.73	38	26	22	5-13	8-11	5-12	5-10	8
T2.5x40	B	31.83	31.32	38	26	22	5-15	8-13	5-14	5-10	8、10
T2.5x42		33.42	32.91	42	28	24	5-15	8-13	5-14	5-10	8、10
T2.5x44		35.01	34.50	42	28	24	5-18	8-16	5-16	5-12	8-12
T2.5x45		35.81	35.30	-	-	26	5-18	8-16	5-16	5-12	8-12
T2.5x48		38.20	37.69	-	-	26	5-20	8-18	5-18	5-13	8-13
T2.5x54		42.97	42.46	-	-	30	5-20	8-18	5-18	5-13	8-13
T2.5x57		45.36	44.85	-	-	32	5-27	8-25	5-24	5-20	8-16
T2.5x60		47.75	47.24	-	-	34	5-35	8-33	5-26	5-21	8-18

軸孔規格 Axle hole specifications



變更止動螺絲角度用KC90表示

Kc90 shows alteration of stop screw angle



T5同步帶輪 T5 Synchronous Pulley

標準同步帶寬度	K	W	L
10=10mm	11	16	28
15=15mm	17	22	34
20=20mm	22	27	39
25=25mm	27	32	44

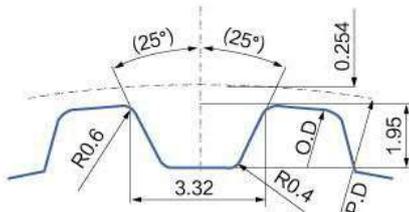
M*螺紋孔尺寸表: (軸孔規格P、N)

M*Threaded hole size table: (Axle hole specifications P、N)

dh7軸孔內徑 Inner diameter of dh7 axle hole	5	6~12	13~17	18~30	31~45
M粗牙螺紋 M coarse thread	M3	M4	M5	M6	M8

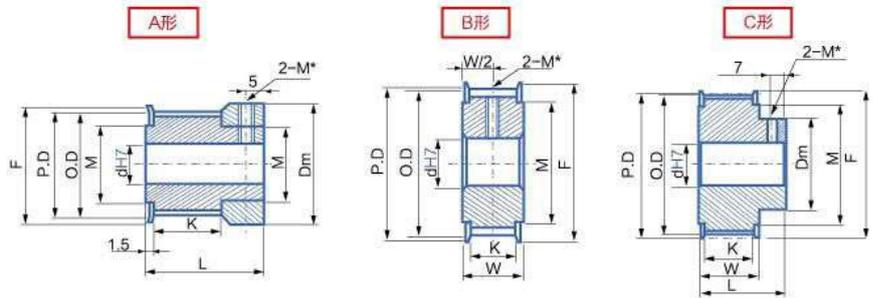
T5輪齒形圖

T5 Pulley tooth profile figure



帶輪形狀

Pulley shape



齒槽尺寸會因齒數不同而略有差別(節距5.00mm) 注: 單邊尺寸超過50mm 建議做減輕處理。

Tooth space size slightly varies according to different teeth (pitch=5.00mm)

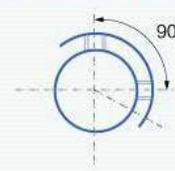
規格 Type	形狀 Shape	節徑 P.D	外徑 O.D	檔邊外徑 F	檔邊內徑 M	輪轆直徑 Dm	內孔DH7 Inner Hole DH7					
							A形 A-shaped			B形 B-shaped		
							H	P	C.N	H	P	C.N
T5x12	A	19.10	18.25	23	13	-	6-8	6-8	8	-	-	-
T5x14		22.28	21.43	25	16	14	6-10	6-10	8、10	6-10	6-8	-
T5x15		23.88	23.03	28	18	15	6-10	6-10	8、10	6-10	6-8	-
T5x16		25.46	24.61	32	20	17	7-12	7-12	8-12	7-12	7-10	8
T5x18		28.65	27.80	33	22	19	7-14	7-12	8-12	7-14	7-11	8.10
T5x20		31.83	30.98	35	24	19	7-16	7-16	8-16	7-15	7-12	8.10
T5x22		35.01	34.16	40	27	24	7-19	7-18	8-18	7-19	7-15	8-12
T5x24		38.20	37.35	44	32	27	7-22	7-20	8-20	7-22	7-17	8-13
T5x25		39.79	38.94	44	32	27	7-22	7-20	8-20	7-22	7-18	8-15
T5x26		41.38	40.53	47	34	31	8-27	8-22	8-22	8-27	8-21	8-17
T5x28	B	44.56	43.71	47	34	32	8-27	8-24	8-24	8-27	8-22	8-18
T5x30		47.75	46.90	51	36	33	10-28	10-26	10-26	10-28	10-23	10-18
T5x32		50.93	50.08	55	39	37	10-32	10-28	10-28	10-32	10-27	10-22
T5x34		54.11	53.26	60	46	40	10-37	10-30	10-30	10-36	10-30	10-25
T5x36		57.30	56.45	60	46	40	10-37	10-30	10-30	10-36	10-30	10-25
T5x40		63.66	62.81	67	50	47	10-42	10-38	10-38	10-42	10-37	10-29
T5x44		70.03	69.18	74	53	50	12-50	12-42	12-40	12-46	12-40	12-32
T5x48		76.39	75.54	83	63	60	12-55	12-45	12-40	12-55	12-45	12-40
T5x50		79.58	78.73	87	68	63	12-59	12-45	12-43	12-59	12-45	12-43
T5x60		95.49	94.64	99	78	75	12-72	12-45	12-45	12-71	12-45	12-45

軸孔規格 Axle hole specifications



變更止動螺絲角度用Kc90表示

Kc90 shows alteration of stop screw angle



T10同步帶輪 T10 Synchronous Pulley

標準同步帶寬度	K	W	L	L44齒以下	L44齒以上
15=15mm	17	22	5	37	-
20=20mm	22	27	8	42	-
25=25mm	27	32	11	47	52
30=30mm	32	37	14	52	57
40=40mm	43	48		61	63
50=50mm	53	58		70	-

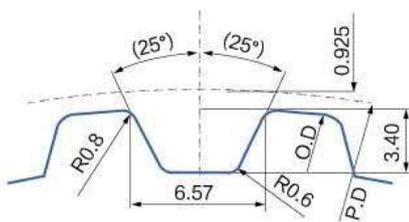
M*螺紋孔尺寸表: (軸孔規格P、N)

M*Threaded hole size table: (Axle hole specifications P、N)

dh7軸孔內徑 Inner diameter of dh7 axle hole	8~12	13~17	18~30	31~45	46~65
M粗牙螺紋 M coarse thread	M4	M5	M6	M8	M10

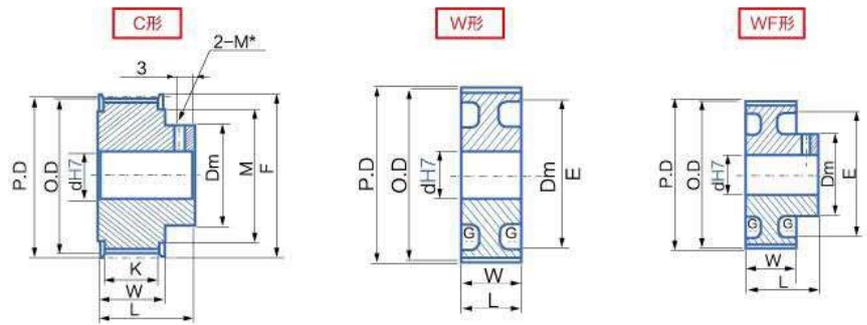
T10輪齒形圖

T10 Pulley tooth profile figure



帶輪形狀

Pulley shape



齒槽尺寸會因齒數不同而略有差別(節距10.00mm) 注: 單邊尺寸超過50mm 建議做減輕處理。
tooth space size slightly according to different teeth (pitch=10.00mm)

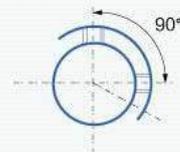
規格 Type	形狀 Shape	節徑 P.D	外徑 O.D	檔邊外徑 F	檔邊內徑 M	輪穀直徑 Dm	內孔DH7 Inner Hole DH7						
							A形 A-shaped			B形 B-shaped			
							H	P	C.N	H	P	C.N	
T10x12	A	38.20	36.35	40	27	-	12~19	12~18	12~18	-	-	-	
T10x14	A	44.56	42.71	48	36	32	12~27	12~26	12~26	12~27	12~22	12~20	
T10x15		47.75	45.90	51	36	33	12~28	12~26	12~26	12~28	12~23	12~20	
T10x16		50.93	49.08	57	41	37	12~32	12~30	12~30	12~32	12~27	12~22	
T10x18		57.28	55.43	61	48	40	12~37	12~30	12~30	12~36	12~30	12~25	
T10x20		63.66	61.81	67	50	47	12~42	12~40	12~40	12~42	12~35	12~29	
T10x22		70.03	68.18	80	60	50	14~52	14~48	14~48	14~46	14~38	14~32	
T10x24		76.39	74.54	87	68	60	14~59	14~50	14~50	14~56	14~46	14~40	
T10x25		79.58	77.73	87	68	63	14~59	14~50	14~50	14~59	14~49	14~43	
T10x26		82.76	80.91	87	68	63	14~59	14~50	14~50	14~59	14~49	14~43	
T10x28		89.13	87.28	94	74	70	16~67	16~57	16~50	16~66	16~56	16~48	
T10x30		B	95.49	93.64	105	84	75	16~76	16~65	16~50	16~71	16~61	16~50
T10x32		101.86	100.01	112	90	85	20~80	20~65	20~50	20~80	20~65	20~50	
T10x34		108.23	106.38	119	100	90	20~80	20~65	20~50	20~80	20~65	20~50	
T10x36		114.59	112.74	123	101	95	20~80	20~65	20~50	20~80	20~65	20~50	
T10x40		127.32	125.47	135	115	100	20~80	20~65	20~50	20~80	20~65	20~50	
T10x44		140.06	138.21	152	121	100	20~80	20~65	20~50	20~80	20~65	20~50	
T10x48		152.78	150.93	160	140	100	20~80	20~65	20~50	20~80	20~65	20~50	
T10x50		159.15	157.30	170	150	100	20~80	20~65	20~50	20~80	20~65	20~50	
T10x60	190.99	189.14	201	171	100	20~80	20~65	20~50	20~80	20~65	20~50		

軸孔規格 Axle hole specifications



變更止動螺絲角度用KC90表示

Kc90 shows alteration of stop screw angle



T20同步帶輪 T20 Synchronous Pulley

標準同步帶寬度	K	W	G	L
32=32mm	35	41	12	70
50=50mm	57	65	20	94
75=75mm	80	88	25	118
100=100mm	105	112	30	123
115=115mm	120	130	35	160

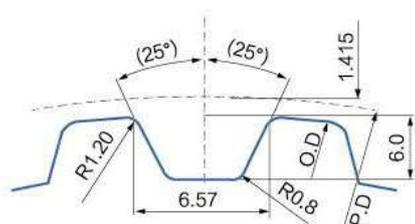
M*螺紋孔尺寸表: (軸孔規格P、N)

M*Threaded hole size table: (Axle hole specifications P、N)

dh7軸孔內徑 Inner diameter of dh7 axle hole	8~12	13~17	18~30	31~45	46~65
M粗牙螺紋 M coarse thread	M4	M5	M6	M8	M10

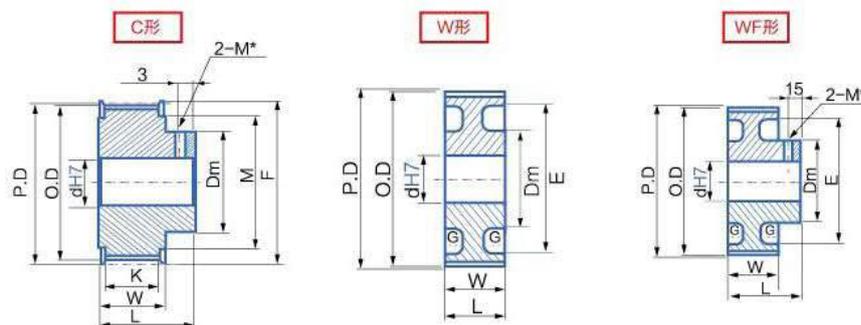
T20輪齒形圖

T20 Pulley tooth profile figure



帶輪形狀

Pulley shape



齒槽尺寸會因齒數不同而略有差別(節距20.00mm) 注: 單邊尺寸超過50mm 建議做減輕處理。
tooth space size slightly according to different teeth (pitch=20.00mm) Note: single side dimension exceeds 50mm, suggest lightening treatment.

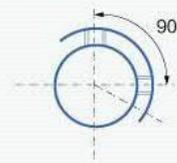
規格 Type	形狀 Shape	節徑 P.D	外徑 O.D	檔邊 外徑 F	檔邊 內徑 M	透孔 外徑 E	輪轂直徑 Dm	內孔DH7 Inner Hole DH7				
								A形 A-shaped		B、W形 B、W-shaped		
								H	C.N	H	C.N	
T20x18	A	114.59	111.76	120	80	-	65	24~60	24~40	24~60	24~40	
T20x19		120.96	118.13	130	80	-	65	24~60	24~42	24~60	24~42	
T20x20		127.33	124.49	136	90	-	85	24~60	24~45	24~60	24~45	
T20x21		133.69	130.86	142	92	-	85	24~110	24~55	24~110	24~55	
T20x22		140.06	137.23	150	100	-	90	25~110	25~55	25~110	25~55	
T20x24	B	152.79	149.96	158	112	-	95	25~100	25~65	25~100	25~65	
T20x25		159.15	156.32	168	120	-	95	28~110	28~65	28~110	28~65	
T20x26		165.52	162.69	175	126	-	95	28~110	28~65	28~110	28~65	
T20x27		171.89	169.06	181	134	-	95	28~120	28~72	28~120	28~72	
T20x28		178.25	175.42	187	140	-	110	28~120	28~72	28~120	28~72	
T20x30	W	190.99	188.16	200	152	-	110	32~142	32~75	32~142	32~75	
T20x32		203.72	200.89	-	-	160	110	32~142	32~75	32~142	32~75	
T20x34		216.45	213.62	-	-	174	110	35~142	35~75	35~142	35~75	
T20x38		241.92	239.09	-	-	199	110	35~120	35~75	35~120	35~75	
T20x40		254.65	251.82	-	-	212	110	35~120	35~75	35~120	35~75	
T20x48		305.58	302.75	-	-	262	130	40~120	40~85	40~120	40~85	
T20x60		381.97	379.14	-	-	340	130	40~120	40~85	40~120	40~85	

軸孔規格 Axle hole specifications



變更止動螺絲角度用KC90表示

Kc90 shows alteration of stop screw angle



AT5同步帶輪 AT5 Synchronous Pulley

標準同步帶寬度	K	W	L	L: 18 ~28齒	L: 18 ~28齒
10=10mm	11.5	16.5	25	27	29
15=15mm	16.5	21.5	30	32	34
20=20mm	21.5	26.5	39	41	43
25=25mm	26.5	31.5	44	43	48

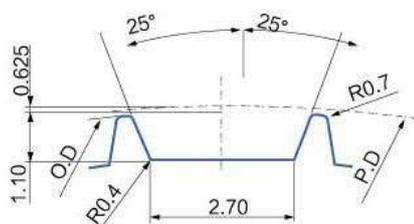
M*螺紋孔尺寸表: (軸孔規格P、N)

M*Threaded hole size table: (Axle hole specifications P、N)

dh7軸孔內徑 Inner diameter of dh7 axle hole	5	6~12	13~17	18~30	31~45
M粗牙螺紋 M coarse thread	M3	M4	M5	M6	M8

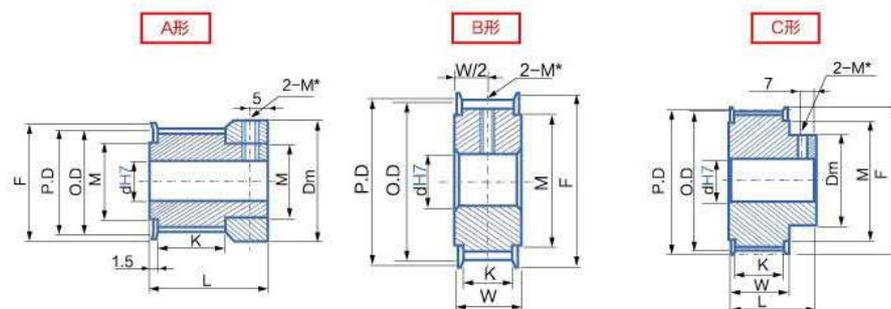
AT5輪齒形圖

AT5 Pulley tooth profile figure



帶輪形狀

Pulley shape



齒槽尺寸會因齒數不同而略有差異 (節距: 5.00mm) 注: 單邊尺寸超過50mm 建議做減輕處理。

Tooth space size slightly varies according to different teeth (pitch=5.00mm)

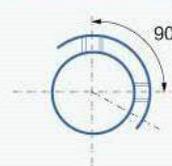
規格 Type	形狀 Shape	節徑 P.D	外徑 O.D	檔邊外徑 F	檔邊內徑 M	輪載直徑 Dm	軸孔徑dh7 Axle aperture dh7					
							A形 A-shaped			B形 B-shaped		
							H	P	C.N	H	P	C.N
AT5X15	A	23.88	22.63	28	18	13	5-10	5-10	8、10	5-10	5-8	-
AT5X16		25.46	24.21	32	20	16	6-12	6-12	8-12	6-12	6-10	8
AT5X18		28.65	27.40	33	22	16	6-14	6-12	8-12	6-14	6-11	8、10
AT5X20		31.83	30.58	35	24	20	6-16	6-16	8-16	6-15	6-12	8、10
AT5X22		35.01	33.76	40	27	20	7-19	7-18	8-18	7-19	7-15	8-12
AT5X24		38.20	36.95	44	32	25	7-22	7-20	8-20	7-22	7-17	8-13
AT5X25		39.79	38.54	44	32	25	7-22	7-20	8-20	7-22	7-18	8-15
AT5X26		41.38	40.13	47	34	30	8-27	8-22	8-22	8-27	8-21	8-17
AT5X28		44.56	43.31	47	34	30	8-27	8-24	8-24	8-27	8-22	8-18
AT5X30		47.75	46.50	51	36	35	10-28	10-26	10-26	8-28	10-23	10-18
AT5X32	B	50.93	49.68	55	39	35	10-32	10-28	10-28	10-32	10-27	10-22
AT5X36		57.30	56.05	60	46	40	10-37	10-30	10-30	10-36	10-30	10-25
AT5X40		63.66	62.41	67	50	45	10-42	10-38	10-38	10-42	10-37	10-29
AT5X44		70.03	68.78	74	53	45	12-50	12-42	12-40	12-46	12-40	12-30
AT5X48		76.39	75.14	83	63	45	12-55	12-45	12-40	12-55	12-45	12-40
AT5X50		79.58	78.33	87	67	45	12-59	12-45	12-43	12-59	12-45	12-43
AT5X60		95.49	94.24	99	78	45	12-72	12-45	12-45	12-71	12-45	12-45

軸孔規格 Axle hole specifications



變更止動螺絲角度用KC90表示

Kc90 shows alteration of stop screw angle



AT10同步帶輪 AT10 Synchronous Pulley

標準同步帶寬度	K	W	L: 18 ~28齒	L: 18 ~28齒
15=15mm	16.5	22.5	38	40
20=20mm	21.5	27.5	43	45
25=25mm	26.5	32.5	48	50
30=30mm	31.5	36.5	52	54
40=40mm	41.5	46.5	62	64
50=50mm	52	57	73	75

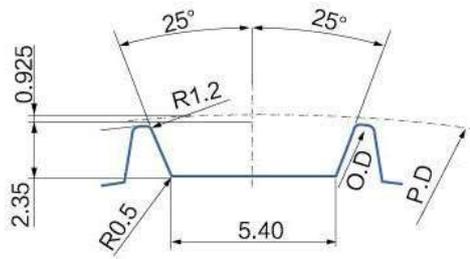
M*螺紋孔尺寸表: (軸孔規格P、N)

M*Threaded hole size table: (Axle hole specifications P、N)

dh7軸孔內徑 Inner diameter of dh7 axle hole	10~12	13~17	18~30	31~45	46~65
M粗牙螺紋 M coarse thread	M4	M5	M6	M8	M10

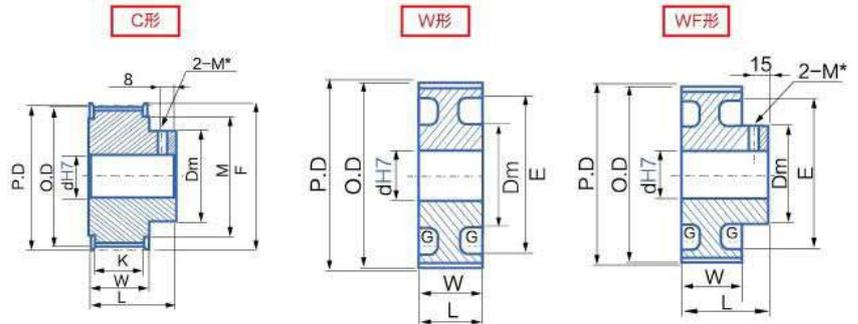
AT10輪齒形圖

AT10 Pulley tooth profile figure



帶輪形狀

Pulley shape



齒槽尺寸會因齒數不同而略有差異 (節距: 10.00mm) 注: 單邊尺寸超過50mm 建議做減輕處理。
Tooth space size slightly varies according to different teeth (pitch=10.00mm)

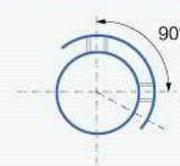
規格 Type	形狀 Shape	節徑 P.D	外徑 O.D	檔邊外徑 F	檔邊內徑 M	輪轂直徑 Dm	軸孔徑dh7 Axle aperture dh7						
							A形 A-shaped			B形 B-shaped			
							H	P	C.N	H	P	C.N	
AT10X14	A	44.56	42.71	48	36	34	10-27	10-26	10-26	10-27	10-27	10-20	
AT10X15		47.75	45.90	51	36	35	10-28	10-26	10-26	10-28	10-28	10-20	
AT10X16		50.93	49.08	57	41	35	12-32	12-30	12-30	12-32	12-32	12-22	
AT10X18		57.30	55.45	60	46	35	12-37	12-30	12-30	12-36	12-36	12-25	
AT10X20		63.66	61.81	67	50	40	12-42	12-40	12-40	12-42	12-42	12-29	
AT10X22		70.03	68.18	80	60	40	12-52	12-48	12-48	12-46	12-46	12-32	
AT10X24		76.39	74.54	87	68	50	12-59	12-50	12-50	12-56	12-56	12-40	
AT10X25		79.58	77.73	87	68	50	12-59	12-50	12-50	12-59	12-59	12-43	
AT10X26		82.76	80.91	87	68	50	12-59	12-50	12-50	12-59	12-59	12-43	
AT10X28		89.13	87.28	94	74	60	12-67	12-57	12-50	12-66	12-66	12-48	
AT10X30	B	95.49	93.64	105	84	60	12-76	12-65	12-50	12-71	12-71	12-50	
AT10X32		101.86	100.01	112	90	60	20-80	20-65	20-50	20-80	20-80	20-50	
AT10X36		114.59	112.74	123	101	60	20-80	20-65	20-50	20-80	20-80	20-50	
AT10X40		127.32	125.47	135	115	60	20-80	20-65	20-50	20-80	20-80	20-50	
AT10X44		140.06	138.21	152	121	60	20-80	20-65	20-50	20-80	20-80	20-50	
AT10X48		152.78	150.93	160	140	60	20-80	20-65	20-50	20-80	20-80	20-50	

軸孔規格 Axle hole specifications



變更止動螺絲角度用KC90表示

Kc90 shows alteration of stop screw angle



AT20同步帶輪 AT20 Synchronous Pulley

標準同步帶寬度	K	W	G	L
32=32mm	35	41	12	70
50=50mm	57	65	20	94
75=75mm	80	88	25	118
100=100mm	105	112	30	123
115=115mm	120	130	35	160

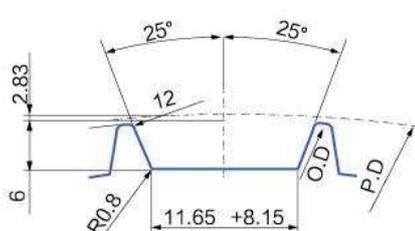
M*螺紋孔尺寸表: (軸孔規格P、N)

M*Threaded hole size table: (Axle hole specifications P、N)

dh7軸孔內徑 Inner diameter of dh7 axle hole	10~12	13~17	18~30	31~45	46~65
M粗牙螺紋 M coarse thread	M4	M5	M6	M8	M10

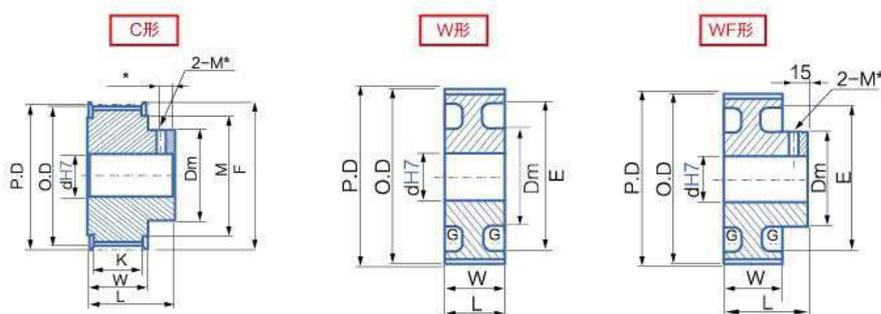
AT20輪齒形圖

AT20 Pulley tooth profile figure



帶輪形狀

Pulley shape



齒槽尺寸會因齒數不同而略有差異 (節距: 20.00mm) 注: 單邊尺寸超過50mm 建議做減輕處理。
Tooth space size slightly varies according to different teeth (pitch=20.00mm)

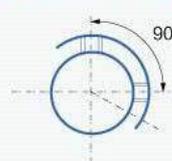
規格 Type	齒數 Teeth NO.	節徑 P.D	外徑 O.D	槽邊直徑 dF	槽邊內徑 M	槽邊厚度 h
AT20x18	18	114.59	111.76	124	98	4.5
AT20x19	19	120.96	118.13	130	104	4.5
AT20x20	20	127.35	124.49	136	110	4.5
AT20x21	21	133.69	130.86	143	117	4.5
AT20x22	22	140.06	137.23	149	123	4.5
AT20x23	23	146.42	143.59	156	130	4.5
AT20x24	24	152.79	149.96	162	136	4.5
AT20x25	25	159.15	156.32	168	142	4.5
AT20x26	26	165.52	162.69	175	149	4.5
AT20x27	27	171.89	169.06	181	155	4.5
AT20x28	28	178.25	175.42	187	161	4.5
AT20x29	29	184.62	181.79	194	168	4.5
AT20x30	30	190.99	188.16	200	174	4.5
AT20x32	32	203.72	200.89	-	-	-
AT20x34	34	216.45	213.62	-	-	-
AT20x36	36	229.18	226.35	-	-	-
AT20x38	38	241.92	239.09	-	-	-
AT20x40	40	254.65	251.82	-	-	-
AT20x42	42	267.38	264.55	-	-	-
AT20x44	44	280.11	277.28	-	-	-
AT20x46	46	292.85	290.02	-	-	-
AT20x48	48	305.58	302.75	-	-	-
AT20x48	50	318.31	315.48	-	-	-
AT20x60	60	381.97	379.14	-	-	-

軸孔規格 Axle hole specifications



變更止動螺絲角度用KC90表示

Kc90 shows alteration of stop screw angle



3M同步帶輪 3M Synchronous Pulley

標準同步帶寬度	K	W	L
06=6mm	7	11	19
09=9mm	11	15	23
12=12mm	14	18	26
15=15mm	17	21	29

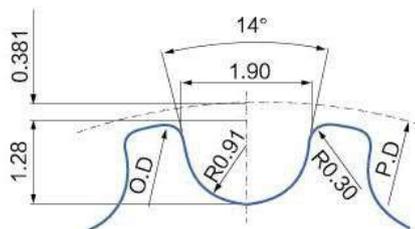
M*螺紋孔尺寸表: (軸孔規格P、N)

M*Threaded hole size table: (Axle hole specifications P、N)

dh7軸孔內徑 Inner diameter of dh7 axle hole	4~5	6~17	18~33
M粗牙螺紋 M coarse thread	M4	M5	M6

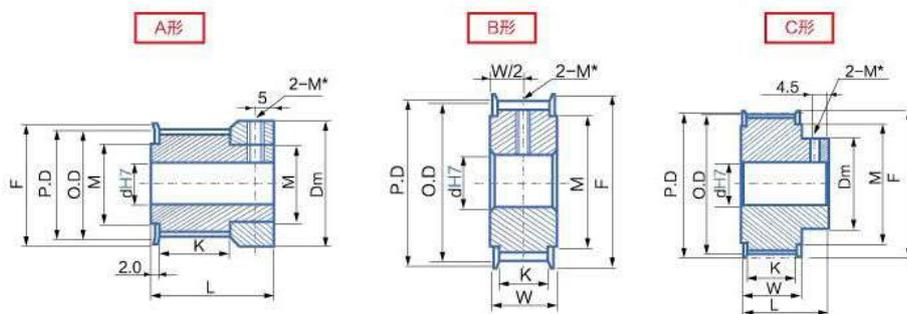
3M輪齒形圖

3M Pulley tooth profile figure



帶輪形狀

Pulley shape



齒槽尺寸會因齒數不同而略有差異 (節距: 3.00mm) 注: 單邊尺寸超過50mm 建議做減輕處理。

Tooth space size slightly varies according to different teeth (pitch=3.00mm)

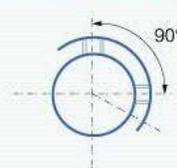
規格 Type	形狀 Shape	節徑 P.D	外徑 O.D	檔邊外徑 F	檔邊內徑 M	輪穀直徑 Dm	軸孔徑dh7 Axle aperture dh7						
							A形 A-shaped			C、B形 C、B-shaped			
							H	P	C.N	H	P	C.N	
14-3M	C	13.37	12.61	16	9.5	16	4、5、6	-	-	4、5、6	4、5、6	-	
15-3M		14.32	13.56	18	11	18	4、5、6	-	-	4、5、6	4、5、6	-	
16-3M		15.28	14.52	18	11	18	4-7	-	-	4-7	4-7	-	
18-3M		17.19	16.43	20	12	20	4-8	4、5	-	4-8	4-8	-	
19-3M	A	18.14	17.38	23	13	23	4-8	4、5、6	-	4-8	4-8	-	
20-3M		19.10	18.34	23	13	23	4-8	4、5、6	-	4-8	4-8	-	
22-3M		21.01	20.25	25	16	25	4-10	4-8	-	4-10	4-10	-	
24-3M		22.92	22.16	25	16	14	4-10	4-10	-	4-10	4-8	-	
25-3M	A	23.87	23.11	28	18	16	4-11	4-11	8、10、11	4-11	4-10	-	
26-3M		24.83	24.07	28	18	16	5-11	5-11	8、10、11	5-11	5-10	8	
28-3M		26.74	25.98	31	20	18	5-13	5-13	8-13	5-13	5-10	8	
30-3M		28.65	27.89	33	22	20	6-15	6-14	8-14	6-15	6-12	8	
32-3M		30.56	29.80	35	24	20	6-17	6-16	8-16	6-16	6-12	8-11	
34-3M		32.47	31.71	41	28	26	6-20	6-18	8-18	6-20	6-18	8-11	
36-3M		34.38	33.62	41	28	26	6-20	6-18	8-18	6-20	6-18	8-13	
40-3M		38.20	37.44	44	32	30	8-24	8-23	8-23	8-24	8-21	8-13	
44-3M		B	42.02	41.26	48	36	32	8-28	8-25	8-25	8-28	8-23	8-16
48-3M			45.84	45.07	51	36	34	8-30	8-25	8-25	8-30	8-25	8-18
50-3M	47.75		46.98	52	38	34	8-32	8-28	8-28	8-30	8-25	8-20	
60-3M	57.30		56.53	60	46	39	8-38	8-33	8-32	8-35	8-30	8-20	
72-3M	68.76		68.00	75	55	50	8-50	8-42	8-40	8-46	8-38	8-22	

軸孔規格 Axle hole specifications



變更止動螺絲角度用KC90表示

Kc90 shows alteration of stop screw angle



20M同步帶輪 20M Synchronous Pulley

標準同步帶寬度	K	W	G	L
115=115mm	125	135	28	168
170=170mm	180	190	30	223
230=230mm	240	250	35	283

M*螺紋孔尺寸表: (軸孔規格P、N)

M*Threaded hole size table: (Axle hole specifications P、N)

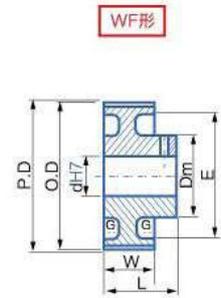
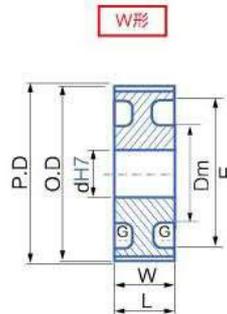
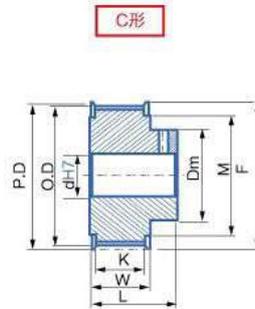
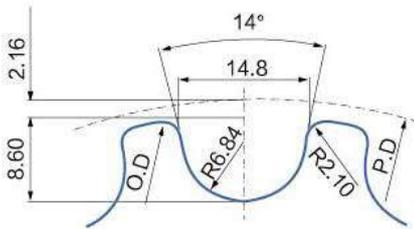
dh7軸孔內徑 Inner diameter of dh7 axle hole	12	13~17	18~30	31~45	46~65
M粗牙螺紋 M coarse thread	M4	M5	M6	M8	M10

20M輪齒形圖

20M Pulley tooth profile figure

帶輪形狀

Pulley shape



齒槽尺寸會因齒數不同而略有差異 (節距: 20.00mm) 注: 單邊尺寸超過50mm 建議做減輕處理。
Tooth space size slightly varies according to different teeth (pitch=20.00mm) Note: Single side dimension exceeds 50mm, it is recommended to do lightening treatment.

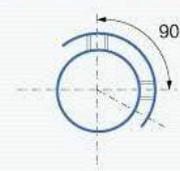
規格 Type	形狀 Shape	節徑 P.D	外徑 O.D	檔邊 外徑 F	檔邊 內徑 M	透孔 外徑 E	輪穀直徑 Dm	內孔DH7 Inner Hole DH7			
								A形 A-shaped		B、W形 B、W-shaped	
								H	C.N	H	C.N
34-20M	A	216.45	212.13	240	165	-	165	32-142	32-135	32-142	32-135
36-20M		229.18	224.87	250	178	-	178	32-142	32-135	32-142	32-135
38-20M		241.92	237.60	265	190	-	181	35-142	35-138	35-142	35-138
40-20M	B	254.56	250.33	275	203	-	203	35-145	35-138	35-145	35-138
44-20M		280.11	275.79	300	228	-	210	35-145	35-138	35-145	35-138
48-20M		305.58	301.26	325	254	-	228	44-180	44-150	44-180	44-150
52-20M	W	331.04	326.72	350	279	-	228	50-202	50-175	50-202	50-175
56-20M		356.51	352.19	375	305	-	280	50-224	50-182	50-224	50-182
60-20M		381.97	377.65	-	-	328	280	55-255	55-182	55-255	55-182
64-20M		407.44	403.12	-	-	350	300	55-255	55-220	55-255	55-220
68-20M		432.90	428.58	-	-	380	300	60-255	60-220	60-255	60-220
72-20M		458.37	454.05	-	-	400	320	60-255	60-240	60-255	60-240
80-20M		509.30	504.98	-	-	450	340	60-255	60-240	60-255	60-240
90-20M		572.96	568.64	-	-	510	380	60-255	60-240	60-255	60-240

軸孔規格 Axle hole specifications



變更止動螺絲角度用KC90表示

Kc90 shows alteration of stop screw angle

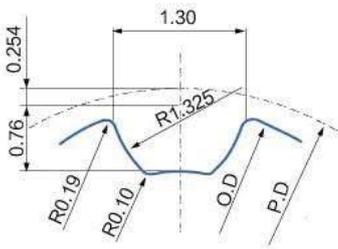


S2M同步帶輪 S2M Synchronous Pulley

標準同步帶寬度	K	W	L
04=04mm	5	9	17
06=06mm	7	11	19
10=10mm	11	15	23
12=12mm	13	17	25

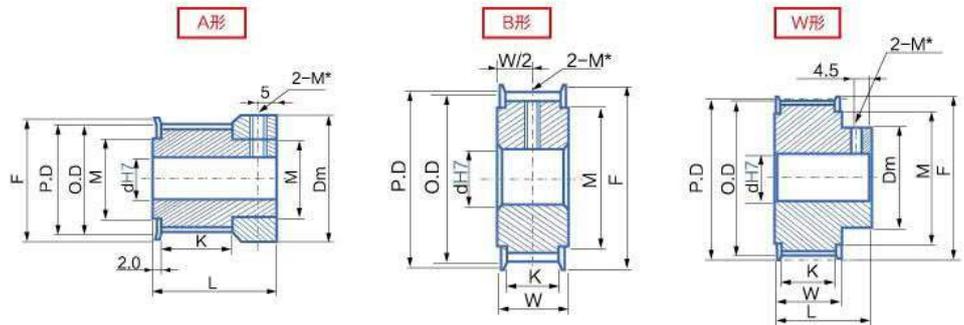
S2M輪齒形圖

S2M Pulley tooth profile figure



帶輪形狀

Pulley shape



M*螺紋孔尺寸表: (軸孔規格P、N)

M* Threaded hole size table: (Axle hole specifications P、N)

dh7軸孔內徑 Inner diameter of dh7 axle hole	3-5	6-22
M粗牙螺紋 M coarse thread	M3	M4

齒槽尺寸會因齒數不同而略有差異 (節距: 2.00mm) 注: 單邊尺寸超過50mm 建議做減輕處理。
Tooth space size slightly varies according to different teeth (pitch=2.00mm)

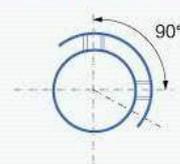
規格 Type	形狀 Shape	節徑 P.D	外徑 O.D	檔邊外徑 F	檔邊內徑 M	輪轂直徑 Dm	內孔DH7 Inner Hole DH7					
							A形 A-shaped			B形 B-shaped		
							H	P	C,N	H	P	C,N
14-S2M	A	8.91	8.40	12	6	12	3, 4	-	-	3, 4	3, 4	-
15-S2M		9.55	9.04	12	6	12	3, 4	-	-	3, 4	3, 4	-
16-S2M		10.19	9.68	14	8	14	3, 4, 5	-	-	3, 4, 5	3, 4, 5	-
18-S2M		11.46	10.95	14	8	14	3, 4, 5	-	-	3, 4, 5	3, 4, 5	-
20-S2M		12.73	12.22	16	10	16	3-6	-	-	3-6	3-6	-
22-S2M		14.01	13.50	18	11	18	3-6	-	-	3-6	3-6	-
23-S2M	B	14.65	14.14	18	11	18	3-6	-	-	3-6	3-6	-
24-S2M		15.28	14.77	20	12	20	3-7	-	-	3-7	3-7	-
25-S2M		15.92	15.41	20	12	20	3-7	-	-	3-7	3-7	-
26-S2M		16.55	16.04	23	13	23	3-8	-	-	3-8	3-8	-
28-S2M		17.83	17.32	23	13	23	3-8	-	-	3-8	3-8	-
30-S2M		19.10	18.59	23	13	23	3-8	-	-	3-8	3-8	-
32-S2M		20.37	19.86	25	16	12	4-10	8	8	4-8	4, 5, 6	-
34-S2M		21.65	21.14	25	16	14	4-10	4-10	8, 10	4-10	4-8	-
36-S2M		22.92	22.41	28	18	14	4-10	4-10	8, 10	4-10	4-8	-
40-S2M		25.46	24.95	31	20	18	4-12	4-12	8-12	4-13	4-10	8
44-S2M		28.01	27.50	33	22	20	5-15	5-13	8-13	5-15	5-12	8-11
48-S2M		30.56	30.05	35	24	20	5-17	5-15	8-15	5-16	5-12	8-11
50-S2M		31.83	31.32	35	24	20	5-17	5-16	8-16	5-16	5-12	8-11
60-S2M		38.20	37.69	44	32	30	5-24	5-22	8-22	5-25	5-22	8-16
72-S2M	45.84	45.33	50	38	30	5-30	5-24	8-22	5-30	5-24	-	

軸孔規格 Axle hole specifications



變更止動螺絲角度用KC90表示

Kc90 shows alteration of stop screw angle



S3M同步帶輪 S3M Synchronous Pulley

標準同步帶寬度	K	W	L
06=6mm	7	11	19
10=10mm	11	15	23
15=15mm	17	21	29

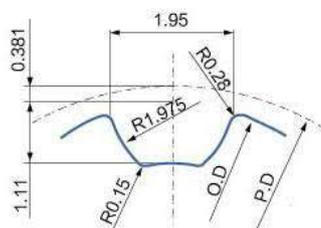
M*螺紋孔尺寸表: (軸孔規格P、N)

M*Threaded hole size table: (Axle hole specifications P、N)

dh7軸孔內徑 Inner diameter of dh7 axle hole	4~5	6~17	18~33	34~42
M粗牙螺紋 M coarse thread	M3	M4	M5	M6

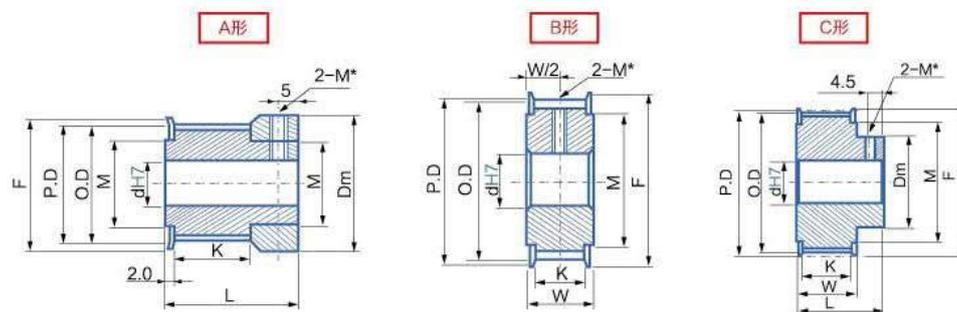
S3M輪齒形圖

S3M Pulley tooth profile figure



帶輪形狀

Pulley shape



齒槽尺寸會因齒數不同而略有差異 (節距: 3.00mm) 注: 單邊尺寸超過50mm 建議做減輕處理。
Tooth space size slightly varies according to different teeth (pitch=3.00mm)

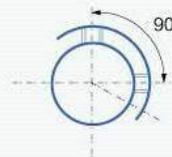
規格 Type	形狀 Shape	節徑 P.D	外徑 O.D	檔邊外徑 F	檔邊內徑 M	輪穀直徑 Dm	內孔DH7 Inner Hole DH7					
							A形 A-shaped			B、C形 B、C-shaped		
							H	P	C.N	H	P	C.N
14-S3M	C	13.37	12.61	16	9.5	16	4、5、6	-	-	4、5、6	4、5、6	-
15-S3M		14.32	13.56	18	11	18	4、5、6	-	-	4、5、6	4、5、6	-
16-S3M		15.28	14.52	18	11	18	4-7	-	-	4-7	4-7	-
18-S3M	A	17.19	16.43	20	12	20	4-8	4、5	-	4-8	4-8	-
19-S3M		18.14	17.38	23	13	22	4-9	4、5、6	-	4-8	4-8	-
20-S3M		19.10	18.34	23	13	22	4-9	4、5、6	-	4-8	4-8	-
22-S3M	A	21.01	20.25	25	16	25	4-10	4-8	-	4-10	4-10	-
24-S3M		22.92	22.16	25	16	14	4-10	4-10	-	4-10	4-8	-
25-S3M		23.87	23.11	28	18	16	4-11	4-11	8、10、11	4-11	4-10	8
26-S3M		24.83	24.07	28	18	16	5-11	5-11	8、10、11	5-11	5-10	8
28-S3M		26.74	25.98	31	20	18	5-13	5-13	8-13	5-13	5-10	8
30-S3M		28.65	27.89	33	22	20	6-15	6-14	8-14	6-15	6-12	8-11
32-S3M		30.56	29.80	35	24	20	6-17	6-16	8-16	6-16	6-12	8-11
34-S3M		32.47	31.71	40	27	26	6-20	6-18	8-18	6-20	6-18	8-13
36-S3M		34.38	33.62	40	27	26	6-20	6-18	8-18	6-20	6-18	8-13
40-S3M		38.20	37.44	44	32	30	8-24	8-23	8-23	8-24	8-21	8-16
44-S3M	42.02	41.25	48	36	32	8-28	8-25	8-25	8-28	8-23	8-18	
48-S3M	45.84	45.07	50	38	34	8-30	8-25	8-25	8-30	8-25	8-20	
50-S3M	47.75	46.98	52	38	34	8-32	8-28	8-28	8-30	8-25	8-20	
60-S3M	57.30	56.53	60	46	39	8-38	8-33	8-32	8-35	8-30	8-22	
72-S3M	68.76	68.00	75	55	50	8-30	8-42	8-40	8-46	8-38	-	

軸孔規格 Axle hole specifications



變更止動螺絲角度用KC90表示

Kc90 shows alteration of stop screw angle



S5M同步帶輪 S5M Synchronous Pulley

標準同步帶寬度	K	W	L
10=10mm	11	16	28
15=15mm	17	22	34
25=25mm	27	32	44

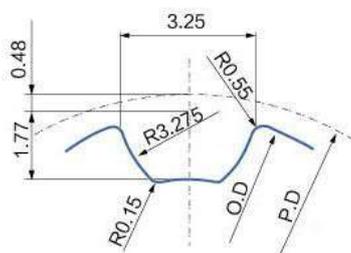
M*螺紋孔尺寸表: (軸孔規格P、N)

M*Threaded hole size table: (Axle hole specifications P、N)

dh7軸孔內徑 Inner diameter of dh7 axle hole	5	6~12	13~17	18~30	31~45	46~65
M粗牙螺紋 M coarse thread	M3	M4	M5	M6	M8	M10

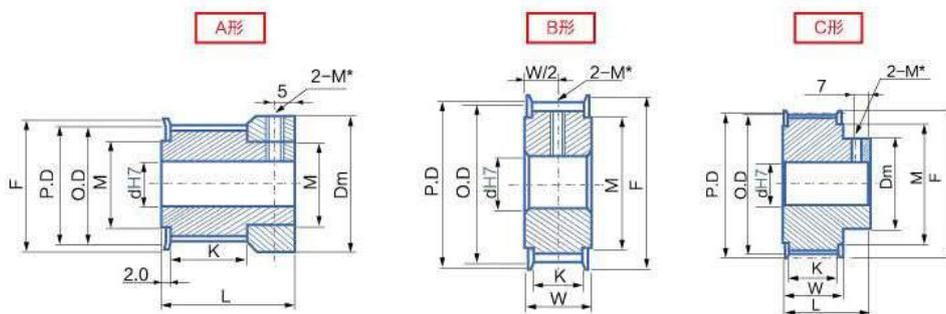
S5M輪齒形圖

S5M Pulley tooth profile figure



帶輪形狀

Pulley shape



齒槽尺寸會因齒數不同而略有差異 (節距: 5.00mm) 注: 單邊尺寸超過50mm 建議做減輕處理。
Tooth space size slightly varies according to different teeth (pitch=5.00mm)

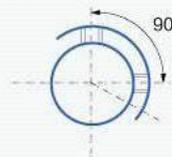
規格 Type	形狀 Shape	節徑 P.D	外徑 O.D	檔邊外徑 F	檔邊內徑 M	輪轂直徑 Dm	內孔DH7 Inner Hole DH7						
							A形 A-shaped			B形 B-shaped			
							H	P	C.N	H	P	C.N	
14-S5M	A	22.28	21.32	25	16	14	6~10	6~10	8、10	6~10	6~8	-	
15-S5M		23.87	22.91	28	18	15	6~10	6~10	8、10	6~10	6~8	-	
16-S5M		25.46	24.50	32	20	17	7~12	7~12	8~12	7~12	7~10	8	
18-S5M		28.65	27.69	33	22	19	7~14	7~12	8~12	7~14	7~11	8、10	
19-S5M		30.24	29.28	35	24	19	6~16	6~16	8~16	6~15	6~11	8、10	
20-S5M		31.83	30.87	35	24	19	7~16	7~16	8~16	7~15	7~11	8、10	
22-S5M		35.01	34.05	40	27	24	7~19	7~18	8~18	7~19	7~15	8~12	
24-S5M		B	38.20	37.24	44	32	27	7~22	7~20	8~20	7~22	7~17	8~13
25-S5M			39.79	38.83	44	32	27	7~22	7~20	8~20	7~22	7~17	8~15
26-S5M			41.38	40.42	48	36	31	8~27	8~22	8~22	8~27	8~21	8~17
28-S5M	44.56		43.60	48	36	32	8~27	8~24	8~24	8~27	8~22	8~18	
30-S5M	47.75		46.79	51	36	33	10~28	10~26	10~26	10~28	10~23	10~18	
32-S5M	50.93		49.97	55	39	37	10~32	10~28	10~28	10~32	10~27	10~22	
34-S5M	54.11		53.15	60	46	40	10~37	10~30	10~30	10~36	10~30	10~25	
36-S5M	57.30		56.34	60	46	40	10~37	10~30	10~30	10~36	10~30	10~25	
40-S5M	63.66		62.70	67	50	47	10~42	10~38	10~38	10~42	10~35	10~28	
44-S5M	70.03		69.07	75	55	50	12~50	12~42	12~40	12~46	12~38	12~32	
48-S5M	76.39	75.43	83	63	60	12~55	12~45	12~40	12~55	12~45	12~40		
50-S5M	79.58	78.62	87	68	63	12~59	12~45	12~43	12~59	12~45	12~43		
60-S5M	95.48	94.52	99	78	75	12~72	12~45	12~45	12~71	12~45	12~45		
72-S5M	114.59	113.63	119	100	90	12~80	12~65	12~50	12~80	12~65	12~50		

軸孔規格 Axle hole specifications



變更止動螺絲角度用KC90表示

Kc90 shows alteration of stop screw angle



S8M同步帶輪 S8M Synchronous Pulley

標準同步帶寬度	K	W	L48齒以下	L48齒以上
15=15mm	17	22	37	42
25=25mm	28	33	48	53
30=30mm	33	38	53	58
40=40mm	44	49	64	69

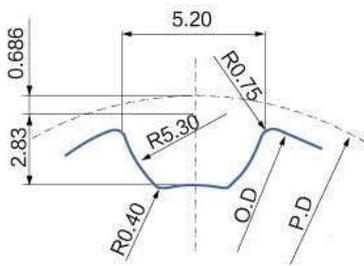
M*螺紋孔尺寸表: (軸孔規格P、N)

M*Threaded hole size table: (Axle hole specifications P、N)

dh7軸孔內徑 Inner diameter of dh7 axle hole	12	13~17	18~30	31~45	46~65
M粗牙螺紋 M coarse thread	M4	M5	M6	M8	M10

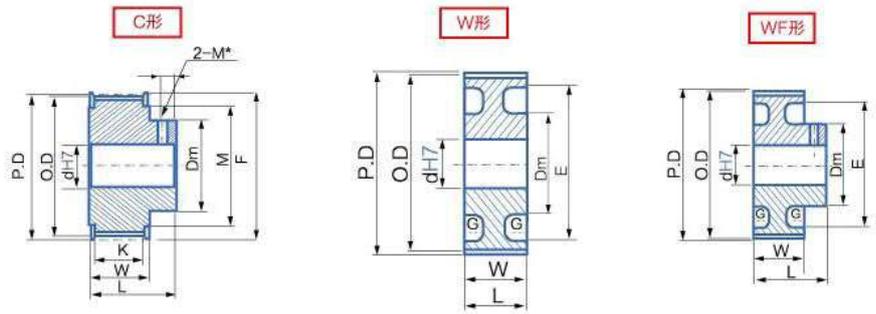
S8M輪齒形圖

S8M Pulley tooth profile figure



帶輪形狀

Pulley shape



齒槽尺寸會因齒數不同而略有差別(節距8.00mm) 注: 單邊尺寸超過50mm 建議做減輕處理。
tooth space size slightly according to different teeth (pitch=8.00mm) Note: single side dimension exceeds 50mm, suggest lightening treatment.

規格 Type	形狀 Shape	節徑 P.D	外徑 O.D	檔邊外徑 F	檔邊內徑 M	輪轂直徑 Dm	軸孔徑dh7 Axle aperture dh7					
							A形 A-shaped			B形 B-shaped		
							H	P	C.N	H	P	C.N
18-S8M	A	45.84	44.47	51	36	32	12-28	12-26	12-26	12-28	12-22	12-20
19-S8M		48.38	47.01	55	39	35	12-32	12-28	12-28	12-31	12-25	12-20
20-S8M		50.93	49.56	57	41	36	12-32	12-30	12-30	12-32	12-26	12-22
21-S8M		53.47	52.10	60	46	40	12-37	12-32	12-32	12-34	12-30	12-24
22-S8M		56.02	54.65	60	46	41	12-37	12-34	12-34	12-37	12-30	12-25
24-S8M		61.12	59.75	67	50	46	12-42	12-40	12-40	12-42	12-34	12-28
25-S8M		63.66	62.29	70	55	48	12-48	12-40	12-40	12-44	12-36	12-28
26-S8M		66.21	64.84	74	53	51	14-50	14-45	14-45	14-47	14-39	14-31
28-S8M		71.30	69.93	80	60	55	14-52	14-48	14-48	14-51	14-43	14-35
30-S8M		76.39	75.02	87	68	60	14-59	14-50	14-50	14-56	14-46	14-38
32-S8M	B	81.49	80.12	87	68	63	14-59	14-55	14-55	14-59	14-49	14-45
34-S8M		86.58	85.21	94	74	70	16-67	16-60	16-50	16-66	16-56	16-48
36-S8M		91.67	90.30	99	78	75	16-72	16-65	16-50	16-71	16-61	16-50
38-S8M		96.77	95.40	105	84	80	16-76	16-65	16-50	17-76	16-65	16-50
40-S8M		101.86	100.49	112	90	85	20-80	20-65	20-50	20-80	20-65	20-50
44-S8M		112.05	110.68	119	100	90	20-80	20-65	20-50	20-80	20-65	20-50
48-S8M		122.23	120.86	131	111	100	20-80	20-65	20-50	20-80	20-65	20-50
50-S8M		127.32	125.95	135	115	100	20-80	20-65	20-50	20-80	20-65	20-50
60-S8M		152.79	151.42	160	140	100	20-80	20-65	20-50	20-80	20-65	20-50
72-S8M		183.35	181.98	190	161	100	20-80	20-65	20-50	20-80	20-65	20-50

軸孔規格 Axle hole specifications



變更止動螺絲角度用KC90表示

Kc90 shows alteration of stop screw angle



S14M同步帶輪 S14M Synchronous Pulley

標準同步帶寬度	K	W	L44齒以下	L44齒以上
40=40mm	46	53	73	78
60=60mm	67	74	94	99

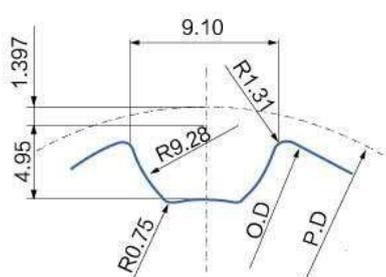
M*螺紋孔尺寸表: (軸孔規格P、N)

M*Threaded hole size table: (Axle hole specifications P、N)

dh7軸孔內徑 Inner diameter of dh7 axle hole	12	13~17	18~30	31~45	46~65
M粗牙螺紋 M coarse thread	M4	M5	M6	M8	M10

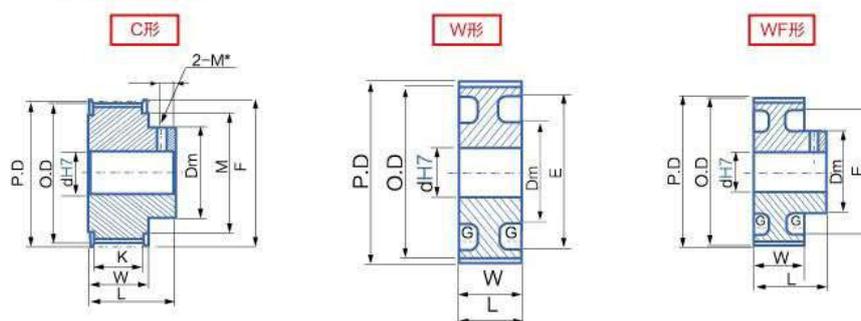
S14M輪齒形圖

S14M Pulley tooth profile figure



帶輪形狀

Pulley shape



齒槽尺寸會因齒數不同而略有差別(節距14.00mm) 注: 單邊尺寸超過50mm 建議做減輕處理。
tooth space size slightly according to different teeth (pitch=14.00mm) Note: single side dimension exceeds 50mm, suggest to be reduced.

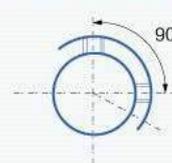
規格 Type	形狀 Shape	節徑 P.D	外徑 O.D	檔邊 外徑 F	檔邊 內徑 M	透孔 外徑 E	輪殼直徑 Dm	軸孔徑dh7 Axle aperture dh7			
								A形 A-shaped		B、W形 B、W-shaped	
								H	C.N	H	C.N
28-S14M	A	124.78	121.98	136	101	90	20~45	20~45	20~40	20~45	20~40
30-S14M		133.69	130.89	144	111	100	20~55	20~55	20~50	20~55	20~50
32-S14M		142.60	139.81	150	115	110	24~60	24~60	24~55	24~60	24~55
34-S14M	B	151.52	148.72	161	131	120	25~65	25~65	25~55	25~65	25~55
36-S14M		160.43	157.63	172	141	120	25~75	25~75	25~65	25~75	25~65
40-S14M		178.25	175.45	190	161	135	28~75	28~75	28~65	28~75	28~65
42-S14M		187.17	184.37	200	164	145	28~100	28~100	28~75	28~100	28~75
44-S14M		196.08	193.28	208	173	155	28~100	28~100	28~80	28~100	28~80
48-S14M		213.90	211.10	224	190	160	32~120	32~120	32~100	32~120	32~100
50-S14M		222.82	220.02	235	200	160	32~120	32~120	32~100	32~120	32~100
56-S14M		249.55	246.75	260	224	160	35~120	35~120	35~110	35~120	35~110

軸孔規格 Axle hole specifications



變更止動螺絲角度用KC90表示

Kc90 shows alteration of stop screw angle



G2M同步帶輪 G2M Synchronous Pulley

標準同步帶寬度	K	W	L
04=4mm	5	8.3	16
06=6mm	7	10.3	18
09=9mm	10	13.3	21

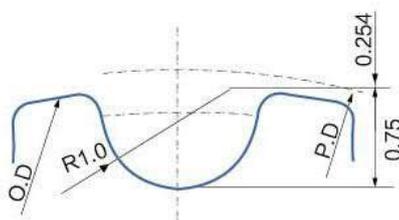
M*螺紋孔尺寸表: (軸孔規格P、N)

M*Threaded hole size table: (Axle hole specifications P、N)

dh7軸孔內徑 Inner diameter of dh7 axle hole	5	6~22
M粗牙螺紋 M coarse thread	M3	M4

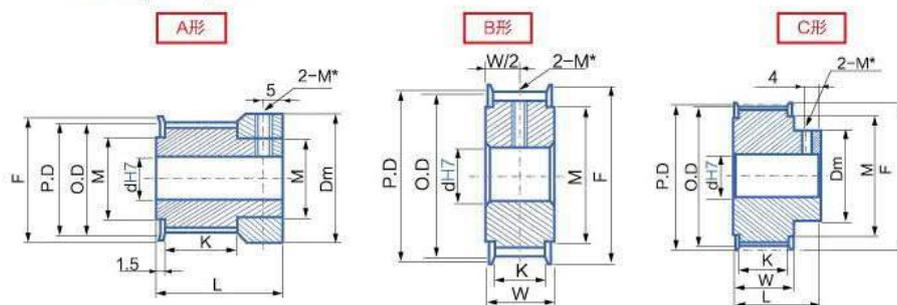
G2M輪齒形圖

G2M Pulley tooth profile figure



帶輪形狀

Pulley shape



齒槽尺寸會因齒數不同而略有差別(節距2.00mm) 注: 單邊尺寸超過50mm 建議做減輕處理。
tooth space size slightly according to different teeth (pitch=2.00mm) Note: single side dimension exceeds 50mm, suggest lightening treatment.

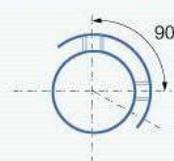
規格 Type	形狀 Shape	節徑 P.D	外徑 O.D	檔邊外徑 F	檔邊內徑 M	輪轂直徑 Dm	軸孔徑dh7 Axle aperture dh7						
							H		P		C.N		
							A形	B形	A形	B形	A形	B形	
14-G2M	A	8.91	8.40	12	6	-	3	-	-	-	-	-	
15-G2M		9.55	9.04	12	6	-	3、4	-	-	-	-	-	
16-G2M		10.19	9.68	14	7	-	3、4	-	-	-	-	-	
18-G2M		11.46	10.95	14	7	-	4、5	-	-	-	-	-	
20-G2M		12.73	12.22	16	10	-	4~6	-	-	-	-	-	
21-G2M	13.37	12.86	18	11	-	4~6	-	-	-	-	-		
22-G2M	A	14.01	13.50	18	11	8	4~6	4	-	-	-	-	
24-G2M		15.28	14.77	20	12	10	5~7	5	-	-	-	-	
25-G2M		15.92	15.41	20	12	10	5~7	5~7	-	-	-	-	
26-G2M		16.55	16.04	23	13	10	5~8	5~8	-	-	-	-	
28-G2M		17.83	17.32	23	13	10	5~8	5~8	-	-	-	-	
30-G2M		19.01	18.50	23	13	11	5~8	5~8	-	-	-	-	
32-G2M		B	20.37	19.86	25	16	13	5~10	5~8	5~10	5、6	-	-
34-G2M			21.65	21.14	25	16	14	6~10	6~10	6~10	6~8	-	-
36-G2M			22.92	22.41	28	18	14	6~10	6~10	6~10	6~8	-	-
38-G2M			24.19	23.68	28	18	16	6~10	6~10	6~10	6~8	8	-
40-G2M	25.46		24.95	31	20	17	6~12	6~13	6~12	6~10	8、10	-	
44-G2M	28.01		27.50	33	22	19	6~15	5	6~13	6~12	8~11	-	
48-G2M	30.56		30.05	35	24	22	8~17	8~16	8~15	8~12	8~13	8	
50-G2M	31.83		31.32	35	24	22	8~17	8~16	8~16	8~12	8~14	8	
60-G2M	38.20	37.69	44	32	28	8~24	8~24	8~22	8~22	8~19	8~14		

軸孔規格 Axle hole specifications



變更止動螺絲角度用KC90表示

Kc90 shows alteration of stop screw angle



G3M同步帶輪 G3M Synchronous Pulley

標準同步帶寬度	K	W	L
06=6mm	7.3	11	19
09=9mm	10.3	14	22
15=15mm	16.3	20	28

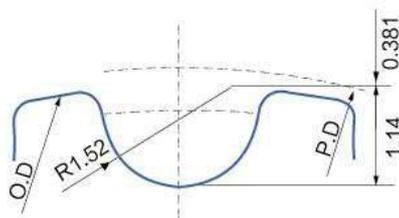
M*螺紋孔尺寸表: (軸孔規格P、N)

M*Threaded hole size table: (Axle hole specifications P、N)

dh7軸孔內徑 Inner diameter of dh7 axle hole	5	6~17	18~38
M粗牙螺紋 M coarse thread	M3	M4	M5

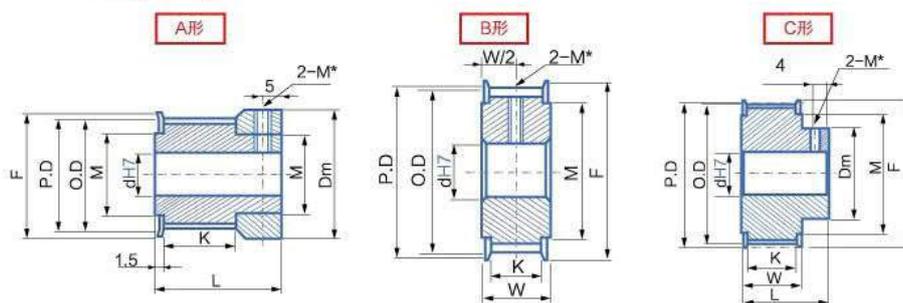
G3M輪齒形圖

G3M Pulley tooth profile figure



帶輪形狀

Pulley shape



齒槽尺寸會因齒數不同而略有差別(節距3.00mm) 注: 單邊尺寸超過50mm 建議做減輕處理。
tooth space size slightly according to different teeth (pitch=3.00mm) Note: single side dimension exceeds 50mm, suggest to be lightened.

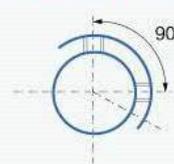
規格 Type	形狀 Shape	節徑 P.D	外徑 O.D	檔邊外徑 F	檔邊內徑 M	輪轂直徑 Dm	軸孔徑dh7 Axle aperture dh7						
							H		P		C.N		
							A形	B形	A形	B形	A形	B形	
16-G3M	A	15.28	14.52	18	11	-	4~7	-	-	-	-	-	
18-G3M		17.19	16.43	20	12	-	5~8	-	5	-	-	-	
20-G3M		19.10	18.34	23	13	-	5~9	-	5、6	-	-	-	
22-G3M		21.01	20.25	25	16	12	6~10	6~8	6~7	-	-	-	
24-G3M		22.92	22.16	25	16	14	6~10	6~10	6~8	6	-	-	
25-G3M		23.87	23.11	28	18	14	6~11	6~10	6~10	6	-	-	
26-G3M	A	24.83	24.07	28	18	15	6~11	6~11	6~11	6	8	-	
28-G3M		26.74	25.98	31	20	17	6~13	6~13	6~13	6~8	8~10	-	
30-G3M		28.65	27.89	33	22	19	6~15	6~15	6~14	6~10	8~10	8	
32-G3M		30.56	29.80	35	24	20	6~17	6~16	6~14	6~10	8~12	8	
34-G3M		32.47	31.71	40	27	22	8~20	8~20	8~16	8~12	8~13	8~10	
36-G3M		34.38	33.62	40	27	24	8~20	8~20	8~18	8~14	8~14	8~12	
40-G3M		38.20	37.44	44	32	28	8~24	8~24	8~23	8~17	8~17	8~15	
44-G3M		B	42.02	41.26	48	36	30	10~28	10~26	10~25	10~20	10~20	10~15
48-G3M			45.84	45.07	50	38	32	10~30	10~28	10~25	10~22	10~23	10~17
50-G3M			47.75	46.98	52	38	34	10~32	10~30	10~28	10~23	10~24	10~18
60-G3M			57.30	56.53	60	46	36	12~38	12~32	12~38	10~24	12~30	12~30

軸孔規格 Axle hole specifications



變更止動螺絲角度用KC90表示

Kc90 shows alteration of stop screw angle



G5M同步帶輪 G5M Synchronous Pulley

標準同步帶寬度	K	W	L
09=9mm	10.3	14	22
12=12mm	13.3	17	25
15=15mm	16.3	20	28

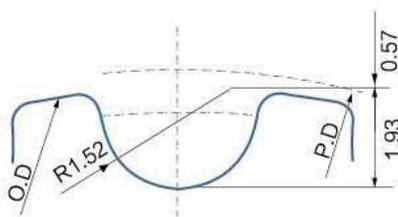
M*螺紋孔尺寸表: (軸孔規格P、N)

M*Threaded hole size table: (Axle hole specifications P、N)

dh7軸孔內徑 Inner diameter of dh7 axle hole	5	6~17	18~38
M粗牙螺紋 M coarse thread	M3	M4	M5

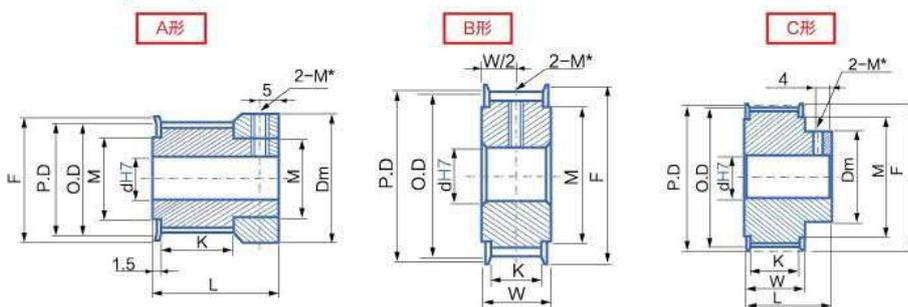
G5M輪齒形圖

G5M Pulley tooth profile figure



帶輪形狀

Pulley shape



齒槽尺寸會因齒數不同而略有差別(節距5.00mm) 注: 單邊尺寸超過50mm 建議做減輕處理。
tooth space size slightly according to different teeth (pitch=5.00mm)

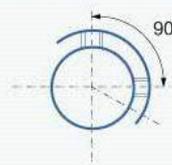
規格 Type	形狀 Shape	節徑 P.D	外徑 O.D	檔邊外徑 F	檔邊內徑 M	輪轂直徑 Dm	軸孔徑dh7 Axle aperture dh7						
							H		P		C,N		
							A形	B形	A形	B形	A形	B形	
14-G5M	A	22.28	21.14	25	16	12	6~10	6~8	6~8	-	-	-	
15-G5M		23.87	22.73	28	18	13	6~10	6~10	6~8	-	-	-	
16-G5M		25.46	24.32	32	20	15	6~12	6~12	6~10	6	8	-	
18-G5M		28.65	27.51	33	22	18	6~14	6~14	6~13	6~9	8~10	-	
20-G5M		31.83	30.69	35	24	20	8~16	8~15	8~14	8~10	8~12	8	
22-G5M		35.01	33.87	40	27	22	8~19	8~19	8~17	8~12	8~12	8	
24-G5M		38.20	37.06	44	32	26	8~22	8~22	8~18	8~16	8~14	8~10	
25-G5M		39.79	38.65	44	32	28	8~22	8~22	8~20	8~16	8~16	8~12	
26-G5M		B	41.38	40.24	48	36	28	10~27	10~24	10~21	10~16	10~17	10~13
28-G5M			44.56	43.42	48	36	30	10~27	10~27	10~24	10~20	10~19	10~15
30-G5M	47.75		46.61	51	36	32	10~28	10~28	10~26	10~22	10~20	10~16	
32-G5M	50.93		49.79	55	39	34	10~32	10~30	10~30	10~22	10~23	10~17	
34-G5M	54.11		52.97	60	46	36	12~37	12~32	12~32	12~24	12~26	12~18	
36-G5M	57.30		56.16	60	46	38	12~37	12~34	12~34	12~26	12~30	12~20	
40-G5M	63.66		62.52	67	50	40	12~42	12~36	12~36	12~26	12~30	12~22	
44-G5M	70.03		68.89	75	55	42	12~50	12~38	12~42	12~26	12~30	12~23	
48-G5M	76.39		75.25	83	63	46	12~55	12~42	12~45	12~30	12~31	12~26	
50-G5M	79.58		78.44	87	68	46	12~59	12~42	12~45	12~30	12~31	12~27	
60-G5M	95.48	94.34	99	78	52	12~72	12~44	12~45	12~30	12~32	12~30		

軸孔規格 Axle hole specifications



變更止動螺絲角度用KC90表示

Kc90 shows alteration of stop screw angle



Y8M同步帶輪 Y8M Synchronous Pulley

標準同步帶寬度	K	W	L
15=15mm	16.7	23	43
20=20mm	21.7	28	48
25=25mm	26.6	33	53

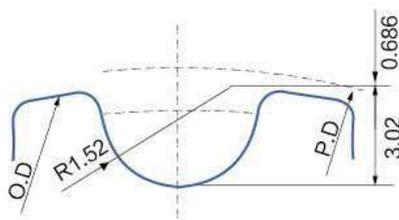
M*螺紋孔尺寸表: (軸孔規格P、N)

M*Threaded hole size table: (Axle hole specifications P、N)

dh7軸孔內徑 Inner diameter of dh7 axle hole	16~17	18~30	31~45	46~65
M粗牙螺紋 M coarse thread	M5	M6	M8	M10

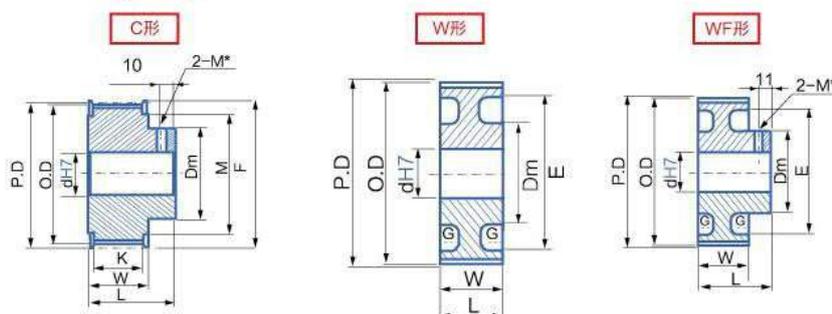
Y8M輪齒形圖

Y8M Pulley tooth profile figure



帶輪形狀

Pulley shape



齒槽尺寸會因齒數不同而略有差別(節距8.00mm) 注: 單邊尺寸超過50mm 建議做減輕處理。
tooth space size slightly according to different teeth (pitch=8.00mm) Note: single side dimension exceeds 50mm, suggest to be reduced.

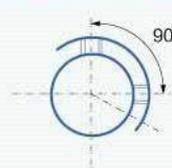
規格 Type	形狀 Shape	節徑 P.D	外徑 O.D	檔邊外徑 F	檔邊內徑 M	輪轂直徑 Dm	軸孔徑dh7 Axle aperture dh7						
							H		P		C.N		
							A形	B形	A形	B形	A形	B形	
20-Y8M	A	50.93	49.56	57	41	36	16~32	16~32	16~28	16~20	16~21	16~18	
22-Y8M		56.02	54.65	60	46	40	16~37	16~37	16~29	16~24	16~26	16~22	
24-Y8M		61.12	59.75	67	50	44	16~42	16~40	16~34	16~28	16~30	16~24	
25-Y8M		63.66	62.29	70	55	46	16~48	16~42	16~36	16~30	16~30	16~26	
26-Y8M		66.21	64.84	74	53	48	16~50	16~42	16~38	16~32	16~30	16~28	
28-Y8M		71.30	69.93	80	60	52	16~52	16~47	16~42	16~35	16~30	16~30	
30-Y8M		76.39	75.02	87	68	56	16~59	16~50	16~45	16~39	16~30	16~30	
32-Y8M		81.49	80.12	87	68	60	20~59	20~55	20~48	20~42	20~30	20~30	
34-Y8M		B	86.58	85.21	94	74	64	20~67	20~58	20~52	20~45	20~30	20~30
36-Y8M			91.67	90.30	99	78	68	20~72	20~64	20~58	20~48	20~30	20~30
38-Y8M			96.77	95.40	105	84	72	20~76	20~68	20~62	20~52	20~30	20~30
40-Y8M			101.86	100.49	112	90	74	25~80	25~70	25~65	25~54	25~30	25~30
44-Y8M			112.05	110.68	119	100	78	25~80	25~72	25~65	25~56	25~30	25~30
48-Y8M			122.23	120.86	131	111	80	25~80	25~74	25~65	25~58	25~30	25~30
50-Y8M			127.32	125.95	135	115	82	25~80	25~76	25~65	25~60	25~30	25~30
60-Y8M			152.79	151.42	160	140	88	30~80	30~80	30~65	30~65	30~30	30~30

軸孔規格 Axle hole specifications



變更止動螺絲角度用KC90表示

Kc90 shows alteration of stop screw angle



P2M同步帶輪 P2M Synchronous Pulley

標準同步帶寬度	K	W	L
04=4mm	5.5	9.5	18
06=6mm	180	11.5	20
12=12mm	13.5	17.5	26

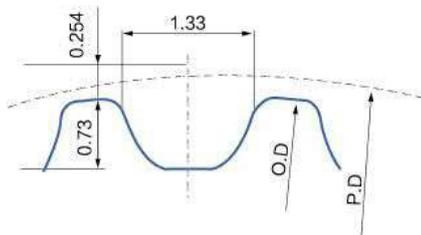
M*螺紋孔尺寸表: (軸孔規格P、N)

M*Threaded hole size table: (Axle hole specifications P、N)

dh7軸孔內徑 Inner diameter of dh7 axle hole	3~6.35	7~19
M粗牙螺紋 M coarse thread	M3	M4

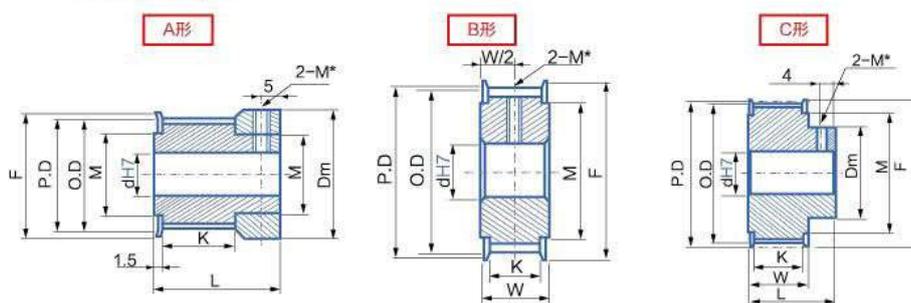
P2M輪齒形圖

P2M Pulley tooth profile figure



帶輪形狀

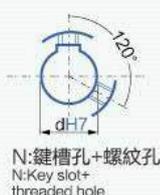
Pulley shape



齒槽尺寸會因齒數不同而略有差別(節距2.00mm) 注: 單邊尺寸超過50mm 建議做減輕處理。
tooth space size slightly according to different teeth (pitch=2.00mm)

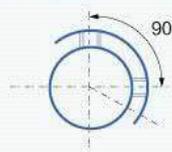
規格 Type	形狀 Shape	節徑 P.D	外徑 O.D	檔邊外徑 F	檔邊內徑 M	輪殼直徑 Dm	軸孔徑dh7 Axle aperture dh7			
							H	P	C.N	
14-P2M	A	8.91	8.40	12	6	12	-	3、4	-	
15-P2M		9.55	9.04	12	6	13	-	3、4、5	-	
16-P2M		10.19	9.68	14	8	13	-	3、4、5	-	
18-P2M		11.46	10.95	14	8	15	-	3~6	-	
20-P2M		12.73	12.22	16	10	17	-	4~6.35	-	
22-P2M		14.01	13.50	18	11	17	-	4~6.35	-	
24-P2M		15.28	14.77	20	12	17	-	4~6.35	-	
25-P2M		15.92	15.41	20	12	20	-	4~6.35	-	
28-P2M		B	17.83	17.32	23	13	12	5~6.35	5~6.35	-
30-P2M			19.10	18.59	23	13	12	5~8	5~8	-
32-P2M	20.37		19.86	25	16	12	5~8	5~8	-	
36-P2M	22.92		22.41	28	18	14	5~9	5~9	-	
40-P2M	25.46		24.95	31	20	16	5~10	5~10	8	
42-P3M	26.74		26.23	35	24	18	5~12	5~12	8、10	
44-P2M	28.01		27.50	33	22	18	5~12	5~12	8、10	
48-P2M	30.56		30.05	35	24	18	5~12	5~12	8、10	
50-P2M	31.83		31.32	35	24	22	5~15	5~15	8~13	
60-P2M	38.20		37.69	44	32	28	5~19	5~19	8~18	

軸孔規格 Axle hole specifications



變更止動螺絲角度用KC90表示

Kc90 shows alteration of stop screw angle



P5M同步帶輪 P5M Synchronous Pulley

標準同步帶寬度	K	W	L
10=10mm	11.6	16	28
15=15mm	16.6	21	33
25=25mm	27	32	44

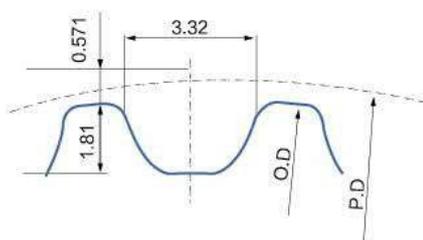
M*螺紋孔尺寸表: (軸孔規格P、N)

M*Threaded hole size table: (Axle hole specifications P、N)

dh7軸孔內徑 Inner diameter of dh7 axle hole	5-12	13-17	18-30	31-45	46-65
M粗牙螺紋 M coarse thread	M4	M5	M6	M8	M10

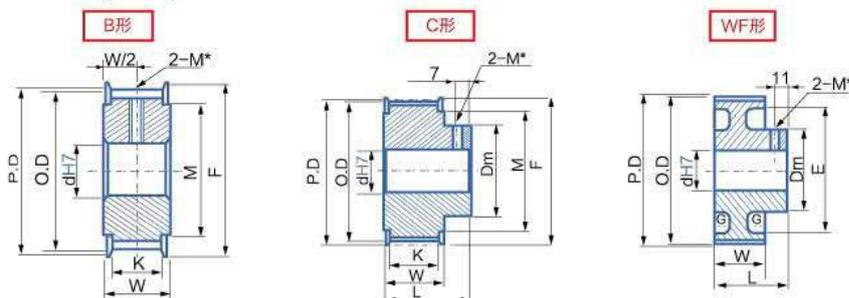
P5M輪齒形圖

P5M Pulley tooth profile figure



帶輪形狀

Pulley shape



齒槽尺寸會因齒數不同而略有差別(節距5.00mm) 注: 單邊尺寸超過50mm 建議做減輕處理。
tooth space size slightly according to different teeth (pitch=5.00mm)

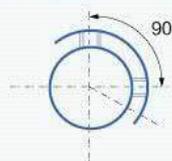
規格 Type	形狀 Shape	節徑 P.D	外徑 O.D	檔邊外徑 F	檔邊內徑 M	輪轂直徑 Dm	軸孔徑dh7 Axle aperture dh7		
							H	P	C,N
12-P5M	A	19.10	17.96	23	13	11	5、6	5、6	-
14-P5M		22.28	21.14	25	16	13	5、6	5、6	8
15-P5M		23.87	22.73	28	18	15	5-10	5-8	8
16-P5M		25.46	24.32	32	20	17	5-10	5-10	8-11
18-P5M		28.65	27.51	33	22	19	6-12	6-12	8-11
20-P5M		31.83	30.69	35	24	19	6-12	6-12	8-15
22-P5M	B	35.01	33.87	40	27	25	8-17	8-17	8-15
24-P5M		38.20	37.06	44	32	25	8-17	8-17	10-18
25-P5M		39.79	38.65	44	32	30	10-20	10-20	10-18
26-P5M		41.38	40.24	48	36	30	10-20	10-20	10-20
28-P5M		44.56	43.42	48	36	35	10-22	10-22	10-22
30-P5M		47.75	46.61	51	36	35	12-24	12-24	12-22
32-P5M		50.93	49.79	55	39	38	12-26	12-26	12-25
34-P5M		54.11	52.97	60	46	42	12-30	12-30	12-25
36-P5M		57.30	56.16	67	50	44	12-30	12-30	12-30
40-P5M		63.66	62.52	67	50	48	12-32	12-32	12-32
44-P5M		70.03	68.89	74	58	56	15-38	15-38	15-38
48-P5M		76.39	75.25	83	63	58	15-38	15-38	15-38
50-P5M	79.58	78.44	87	68	64	15-42	15-40	15-40	
60-P5M	95.48	94.34	105	84	80	15-52	15-40	15-40	
72-P5M	114.59	113.45	119	100	90	15-80	15-65	15-50	

軸孔規格 Axle hole specifications



變更止動螺絲角度用KC90表示

Kc90 shows alteration of stop screw angle



P8M同步帶輪 P8M Synchronous Pulley

標準同步帶寬度	K	W	43齒 以下	43齒 以上
15=15mm	16.8	22	39	44
25=25mm	27.8	33	50	55
30=30mm	32.8	38	55	60
40=40mm	43	49	65	70

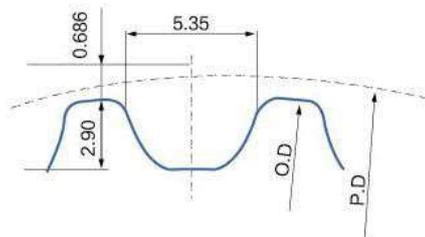
M*螺紋孔尺寸表: (軸孔規格P、N)

M*Threaded hole size table: (Axle hole specifications P、N)

dh7軸孔內徑 Inner diameter of dh7 axle hole	12	13-17	18-30	31-45	46-65
M粗牙螺紋 M coarse thread	M4	M5	M6	M8	M10

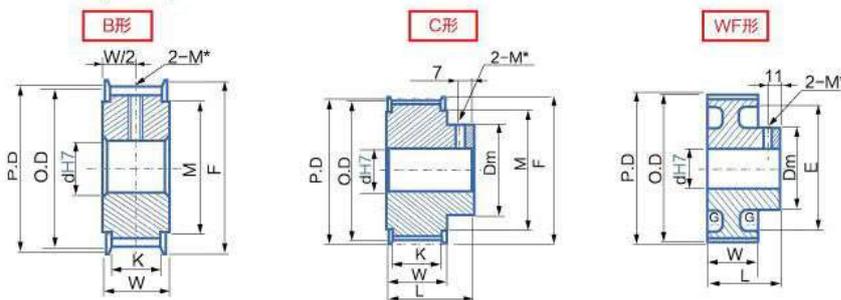
P8M輪齒形圖

P8M Pulley tooth profile figure



帶輪形狀

Pulley shape



齒槽尺寸會因齒數不同而略有差別(節距8.00mm) 注: 單邊尺寸超過50mm 建議做減輕處理。
tooth space size slightly according to different teeth (pitch=8.00mm) Note: single side dimension exceeds 50mm, it is recommended to do lightening treatment.

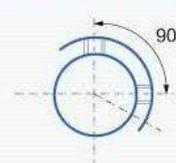
規格 Type	形狀 Shape	節徑 P.D	外徑 O.D	檔邊外徑 F	檔邊內徑 M	輪穀直徑 Dm	軸孔徑dh7 Axle aperture dh7		
							H	P	C.N
20-P8M	A	50.93	49.56	55	39	36	12-32	12-30	12-30
22-P8M		56.02	54.65	60	46	41	12-37	12-34	12-34
24-P8M		61.12	59.75	67	50	46	12-42	12-40	12-40
26-P8M		66.21	64.84	74	53	51	14-50	14-45	14-45
28-P8M		71.30	69.93	80	60	55	14-52	14-48	14-48
30-P8M		76.39	75.02	87	68	60	14-59	14-50	14-50
32-P8M		81.49	80.12	87	68	65	14-59	14-55	14-50
34-P8M		86.58	85.21	94	74	70	16-67	16-60	16-50
36-P8M		91.67	90.30	99	78	75	16-72	16-65	16-50
40-P8M		101.86	100.49	112	90	85	20-80	20-65	20-50
44-P8M	B	112.05	110.68	119	100	90	20-80	20-65	20-50
48-P8M		122.23	120.86	131	111	100	20-80	20-65	20-50
50-P8M		127.32	125.95	135	115	100	20-80	20-65	20-50
60-P8M		152.79	151.42	160	140	100	20-80	20-65	20-50

軸孔規格 Axle hole specifications

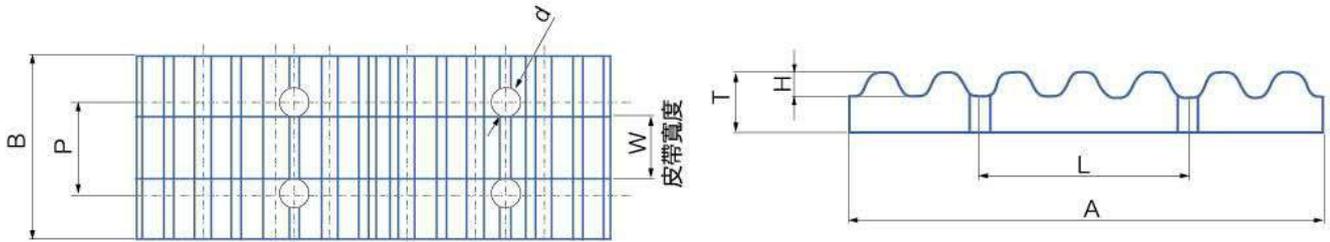


變更止動螺絲角度用KC90表示

Kc90 shows alteration of stop screw angle



齒板 Rack

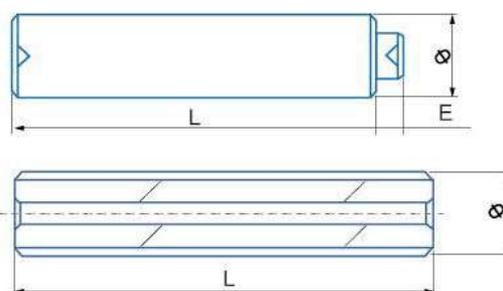
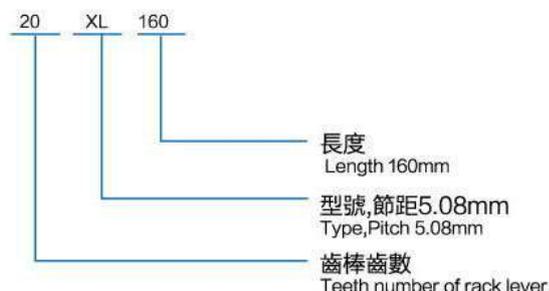


齒板的規格及加工長度 Rack specification and machining length

型號 Type	皮帶公稱寬度 Normal width of the belt	W	A	B	T	H	L	P	d	型號 Type	皮帶公稱寬度 Normal width of the belt	W	A	B	T	H	L	P	d
MXL	025	6.4		18				11	3.4	3M,	060	6		20				11	3.4
	037	9.5	26	22	4	0.51	10	14		S3M,	010	10	21	25	4	1.14	15	15	
	050	12.7		26				18		P3M	150	15		30				20	
XL	025	6.4		24				12	4.5	5M,	100	10		26				16	4.5
	031	7.9		25				14		S5M,	150	15		32				21	
	037	9.5	36	26	6	1.25	25	16		P5M	250	25	35	42	6	1.81	25	31	
	050	12.7		30				20										22	
L	050	12.7		32				20	5.5	8M,	150	15		34				32	5.5
	075	19.1	66	38	8	1.9	50	26		S8M,	250	25		44				37	
	100	25.4		46				33		P8M	300	30	56	50	8	2.85	40	47	
	150	38.1		58				46										47	
H	075	19.1		38				26	5.5	T5,	100	10		26				16	4.5
	100	25.4	89	46	10	2.3	70	33		AT5	150	15		32				21	
	150	38.1		58				45			200	20	35	38	6	1.2	25	26	
	200	50.8		70				58			250	25		43				31	
S2M,	040	4		16				18	3.4	T10,	150	15		34				27	5.5
P2M	060	6	26	18	4	0.76	10	10		AT10	200	20	70	44	8	2.5	50	32	
	010	10		24				15			250	25		50				37	

齒板應用于開口同步帶的兩端連接，并與機器固定達到傳動目的。
Toothed plate applies to both-end connection for open synchronous belt, It fixes with the machine to fulfill the drive purpose.

齒棒 Rack Lever



齒棒的規格及加工長度 Rack lever specification and machining length

型號 Type	齒數範圍 Teeth number range	長度 Length	型號 Type	齒數範圍 Teeth number range	長度 Length
MXL	≤16	60	AT3	≤12	60
	17~38	120		13~26	120
	39~79	160		27~52	160
	≥80	200		≥53	200
XL	≤16	120	2M	≤16	60
	17~31	160		17~40	120
	≥32	200		41~78	160
L	10~17	160	3M,S3M	≥79	200
	≥18	200		≤12	60
H	≥14	200	S4.5M	13~26	120
XH	≥18	200		27~52	160
				≥53	200
T2.5	≤14	60	5M,S5M	≤18	120
	17~32	120		19~35	160
	33~62	160		≥36	200
T5,AT5	≥63	200	8M,S8M	≤17	120
	≤16	120		18~32	160
	17~32	160		≥33	200
T10,AT10	≥33	200	14M,S14M	10~16	160
	10~16	160		≥17	200
T20	≥17	200		≥18	200
	≥18	200			

注：1、直徑Φ100以下采用雙頂針加工，一端留6~8mm軸。

2、直徑Φ100以上采用工藝孔加工法。直徑Φ100~Φ150工藝孔為Φ10，直徑Φ150~Φ200工藝孔為Φ12。

1、Double ejector pins processing is applied for below Φ100 diameter. 6~8mm axis is for one end.

2、Above Φ100 diameter applies technological hole for processing, Φ10 is for Φ100~Φ150 diameter technological hole. Φ12 is Φ100~200 diameter technological hole.

脹緊聯結套及錐面緊固

Locking assemblies and cone fastening

脹緊套由內外錐環組成。結構緊湊輕巧，適用於安裝空間較小的場合。

可以代替各種鍵聯結或過盈配合聯結使用。為傳遞較大載荷可採用多對脹套，

單側壓緊不超過4對環，雙側壓緊可達8對環，且對中性好。

Expansion sleeve is consist of internal and external conical rings.Suitable for the occasion of small installation space.They could replace a variety of key link or used for interference fit connection.The users could multiple taper-lock for transfer large loads.

Unilateral pressure could not exceed 4 rings,double side pressure could reach to 8 rings,good on neutrality.



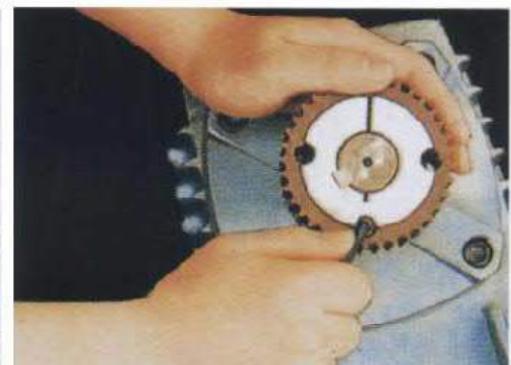
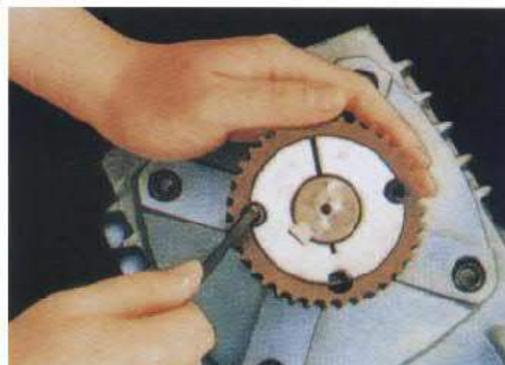
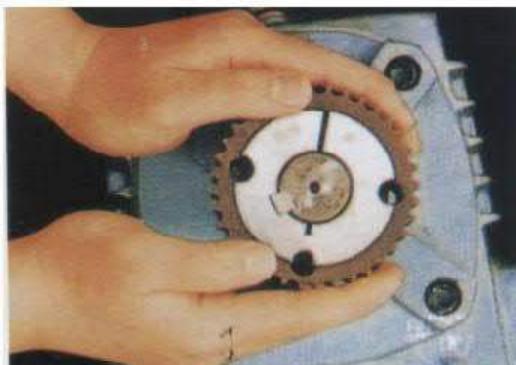
脹緊聯結套及錐面緊固

Locking assemblies and cone fastening

錐面緊固襯套與錐孔同步帶輪安裝使用方法：

使用錐面緊固襯套安裝的錐孔同步帶輪，安裝、拆卸方便。以配用各種孔徑的錐面緊固襯套，就可以適用各種軸徑的安裝、使用。

The Installation And Usage Of Taper-lock Bushing And Taper-lock Belt Pulleys Taper-lock Timing Belt Pulley With Taper-lock Bushing Is Easy On And Off, it Can Be Used On Variable Hubs Due To Taper-lock Bushing Bores.



將錐面緊固套與同步帶輪裝在傳動軸上
Place taper-lock bushing and timing belt pulley on the transmission shaft.

將螺釘擰入緊固螺釘孔，對稱用力擰緊，通過錐套的錐面作用，將傳動軸與皮帶輪聯系在一起。

Insert screws into cap screw bore then tighten the symmetrical screws, then the pulley grips the shaft firmly through the taper surface of the bushing.

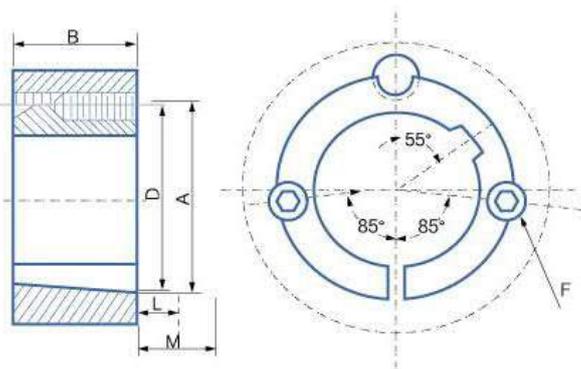
將緊固螺釘退出後，在擰入退出螺釘孔，用力擰入，錐套與帶輪鬆動分離，然後取下。

Take binding bolt out entirely. insert the threaded holes, tighten it. this makes the bushing easily removed from the pulley.

脹緊聯結套及錐面緊固

Locking assemblies and cone fastening

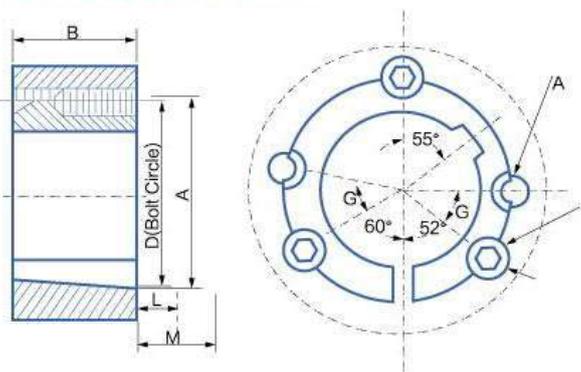
1008 to 3030 Sizes



Dimension for 1008 to 3030 TAPER-LOCK Bushings

錐套型號 Bush NO	大端直徑 Large end diameter	寬度 Width	中心圓 Center circle	螺栓規格 Set screws
1008	35.2	22.3	33.73	M6X12
1108	38.38	22.3	36.92	M6X12
1210	47.62	25.4	44.44	M10X16
1215	47.62	38.1	44.44	M10X16
1310	50.8	25.4	47.63	M10X16
1610	57.15	25.4	53.97	M10X16
1615	57.15	38.1	53.97	M10X16
2012	69.85	31.80	66.68	M12X22
2517	85.73	44.5	82.55	M12X22
2525	85.73	63.50	82.55	M12X22
3020	107.96	50.8	101.60	M16X28
3030	107.96	76.20	101.60	M16X28

3535 to 5050 Sizes



Dimension for 3535 to 5050 TAPER-LOCK Bushings

錐套型號 Bush NO	A	B	C	螺栓規格 Set screws	G
3535	127	89	122.68	M12X40	40°
4040	146.05	101.60	140.72	M16X45	40°
4545	161.93	114.30	155.70	M20X50	40°
5050	177.80	127	170.69	M20X57	37°

錐套內孔使用規格 Standard stock bores metric series

錐套型號 Bush NO	錐套內孔規格 Bore screws
1008	10.11.12.14.15.16.18.19.20.22.24.
1108	10.11.12.14.15.16.18.19.20.22.24.25.28.
1210 1215	11.12.14.15.16.18.19.20.22.24.25.28.30.32
1310	14.15.16.18.19.20.22.24.25.28.30.32.35.
1610 1615	14.15.16.18.19.20.22.24.25.28.30.32.35.38.40.42.
2012 2017	18.19.20.22.24.25.28.30.32.35.38.40.42.45.48.50.
2517 2525	20.22.24.25.28.30.32.35.38.40.42.45.48.50.55.60.
3020 3030	25.28.30.32.35.38.40.42.45.48.50.55.60.65.70.75.
3525 3535	35.38.40.42.45.48.50.55.60.65.70.75.80.85.90.
4030 4040	40.42.45.48.50.55.60.65.70.75.80.85.90.95.100.
4535 4545	55.60.65.70.75.80.85.90.95.100.105.110.
5040 5050	60.65.70.75.80.85.90.95.100.105.110.115.120.125.

注：英寸內孔請參考有關樣本尺寸

The dimensions in inch of inner bore please refer to the catalogue of taper-lock bushing

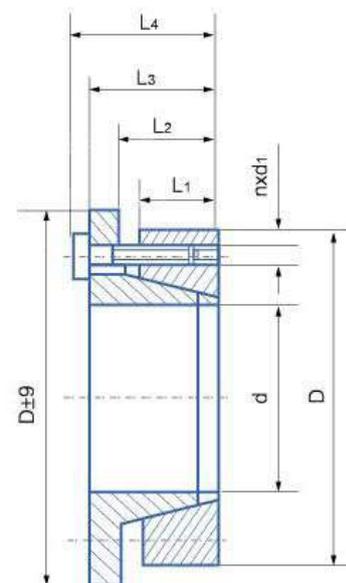
脹緊聯結套及錐面緊固

Locking assemblies and cone fastening

Z₈ 型脹緊聯結套的基本尺寸及參數(JB/T7934-1999)

Z₈ Basic dimensions and parameters of Z locking assemblies (JB/T7934-1999)

基本尺寸 Basic size							額定負荷 Rated load		脹與套軸結合 面上的壓力P ₁ N/mm ²	螺釘的擰 緊力矩M N/m	重量 kg													
H	D	L ₁	L ₂	L ₃	L ₄	d ₁	n	軸向力F ₁ KN				扭矩M _t KN·m												
20	47	17	22	28	34	M6	5	30	0.29	220	17	0.25												
22	0.32								200															
24	0.37								200															
25	0.45								215															
28	55						20	25	33	41		M8	6	36	0.5	200	0.32							
30	0.54														190									
32	0.77														215									
35	0.84														190									
38	65	24	30	40	50	M10					8		48	0.91	195	0.34								
40	0.96													190										
45	75													26	32		44	56	M12	7	77	1.75	230	0.38
50	1.93																					210		
55	2.45						215																	
60	2.7						190																	
63	95						34	40	52	64	M14	9	100			3.18				205	41	0.73		
65	3.25															200								
70	5	220																						
75	5.25	200																						
80	120	44	50	64	78	M16						8	141	5.6	190	83	1.4							
85	6.75													200										
90	7.1													190										
95	8.35													200										
100	145						50	56	68	88	M18	9	205	10.3	210	145	2.6							
110	11.25													190										
120	13.9													210										
130	20													190										
140	190	56	62	76	92	M20						12	308	20	190	230	4.6							
150	22.25													180										
160	26.3													190										
170	31													190										
180	235						60	66	84	102	M22	10	317	22.25	180	485	4.9							
190	352													26.3	190			230	7.75					
200	287													31	190					8.15				
220	422													35.9	150						9.5			
240	528	50.1	170	9.9																				
260	587	64.5	145		13.4																			
280	734	88	165			14.3																		
300	880	114	180									15.5												
320	948	132	150	22.9																				
340	1059	159	160		24.4																			
360	1374	220	150			36.1																		
380	1603	272.5	175				38.4																	
400	1710	308	140	46.2																				
400	1995	379	155		930			55																
400	1995	399	150			61																		



Z₈型脹緊聯結套
Z₈ Locking assemblies

結構性能:

Z₈ 型脹緊套適用於和軸上零件的聯結, 以傳遞扭矩、軸向力。

標記示例:

內徑d=20mm, 外徑d=47mm的Z₈型脹套:

脹套Z₈-20x47

JB/T7934-1999

The structural properties

Z₈ locking assemblies are fit for connecting axis with axis parts so as to transfer torque and axial force.

Mark example

Z₈ locking assemblies,

ID d=20mm, OD d=47mm

Locking assemblies Z₈-20x47

JB/T7934-1999

注: Z₈型脹緊聯結套螺釘的機械性能等級為12.9級。

Mechanical properties classification is 12.9 grade to Z₈locking assemblies screw.

橡膠同步帶

RUBBER SYNCHRONOUS BELT

傳動準確，工作時無滑動，具有恒定的傳動比；傳動平穩，具有緩衝、減振能力，噪聲低；

傳動效率高，可達0.98，節能效果明顯；維護保養方便，不需潤滑，維護費用低；

可用于長距離傳動，中心距可達10m以上。

Transmission precisely and non-slip while working with a constant transmission ratio

Stably transmission,with capacity of buffer and damping,low noise

High efficiency of transmission,which could reach 0.98,energy conservation remarkably;convenient for maintenance,no need to lubrication,low cost for maintenance.It could be used for long-distance transmission,and the center distance could reach 10m or more.



橡膠同步帶 Rubber Synchronous Belt

橡膠同步帶

工業同步帶使用原料:採用日本進口優質氯丁膠為主要原料，配入多種不同用途的輔料；骨架材料為日本進口優質玻璃纖維綫繩；帶齒面採用尼龍66高彈力布做保護。

同步帶傳動是利用帶齒與帶輪齒啮合來傳遞動力的一種新型傳動方式。具有準確的同步傳動功能，不需要潤滑、無滑差、無污染、噪音小；傳動效率達0.98，速比範圍可達1:10，允許綫速可達50m/s，傳動率從幾百瓦到熟千瓦，適宜多軸傳動。具有動態屈繞性好，抗龜裂性能好，抗臭氧性能優良，耐熱，耐磨等特點。

Rubber Synchronous Belt

Industrial synchronous belt applies the supperier synthetic neoprene imported from japan as main raw material .It matches with multiple auxiliary materials with various uses. Skeleton uses the superior glass fiber cord imported from japan. Tooth face of the belt adopts nylon 66 hight spandex for protection.

Synchronous belt drive is a novel drive mode that utilizes pulley gear meshing to transfer motive power.It has accurate synchronous drive function. It needs no iubrication without slip differential nor pollution and with little noise. Drive efficiency reaches to0.98.Speed ratio range can fulfill 1:10.Allowable linear speed can attain 50m/s.Drive efficiency ranges from several hundred watts to several kilowatts.It suits multi-axial drive. It features as fine dunamic fine dynamic flex resistance, good anti-cracking properties, superior ozone-proof performance, sound heat-resistance and wear-ability etc.

梯形齒同步帶

Trapezoidal Toothed Synchronous Belt

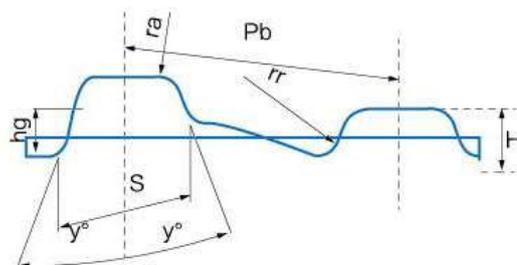


表1 同步帶的物理機械性能 Figure 1: Physicomechanical Property Of Synchronous Belt

項目 Item	梯形齒 Trapezoid Tooth					圓弧齒 Arc Tooth				
	XL	L	H	XH	XXH	3M	5M	8M	14M	20M
拉伸強度≥Tensile strength(N/mm)	80	120	270	380	450	90	160	300	400	520
參考力伸長率 Elongation at reference load	60	90	220	300	360	70	130	240	320	410
參考力N Referenceload 伸長率Elongation≤%	4. 0									
硬 度Hardness(Shore A)	75±5									
包布粘合強度Adhesion strength of cloth(N/mm)	5	6.5	8	10	12	-	6	10	12	15
芯繩粘合強度Adhesion strength of core(N/mm)	200	300	600	800	1500	-	400	700	1200	1600
齒體剪切強度Gear shearing intensity(N/mm)	50	60	70	75	90	-	50	60	80	100

表2 帶的齒形尺寸 Figure 2: Belt Tooth Size

型號 Type	節距 Pitch	齒形角 Tooth angle	齒根厚 Bottom tooth thickness	齒高 Tooth height	齒根圓角 Fillet	齒頂圓角 Tip	帶厚 Belt thickness	齒數範圍 Teeth number range	節綫長度 Pitch length
	Pb	2y°	s	hg	半徑 r	半徑 r	H		
MXL	2. 032	40	1. 14	0. 51	0.13	0.13	1.14	43~2044	87.38~4153.41
XXL	3. 175		1. 73	0. 76	0.20	0.20	1.52	46~124	146.05~393.70
XL	5. 080	50	2. 57	1. 27	0.38	0.38	2.3	22~510	111.76~2590.80
L	9. 525		4. 65	1. 91	0.51	0.51	3.6	23~530	219.08~5048.25
H	12. 700	40	6. 12	2. 29	1.02	1.02	4.3	29~440	368.30~5588.00
XH	22. 225		12. 57	6. 35	1.57	1.19	11.2	53~220	1177.93~4889.50
XXH	31. 750		19. 05	9. 53	2.29	1.52	15.7	56~144	1778.00~4572.00

橡膠同步帶 Rubber Synchronous Belt

型號 Type	節距 Pitch	齒形角 Tooth angle	齒根厚 Bottom tooth thickness	齒高 Tooth height	齒根圓角 Fillet	齒頂圓角 Tip	帶厚 Belt thickness	齒數範圍 Teeth number range	節綫長度 Pitch length
	Pb	2y°	s	hg	半径 r	半径 r	H		
T2.5	2.5	40	1.50	0.70	0.2	0.2	1.3	42 ~ 312	105.00 ~ 780.00
T5	5		2.65	1.20	0.4	0.4	2.2	30 ~ 400	150.00 ~ 2000.00
T10	10		5.30	2.50	0.6	0.6	4.5	34 ~ 536	340.00 ~ 5360.00
T20	20		10.15	5.00	0.8	0.8	8.0	61 ~ 181	1220.00 ~ 3620.00

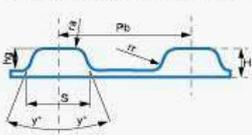
型號 Type	節距 Pitch	齒形角 Tooth angle	齒根厚 Bottom tooth thickness	齒高 Tooth height	齒根圓角 Fillet	齒頂圓角 Tip	帶厚 Belt thickness	齒數範圍 Teeth number range	節綫長度 Pitch length
	Pb	2y°	s	hg	半径 r	半径 r	H		
3M	3	14	1.78	1.17	0.24~0.3	0.87	2.4	35 ~ 1000	105.00 ~ 3000.00
5M	5		3.05	2.06	0.40~0.44	1.49	3.8	35 ~ 852	175.00 ~ 4260.00
8M	8		5.15	3.36	0.64~0.76	2.46	6.0	36 ~ 565	288.00 ~ 4520.00
14M	14		9.04	6.02	1.20~1.35	4.50	10.0	56 ~ 340	784.00 ~ 4760.00
20M	20		14.00	8.04	1.77~2.01	6.50	13.20	100 ~ 260	2000.00 ~ 5200.00

型號 Type	節距 Pitch	齒根厚 Bottom tooth thickness	齒高 Tooth height	齒側圓弧 Fillet radius	齒根圓角 Fillet	齒頂圓角 Tip	帶厚 Belt thickness	齒數範圍 Teeth number range	節綫長度 Pitch length
	Pb	s	hg	2y°	半径 r	半径 r	H		
S2M	2	1.3	0.76	1.3	0.2	0.2	1.36	44 ~ 1914	88.00 ~ 3828.00
S3M	3	1.95	1.14	1.95	0.30	0.30	1.94	41 ~ 500	123.00 ~ 1500.00
S4.5M	4.5	2.93	1.71	2.93	0.45	0.45	2.81	40 ~ 201	180.00 ~ 904.50
S5M	5	3.25	1.91	3.25	0.50	0.50	3.14	30 ~ 560	150.00 ~ 2800.00
S8M	8	5.20	3.05	5.20	0.80	0.80	5.30	53 ~ 500	424.00 ~ 4000.00
S14M	14	9.10	5.30	9.10	1.40	1.40	10.2	69 ~ 322	966.00 ~ 4508.00

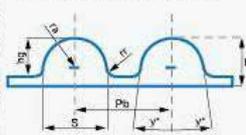
型號 Type	節距 Pitch	齒根厚 Bottom tooth thickness	齒高 Tooth height	帶厚 Belt thickness	齒數範圍 Teeth number range	節綫長度 Pitch length
	Pb	s	hg	H		
P2M	2	1.30	0.73	1.3	56 ~ 612	112.00 ~ 1224.00
P3M	3	1.95	1.09	2.1	30 ~ 621	90.00 ~ 1863.00
P5M	5	3.25	1.81	3.6	36 ~ 400	180.00 ~ 2000.00
P8M	8	5.20	2.90	5.5	40 ~ 550	320.00 ~ 4400.00
P14M	14	9.50	6.00	10.0	69 ~ 327	966.00 ~ 4578.00

型號 Type	節距 Pitch	齒高 Tooth height	齒頂圓角 Tip	齒側圓弧 Fillet radius	底圓圓弧 Arc bottom	帶厚 Belt thickness	齒數範圍 Teeth number range	節綫長度 Pitch length	
	Pb	s	半径R ₁	半径R ₂	半径R ₃	b	H		
G2M	2.0	0.75	0.15	1.00	0.555	0.75	1.38	56 ~ 612	112.00 ~ 1224.00
G3M	3.0	1.14	0.25	1.52	0.85	1.14	2.40	30 ~ 621	90.00 ~ 1863.00
G5M	5.0	1.93	0.51	2.54	1.37	1.03	3.80	36 ~ 400	180.00 ~ 2000.00
Y8M	8.0	3.02	1.08	3.80	2.10	1.43	5.00	40 ~ 550	320.00 ~ 4400.00

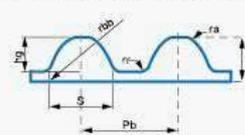
T型齒同步帶
t-toothed synchronous belt



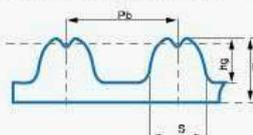
圓弧型同步帶
Arc synchronous belt



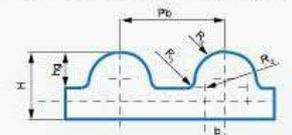
S型齒同步帶
S-toothed synchronous belt



拋物綫同步帶
Parabolic synchronous belt

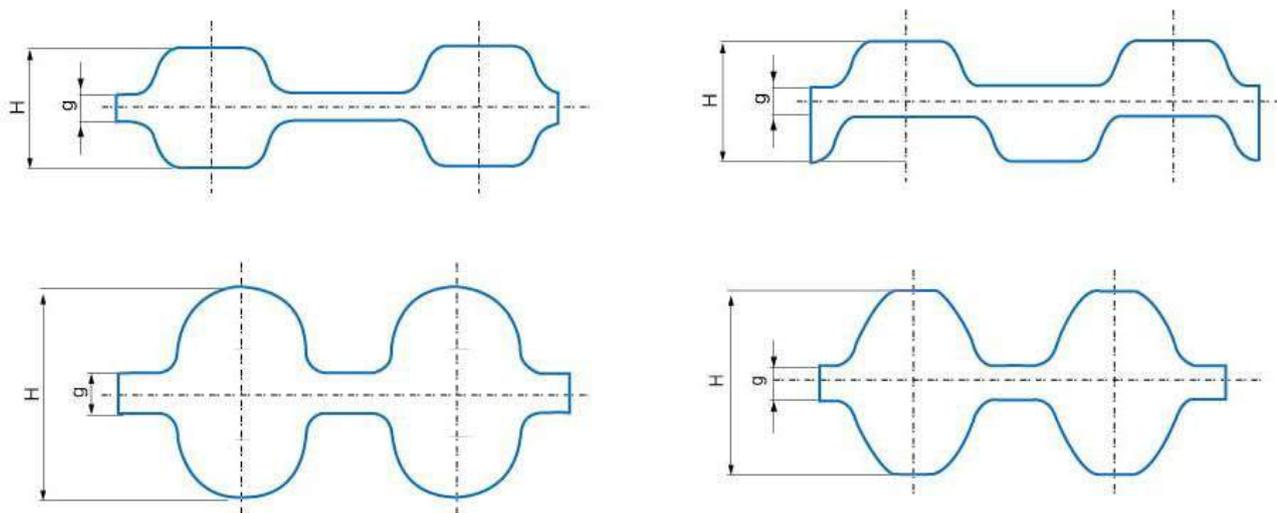


G.Y型齒同步帶
G.Y-toothed synchronous belt



雙面齒同步帶

Double Side Synchronous Belt



雙面齒同步帶

1. 雙面齒同步帶的節距和齒形採用國際標準生產。
2. 雙面齒同步帶按帶齒的分布可分為兩種標準形式：
DA型 雙面齒同步帶，其兩面帶齒呈對稱排列；
DB型 雙面齒同步帶，其兩面帶齒呈交錯位置排列。

Double Side Synchronous Belt

1. We adopt the international standard manufacture for pitch and tooth profile of double-cog synchronous belt.
2. Double side synchronous belt has two standard forms.
Model DA symmetrical arrangement of the two-side tooth
Model DB staggered tooth arrangement to two-side tooth

雙面齒同步帶的規格型號、節綫差及厚度尺寸表

Specification model, pitch line differential thickness size table

型號 Type	G	H	規格代號 Specification code	節綫長度(mm) Pitch length	齒數(mm) Teeth NO.
D-XL	0.508	3.05	158XL~1020XL	401.32~2590.8	79~510
D-L	0.762	4.58	217L~1148L	552.45~2914.65	58~306
D-H	1.372	5.95	220H~1900H	558.80~4826.00	44~380
D-T5	1	3.4	T5x550~T5x2000	550.00~2000.00	110~400
D-T10	2	7	T10x560~T10x4650	560.00~4650.00	56~465
DA-3M	0.76	3.1	402-3M~3000-3M	402.00~3000.00	134~1670
DA-5M	1.143	5.26	550-5M~4260-5M	550.00~4260.00	110~852
DA-8M	1.372	7.9	552-8M~4520-8M	552.00~4520.00	69~565
DA-14M	2.8	14.84	1036-14M~4578-14M	1036.00~4578.00	74~327
DA-S5M	0.96	4.25	550-S5M~2800-S5M	550.00~2800.00	110~560
DA-S8M	1.372	7.48	560-S8M~4000-S8M	560.00~4000.00	64~500
DA-S14M	2.8	12.36	1008-S14M~4508-S14M	1008.00~4508.00	72~322

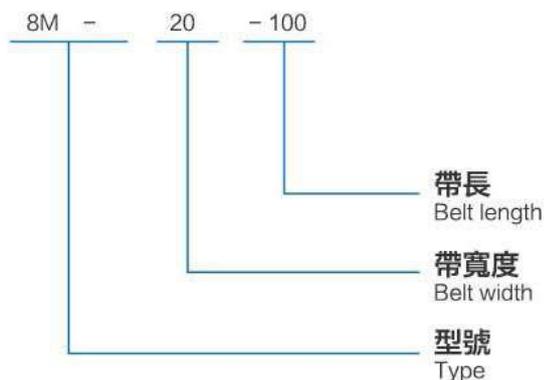
注:雙面齒同步帶的節距和齒形等同於單面齒同步帶的節距和齒形。

We adopt the international standard manufacture for pitch and tooth profile of double-cog synchronous belt.

橡膠開口同步帶 Rubber Open Timing Belt

表示方法

Representation method



現可生產橡膠切割式開口同步帶規格及尺寸

Size and specification of rubber open timing belt

型號 Type	開口寬度 Open width	每卷長度(m) Leng per roll	型號 Type	開口寬度 Open width	每卷長度(m) Leng per roll	
MXL	025	100	S3M	6	100	
	031	80		9	70	
	037	65		10	65	
	050	100		12	55	
025	65	15		40		
XL	031	100	S5M	9	130	
	037	80		10	120	
	050	65		15	80	
L	037	65	3M	20	60	
	050	100		6	100	
	062	80		9	70	
075	65	10		65		
H	062	120	12	110		
	075	95	15	88		
T5	10mm	85	5M	9	90	
	15mm	55		10	80	
	20mm	40		12	135	
T10	10mm	80		15	110	
	15mm	110	20	80		
	20mm	80	8M	10	75	
S2M	6mm	100		12	120	
	9mm	70		P8M	15	100
	10mm	65			18	85
	12mm	110	S8M		20	75
	15mm	88				

注:10mm寬度以下(含10mm)2卷起訂, 除T5、S3M、S5M外。MOQ:2 Rolls ≤ 10mm width, except T5、S3M、S5M。

多楔帶

POLY V-BELT

多楔帶與帶輪的接觸面積和摩擦力較大，載荷沿帶寬的分布較均勻，因而傳動能力更大；

由于帶體薄而輕、柔性好、結構合理，故工作應力小，可在較小的帶輪上工作；

多楔帶還具有傳動振動小、散熱快、運轉平穩、使用伸長小、

傳動比大和極限線速度高等特點，因而壽命更長；

節能效果明顯，傳動效率高；傳動緊湊，占據空間小。

The contact area and force of friction between poly V-belt and belt wheel is large, and load distribute evenly along the bandwidth, which make the transmission capacity greater.

Since the belt is thin and light, good flexible and reasonable structure, all those lead to small working pressure. And they could work on smaller belt wheel.

Poly V-belt also low vibration, fast heat dissipation, stable running and small use-elongation.

High transmission ratio and high extreme linear velocity, and longer life.

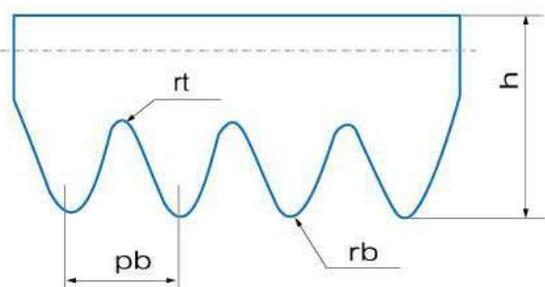
Remarkably on energy conservation, high transmission ratio, compact transmission and occupy little space.



多楔帶 Multi-Wedge Belt

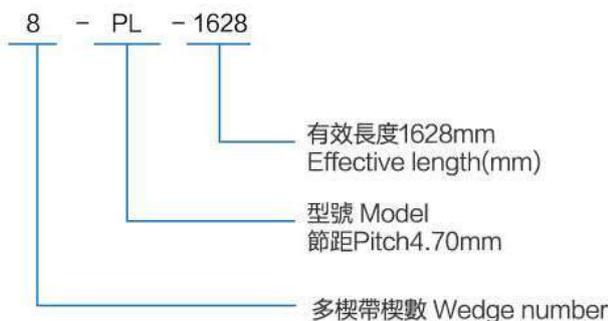
多楔帶截面圖

Multi-wedge belt section diagram



表示方法

Representation method



多楔帶的特性:

1. 傳動功率大，空間相同時比普通V帶的傳動功率高30%。
2. 帶體薄，柔軟性好，適應帶輪直徑小的傳動，也適應高速傳動，帶速可達40m/s;
3. 加入短纖維補強可承受較高的橫向壓力，增加帶楔壓性能，減少受力後變形；且結構緊湊、振動小，運轉更平穩。
4. 具有耐寒耐熱、耐油抗腐、抗屈撓，耐磨、耐老化，使用伸長小，壽命長等特性。

The characteristics of multi-wedge belt:

1. It is of large transmission power. Under the conditions of same space, its transmission power is 30% higher than that of ordinary V-belt.
2. The thin belt has fine flexibility. It suits driving small diameter pulley and high speed transmission. Belt speed reaches as high as 40m/s.
3. With short fiber reinforcement, it can bear high horizontal pressure, increase wedge pressure of the belt and reduce deformation after it encounters the force. It also features as compact structure. little vibration and the more smooth operation.
4. It resists cold, heat, oil, corrosion, flex, wear and ageing with long service life and little elongation in use etc.

多楔帶的截面尺寸表一 Multi-wedge sectional size

型號 Type	PH	PJ	PK	PL	PM
楔距pb Wedge distance	1.60	2.34	3.56	4.70	9.4
楔頂圓弧半徑rb, 最小值 Wedge top arc radius ,rb ,min,value	0.30	0.40	0.50	0.40	0.75
槽底圓弧半徑rt, 最大值 Wedge base arc radius,rt,max,value	0.15	0.20	0.25	0.40	0.75
帶高h, 近似值 Belt height,h, approximate valve	3	4	6	10	17

PU同步帶

PU SYNCHRONOUS BELT

PU同步帶采取帶齒與帶輪的齒槽相嚙合傳遞運動和動力，是一種嚙合傳動，因而具有齒輪傳動、鏈傳動和平帶傳動的各種優點。較高抗磨損能力，保證其在傳動中仍然保持良好的運動能力。公差較小。

PU Synchronous belt adopt the belt teeth and pulley groove mesh transfer movement and power, which is a kind of meshing transmission. Thus they have the gear transmission, chain drive peace with all kinds of advantages. A high wear ability, ensure the still maintain good athleticism in the drive and small tolerance.



PU同步帶 PU Synchronous Belt

化學性能 Chemical properties

- 防老化、防水解、防紫外綫UVA，防臭氧；
- 工作溫度-30℃+80℃短時間可承受最高+110℃；
- 高度防油、防油脂；
- 抗大多數酸、鹼腐蝕。
- It resists ageing, hydrolysis, ultraviolet ray UVA and ozone.
- Operating temperature: -30℃ ~ 80℃, it can bear max. +110℃ within a short period of time.
- Highly oil and grease resistant.
- It resists partial acid and alkali corrosion.

PU同步帶 PU Synchronous Belt

PU同步帶由熱塑聚氨酯材料制成，骨架採用鋼絲或芳綸綫，保證了傳動中良好性能、傳動準確、平穩，具有傳動和傳送作用。

PU synchronous belt is made of thermoplastic polyurethane material.

Skeleton applies steel wire or aramid cord to ensure the sound drive properties, accurate and smooth drive. it functions as drive and transfer.

機械性能 Mechanical properties

- 尺寸穩定/Fine size stability
- 預拉力低/Little P re-tension
- 噪音低/Low noise
- 高度耐磨損
Highly anti-wear ability
- 無須維護/on-maintenance
- 彈性好/Good elasticity
- 直綫速度最高可達80米/秒
The max linear velocity can reaches 80m/second
- 高精度的直綫定位/High Precision linear positioning

PU 同步帶可進行特殊加工：

PU Synchronous belt can have the following special processing:

1. 在齒面上加布/Add fabric in tooth surface
2. 在帶背上加布/Add fabric in belt back
3. 在帶背上覆蓋紅膠/Cover red glue in belt back
4. 在帶背上加檔塊/Add blick in belt back

PU接駁帶 PU connection belt

PU接駁帶是由開口接駁而成的同步帶系列，1米以上的長度可按不同的齒數要求進行接駁加工。

PU connection belt is one of synchronous belt series which composes of open connection.

Over 1m length can be connected/processed according to different teeth number requirements.

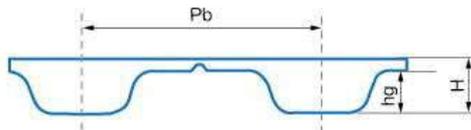
PU平帶 PU flat belt

PU平帶除了具有PU帶的特性外，其表面摩擦力大，能更好的傳遞動力及輸送。

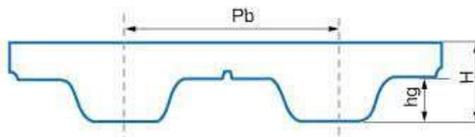
Apart from the characteristics of PU belt. PU flat belt also has large surface friction.

it can better transfer motive power and conveyance.

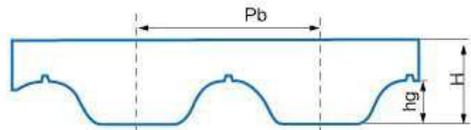
PU同步帶 PU Synchronous Belt



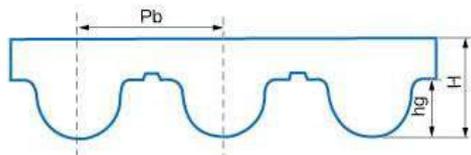
型號 Type	節距 Pitch	齒高 tooth height	帶厚 Belt thickness	標準寬度(英寸) Standaard width
	Pb	hg	H	
MXL	2.032	0.51	1.14	025 031 037 050 075 100
XL	5.08	1.27	2.30	025 031 037 050 075 100 150 200
L	9.525	1.91	3.60	050 075 100 150 200 300 400 600
H	12.7	2.29	4.30	050 075 100 150 200 300 400 600
XH	22.225	6.35	11.20	100 150 200 300 400 600



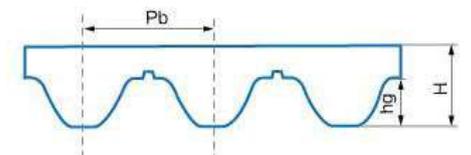
型號 Type	節距 Pitch	齒高 tooth height	帶厚 Belt thickness	標準寬度(英寸) Standaard width
	Pb	hg	H	
T2.5	2.5	0.70	1.30	6 10 16 25
T5	5	1.20	2.20	6 10 16 25 32 50
T10	10	2.50	4.50	12 16 25 32 50 75 100
T20	20	5.00	8.00	25 32 50 75 100 115



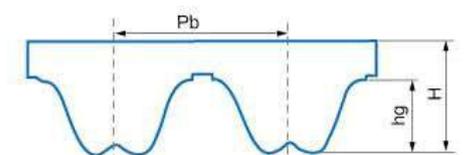
型號 Type	節距 Pitch	齒高 tooth height	帶厚 Belt thickness	標準寬度(英寸) Standaard width
	Pb	hg	H	
AT3	3	1.10	1.90	10 20 25 50
AT5	5	1.20	2.70	6 10 16 25 32 50
AT10	10	2.50	4.50	16 25 32 50 75 100
AT20	20	5.00	8.00	25 32 50 75 100 115



型號 Type	節距 Pitch	齒高 tooth height	帶厚 Belt thickness	標準寬度(英寸) Standaard width
	Pb	hg	H	
3M	3	1.17	2.40	6 9 12 15 25 30 50
5M	5	2.10	3.70	10 15 25 50 100 150
8M	8	3.38	5.60	10 15 20 30 50 85 100
14M	14	6.01	10.00	25 40 55 85 100 115



型號 Type	節距 Pitch	齒高 tooth height	帶厚 Belt thickness	標準寬度(英寸) Standaard width
	Pb	hg	H	
S3M	3	1.14	1.90	6 9 12 15 25 30 50
S5M	5	1.85	3.35	10 15 25 50 100 150
S8M	8	3.05	5.30	10 15 20 30 50 85 100
S14M	14	5.30	10.20	25 40 55 85 100 115



型號 Type	節距 Pitch	齒高 tooth height	帶厚 Belt thickness	標準寬度(英寸) Standaard width
	Pb	hg	H	
P5M	5	2.00	3.80	10 15 25 50 100 150
P8M	8	3.20	5.40	10 15 20 30 50 85 100
P14M	14	6.00	10.00	25 40 55 85 100 115

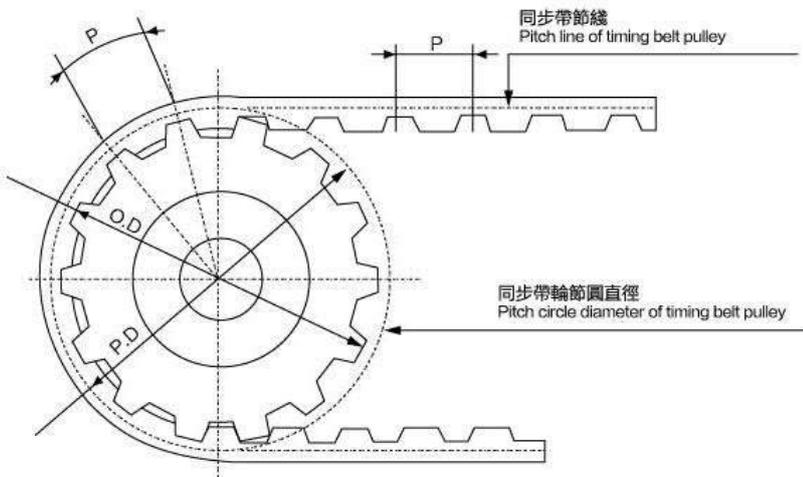
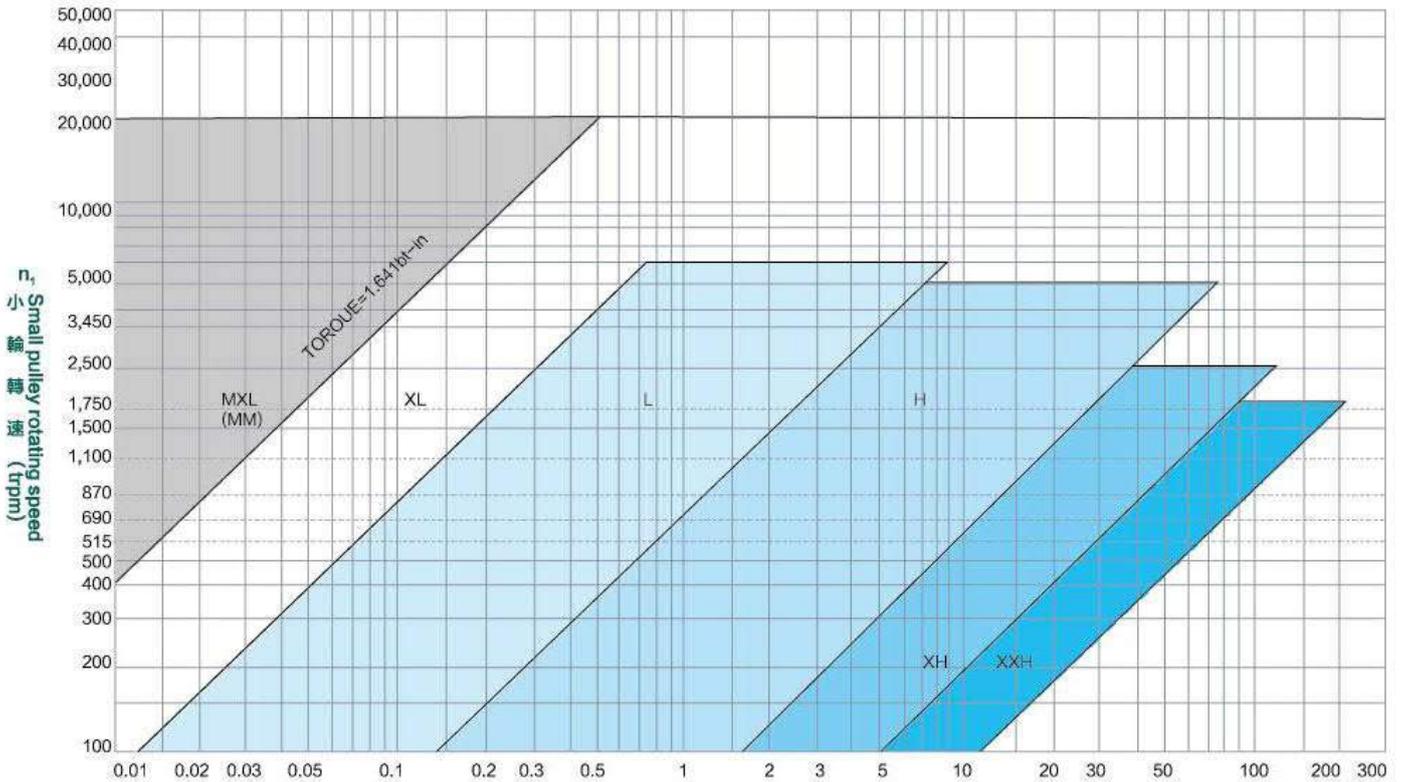
同步帶輪設計資料

Synchronous Belt Design Data

梯形齒同步帶 · 輪

Trapezoid toothed synchronous belt · Pulleys

同步帶選型圖1 Design Horsepower(Horsepower service factor)



Pd:設計功率KW

Pd:Designed wattage KW

引用標準:
Introduced standards:

GB 11361

GB 11357

GB 11616

符合 ISO 5294-1989

- P=節距是在同步帶輪或同步帶中心節綫上測得相鄰兩個齒的距離
- Pitch is the distance of tow adjacent teeth of pulley or belt.
- P.D=同步帶輪的節圓直徑 Pitch circle diameter of belt pulley
- O.D=同步帶輪實際外圓直徑 External diameter of pulley

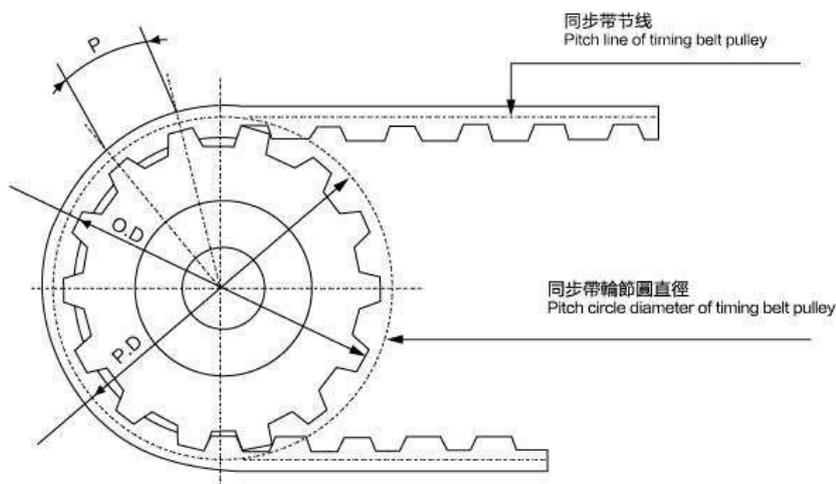
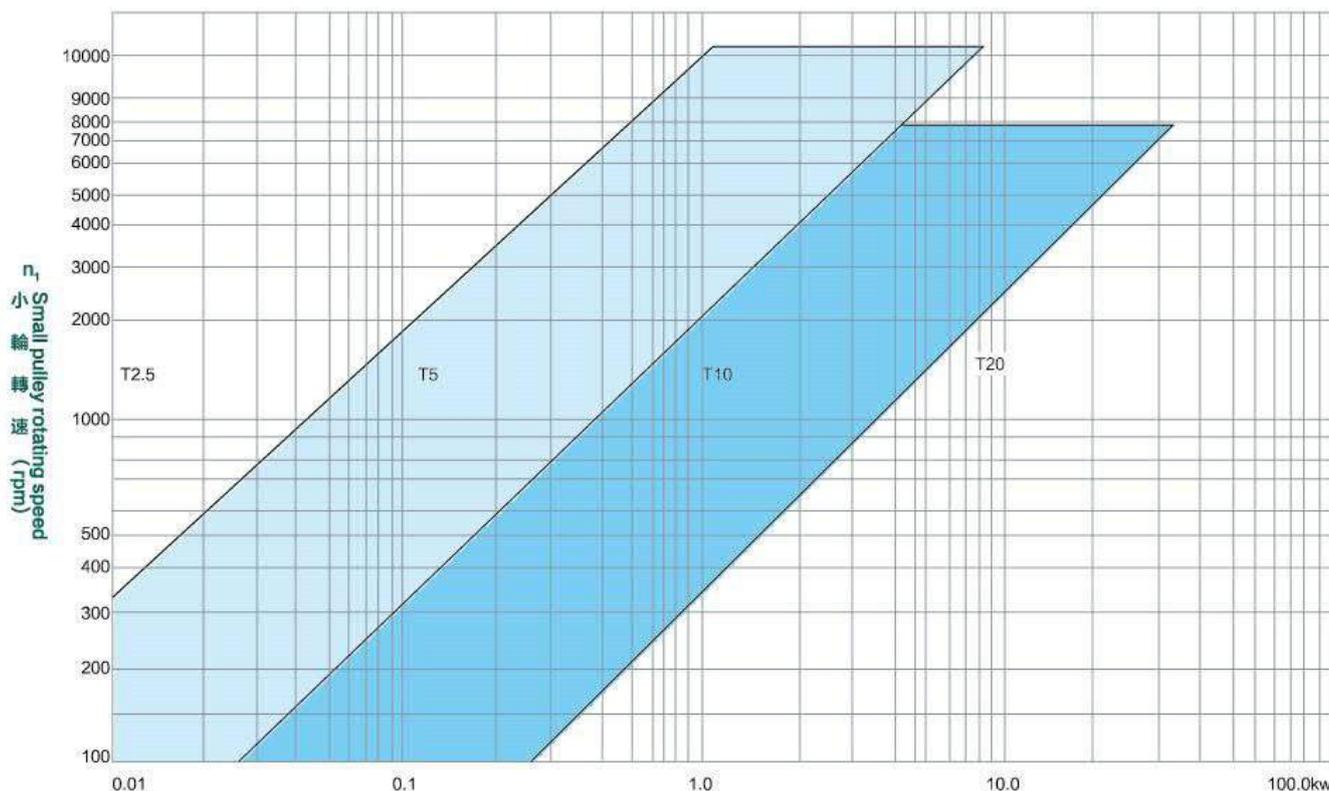
同步帶輪設計資料

Synchronous Belt Design Data

T形齒同步帶 · 輪

T Toothed synchronous belt · Pulleys

同步帶選型圖2 Design Horsepower(Horsepower service factor)



Pd:設計功率KW

Pd:Designed wattage KW

引用標準:
Introduced standards:

GB 11361

GB 11357

GB 11616

符合 ISO 5294-1989

- P=節距是在同步帶輪或同步帶中心節綫上測得相鄰兩個齒的距離
- Pitch is the distance of tow adjacent teeth of pulley or belt.
- P.D=同步帶輪的節圓直徑 Pitch circle diameter of belt pulley
- O.D=同步帶輪實際外圓直徑 External diameter of pulley

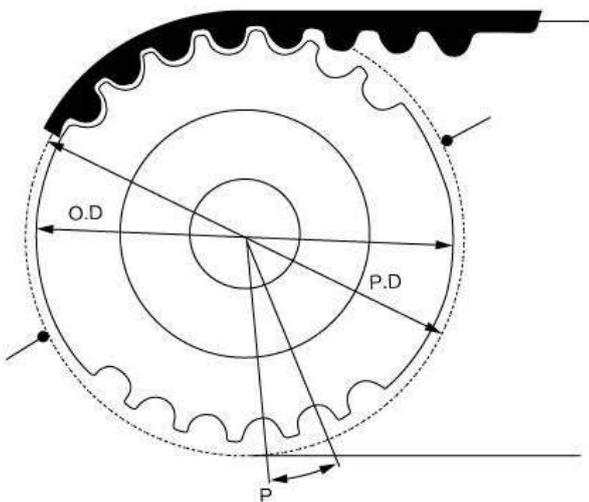
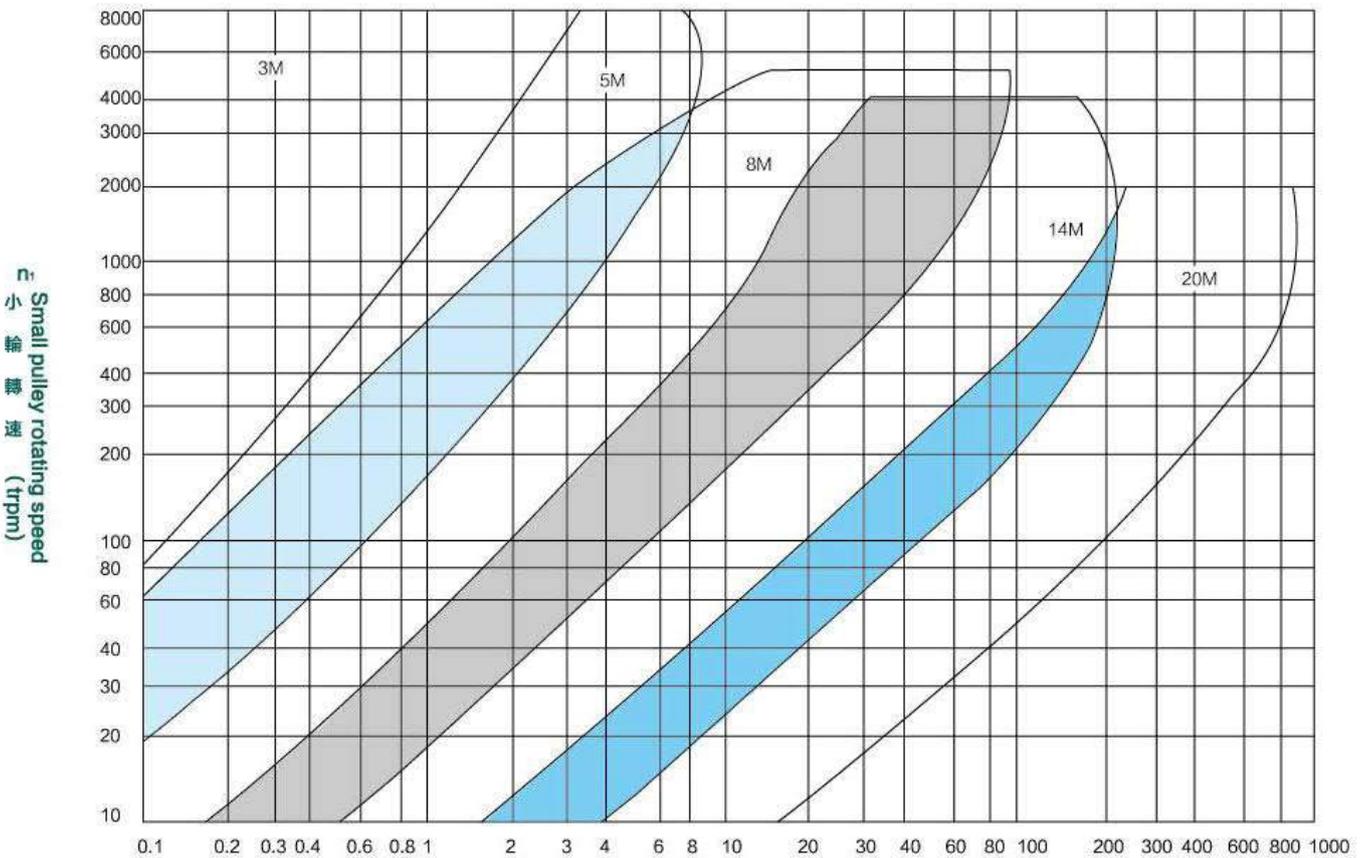
同步帶輪設計資料

Synchronous Belt Design Data

圓弧形齒同步帶 · 輪

Arc toothed synchronous belt · Pulleys

同步帶選型圖3 Design Horsepower(Horsepower service factor)



Pd:設計功率KW

Pd:Designed wattage KW

圓弧齒同步帶共有五種節距型號

3M, 5M, 8M, 14M, 20M

(STPD/STD 同步帶共有六種節距型號)

(S2M, S3M, S4.5M, S5M, S8M, S14M)

(本產品為專利產品，生產及銷售時應注意專利生產及銷售認可)

These are 5 different types of pitches

3M, 5M, 8M, 14M and 20M.

(STPD/STD Synchronous belt has altogether six type pitch models)

(S2M, S3M, S4.5M, S5M, S8M and S14M)

(These products have patent, and must get approval of patent when the products are produced and sold)

- P=節距是在同步帶輪或同步帶中心節綫上測得相鄰兩個齒的距離
- Pitch is the distance of tow adjacent teeth of pulley or belt.
- P.D=同步帶輪的節圓直徑 Pitch circle diameter of belt pulley
- O.D=同步帶輪實際外圓直徑 External diameter of pulley

同步帶輪設計資料

Synchronous Belt Design Data

表-1工作情況系數KA

工作機	原動機					
	交流電動機（普通轉矩鼠籠式、同步帶電動機）， 直流電動機（并激），多缸內燃機			交流電動機（大轉矩、大滑差率、單相、滑環）， 直流電動機（復激、串激），單缸內燃機		
	運轉時間			運轉時間		
	斷續使用 每日3~5時	普通使用 每日8~10時	連續使用 每日16~24時	斷續使用 每日3~5時	普通使用 每日8~10時	連續使用 每日16~24時
復印機、配油裝置、測試儀表、放映機、醫療器械	1.0	1.2	1.4	1.2	1.4	1.6
清掃機、縫紉機、辦公機械	1.2	1.4	1.6	1.4	1.6	1.8
帶式輸送機，輕型包裝機，烘幹箱，篩選機，繞線機，圓錐成形機，木工機床，帶鋸	1.3	1.5	1.7	1.5	1.7	1.9
液體攪拌機，混面機，鑽床，車床，螺紋加工機，印刷機，龍門刨床	1.4	1.6	1.8	1.6	1.8	2.0
液體攪拌機，帶式輸送機，鏟床，磨床，銑床，齒輪泵，紡織機械，離心式壓縮泵	1.5	1.7	1.9	1.7	1.9	2.1
升降機，脫水機，清洗機，發電機，排風機，起重機，激磁機，鋸木機，紡織機械	1.6	1.8	2.0	1.8	2.0	2.2
離心機，刮板輸送機，螺旋輸送機，錘擊式粉碎機，造紙制漿機	1.7	1.9	2.1	1.9	2.1	2.3
粘土攪拌機，礦山用風扇，鼓風機，強制送風機	1.8	2.0	2.2	2.0	2.2	2.4
往復式壓縮機，球磨機，棒磨機，往復式泵	1.9	2.1	2.3	2.1	2.3	2.5

注：1、對增速傳動，必須下列數字加進本表的KA中：

R=1~1.25	0	R=1.25~1.74	0.1
R=1.75~2.49	0.2	R=2.5~3.49	0.3
R≥3.5	0.24		

2、對帶型14M和20M的傳動，當 $n_1 \leq 600r/min$ 時，應追加如下系數： $n_1 \leq 200r/min$ ，0.3； $n_1 \leq 201\sim 400r/min$ ，0.2； $n_1 \leq 401\sim 600r/min$ ，0.1；

3、對類繁正反轉 \ 嚴重衝擊 \ 緊急停機等非正常傳動，需視具體情況修正情況系數。

設計方法：		設計條件：		公式及數據		單位	說明
a. 原動機和工作機的類型；		b. 每天運轉時間；		c. 需傳遞的名義功率P；		KW	KA--工作情況系數，見表-1
e. 大帶輪轉速 n_2 ；		f. 初定中心距；		g. 對傳動空間的特殊要求；			
計算項目	代號	公式及數據		單位	說明		
設計功率	P_d	$P_d = K_A P$		KW	K_A --工作情況系數，見表-1		
帶型		根據 n 和 p_v 由圖1，圖2，圖3中選擇					
傳動比	i	$i = n_1 / n_2$					
帶輪齒數	$Z_1 Z_2$	按 $Z_1 \geq Z_{min}$ 原則確定，按 $Z_2 = i Z_1$ 計算後圓整			Z_1 --小帶輪齒數， Z_{min} 見表-2， Z_2 --大帶輪齒數		
帶輪直徑	$d_1 d_2$	根據 $d_1 = P_b * Z_1 / 3.1416$ 計算而得 根據 $d_2 = P_b * Z_2 / 3.1416$ 計算而得		mm	P_b 為節距， d_1 --小帶輪節圓直徑， d_2 --大帶輪節圓直徑。		
節線長度	L_p	初定節線長 L_0 ： $L_0 = 2a_0 + 1.57(d_2 + d_1) + (d_2 - d_1)^2 / 4a_0$ 根據 L_0 選取 L_p		mm	a_0 --初定中心距mm，由設計任務給定。		
實際中心距	a	近似公式為： $a = \{M + [M^2 - 8(d_2 - d_1)^2]^{1/2}\} / 8$		mm	$M = 2L_p - (Z_1 + Z_2)P_b$		
嚙合齒數系數	K_z	$Z_m \geq 6, K_z = 1; Z_m < 6, K_z = 1 - 0.2(6 - Z_m)$			Z_m 為嚙合齒數 $Z_m = \text{int} [Z_1 / 2 - P_b Z_1 (Z_2 - Z_1) / 2a \pi^2]$		
寬度系數	K_w	$K_w = (b_s / b_{s0})^{1.14}$					
基本額定功率	P_0	各型號的最小寬度推薦用基本額定功率 P_0 見表3~表17		KW			
額定功率	P_r	$P_r = K_z * K_w * P_0$		KW			
帶寬	b_s	按 $P_d \leq P_r$ 原則選擇，則 $b_s \geq b_{s0} (P_d / K_z P_0)^{1/1.14}$		mm	b_{s0} 為基準寬度，見表18		
驗算工作能力	P_r	$P_r = 1.0^{-3} \sqrt{(K_z K_w T_a - b_{sm} V^2) / b_{s0}}$ $P_r > P_d$ 傳動能力足夠		KW	查表19得到 T_a, m $V = P_b Z_1 n_1 / 60000$		

設計小結：
 · 帶型、帶長、帶寬
 · 帶輪的標記代號；
 · 帶的標記代號；大小帶輪的齒數、節徑、外徑、寬度；
 · 帶傳動的實際中心距。
 · 帶輪型號

同步带轮设计资料

Synchronous Belt Design Data

KA chart 1 the working condition coefficient KA

Driven pulley	Drive pulley					
	Ac motor(common torque squirrel cage type, synchronous motor), dc motor(Shunt excitation), Multi-cylinder gas engine			Ac motor(big torque, big slip, single-phase, slip ring), dc motor(compound excitation, series excitation),single cylinder gas engine		
	Operating time			Operating time		
	3-5 hours a day in intermittent use	8-10 hours a day in common use	16-24 hours a day in continuous use	3-5 hours a day in intermittent use	8-10 hours a day in common use	16-24 hours a day in continuous use
Copier, oil distributing device,testing instrument, film projector, medical appliance	1.0	1.2	1.4	1.2	1.4	1.6
Sweeper, sewing machine, office machine	1.2	1.4	1.6	1.4	1.6	1.8
Belt conveyor,light packer, oven, sifting machine, winding machine,conical shaper, woodworking-machine, band saw	1.3	1.5	1.7	1.5	1.7	1.9
Liquid mixer,powder mixer,drill press,lahte, thread producing machine, printing machine, planing machine	1.4	1.6	1.8	1.6	1.8	2.0
Liquid mixer, belt conveyor, boring lathe, grinding-machine, milling machine,gear pump, textile-machinery, centrifugal type compression pump	1.5	1.7	1.9	1.7	1.9	2.1
Elevator,spin-drier, cleaning machine,generator, exhaust fan,crane, exciting dynamo, sawmill, textile machinery	1.6	1.8	2.0	1.8	2.0	2.2
Centrifuge, flight conveyer, worm conveyer, hammering disintegrator, wood pulp processor	1.7	1.9	2.1	1.9	2.1	2.3
Clay mixer, mine using fan, blast blower, positive fan	1.8	2.0	2.2	2.0	2.2	2.4
Reciprocating compressor, ball mill rod mill,piston pump	1.9	2.1	2.3	2.1	2.3	2.5

Note:1. If it is gearing up please add the following factor into the KA:

R=1~1.25	0	R=1.25~1.74	0.1
R=1.75~2.49	0.2	R=2.5~3.49	0.3
R≥3.5	0.24		

2. If the belt type is 14M or 20M and $n_1 \leq 600r/min$ please add the following factor into:

$n_1 \leq 200r/min$, 0.3 ; $n_1 \leq 201 \sim 400r/min$, 0.2 ; $n_1 \leq 401 \sim 600r/min$, 0.1 ;

3. Regarding abnormal drives such as frequent forward /reversal rotation/serious impact/emergency Stop etc.,please correct situation factors according to actual circumstances.

Designed procedure				
Design conditions:a.The type of the driver pulley and the driven pulley;		b.Daily working time;	c.P _n nominal power P;	
d.N ₁ :small pulley' s rotating speed		e.N ₂ :big pulley' s rotating speed	f.projected centre distance;	g.Special demand for the drive room.
Calculational item	Design power	Formoula and data		Unit
Information				
Design power	P _d	P _d =K _A P		KW
The type of belt		According to n ₁ and P _d ,choose from drawing 1,drawing 2,drawing 3,drawing 4		
The ratio of drive		i=n ₁ /n ₂		
The pulley is diameter mm	Pulley teeth number	Z ₁ Z ₂	Confirm it according to the principle of Z ₁ ≥Z _{min} , it takes the round number after being calculated according to Z ₂ =Z ₁ i	
	The pulley' s pitch diameter	d ₁ d ₂	It has been calculated according to d ₁ =P _n Z ₁ /3.1416 It has been calculated according to d ₂ =P _n Z ₂ /3.1416	
pitch diameter		L _p	L _p :projected length of the pitch line. L _p =2a ₀ +1.57(d ₂ +d ₁)+(d ₂ -d ₁) ² /4a ₀ Choose L _p according to L ₀	
The length of pitch line		a	Approximate formula is:a=(M+[M ² -8(d ₂ -d ₁) ²] ^{1/2})/8	
Actual center distance		K _Z	Z _m ≥6, K _Z =1 Z _m <6, K _Z =1-0.2(6-Z _m)	
Gear meshing tooth number coefficient		K _w	K _w =(b _s /b _{so}) ^{1.14}	
The factor of width		P ₀	It recommends to use the basic rating mini width of various models. See chare3-chart17 for P ₀	
Basic rating power		P _r	P _r =K _Z *K _w *P ₀	
Rating power		b _s	Confirm it according to the principle of P _n ≤P _r ;b _s ≥b _{so} (P _d /K _Z P ₀) ^{1/1.14}	
Belt width		P _r	P _r =1.0 ⁻³ v(K _Z K _w T _a -b _s mV ² /b _{so}) If P _r >P _d the design is good	
Test the operational capability		T _{a,m} see chart 19 V=P _n Z ₁ n ₁ /60000		

Design summary: · The type of belt, belt length, belt width; · The belt' s code name; · The teeth number, pitch, diameter, width of the small or big pulley; · The type of pulley; · The pulley' s code name; · The actual center distance

同步带轮设计资料

Synchronous Belt Design Data

表1 带轮最少许用齿数(Pulley min, allowable use teeth number)

小带轮转速 n_1 Small pulley rotating speed r/min	带型Type						
	MXL,T2.5	XXL	XL,T5	L,T10	H	XH,T20	XXH
<900	10	10	10	12	14	22	22
900~<1 200	12	12	10	12	16	24	24
1200~<1800	14	14	12	14	18	26	26
1800~<3600	16	16	12	16	20	30	--
3600~<4800	18	18	15	18	22	--	--

小带轮转速 n_1 Small pulley rotating speed r/min	带型Type						
	2M,S2M	3M,S3M	S4.5M,5M,S5M		8M,S8M	14M,S14M	20M
<900	10	10	14		22	28	34
900~<1 200	12	14	20		28	28	34
1200~<1800	14	16	24		32	32	38
1800~<3600	16	20	28		36	--	--
3600~<4800	20	22	30		--	--	--

表2 基准宽度(Datum width)bso

型 號 Type	MXL	XL	L	H	XH	XXH
基准宽度 (Datum width) bso	6.4	9.5	25.4	76.2	101.6	127
型 號 Type	3M	5M	8M	14M	20M	-
基准宽度 (Datum width) bso	6	9	20	40	115	-

表3 带基准宽度下的许用工作拉力 T_a 及单位长度质量 m
Belt allowable use operation T_a and unit length weight

型 號 Type	T_a (N)	m (kg/m/bso)
MXL	27.00	0.007
XXL	31.00	0.010
XL	50.17	0.022
L	244.46	0.095
H	2100.85	0.448
XH	4048.90	1.484
XXH	6398.03	2.473



须瑞机械

安裝、維護、失效模式及糾正措施

Installation、Maintenance、Failure Mode and Correcting Measures

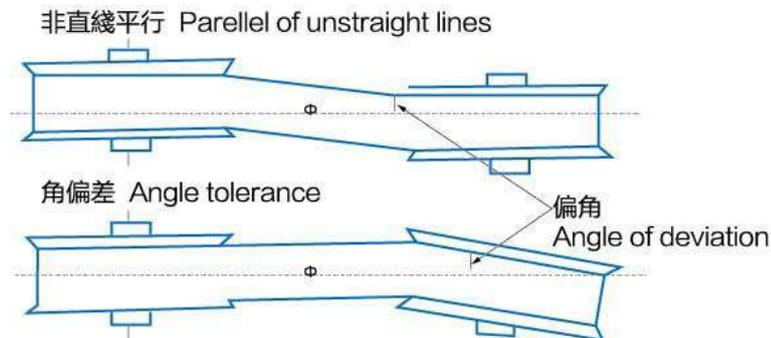
帶傳動的安裝、維護、失效模式及糾正措施

The installation, maintenance, failure mode, and correcting measures of belt transmission

一、帶傳動的正確安裝(The correct installation of belt)

- (1) 關掉電源，卸下防護罩，旋鬆馬達的裝配螺栓。移動馬達使皮帶足夠鬆弛，不需撬開就能取下皮帶，千萬不要把皮帶撬下來。Switch off the power. remove the protective cap. loosen the assembly bolt. Move the motor to make the belt loose, you can take off the belt without Prying, Prying the belt off is not allowed.
- (2) 取下舊皮帶，檢查是否有異常磨損。過度的磨損可能就意味着傳動裝置的設計或保養上存在問題。Take off the old belt. then check if there is any abnormal wear and tear. Excessive wear and tear may indicate there are some problems with the design or maintenance.
- (3) 選擇合適的皮帶替換。Choose the proper belt for changing.
- (4) 清潔皮帶及皮帶輪，應將抹布沾少許不易揮發的液體擦試，在清潔劑中浸泡或者使用清潔劑刷洗皮帶均是不可取的。為除去油污及污垢。用砂紙擦或用尖銳的物體刮。顯然也是不可取的。皮帶在安裝使用前必須保持乾燥。Clean the belt and the pulley, use a cloth with some liquid which can't volatilize easily to wipe. Soaking in the cleanser or brush the belt with cleanser are not good: use the sand paper or sharp subject to scratch are not Proper. The belt must be dry before using.
- (5) 檢查皮帶輪是否有異常磨損或裂紋，如果磨損過量，則必須更換帶輪。Check the pulley if there is any abnormal wear and tear or crack, if the wear and tear is excessive, the pulley must be Changed.
- (6) 檢查帶輪是否成直線對稱。皮帶輪成直線對稱于傳動帶特別是同步皮帶傳動裝置的運轉是至關重要的。(見圖1) Check the pulley to see if it is symmetrical of straight line, this is very important for the performance of the transmission especially for the timing belt drive.

圖1 皮帶輪不對稱圖示
Non-symmetry pulleys



- (7) 檢查其餘的傳動裝置部件，如軸承和軸套的對稱，耐用性及潤滑情況等。Check the rest parts of the driving device, for example, the symmetry of the bearing and the bearing boot, durability and lubrication, etc.
- (8) 在皮帶輪上安裝新的皮帶，絕不要撬或用力過猛。When installing a new belt on the pulley, prying or using too much force is not allowed.
- (9) 調緊傳動裝置的中心距，直至張力測量儀測出皮帶張力適當為止。用手轉幾圈主動輪，重測張力。Adjust and tighten the central distance of the driving device, until the tension is proper measured by the tension gauge. Use hand to rotate the driving pulley for several rounds and measures the tension again.
- (10) 擰緊馬達的裝置螺栓，糾正扭矩。由于傳動裝置在運作時中心距的任何變化都會導致皮帶性能不良，故務必要確保所有傳動裝置部件均已擰緊。Tighten the assembly bolt of the motor, correct the torque, because any change of the central distance will cause the bad property of the belt. Please ensure the driving device are all tightened.
- (11) 起動裝置并觀察皮帶性能，察看是否有異常振動，細聽是否有異常噪音。最好是關掉機器，檢查軸承及馬達的狀況；若是摸上去覺得太熱，可能是皮帶太緊，或是軸承不對稱，或潤滑不正確。Switch on the power and observe the property of the belt if there is any unusual vibration, listen carefully to see if there are any unusual noises. If yes you'd better turn off the machine, then check the condition of bearing and motor, if the temperature is very high, maybe because the belt is too tight or the bearing is not symmetrical. or the lubrication is not Correct.

安裝、維護、失效模式及糾正措施

Installation、Maintenance、Failure Mode and Correcting Measures

帶傳動的安裝、維護、失效模式及糾正措施

The installation, maintenance, failure mode, and correcting measures of belt transmission

二、帶和帶輪的維護(Belt and pulley maintenance)

(1) 傳動帶不應折扭和急劇彎曲，同步帶的最小彎曲直徑D見圖2、表2。

The belt can't be crimped and bend sharply, the minimum bending diameter: see the Figure 2, Chart 2.

(2) 在貯存和運輸過程中，避免陽光直射、雨雪浸淋；防止與酸、鹼、有機溶劑、水蒸氣等影響產品性能的物質接觸。

During the process of the storage and transportation, Keep the belt and the pulley out of direct sunlight, not get wet from rain and snow, prevent it from touching the acid, alkali, organic solvent and steam etc, which can influence property of the belt.

(3) 常溫下貯存，一般溫度為-20~50；并距熱源至少一米以外。

Storage under the usual temperature, from -20°C—50°C, and keep it away from heat source at least 1 meter.

(4) 貯存期間要防止承受過大的重量而變形，不得折壓堆放，不得將帶直接放在地上，應將帶懸掛在架子或平整地放在貨架上。

During the storage, it can't be piled up, for the weight might cause the change of the shape, and it can't be placed on the ground Directly, it should be hanged on the shelf or put on the shelf.

(5) 帶輪成品應在乾燥和通風的環境中貯存和運輸，帶輪成品應進行防銹處理。

The finished pulley should be stored and transported under a dry and ventilated Environment, and the anti-rust processing is also needed.

(6) 帶傳動裝置應加防護罩。并保證通風和排污。

The belt driving device should have a protective cap, and the discharge of the pollution and ventilation must be assured.

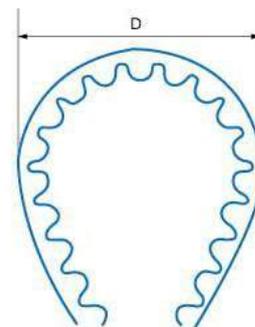


圖2 同步帶的最小彎曲直徑

Figure2 The minimum Crimp diameter of timing belt

表2 同步帶的最小彎曲直徑

Chart2 The minimum Crimp diameter of timing belt

型號 Type	允許最小彎曲直徑 D,mm The minimum crimp diameter allowed
MXL, XXL, T2.5	15
XL, T5 AT5	15
L, T10 AT10	20
H	40
XH, T20 AT20	70
XXH	100
3M S2M, S3M, P3M	15
5M S4.5M, S5M, P5M	25
8M S8M P8M	40
14M S14M P14M	80

安裝、維護、失效模式及糾正措施

Installation、Maintenance、Failure Mode and Correcting Measures

同步帶失效的原因及糾正措施

失效模式	原因	糾正措施
帶斷裂	<ol style="list-style-type: none"> 1. 過載; 2. 從動輪慣性過大; 3. 帶輪直徑過小; 4. 預緊力過大; 5. 帶折扭, 操作不良; 6. 過大的衝擊載荷; 7. 帶爬上擋圈; 8. 碎片或外來物體落入傳動裝置內。 	<ol style="list-style-type: none"> 1. 檢查設計, 選擇正確帶寬; 2. 選擇正確的帶輪; 3. 重新設計傳動嚙合齒數; 4. 調整合適的預緊力; 5. 儲存運輸安裝細心操作; 6. 防止意外故障, 變更設計; 7. 調整軸平行度, 檢查擋圈; 8. 清理污物和檢查防護擋板。
帶邊過度磨損	<ol style="list-style-type: none"> 1. 帶輪不平行; 2. 軸承部位剛度不夠; 3. 擋圈彎曲; 4. 擋圈表面粗糙; 5. 帶碰觸傳動裝置的防護擋板或支架。 	<ol style="list-style-type: none"> 1. 調整平行度; 2. 增加剛度, 確實固定; 3. 修正或更換擋圈; 4. 修正或更換擋圈; 5. 檢查防護擋板或支架。
帶齒過度磨損	<ol style="list-style-type: none"> 1. 過載; 2. 預緊力過大; 3. 輪齒表面粗糙; 4. 帶輪嚴重徑向跳動; 5. 粉塵或沙粒; 6. 劇烈振動; 7. 過多污物落入傳動裝置內。 	<ol style="list-style-type: none"> 1. 檢查設計, 選擇正確帶寬; 2. 調整合適的預緊力; 3. 檢查、調整表面粗糙度; 4. 檢查、調整徑向圓跳動; 5. 避免雜物混入; 6. 調整結構或使用減振裝置 7. 清理污物。
帶齒剪斷	<ol style="list-style-type: none"> 1. 過載或過大衝擊載荷; 2. 嚙合齒數不夠, 小于6個齒嚙合或帶齒數是輪齒數的倍數; 3. 預緊力過小; 4. 帶輪直徑過小; 5. 環境溫度過高或油等其它雜物混入; 6. 受到意外事故停轉, 負荷突然增大。 	<ol style="list-style-type: none"> 1. 檢查設計; 2. 檢查設計, 使帶齒數為奇數; 3. 調整預緊力; 4. 增大帶輪直徑; 5. 改變環境溫度, 使用防護罩; 6. 檢查設備, 防止再次發生意外事故。
帶縱裂	<ol style="list-style-type: none"> 1. 帶跑出帶輪; 2. 帶跑偏到擋圈上; 3. 安裝時帶切在擋圈上。 	<ol style="list-style-type: none"> 1. 調整平行度; 2. 調整平行度, 檢查擋圈; 3. 安裝時注意。
帶伸長	<ol style="list-style-type: none"> 1. 軸承未可靠固定, 運行時中心距變小 2. 帶抗拉層鬆動; 3. 張緊輪鬆動; 4. 帶輪磨損; 5. 過載。 	<ol style="list-style-type: none"> 1. 安裝時注意或設計時改進結構; 2. 更換帶; 3. 檢查張緊輪, 安裝時注意; 4. 更換帶輪; 5. 檢查設計, 改變帶寬。
帶背面裂紋或帶變軟	<ol style="list-style-type: none"> 1. 環境溫度過高。 	<ol style="list-style-type: none"> 1. 改變環境溫度。
運行噪音過大	<ol style="list-style-type: none"> 1. 過載; 2. 預緊力過大; 3. 帶輪不平行; 4. 帶輪直徑比帶寬小; 5. 帶和帶輪嚙合不良。 	<ol style="list-style-type: none"> 1. 檢查設計; 2. 調整預緊力; 3. 調整平行度, 安裝時校準 4. 檢查設計; 5. 檢查帶和帶輪。

安裝、維護、失效模式及糾正措施

Installation、Maintenance、Failure Mode and Correcting Measures

The reasons, resolutions and preventive measures of belt failure.
The reasons and corrective measures.

The mode of failure	Reasons	Corrective measures
Belt crack	<ol style="list-style-type: none"> 1. Overload 2. The inertia of the driven pulley is too much. 3. The diameter of the pulley is too small. 4. The initial tension is too much. 5. Folding and twisting of the belt for improper operation. 6. The shock load is too much. 7. The belt climbs to the protective ring. 8. Broken pieces or other matters fall into the driving device. 	<ol style="list-style-type: none"> 1. Check the design, choose the corrrect belt width. 2. Choose the correct pulley 3. Redesign numbers of the meshing teeth. 4. Adjust the proper initial tension. 5. Careful operation when storing and transporting. 6. Prevent unexpected accident from happening, change the design. 7. Adjust the parallelism of the axis, check the protective ring. 8. Clean the pollutant and check the protective fender.
Excessive wear and tear Of the belt sides	<ol style="list-style-type: none"> 1. Pulleys are not parallel. 2. The rigidity of the bear is not enough. 3. The protective ring is out of shape. 4. The rough surface of the protective ring. 5. The belt touches the protective fender or stand of the gear. 	<ol style="list-style-type: none"> 1. Adjust the parallelism. 2. Strengthen the rigidity and make it fixed. 3. Correct or change the protective ring. 4. Correct or change the protective ring. 5. Check the protective fender or stand.
Excessive wear and tear Of the belt teeth	<ol style="list-style-type: none"> 1. Overload. 2. Too much initial tension. 3. The rough surface of the groove. 4. Severe vertical jump of the pulley. 5. Dust or pieces of sand. 6. Violent vibration. 7. Too much pollutant fall into the groove. 	<ol style="list-style-type: none"> 1. Check the design, choose the proper belt width. 2. Adjust to proper initial tension. 3. Check and adjust the roughness of the groove' s surface. 4. Check and adjust the vertical jump. 5. Avoild other things enter. 6. Adjust the structure or use devices to reduce the vibration. 7. Clear pollutant.
Teeth cutting	<ol style="list-style-type: none"> 1. Overload or the shock load is too much. 2. The meshing teeth are not enough, less than 6 meshing teeth or the numbers Of belt teeth is the multiple of the pulley teeth. 3. The initial tension is not enough. 4. The diameter of the pulley is too small. 5. The environmental temperature is too high or oil and other things get in. 6. It shut down because of unexpected accident.The load enlarge suddenly. 	<ol style="list-style-type: none"> 1. Check the design 2. Check the design,and make the number of the teeth be an odd. 3. Adjust the initial tension. 4. Enlarge the diameter of the pulley. 5. change the environment temperature and use a protective cap. 6. Check the devices,prevent the accident from happening.
Vertical crack of belt	<ol style="list-style-type: none"> 1. Belt runs out of the pulley 2. Belt runs to the protective ring. 3. When installing,the belt set on the protective ring. 	<ol style="list-style-type: none"> 1. Adjust the parsllelism. 2. Adjust the parallelism and check the protective ring. 3. Careful installation.
Belt stretch	<ol style="list-style-type: none"> 1. The bear is not fixed well. then the central distance reduced when it works. 2. The tensile members are loose. 3. The tensioning pulley gets loose 4. Pulley wears. 5. Overload. 	<ol style="list-style-type: none"> 1. Careful installation or improve the structure when designing. 2. Change the belt. 3. Check the tensioning pulley careful when installation 4. Change the pulley. 5. Check the design, change the belt width.
Crack of the belt back or of the belt becomes soft	<ol style="list-style-type: none"> 1. The environmental temperature is too high 	<ol style="list-style-type: none"> 1. Change the environmental temperature
Too much running noise	<ol style="list-style-type: none"> 1. Overload. 2. The initial tension is too high. 3. The pulleys are not parallel. 4. The diameter of the pulley is less than the belt width. 5. Belt can' t mesh well with the belt teeth. 	<ol style="list-style-type: none"> 1. Change the design. 2. Adjust the initial tension. 3. Adjust the parallelism, make it accurate when installing 4. Check the design. 5. Check the belt and pulley.

高精齒輪

HIGH-PRECISION GEAR

齒輪(Gear)是依靠齒的啮合傳遞扭矩的輪狀機械零件。

齒輪通過與其它齒狀機械零件(如另一齒輪、齒條、蝸杆)傳動，可實現改變轉速與扭矩、改變運動方向和改變運動形式等功能。

由于傳動效率高、傳動比準確、功率範圍大等優點，齒輪機構在工業產品中廣泛應用，其設計與制造水平直接影響到工業產品的質量。

Gear is a rotavirus mechanical parts, which rely on tooth meshing to transmission torque.

Gear with other dentate machinery parts, such as a worm gear, rack, transmission, which can realize changed the direction of rotation speed and torque, change the direction of movement and change the movement forms, and other functions.

Since the high transmission efficiency, accurate and advantages of large range of power transmission ratio, gear mechanism is widely used in industrial products, the design and manufacture level directly affects the quality of industrial products



直齒、螺旋齒 · 圓柱齒輪a20°

Straight teeth, helical cylindrical gear a20°

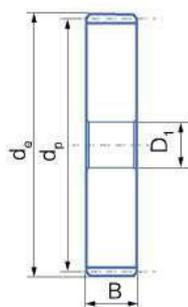
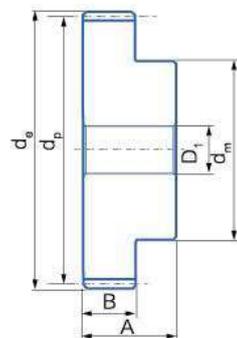
齒寬 “B”

- 1M=15mm
- 1.5M=17mm
- 2M=20mm
- 2.5M=25mm
- 3M=30mm
- 4M=40mm
- 5M=50mm
- 6M=60mm

總高 “A”

- 1M=25mm
- 1.5M=30mm
- 2M=35mm
- 2.5M=45mm
- 3M=50mm
- 4M=60mm
- 5M=75mm
- 6M=80mm

螺旋5°-45°



齒數 z	1M				1.5M				2M				2.5M			
	外徑 d _o	節徑 d _p	搭徑 d _m	工藝孔 D _i	外徑 d _o	節徑 d _p	搭徑 d _m	工藝孔 D _i	外徑 d _o	節徑 d _p	搭徑 d _m	工藝孔 D _i	外徑 d _o	節徑 d _p	搭徑 d _m	工藝孔 D _i
12	14	12	9	-	21.0	18.0	14	8	28	24	18	10	35.0	30.0	22	10
13	15	13	10	-	22.5	19.5	15	8	30	26	20	10	37.5	32.5	25	10
14	16	14	11	-	24.0	21.0	17	8	32	28	22	10	40.0	35.0	28	10
15	17	15	12	-	25.5	22.5	18	8	34	30	24	10	42.5	37.5	30	10
16	18	16	13	-	27.0	24.0	19	8	36	32	25	10	45.0	40.0	32	12
17	19	17	14	-	28.5	25.5	20	8	38	34	25	10	47.5	42.5	35	12
18	20	18	15	8	30.0	27.0	20	8	40	36	25	10	50.0	45.0	35	12
19	21	19	15	8	31.5	28.5	20	8	42	38	25	10	52.5	47.5	35	12
20	22	20	16	8	33.0	30.0	25	8	44	40	30	10	55.0	50.0	40	12
21	23	21	16	8	34.5	31.5	25	10	46	42	30	12	57.5	52.5	40	14
22	24	22	16	8	36.0	33.0	25	10	48	44	30	12	60.0	55.0	45	14
23	25	23	18	8	37.5	34.5	25	10	50	46	30	12	62.5	57.5	45	14
24	26	24	20	10	39.0	36.0	25	10	52	48	35	12	65.0	60.0	45	14
25	27	25	20	10	40.5	37.5	25	10	54	50	35	12	67.5	62.5	50	14
26	28	26	20	10	42.0	39.0	30	12	56	52	40	12	70.5	65.0	50	14
27	29	27	20	10	43.5	40.5	30	12	58	54	40	12	72.5	67.5	50	14
28	30	28	20	10	45.0	42.0	30	12	60	56	40	12	75.0	70.5	50	14
29	31	29	20	10	46.5	43.5	30	12	62	58	40	14	77.5	72.5	50	14
30	32	30	20	10	48.0	45.0	30	12	64	60	40	14	80.0	75.0	55	14
31	33	31	25	10	49.5	46.5	35	12	66	62	45	14	82.5	77.5	55	16
32	34	32	25	10	51.0	48.0	35	12	68	64	45	14	85.0	80.0	55	16
33	35	33	25	10	52.5	49.5	35	12	70	66	45	14	87.5	82.5	55	16
34	36	34	25	10	54.0	51.0	35	12	72	68	45	14	90.0	85.0	55	16
35	37	35	25	10	55.5	52.5	35	12	74	70	45	14	92.5	87.5	60	16
36	38	36	25	10	57.0	54.0	35	12	76	72	45	14	95.0	90.0	60	16
37	39	37	25	10	58.5	55.5	40	12	78	74	50	14	97.5	92.5	60	16
38	40	38	25	10	60.0	57.0	40	12	80	76	50	14	100.0	95.0	60	16
39	41	39	25	10	61.5	58.5	40	12	82	78	50	14	102.5	97.5	60	16
40	42	40	25	10	63.0	60.0	40	12	84	80	50	14	105.0	100.0	70	16
41	43	41	30	10	64.5	61.5	40	12	86	82	55	16	107.5	102.5	70	16
42	44	42	30	10	66.0	63.0	50	12	88	84	55	16	110.0	105.0	70	16
43	45	43	30	10	67.5	64.5	50	12	90	86	55	16	112.5	107.5	70	16
44	46	44	30	10	69.0	66.0	50	12	92	88	60	16	115.0	110.0	70	16
45	47	45	30	12	70.5	67.5	50	12	94	90	60	16	117.5	112.5	70	16
46	48	46	30	12	72.0	69.0	50	14	96	92	60	16	120.0	115.0	70	16
47	49	47	30	12	73.5	70.5	50	14	98	94	70	16	122.5	117.5	80	20
48	50	48	30	12	75.0	72.0	50	14	100	96	70	16	125.0	120.0	80	20
49	51	49	30	12	76.5	73.5	50	14	102	98	70	16	127.5	122.5	80	20
50	52	50	30	12	78.0	75.0	50	14	104	100	70	16	130.0	125.0	80	20
51	53	51	40	12	79.5	76.5	60	14	106	102	70	16	132.5	127.5	80	20
52	54	52	40	12	81.0	78.0	60	14	108	104	70	16	135.0	130.0	90	20
53	55	53	40	12	82.5	79.5	60	14	110	106	70	16	137.5	132.5	90	20
54	56	54	40	12	84.0	81.0	60	14	112	108	70	16	140.0	135.0	90	20
55	57	55	40	12	85.5	82.5	60	14	114	110	70	16	142.5	137.5	90	20
56	58	56	40	12	87.0	84.0	60	16	116	112	70	16	145.0	140.0	100	20
57	59	57	40	12	88.5	85.5	60	16	118	114	70	16	147.5	142.5	100	20
58	60	58	40	12	90.0	87.0	60	16	120	116	70	16	150.0	145.0	100	20
59	61	59	40	12	91.5	88.5	60	16	122	118	70	16	152.5	147.5	100	20
60	62	60	40	12	93.0	90.0	60	16	124	120	70	16	155.0	150.0	100	20
61	63	61	50	12	94.5	91.5	70	16	126	122	80	16				
62	64	62	50	12	96.0	93.0	70	16	128	124	80	16				
63	65	63	50	12	97.5	94.5	70	16	130	126	80	16				
64	66	64	50	12	99.0	96.0	70	16	132	128	80	16	167.5	162.5	-	20
65	67	65	50	12	100.5	97.5	70	16	134	130	80	16				
66	68	66	50	12	102.0	99.0	70	16	136	132	80	16				
67	69	67	50	12	103.5	100.5	70	16	138	134	80	16				
68	70	68	50	12	105.0	102.0	70	16	140	136	80	16	180.0	175.0	-	20
69	71	69	50	12	106.5	103.5	70	16	142	138	80	16	185.0	180.0	-	20
70	72	70	50	12	108.0	105.0	70	16	144	140	-	16				
72	74	71	-	12	111.0	108.0	-	16	148	144	-	16				
75	77	75	-	12	115.5	112.5	-	16	154	150	-	20	192.5	187.5	-	20
76	78	76	-	12	117.0	114.0	-	16	156	152	-	20	195.0	190.0	-	20
80	82	80	-	12	123.0	120.0	-	16	164	160	-	20	205.0	200.0	-	25
85	87	85	-	12	130.0	127.5	-	16	174	170	-	20	217.5	212.5	-	25
90	92	90	-	12	138.0	135.0	-	16	184	180	-	20	230.0	225.0	-	25
95	97	95	-	12	145.5	142.5	-	16	194	190	-	20	242.5	237.5	-	25
100	102	100	-	12	153.0	150.0	-	16	204	200	-	20	255.0	250.0	-	25
110	112	110	-	12	168.0	165.0	-	16	224	220	-	20	280.0	275.0	-	25
114	116	114	-	12	174.0	171.0	-	16	232	228	-	20	290.0	285.0	-	25
120	122	120	-	12	183.0	180.0	-	16	244	240	-	20	305.0	300.0	-	25
127	129	127	-	12	193.5	190.5	-	16	258	254	-	20	322.5	317.5	-	25

直齒、螺旋齒 · 圓柱齒輪 $\alpha 20^\circ$

Straight teeth, helical cylindrical gear $\alpha 20^\circ$

齒數 Z	3M				4M				5M				6M			
	外徑 d_e	節徑 d_p	搭徑 d_m	工藝孔 D_i												
12	42	36	27	12	56	48	35	14	70	60	45	20	84	72	54	20
13	45	39	30	12	60	52	40	14	75	65	50	20	90	78	60	20
14	48	42	33	12	64	56	45	14	80	70	55	20				
15	51	45	35	12	68	60	45	14	85	75	60	20	102	90	70	20
16	54	48	38	14	72	64	50	16	90	80	65	20	108	95	75	20
17	57	51	42	14	76	68	50	16	95	85	70	20				
18	60	54	45	14	80	72	50	16	100	90	70	20	120	108	80	20
19	63	57	45	14	84	76	60	16	105	95	70	20				
20	66	60	45	14	88	80	60	16	110	100	80	20	132	120	90	20
21	69	63	45	16	92	84	70	16	115	105	80	20				
22	72	66	50	16	96	88	70	16	120	110	80	20				
23	75	69	50	16	100	92	75	20	125	115	90	20				
24	78	72	50	16	104	96	75	20	130	120	90	20	156	144	110	25
25	81	75	60	16	108	100	75	20	135	125	90	20	162	150	110	25
26	84	78	60	16	112	104	75	20	140	130	100	20				
27	87	81	60	16	116	108	75	20	145	135	100	20				
28	90	84	60	16	120	112	75	20	150	140	100	25	180	168	-	25
29	93	87	60	16	124	116	75	20	155	145	110	25				
30	96	90	60	16	128	120	75	20	165	150	110	25	192	180	-	25
31	99	93	60	16	132	124	80	20								
32	102	96	70	16	136	128	80	20	170	160	-	25	204	192	-	25
33	105	99	70	16	140	132	80	20								
34	108	102	70	16	144	136	80	20								
35	111	105	70	16	148	140	80	20	185	175	-	25	222	210	-	25
36	114	108	70	20	152	144	80	25								
37	117	111	70	20												
38	120	114	80	20	160	152		25	200	190	-	25	240	220	-	25
39	123	117	80	20												
40	126	120	80	20	168	160		25	210	200	-	25	252	240	-	25
41	129	123	80	20												
42	132	126	80	20												
43	135	129	80	20												
44	138	132	90	20	188	180	-	25	235	225	-	25				
45	141	135	90	20												
46	144	138	90	20												
47	147	141	100	20												
48	150	144	100	20	200	192		25	250	240	-	25				
50	156	150	-	20	208	200		25	260	250	-	30				
52	162	156	-	20	216	208		25	270	260	-	30				
55	171	165	-	20	228	220		25	285	275	-	30				
57	177	171	-	20	236	228		25	295	285	-	30				
60	186	180	-	20	248	240		25	310	300	-	30				
65	201	195	-	20	268	260		25	335	325	-	30				
70	216	210	-	25	288	280		25	360	350	-	30				
72	222	216	-	25												
75	231	225	-	25	308	300	-	25	385	375	-	30				
76	234	228	-	25	312	304	-	30	390	380	-	30				
80	246	240	-	25	328	320	-	30	410	400	-	30				
85	261	255	-	25	348	340	-	30	435	425	-	30				
90	276	270	-	25	368	360	-	30	460	450	-	30				
95	291	285	-	25	388	380	-	30	485	475	-	30				
100	306	300	-	25	408	400	-	30	510	500	-	30				
110	336	320	-	25	448	440	-	30	560	550	-	30				
114	348	342	-	30	464	456	-	30	580	570	-	30				
120	366	360	-	30												
127	387	381	-	30												

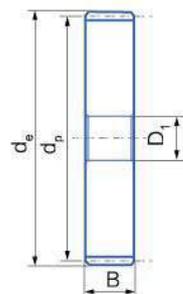
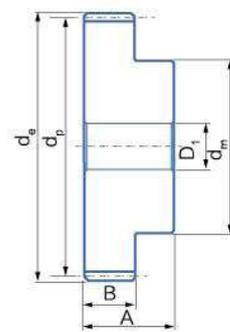
齒寬 “B”

- 1M=15mm
- 1.5M=17mm
- 2M=20mm
- 2.5M=25mm
- 3M=30mm
- 4M=40mm
- 5M=50mm
- 6M=60mm

總高 “A”

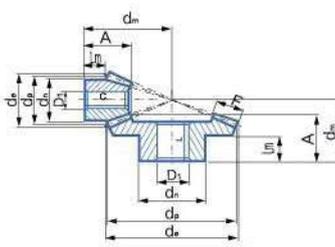
- 1M=25mm
- 1.5M=30mm
- 2M=35mm
- 2.5M=45mm
- 3M=50mm
- 4M=60mm
- 5M=75mm
- 6M=80mm

螺旋 $5^\circ-45^\circ$



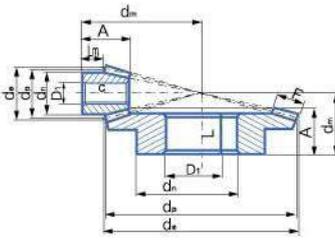
錐齒輪 Bevel gear

A型 A type
 壓力角20°
 傳動比1:1
 Pressure angle 20°
 Transmission ratio 1:1



模數 M	齒數 Z	外徑 D _e	節徑 D _p	A	F	D _n	D ₁	d _m	L	L _m
1.5	16	26.1	24.0	18	8	18	8	23.8	17	8.9
	20	32.1	30.0	20	8	22	10	28.7	18	9.8
	22	35.1	33.0	20	8	25	10	30.2	18	9.7
	25	39.6	37.5	23	8	28	10	35.4	21	12
	30	47.1	45.0	25	10	30	12	39.7	22.5	12
2	16	34.8	32.0	20	9	25	10	28.8	17	9.3
	20	42.8	40.0	25	12	32	10	35.7	22	12
	22	46.8	44.0	25	12	36	10	37.7	22	17.7
	25	52.8	50.0	28	14	40	12	42.3	25	12.3
	30	62.8	60.0	30	16	50	12	47.8	27	12.8
2.5	16	43.5	40.0	25.5	10	32	12	37.3	22	13.3
	20	53.5	50.0	30.5	12	40	12	45.9	27	16
	22	58.5	55.0	30.5	12	45	12	48.3	27	15.9
	25	66.0	62.5	33.5	15	50	15	53.0	30	16
	30	78.5	75.0	35.5	18	55	15	59.1	32	16
3	16	52.2	48.0	30	12	40	15	44.2	26	16.2
	20	64.2	60.0	35	18	45	15	51.1	31	13.6
	22	70.2	66.0	35	18	50	15	54.0	31	13
	25	79.2	75.0	38	20	55	15	60.1	34	16
	30	94.4	90.0	40	22	60	20	68.1	36	19
3.5	16	60.9	56.0	35.5	16	45	15	50.8	31	17.2
	20	74.9	70.0	40.5	22	55	15	58.6	36	19
	22	81.9	77.0	40.5	22	60	15	62.0	36	18
	25	92.4	87.5	43.5	26	65	20	67.5	39	18
	30	109.9	105.0	45.5	30	70	20	75.4	41	17
4	16	69.6	64.0	38	18	50	15	55.6	33	16.6
	20	85.6	80.0	43	25	60	18	63.8	38	18
	22	93.6	88.0	43	25	65	18	67.7	38	18
	25	105.6	100.0	45	28	70	20	73.5	40	18
	30	125.6	120.0	48	32	80	25	83.7	43	16
4.5	16	78.3	72.0	43	20	55	18	63.0	37	18.5
	20	96.3	90.0	48	28	65	20	71.5	42	18
	22	105.3	99.0	48	28	70	20	75.8	42	18
	25	118.8	112.5	50	32	75	20	81.8	44	18
	30	141.3	135.0	53	35	90	25	93.8	47	17
5	16	87.0	80.0	45.5	22	60	20	67.8	39	17.8
	20	107.1	100.0	50.5	30	70	20	77.3	44	18.5
	22	117.1	110.0	50.5	30	80	20	82.2	44	18.5
	25	132.1	125.0	54.5	35	90	20	90.2	48	18.5
	30	157.1	150.0	56.5	38	110	30	102.4	50	18

A型 A type
 壓力角20°
 傳動比1:2
 Pressure angle 20°
 Transmission ratio 1:2



模數 M	齒數 Z	外徑 D _e	節徑 D _p	A	F	D _n	D ₁	d _m	L	L _m
1.5	16	26.7	24	18.5	8	21	10	34.9	17	10.3
	32	49.3	48	20	8	32	12	27.5	17.5	10
2	16	35.6	32	23	10	27	10	45.4	21	12.2
	32	65.8	64	25	10	40	12	35.2	22	10
2.5	16	44.4	40	27.5	12	34	12	56.0	25	14.4
	32	82.2	80	30	12	50	15	43.0	26.5	15
3	16	53.4	48	28	15	40	15	61.6	25	11.6
	32	98.7	96	35	15	60	15	50.4	30.5	15
3.5	16	62.3	56	33.5	18	48	15	72.3	30.5	14.4
	32	115.1	112	40	18	70	20	57.7	35	19
4	16	71.1	64	36	20	50	20	80.8	32	13.4
	32	131.6	128	45	20	80	20	65.5	39.5	23
4.5	16	80.1	72	39.5	22	60	20	90.4	35	15.4
	32	148.0	144	50	22	80	25	73.2	43.5	24
5	16	88.9	80	50	25	60	20	106.1	45	21.1
	32	164.5	160	55	25	85	25	80.6	48	27

錐齒輪 Bevel gear

A型 A type
 壓力角20°
 傳動比1:3
 Pressure angle 20°
 Transmission ratio 1: 3

模數 M	齒數 Z	外徑 D _e	節徑 D _p	A	F	D _n	D ₁	d _m	L	L _m
1.5	16	26.9	24	22	12	20	10	46.3	21	9.7
	48	72.9	72	22	12	42	15	29.2	19	12
2	16	35.8	32	26.5	15	25	12	58.9	24	9.4
	48	97.3	96	26	15	50	15	35.9	22	13
2.5	16	44.7	40	28	18	33	14	70.4	26	9.2
	48	121.6	120	32	18	60	20	44.6	27	16
3	16	53.7	48	30	18	42	15	84.2	28	11.2
	48	145.9	144	38	18	65	20	54.1	32	19
3.5	16	62.6	56	36.5	22	48	15	98.8	34	13.4
	48	170.2	168	44	22	75	20	62.5	37	23
4	16	71.6	64	42	25	55	20	113.5	39	15.7
	48	194.5	192	50	25	85	22	71.2	42	27
4.5	16	80.6	72	53	28	60	20	133.4	50	23.4
	48	218.8	216	58	28	90	25	81.9	49	27
5	16	89.5	80	60	35	60	20	145.7	57	22.5
	48	243.1	240	65	35	100	28	90.5	55	35

A型 A type
 壓力角20°
 傳動比1:4
 Pressure angle 20°
 Transmission ratio 1: 4

模數 M	齒數 Z	外徑 D _e	節徑 D _p	A	F	D _n	D ₁	d _m	L	L _m
1.5	16	26.9	24	25	12	18	10	61.1	24	12.2
	64	96.7	96	25	12	60	15	33	22	13
2	16	35.9	32	24	15	25	12	73.1	23	8.5
	64	129.0	128	28	15	70	20	38.9	24	14
2.5	16	44.9	40	30.5	18	34	15	92.6	29	11.7
	64	161.2	160	35	18	80	20	48.8	30	16
3	16	53.8	48	32	20	40	15	108	30	11.1
	64	193.5	192	42	20	90	20	58.8	36	22
3.5	16	62.8	56	40	25	45	15	127.1	38	14
	64	225.7	224	50	25	100	25	69.3	43	22
4	16	71.7	64	50	30	50	20	148.2	48	18.5
	64	257.9	256	60	30	110	28	81.8	52	30
4.5	16	80.7	72	55	32	60	20	167.1	53	21.6
	64	290.1	288	65	32	120	30	89.8	57	35
5	16	89.7	80	60	35	65	20	185.1	58	23.2
	64	322.4	320	70	35	120	30	97.7	61	42

錐齒輪 Bevel gear

B型 B type
 壓力角20°
 傳動比1:3
 Pressure angle 20°
 Transmission ratio 1: 3

模數 M	齒數 Z	外徑 D _e	節徑 D _p	A	F	D _n	D ₁	d _m	D _a	L	D _m
1	16	17.4	16.0	11.2	4	13.3	4	16	7	-	6.7
	19	20.4	19.0	11.8	4	15.3	4	18	11.5	-	6.6
	22	23.4	22.0	12.8	4.7	16.3	5	20	11.5	-	6.1
	26	27.4	26.0	13.3	5.5	20.3	5	22	14.5	-	7
1.5	30	31.4	30.0	16.0	6.4	20.3	5	26	17.5	-	8
	16	26.1	24.0	18.9	6	20.3	8	26	12	-	12.2
	19	30.6	28.5	21.3	7	20.3	8	30	14.5	-	11.6
	22	35.1	33.0	22.5	7.5	25.3	8	33	17	-	12.7
2	26	41.1	39.0	23.2	8.5	28.3	8	36	22	-	12
	30	47.1	45.5	27.2	10	30.0	12	42	26	-	12.1
	16	34.8	32.0	23.5	8	25.3	8	33	15.5	-	13.6
	19	40.8	38.0	24.2	9	25.3	8	36	19.5	-	12
2.5	22	46.8	44.0	27.9	10	30.3	10	42	23.5	-	14
	26	54.8	52.0	31.4	12	35.3	12	48	29	-	13.7
	30	62.8	60.0	34.1	13	40.3	12	54	36	-	17
	16	43.5	40.0	28.1	10	30.3	12	40	20	-	15.2
3	19	51.0	47.5	27.1	11	35.3	12	42	25	-	13
	22	58.5	55.0	30.1	12	45.3	12	48	31.5	-	15.7
	26	68.5	65.0	33.2	15	45.3	15	54	36.5	-	16
	30	78.5	75.0	39.0	16	50.3	15	64	45.5	-	20
3.5	16	52.2	48.0	31.7	12	40.3	12	46	23	-	18.1
	19	61.2	57.0	36.0	13	40.3	14	54	30	-	17.1
	22	70.2	66.0	36.9	15	50.3	15	58	36.5	-	17.1
	26	82.2	78.0	38.4	17	50.3	15	64	45.5	-	18
4	30	94.2	90.0	43.8	19	60.3	20	74	55	-	22
	16	60.9	56.0	36.4	14	45.3	15	53	27.5	-	19.8
	19	71.4	66.5	36.9	15	50.3	15	58	35.3	-	18
	22	81.9	77.0	39.1	17	55.3	15	64	43.5	-	18
4.5	26	95.9	91.0	42.2	20	60.3	20	72	52.3	-	20
	30	110.0	105.0	47.3	23	70.3	20	82	67	43	22
	16	69.7	64.0	44.3	15	50.3	15	64	32	-	25.1
	19	81.7	76.0	44.4	18	55.3	18	68	40	-	22
5	22	93.7	88.0	45.9	20	60.3	18	74	49	-	22
	26	109.7	104.0	48.0	23	70.3	20	82	65	43	22
	30	125.7	120.0	54.2	26	80.3	25	94	76	49	25
	16	78.4	72.0	46.3	17.5	55.3	18	68	35.5	-	25
4.5	19	91.8	85.5	47.3	20	60.3	20	74	44.6	-	25
	22	105.3	99.0	50.1	22	70.3	20	82	56	-	25
	26	123.3	117.0	53.2	25	75.3	20	92	68.1	45	25
	30	141.4	135.0	60.0	29	80.3	25	105	85	54	28
5	16	87.1	80.0	48.9	18	60.3	20	74	42	-	25
	19	102.1	95.0	52.2	22	60.3	20	82	50	-	25
	22	117.1	110.0	58.2	24	80.3	20	94	68	52	30
	26	137.1	130.0	62.7	29	80.3	20	105	82	57	30
30	157.1	150.0	68.9	32	80.3	30	119	97	63	35	

B型 B type
 壓力角20°
 傳動比1:2
 Pressure angle 20°
 Transmission ratio 1: 2

模數 M	齒數 Z	外徑 D _e	節徑 D _p	A	F	D _n	D ₁	d _m	D _a	L	D _m
1	15	17.4	15.0	11.9	5	13.3	4	22	8	-	6.6
	30	30.6	30.0	15.1	5	20.3	5	20	-	14	9
1.5	15	26.1	22.5	21.1	9	20.3	8	35	11.5	-	12
	30	45.9	45.0	25.2	9	32.3	8	32	-	23	16
2	15	34.8	30.0	26.0	11.5	25.3	8	45	16	-	13.8
	30	61.2	60.0	29.8	11.5	40.3	12	39	-	27	18
2.5	15	43.5	37.5	31.8	15	32.3	12	55	20	-	16.2
	30	76.5	75.0	33.7	15	45.3	15	45	-	30	20
3	15	52.2	45.0	37.3	17	40.3	12	66	25	-	19.8
	30	91.8	90.0	42.1	17	55.3	15	56	-	38	25
3.5	15	60.9	52.5	46.1	20.5	45.3	15	79	28.5	-	24.7
	30	107.1	105.0	45.0	20.5	60.3	20	61	-	40	25
4	15	69.6	60.0	48.6	22.5	50.3	20	87	34	-	24.6
	30	122.3	120.0	57.3	22.5	80.3	20	76	-	52	35
4.5	15	78.3	67.5	51.4	26	60.3	20	94	37.5	-	24.7
	30	137.6	135.0	60.3	26	80.3	25	81	-	53	35
5	15	87.0	75.0	57.6	30	60.3	20	104	40	-	25.3
	30	152.9	150.0	62.5	30	80.3	25	85	-	56	35

錐齒輪 Bevel gear

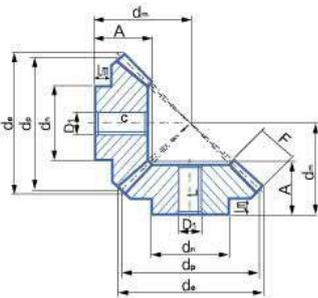
B型 B type

壓力角20°

傳動比1:3

Pressure angle 20°

Transmission ratio 1: 3



模數 M	齒數 Z	外徑 D _o	節徑 D _p	A	F	D _n	D ₁	d _m	D _a	L	D _m
1	15	17.7	15.0	16.6	7.1	13.3	4	32	8	-	9.3
	45	45.3	45.0	17.1	7.1	25.3	8	22	-	15	10
1.5	15	26.5	22.5	22.6	10.5	19.3	8	46	14	-	11.7
	45	68.1	67.5	29.6	10.5	45.3	14	37	-	27	20
2	15	35.4	30.0	28.9	14	25.3	8	60	18	-	14.2
	45	90.8	90.0	32.1	14	45.3	15	42	-	29	20
2.5	15	44.2	37.5	34.6	18	32.3	12	73	22.5	-	15.9
	45	113.4	112.5	39.7	18	60.3	20	52	-	36	25
3	15	53	45.0	41.3	21	40.3	15	88	28.5	-	19.7
	45	136.1	135.0	47.2	21	60.3	20	62	-	42.5	30
3.5	15	61.9	52.5	49.6	23.5	45.3	15	105	33.5	-	25.1
	45	158.8	157.5	54.4	23.5	80.3	20	72	-	49	35
4	15	70.7	60.0	54.3	27.5	50.3	20	117	38	-	25.4
	45	181.5	180.0	57.0	27.5	80.3	22	77	-	51	35
4.5	15	79.5	67.5	55.2	28.5	55.3	20	128	44	-	24.8
	45	204.2	202.5	63.9	28.5	90.3	25	87	-	57	40
5	15	88.4	75	65.3	33	60.3	20	145	47	-	30
	45	226.9	225.0	66.7	33	90.3	28	92	-	59	40

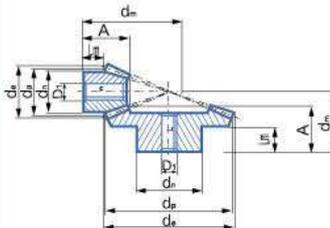
B型 B type

壓力角20°

傳動比1:4

Pressure angle 20°

Transmission ratio 1: 4



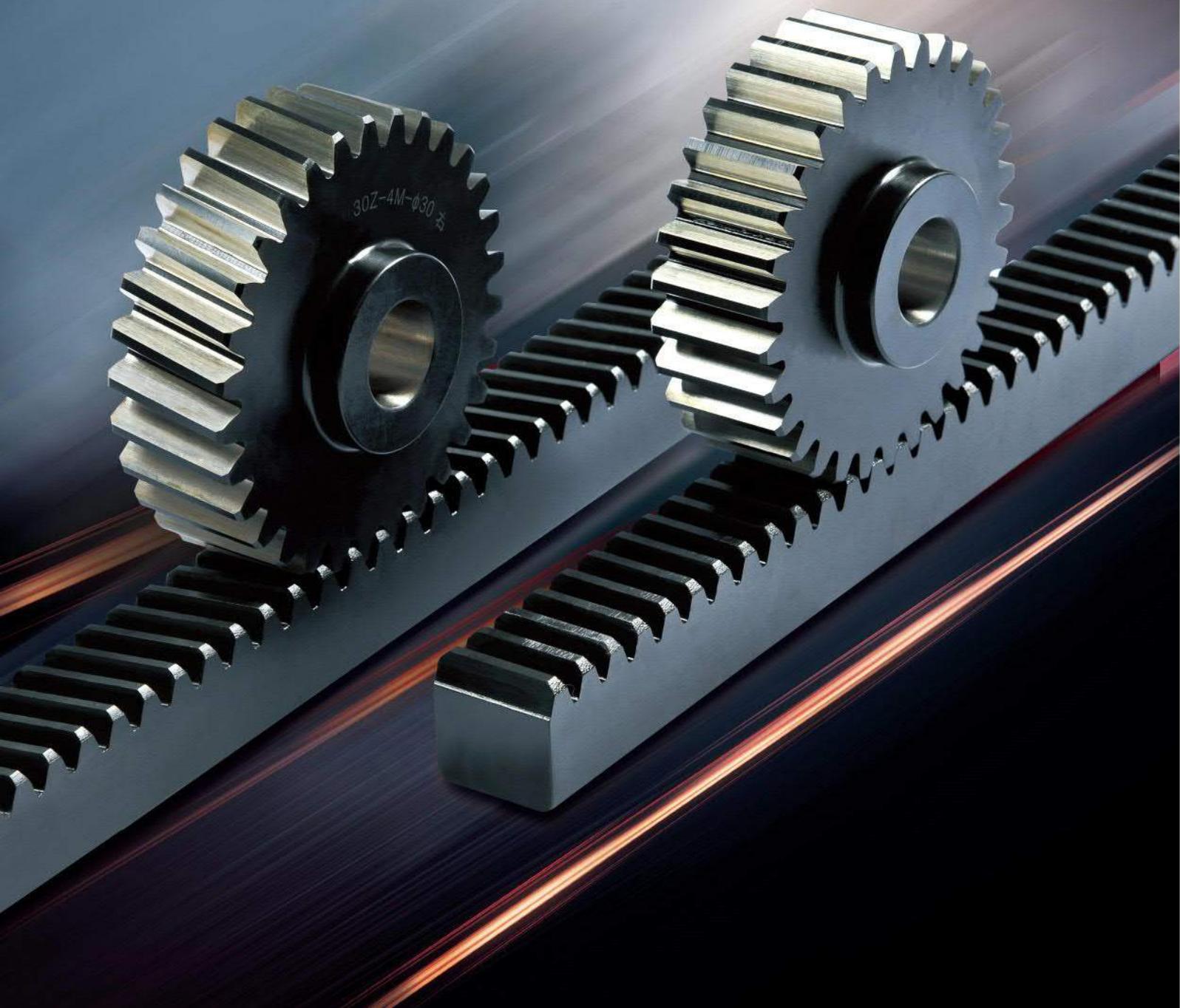
模數 M	齒數 Z	外徑 D _o	節徑 D _p	A	F	D _n	D ₁	d _m	D _a	L	D _m
1	15	17.8	15.0	17.2	9.3	13.3	4	38	8	-	7.7
	60	60.3	60.0	17.1	9.3	30.3	8	22	-	15	10
1.5	15	26.7	22.5	23.0	11	20.3	8	57	15	-	11.7
	60	90.4	90.0	34	11	50.3	15	42	-	31	25
2	15	35.6	30.0	31	16	25.3	8	75	20	-	14.4
	60	120.6	120.0	37.6	16	60.3	16	48	-	34	25
2.5	15	44.5	37.5	38.1	19	32.3	14	94	25	-	18.4
	60	150.7	150.0	44.8	19	60.3	20	58	-	40	30
3	15	53.3	45.0	48.1	23	40.3	15	115	30	-	24.5
	60	180.8	180.0	53.2	23	80.3	20	69	-	48	35
3.5	15	62.2	52.5	52.1	26	45.3	15	131	36	-	25.1
	60	211.0	210.0	60.4	26	90.3	25	79	-	54	40
4	15	71.1	60.0	55.1	30	50.3	20	145	37.5	-	23.8
	60	241.1	240.0	60.8	30	90.3	28	82	-	53	40
4.5	15	79.9	67.5	59.1	34	60.3	20	160	45.2	-	24.1
	60	271.2	270.0	68.2	34	100.3	30	92	-	61	40
5	15	88.8	75.0	68.1	38	70.3	20	180	50.1	-	29.4
	60	301.3	300.0	73.5	38	110.3	30	100	-	66	40

齒條 RACK

由于齒條齒廓為直線，所以齒廓上各點具有相同的壓力角，且等于齒廓的傾斜角，此角稱為齒形角，標準值為 20° 。

與齒頂綫平行的任一條直綫上具有相同的齒距和模數。

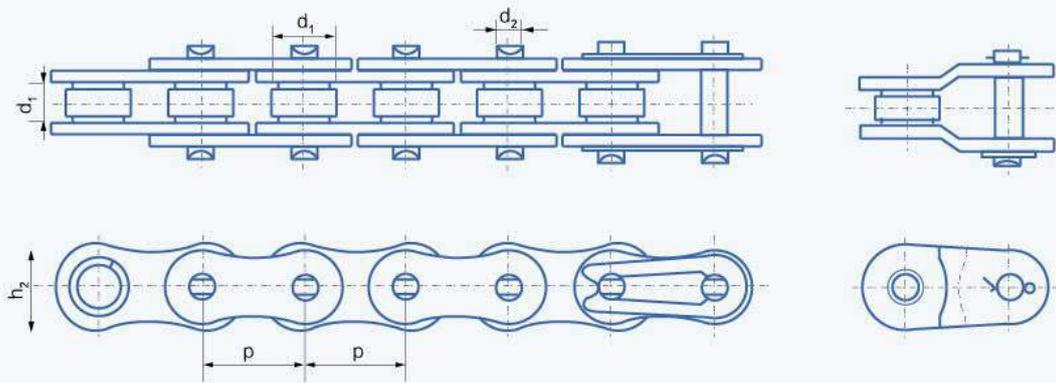
Because the rack tooth profile of straight line, so that each point on the tooth profile with the same pressure Angle, and is equal to the tooth profile Angle, this Angle is called tooth profile Angle, standard for 20° . And any addendum line parallel lines on the same pitch and modulus



精密滚子链

Single Sprocket Wheel

A、B系列短节距



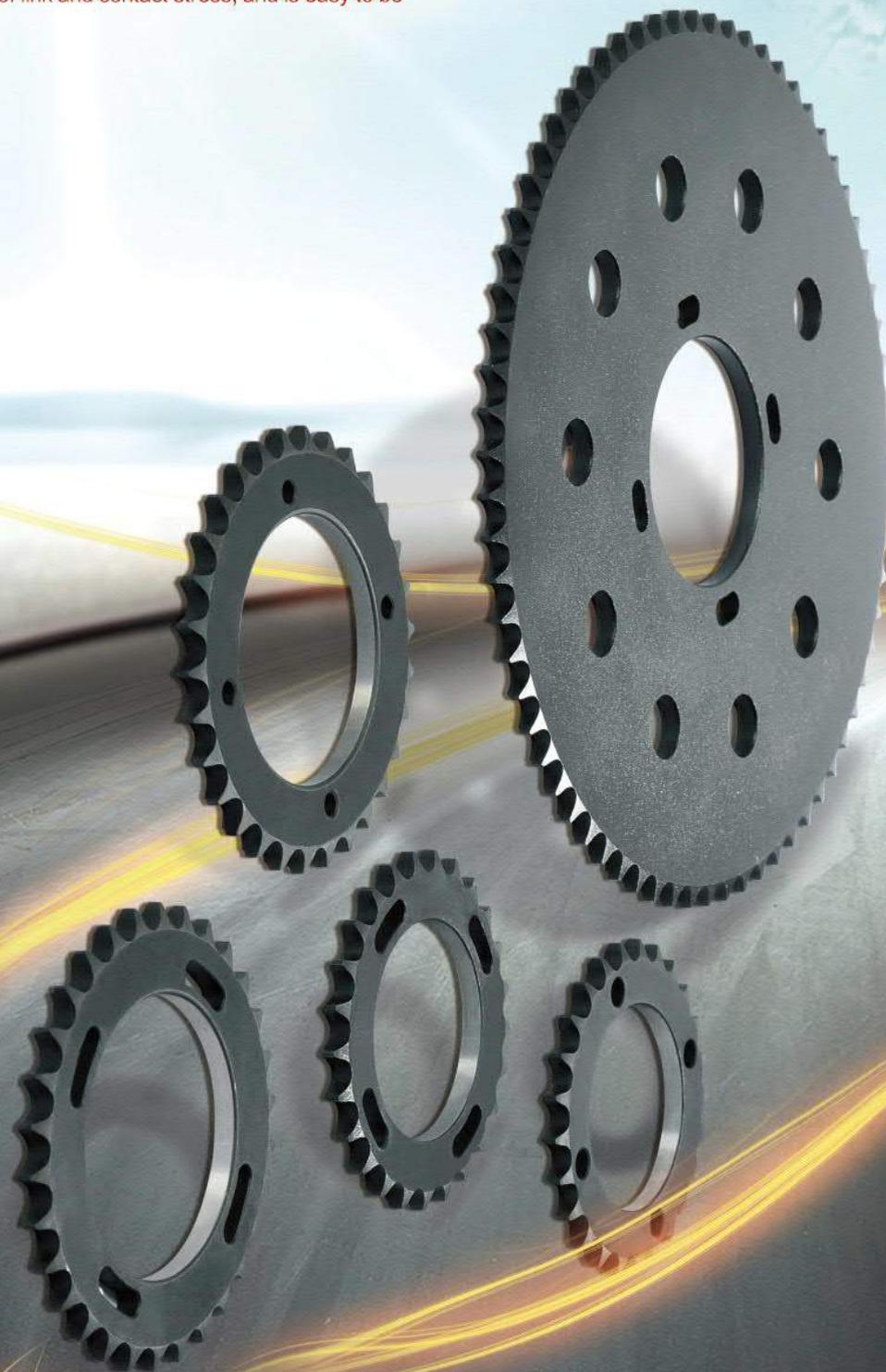
链号 DIN ISO ChainNo	节距 P (mm)	滚子直径 $d_1(\text{max})(\text{mm})$	销轴直径 $d_2(\text{mm})$	内节内宽 $b_1(\text{min})(\text{mm})$	内链板高度 $h_2(\text{mm})$	极限拉伸载荷 Q(min)(KN)	平均拉伸载荷 Q0(KN)	每米净重 q(kg/m)
05B-1	8	5	2.31	3	7	4.4	6.2	0.2
06B-1	9.525	6.35	3.28	5.72	8.2	8.9	10.7	0.39
08B-1	12.7	8.51	4.45	7.75	11.8	17.8	20.7	0.72
10B-1	15.875	10.16	5.08	9.65	14.6	22.2	27.5	0.95
12B-1	19.05	12.07	5.72	11.68	16	28.9	33	1.23
16B-1	25.4	15.88	5.28	17.02	20.9	60	71	2.8
20B-1	31.75	19.05	10.19	19.56	26	95	102	3.9
24B-1	38.1	25.4	14.63	25.4	33	160	175.2	7.14
28B-1	44.45	27.94	15.9	30.99	36.7	200	215.5	9.37
32B-1	50.8	29.21	17.81	30.99	41.9	250	270.4	9.94
40B-1	63.5	39.37	22.89	38.1	52.5	355	382.5	16.4
48B-1	76.2	48.26	29.24	45.72	63.5	560	604.4	25.2

鏈 輪 GEAR

鏈輪齒形必須保證鏈節能平穩自如地進入和退出嚙合，

盡量減少嚙合時的鏈節的衝擊和接觸應力，而且要易于加工

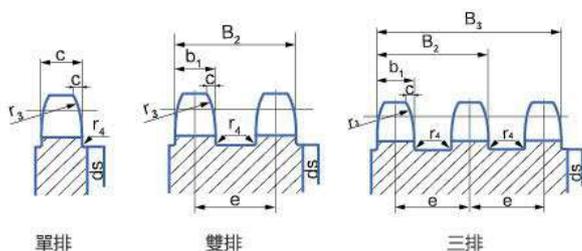
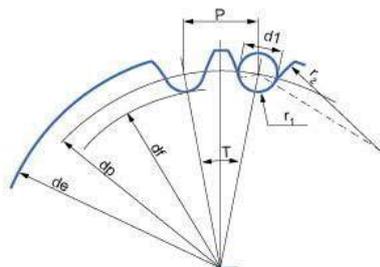
Chain sprocket tooth profile must ensure that the chain energy saving mesh smooth entry and exit freely, minimize the impact of the meshing of link and contact stress, and is easy to be processed.



鏈輪齒部描述 The description of sprocket

配合標準滾子鏈條

Could Be Matched Roller Chain Perfectly



容許公差

Acceptable Tolerance

齒頂圓直徑

齒寬

Diameter of addendum circle

Width of gear

單位:mm

unit: mm

h11

h14

h11

h14

徑向跳動：以軸孔和齒根為參考，將鏈輪回轉一周，測得徑向跳動量，不應超過下列兩數值中的最大值：

Radial run-out:referring to shaft hole and root of gear,could be measured by rotating sprocket a circle back The value radial run-out,should not exceed the max , Value between those two value as below.

$$0.0008df+0.08 \text{ 或 } 0.15$$

軸向跳動：以軸孔和鏈輪齒側面作為參考，將鏈輪回轉一周，測得的鏈輪軸向跳動量不超過下列數值：

Shaft run-out:referring to shaft hole and flank of sprocket,could be measured by rotating sprocket a circle back.Shaft run-out of sprocket measured should not exceed those value as below.

$$0.0009df+0.08, \text{ 不大于 } 1.14\text{mm}$$

P=節距/pitch

Z=齒數/number of teeth

d1=滾徑/diameter

公式 / Formula

節徑(分度圓直徑) / Diameter Of Pitch Circle

$$dP = \frac{P}{\sin(180^\circ / Z)}$$

齒根圓直徑 / Diameter Of Dedendum Circle

$$df = dP - d1$$

齒頂圓直徑 / Diameter Of Addendum Circle

$$de_{\max.} = dp + 1.25P - d1$$

$$de_{\min.} = dp + (1 - 1.6/Z)P - d1$$

槽徑 / Diameter Of Key Slot

$$ds = P * \cot(180^\circ / Z) - 1.05g - 2r_4 - 1$$

(g=最大鏈板高度)

滾子定位圓弧半徑 / Radius Of Roller Positioning Arc

$$r_{1\max.} = 0.505d1 + 0.069 \sqrt[3]{d1}$$

$$r_{1\min.} = 0.505d1$$

滾子定位角 / Angle Of Roller Positioning

$$X_{\max.} = 140^\circ - 90^\circ / Z$$

$$X_{\min.} = 120^\circ - 90^\circ / Z$$

齒廓圓弧半徑 / Radius Of Teeth Profile Arc

$$r_{2\max.} = 0.008d1(Z+180)$$

$$r_{2\min.} = 0.12d1(p-d1)$$

齒寬 / Width Of Teeth $P \leq 12.7$ $P \geq 12.7$

單排鏈輪 B_1 / Single Row Sprocket Wheel

$$0.93b \quad 0.95b$$

雙排鏈輪和三排鏈輪 b_1 $0.91b \quad 0.93b$

QD孔鏈輪 B_1 / QD Hole Sprocket Wheel

$$0.88b \quad 0.93b(b=\text{鏈條內節內寬})$$

齒側倒角寬 / Width Of Teeth Chamfer

$$C = 0.01bis / \text{to } 0.15p$$

齒側圓半徑 / Radius Of Teeth Flank

$$r_3 \geq P$$

完成孔帶搭鏈輪

Complete Hole With Sprocket Wheel

3/4"X7/16"

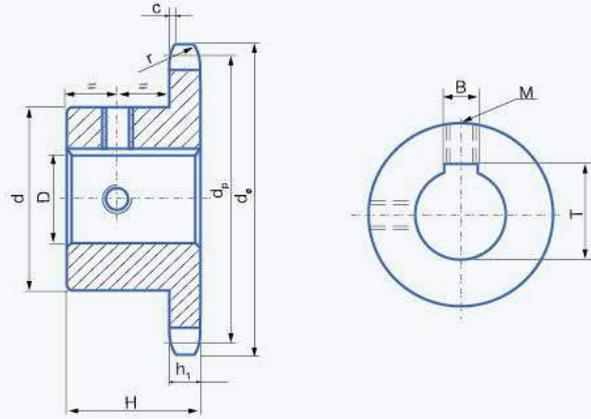
12B-1 19.05X11.68mm

鏈條
型號
節距
鏈條內寬
滾徑Φ

ISOmm
12B
19.05
11.68
12.07

鏈輪
齒側圓半徑r
齒側倒角寬C
齒寬h₁
11.1

19
2



材質: 45

齒數 Z	外徑 d _e	節徑 d _p	內徑 D	總高 H	搭徑 d	齒數 Z	外徑 d _e	節徑 d _p	內徑 D	總高 H	搭徑 d	齒數 Z	外徑 d _e	節徑 d _p	內徑 D	總高 H	搭徑 d	齒數 Z	外徑 d _e	節徑 d _p	內徑 D	總高 H	搭徑 d
10	69	61.64	19	30	42	14	93.6	85.61	32	35	64	18	118	109.71	40	35	80	22	141.8	133.86	38	40	90
			20						42						40						42		
			24						25						40						48		
			25						28						45						45		
			28						30						47						48		
			30						32						49						50		
			32						35						53						55		
11	75	67.61	19	35	48	15	99.8	91.63	24	35	70	19	124.2	115.75	38	35	80	23	149	139.9	25	40	90
			20						40						40						42		
			24						28						45						45		
			25						30						48						48		
			28						32						50						50		
			30						35						53						55		
			32						38						57						59		
12	81.5	73.6	19	35	52	16	105.5	97.65	20	35	75	20	129.7	121.78	38	35	80	24	153.9	145.94	25	40	90
			20						40						40						42		
			22						28						45						45		
			24						30						48						48		
			25						32						50						50		
			28						35						53						55		
			30						38						57						59		
13	87.5	79.59	19	35	58	17	115.5	103.67	25	35	80	21	136	127.82	38	35	90	25	160	152	25	40	90
			20						40						40						42		
			22						28						45						45		
			24						30						48						48		
			25						32						50						50		
			28						35						53						55		
			30						38						57						59		
14	93.6	85.61	19	35	64	18	118	109.71	25	35	80	22	141.8	133.86	38	40	90	25	160	152	25	40	90
			20						40						40						42		
			22						28						45						45		
			24						30						48						48		
			25						32						50						50		
			28						35						53						55		
			30						38						57						59		

完成孔帶搭鏈輪

Complete Hole With Sprocket Wheel

1"X17.02mm

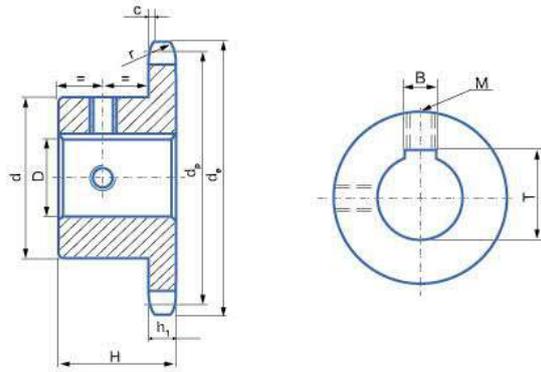
16B-1 25.4X17.02mm

鏈條
型號
節距
鏈條內寬
滾徑Φ

ISOmm
16B
25.4
17.02
15.88

鏈輪
齒側圓半徑r
齒側倒角寬C
齒寬h1
16.2

26
2.5



材質：45

齒數 Z	外徑 d _e	節徑 d _p	內徑 D	總高 H	搭徑 d	齒數 Z	外徑 d _e	節徑 d _p	內徑 D	總高 H	搭徑 d	齒數 Z	外徑 d _e	節徑 d _p	內徑 D	總高 H	搭徑 d	齒數 Z	外徑 d _e	節徑 d _p	內徑 D	總高 H	搭徑 d																	
11	99.5	90.14	25	40	61	15	133	122.17	30	40	92	18	157	146.28	48	45	100	22	189.3	178.48	38	50	110	23	197.5	186.53	40													
			32						32						25						42						45	48	50	25	28	30	32	35	38	40	42	45	48	50
			35						38						40						42						45	48	50	25	28	30	32	35	38	40	42	45	48	50
			38						40						42						45						48	50	25	28	30	32	35	38	40	42	45	48	50	
			40						42						45						48						50	25	28	30	32	35	38	40	42	45	48	50		
			42						45						48						50						25	28	30	32	35	38	40	42	45	48	50			
			65						67						69						25						28	30	32	35	38	40	42	45	48	50				
			69						25						28						30						32	35	38	40	42	45	48	50						
12	109	98.14	25	40	69	16	141	130.2	30	45	100	19	165.2	154.33	38	45	100	23	197.5	186.53	38	50	110	24	205.5	194.59	40													
			32						32						25						42						45	48	50	25	28	30	32	35	38	40	42	45	48	50
			35						38						40						42						45	48	50	25	28	30	32	35	38	40	42	45	48	50
			38						40						42						45						48	50	25	28	30	32	35	38	40	42	45	48	50	
			40						42						45						48						50	25	28	30	32	35	38	40	42	45	48	50		
			42						45						48						50						25	28	30	32	35	38	40	42	45	48	50			
			45						48						50						25						28	30	32	35	38	40	42	45	48	50				
			82						25						28						30						32	35	38	40	42	45	48	50						
13	117	106.12	25	40	78	17	149	138.22	30	45	100	20	173.2	162.38	38	45	100	24	205.5	194.59	38	50	110	25	213.5	202.66	40													
			32						32						25						42						45	48	50	25	28	30	32	35	38	40	42	45	48	50
			35						38						40						42						45	48	50	25	28	30	32	35	38	40	42	45	48	50
			38						40						42						45						48	50	25	28	30	32	35	38	40	42	45	48	50	
			40						42						45						48						50	25	28	30	32	35	38	40	42	45	48	50		
			42						45						48						50						25	28	30	32	35	38	40	42	45	48	50			
			45						48						50						25						28	30	32	35	38	40	42	45	48	50				
			84						25						28						30						32	35	38	40	42	45	48	50						
14	125	114.15	25	40	84	18	157	146.28	30	45	100	21	181.2	170.43	38	45	110	25	213.5	202.66	38	50	110	25	213.5	202.66	40													
			32						32						25						42						45	48	50	25	28	30	32	35	38	40	42	45	48	50
			35						38						40						42						45	48	50	25	28	30	32	35	38	40	42	45	48	50
			38						40						42						45						48	50	25	28	30	32	35	38	40	42	45	48	50	
			40						42						45						48						50	25	28	30	32	35	38	40	42	45	48	50		
			42						45						48						50						25	28	30	32	35	38	40	42	45	48	50			
			45						48						50						25						28	30	32	35	38	40	42	45	48	50				
			84						25						28						30						32	35	38	40	42	45	48	50						
15	133	122.17	25	40	92	18	157	146.28	30	45	100	22	189.3	178.48	38	45	110	25	213.5	202.66	38	50	110	25	213.5	202.66	40													
			32						32						25						42						45	48	50	25	28	30	32	35	38	40	42	45	48	50
			35						38						40						42						45	48	50	25	28	30	32	35	38	40	42	45	48	50
			38						40						42						45						48	50	25	28	30	32	35	38	40	42	45	48	50	
			40						42						45						48						50	25	28	30	32	35	38	40	42	45	48	50		
			42						45						48						50						25	28	30	32	35	38	40	42	45	48	50			
			45						48						50						25						28	30	32	35	38	40	42	45	48	50				
			92						25						28						30						32	35	38	40	42	45	48	50						

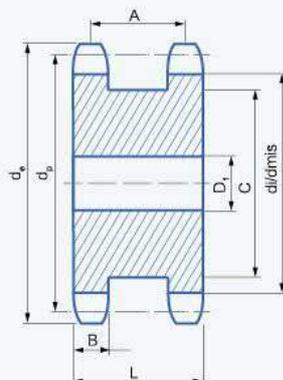
雙驅動鏈輪

Dual Drive Sprocket Wheel

配合2根單排滾子鏈條

配合鏈條標準

DIN8187-ISO/R606

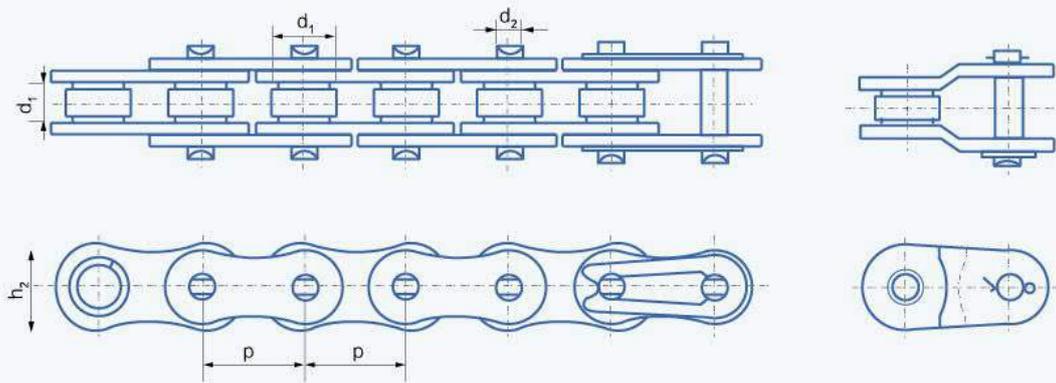


型號	齒數Z	外徑 d_e	節徑 d_p	齒根圓直徑 d_i	齒根距 d_{mis}	工藝孔 D_1	排距A	齒寬B	最大C	總高L
3/8" X 7/32" R6.35	13	43	39.80	33.45	33.16	10	20.3	5.3	8	25.5
	15	49.3	45.81	39.46	39.21	10	20.3	5.3	34	25.5
	17	55.3	51.84	45.49	45.27	12	20.3	5.3	40	25.5
	19	61.3	57.87	51.52	51.32	12	20.3	5.3	46	25.5
06B-1	21	68	63.91	57.56	57.38	15	20.3	5.3	52	25.5
	23	73.5	69.95	63.60	63.44	15	20.3	5.3	59	25.5
	25	80	76.00	69.65	69.50	15	20.3	5.3	65	25.5
1/2" X 5/16" R8.51	13	57.4	53.07	44.56	44.17	10	24.8	7.2	37	32
	15	65.5	61.08	52.57	52.24	10	24.8	7.2	45	32
	17	73.6	69.12	60.61	60.31	12	24.8	7.2	53	32
	19	81.7	77.16	68.65	68.39	12	24.8	7.2	62	32
08B-1	21	89.7	85.21	76.71	76.46	15	24.8	7.2	70	32
	23	98.2	93.27	84.76	84.54	15	24.8	7.2	78	32
	25	105.8	101.33	92.82	92.62	15	24.8	7.2	86	32
5/8" X 3/8" R10.16	13	73	66.33	56.17	55.69	15	27.9	9.1	48	37
	15	83	76.35	66.19	65.78	15	27.9	9.1	58	37
	17	93	86.39	76.23	75.87	15	27.9	9.1	68	37
	19	103.3	96.45	86.29	85.96	19	27.9	9.1	79	37
10B-1	21	113.4	106.51	96.35	96.06	19	27.9	9.1	89	37
	23	123.4	116.59	106.43	106.15	19	27.9	9.1	99	37
	25	134	126.66	116.50	116.25	19	27.9	9.1	109	37
3/4" X 7/16" R12.07	13	87.5	79.60	67.53	66.95	20	33.9	11.1	59	45
	15	99.8	91.63	79.56	79.05	20	33.9	11.1	71	45
	17	111.5	103.67	91.60	91.18	20	33.9	11.1	83	45
	19	124.2	115.74	103.67	103.27	20	33.9	11.1	95	45
12B-1	21	136	127.82	115.75	115.39	24	33.9	11.1	107	45
	23	149	139.90	127.83	127.51	24	33.9	11.1	119	45
	25	160	151.99	139.92	139.62	24	33.9	11.1	131	45
1" X 17.02" R15.88	13	117	106.14	90.26	89.48	24	47.8	16.2	78	64
	15	133	122.17	106.29	105.62	24	47.8	16.2	95	64
	17	149	138.23	122.35	121.76	24	47.8	16.2	111	64
	19	165.2	154.32	138.44	137.91	24	47.8	16.2	127	64
16B-1	21	181.2	170.42	154.54	154.06	24	47.8	16.2	143	64

精密滚子链

Single Sprocket Wheel

A、B系列短节距



链号 DIN ISO ChainNo	节距 P (mm)	滚子直径 $d_1(\text{max})(\text{mm})$	销轴直径 $d_2(\text{mm})$	内节内宽 $b_1(\text{min})(\text{mm})$	内链板高度 $h_2(\text{mm})$	极限拉伸载荷 Q(min)(KN)	平均拉伸载荷 Q0(KN)	每米净重 q(kg/m)
05B-1	8	5	2.31	3	7	4.4	6.2	0.2
06B-1	9.525	6.35	3.28	5.72	8.2	8.9	10.7	0.39
08B-1	12.7	8.51	4.45	7.75	11.8	17.8	20.7	0.72
10B-1	15.875	10.16	5.08	9.65	14.6	22.2	27.5	0.95
12B-1	19.05	12.07	5.72	11.68	16	28.9	33	1.23
16B-1	25.4	15.88	5.28	17.02	20.9	60	71	2.8
20B-1	31.75	19.05	10.19	19.56	26	95	102	3.9
24B-1	38.1	25.4	14.63	25.4	33	160	175.2	7.14
28B-1	44.45	27.94	15.9	30.99	36.7	200	215.5	9.37
32B-1	50.8	29.21	17.81	30.99	41.9	250	270.4	9.94
40B-1	63.5	39.37	22.89	38.1	52.5	355	382.5	16.4
48B-1	76.2	48.26	29.24	45.72	63.5	560	604.4	25.2

聯軸器 COUPLING

中間彈性體聯接，可吸收震動補償徑向、角向和軸向偏差。

抗油與電器絕緣，順時針與逆時針回轉特性完全相同。

有兩種不同硬度彈性體，定位螺絲固定。

Intermediate elastomer connection, can absorb shock, compensate on the angle to the radial, and axial deviation. Oil-resistance and electrical insulation, which have the same clockwise and anticlockwise rotation characteristics. There are two different hardness of elastomers, fixed by positioning screws.



聯軸器特徵

The Characteristics Coupling

聯軸器用于與從動軸和驅動軸的連接而傳達動力。

Coupling is used for the connection between driven shaft and drive shaft, to transfer power.

可選擇固定軸的多樣方法：

采用高耐腐蝕性輕量，高剛性的鋁合金(硬鋁，Duralumin)，

因此可構建重量小，慣性(inertia)小的旋轉系統。

DRN, DRJ, DRP 除外的 DRB, DRBS, DOH, DOHS, DJC, DJCS, DRG, DRGL 等

THERE ARE MANY WAYS TO FIX THE SHAFT:

We adopt the aluminum alloy, which is high corrosion-resistance, light, and high rigidity.

Then it could help our customer to build a rotating system, which is light weight and low inertia.

Except DRN, DRJ, DRP, there are DRB, DRBS, DOH, DOHS, DJC, DJCS, DRG, DRGL etc.

軸的固定方法包括以下3種：

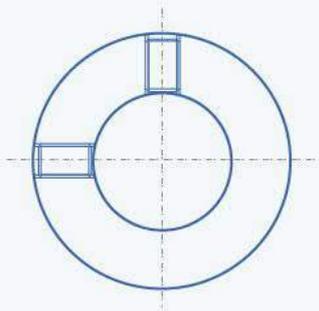
本公司已籌備固定螺釘(set screw)形式和2種夾緊(clamp)形式，可選擇最佳形式。

按照不同形式，也備好了可根據輸入/輸出軸選擇不同形式或軸直徑進行組合的形態。

THERE ARE THREE WAY TO FIX THE SHAFT, AS BELOW:

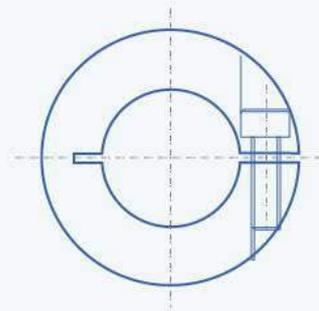
Our company has prepare two best option for our customer: set screw and clamp.

According to different models, we also prepare different model and diameter of shaft, according to shaft of input/output.



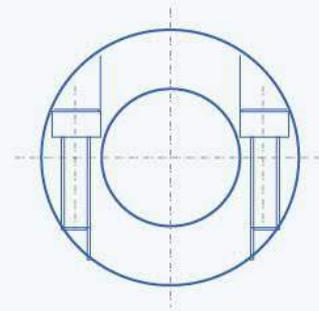
固定螺釘形式

Set Screw



(單)夾緊形式

Single Clamp



(雙)夾緊形式

Double Clamp

聯軸器選型

The Selection Coupling

選型時，使用扭矩，動力，旋轉次數組成的以下函數公式。

扭矩 $T[N \cdot m]=9550 \times \text{動力} P[\text{kW}] \times \text{旋轉次數} N[\text{min}^{-1}]$

When You Select,use Such Formula,which Is Compose Of Torque,power,and Number Of Rotation.
Torque =T,Power=P,Number of rotation=N

根據動力變化而選型的系數K

傳達的動力發生變化時，要選擇具有額定傳達扭矩功能大于根據變化種類乘以系數K得的數值的聯軸器。

The Selection Of Coefficient K,Is According To The Change Of Power.

When the transfer power changed,you should select such coupling,which its rated torque is greater than a numerical value the change multiplied the coefficient K.

無變化~變化小: $K=1.0 \sim 1.5$

No Changes-tiny Changes

中等水平的變化~大變化: $K=2.0 \sim 2.3$

Middle Changes-huge Changes

動力轉換效率，傳達效率 η

若可得知消費測的動力數值，供應測動力數值應根據其效率需要更大的動力。

選擇聯軸器時，要選擇具有大于供應測動力額定傳達扭矩的聯軸器。

例如，對通常的齒輪驅動而言，其傳達效率很低，因此有時需要更大的動力。

The Efficiency Of Power Conversion,the Efficiency Of Transfer η

Given that the consumed power is known,then the power we supply should be greater,according to its efficiency.

When we select a coupling,we should select those rated torque is greater the supplied.

Like,for gear drive,its efficiency of transfer would be low,so we need greater power sometimes.

供應動力 $P_0[\text{kW}]=\text{動力變化系數} K \times \text{耗電量} PS[\text{kW}] / \text{效率} \quad \eta: \eta < 1.0$

Power= $P_0[\text{kW}]=\text{The coefficient of Power Changed,Power Consumption}=PS[\text{kW}] / \text{Efficiency} \quad \eta: \eta < 1.0$

選擇聯軸器時，聯軸器的額定傳達扭矩通常大于通過供應動力所得到的扭矩。

對伺服電機(Servo motor)時，啓動，停止時，為執行加速，減速控制會瞬時發生極大的扭矩，

因此聯軸器的最大傳達扭矩數值大于伺服電機的最大啓動扭矩乘以1.5所得的數值。

When Select A Coupling,the Rated Torque Of Coupling Should Be Greater Than The Torque Which Supplied By Power.

As for servo motor,when it starts,stops,accelerates or slows down,would generate a huge torque.

That is the reason why the max torque of coupling should be greater than a numerical value which is the max torque generated by servo motor times 1.5.

聯軸器最大傳達扭矩 > 伺服電機的最大啓動扭矩X 1.5

the max torque of coupling > a numerical value which is the max torque generated by servo motor times 1.5

選擇聯軸器時，在額定傳達扭矩或最大傳達扭矩中選擇更大數值的聯軸器。

When select a coupling,you should select the greater one between the rated torque and max torque.

其他選型條件

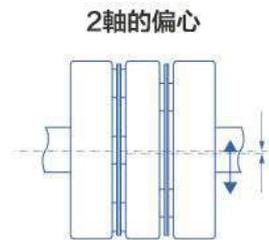
Other conditions of selection

選擇聯軸器時，除了動力以外，也要考慮旋轉次數以及所連接的兩個軸間存在的偏心，偏角，軸向間隙(容許軸向間隙)等。

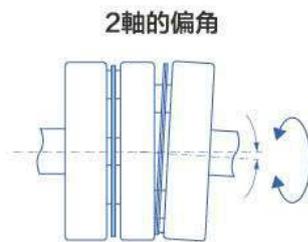
所選擇的轉速要低於在目錄裏各模式頁面表中的最大轉速對偏心，偏角，軸向變化而言，其允許值記載於目錄裏各模式頁面表裏，要選擇其允許值以下的項目。

When Select A Coupling,except Power,number Of Rotation,eccentric Distance,eccentric Angle, clearance Etc.should Also Take Into Account.

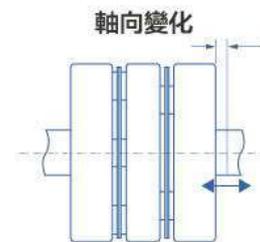
The rotated speed we select,should lower than max rotated speed relative to eccentric distance,eccentric angle,shaft changes etc, which the rotated speed is presented on all model of the menu.All allowed value is recorded on all model of the menu,the customer should select the value within the allowed range.



使用最大允許偏心量以下



使用最大允許偏角量以下



使用最大允許軸變化量以下

在聯軸器型式中，有的型式不允許上述項目，因此需要注意。

In The Coupling Types,we Should Caution That,some May Not Suit Those Projects Above.

扭轉剛性(扭轉彈簧定數) Torsional Rigidity (Torsional Spring Constant)

轉送螺桿機構的固有振動數(危險速度)可通過聯軸器和軸的扭轉剛性來進行計算。

The fixed vibration numbers (dangerous speed) of the transferring screw mechanism,could be calculated by coupling and the torsional rigidity of the shaft.

轉送螺桿軸和聯軸器的合計剛性 k_t 可通過 The transferring screw shaft and rigidity of coupling k_t could be calculated by,

$$1/k_t = 1/k_s + 1/k_c \text{ (直列接續)}$$

k_s : 螺絲軸的剛(Rigidity of screw shaft)【N·m/rad】

k_c : 聯軸器剛性(Rigidity of coupling)【N·m/rad】來進行計算。

J_i : 輸入軸慣性(Inertia of input shaft)【N·m²】

J_o : 輸出軸慣性(Inertia of output shaft)【N·m²】

可通過 k_t 和 J_i , J_o 固有振動數 F_d 以下公式進行計算。

Could Be Calculated By k_t and J_i, J_o And Fixed Vibration Numbers,with The Formula As Below.

$$F_d = (0.5 \cdot 1/\pi) \cdot \{9.8 \cdot k_t \cdot (1/J_i + 1/J_o)\}^{-2}$$

轉動慣性(moment of inertia)是指旋轉體的慣性，顯示向旋轉體施加旋轉扭矩T時的旋轉難度。

鬥利的大多數聯軸器通過用輕量材料緊湊設計制作，因此在傳達動力時，不必考慮該轉動慣性影響，但在計算啓動扭矩時，在使用多聯聯軸器或計算整個系統的準確振動量時，要參照在目錄各表中根據各型式所記錄的數值。

Rotational Inertia Means The Inertia Of A Rotating Object,which Shows The Degree Of Difficulty Of Imposing A Rotating Torque T To A Rotating Object.

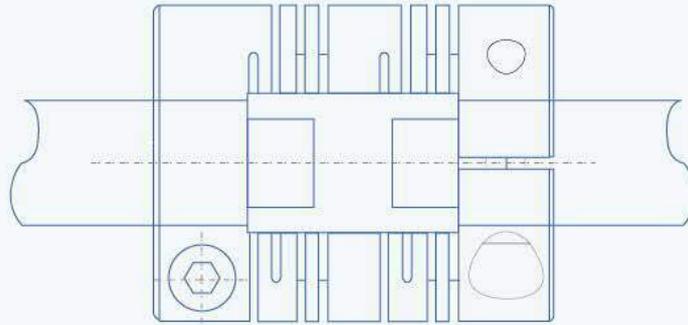
Most of DYRI couplings are designed by light material,when it comes to transferring of power,we could skip the part of rotational inertia,But when we calculate the started torque,if we use multiple couplings or calculate the accurate vibration value of whole system,we should refer to all value recorded on the menu.

聯軸器特徵

The Characteristics Coupling

- 完全一體型剖分式結構，零背隙。
 - 正反轉的特徵相同，高扭轉剛度。
 - 優秀的耐油、耐藥品性。
 - 剖分形成的板彈簧，完全吸收偏心，偏角，軸向間隙。
 - 提供各種規格。
 - 使用高強鋁合金(杜拉鋁)。
- Integrative model subdivision structure, no clearance.
 - Same characteristic of positive and negative, high rotational rigidity.
 - Excellent performance in oil-resistance and drug-resistance.
 - Subdivision of plate spring, could fully absorb eccentric distance, eccentric angle, shaft clearance.
 - Various specifications.
 - Use Aluminum alloy of high density.

形態 / form



將內部加工成寬，不限於軸的結構，易組裝。
Interior be processed into wide and unlimited to the structure of shaft,
which could be assembled easily.

用途 / Usage

- 伺服馬達
 - 步進馬達
 - 一般通用馬達
 - 編碼器
- Servo Motor
 - Step Motor
 - General Motor
 - Encoder

其他 / Others

- 全部產品裏包含固定螺釘，帽螺釘。
 - 特殊孔徑可按需求加工。
 - 軸徑的公差推薦h7。
 - 鍵槽可按需求加工。
- Fixed screw and cap screw is included in all products.
 - Special aperture could be processed at request .
 - Tolerance of shaft diameter h7 is commended .
 - Key slot could be processed at request .