





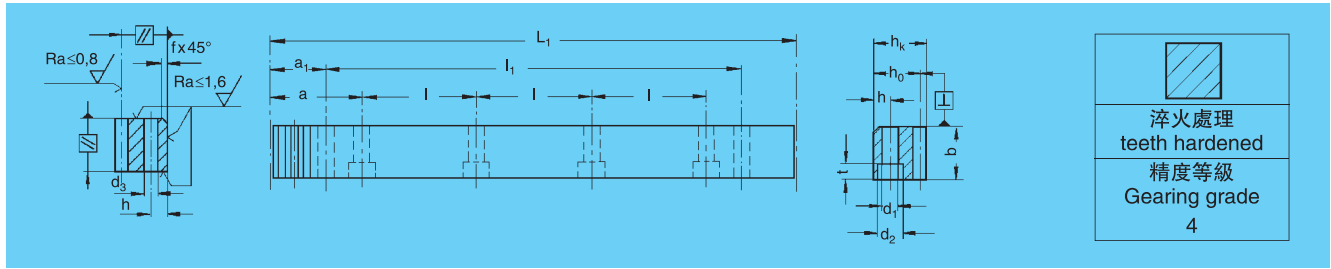


系列 Series	模數 Module	齒面熱處理 heat-treatment of teeth	精度等級 Tolerance of teeth	頁碼 Page
46	5; 6; 8; 10; 12	高頻淬火 induction-hardened	4	ZB-1.1
28	2; 3; 4; 5; 6; 8; 10; 12	表面淬火 case-hardened	6 h 25	ZB-2-3
33	2; 3; 4; 5	調質 quenched and tempered	8 e 27	ZB-4
36	1; 1,5; 2; 3	軟材 / 不銹鋼 soft / stainless 	8 e 27	ZB-5
25	1; 1,5; 2; 2,5; 3; 4; 5; 6; 8; 10	軟材 soft	9 e 27	ZB-6-7
27	1; 1,5; 2; 2,5; 3; 4; 5; 6; 8; 10	高頻淬火 induction-hardened	10 e 27	ZB-8-9
34	2; 3; 4; 5; 6	高頻淬火 induction-hardened	10 e 27	ZB-10
37 0. ...	5; 10 (mm-節距) (mm pitch)	軟材 soft	9 e 27	ZB-11
26	1; 1,5; 2; 2,5; 3	塑料 Plastic	10 e 27	ZB-12
	選型和負載參數表 Selection and load tables			ZH-2-6
	電控潤滑器、滑動毛刷和連接導管裝置 Electronically controlled lubricators, sliding-type lubricating brushes and hose-connection sets			ZI-2-6
	毛氈齒輪和安裝軸 Felt gear and mounting shaft			ZI-5
	裝配 Mounting			ZJ-2





直齒類，磨削齒，20° 壓力角 straight tooth system, ground teeth, 20° pressure angle



訂貨號 Order code	模數 Module	齒數 L_1	N°	齒數 of teeth	b	$h_{k-0,018}^0$	$h_{o-0,018}^0$	f	a	l	孔數 N°	of holes	h	d_1	d_2	t	a_1	l_1	d_3	GT_f /1000 ¹⁾	kg
46 50 105	5	1005,3	64	49	39	34	3	62,8	125,66	8	12	13,5	20	13	30,10	945,0	11,7	0,012	12,2		
46 60 105	6	10179,	54	59	49	43	3	63,6	127,23	8	16	17,5	26	17	31,40	955,0	15,7	0,012	18,5		
46 80 105	8	1005,3	40	79	79	71	3	62,8	125,66	8	25	22,0	33	21	26,60	952,0	19,7	0,012	22,0		
46 10 105	10	1005,3	32	99	99	89	3	62,8	125,66	8	32	33,0	48	32	125,66	753,9	19,7	0,012	68,0		
46 12 105	12	1017,9	27	120	120	108	3	63,6	127,23	8	40	39,0	58	38	127,23	763,4	19,7	0,012	111,0		

材料C45，材料編號no.1.0504，特殊處理的光亮鋼，拉伸強度大約650N/mm²。齒面高頻淬火硬度50~55HRC；淬火後磨削各面。

Material C 45, mat. no. 1.0504, of specially treated bright steel with a tensile strength of approx. 650 N/mm². Teeth induction-hardened to 50 to 55 HRC; ground on all sides after hardening.

齒條已被標注20°C時測量的節距誤差。

Racks are signed with effective total pitch error, measured at 20 ° C.

綜合性能報告和精度測量報告可按需求提供。

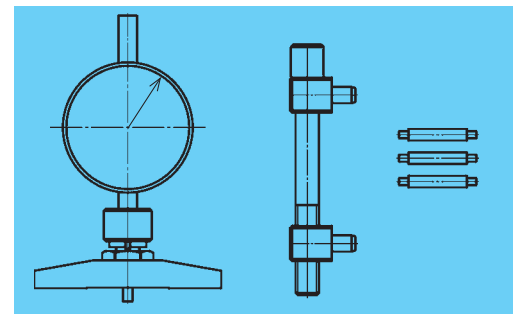
Comprehensive and accurate measurement reports are available on request.

1) $GT_f/1000$ =整體節距誤差，即齒條測量長度與理論長度 L_{1000} = $(m / \cos \beta) \cdot \pi \cdot Z_{1000}$ 相比的最大容許偏差 (每1000mm)。

1) $GT_f / 1000$ = total pitch error, i.e. the max. permissible deviation (per 1000 mm) of the measured length of the rack compared to the theoretical length L_{1000} , with $L_{1000} = (m / \cos \beta) \cdot \pi \cdot Z_{1000}$.

为了将齿条的拼接精度如同一根整体齿条，我们建议使用以下安装工具

To adapt the precision of the mounted racks, to the precision of the single rack, we recommended the following Assembly kit



安裝工具，包含：

- 1 x 調整裝置
- 3 x 磁性量棒
- 1 x 橋式測量表
- 1 x 手提箱

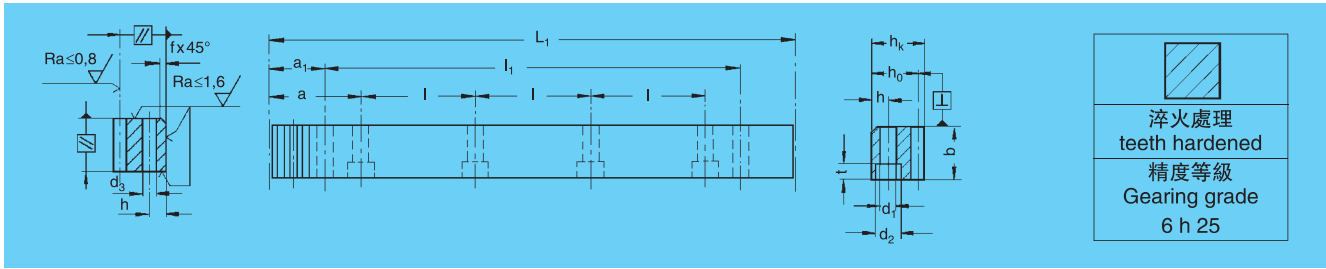
Assembly kit, comprising:

- 1 x Adjusting device
- 3 x Gauging roller with magnet
- 1 x Measuring bridge with dial gauge
- 1 Suitcase

訂貨號 Order code	描述 Description	模數 Module	關聯產品 Relative item no.	kg
29.01.005	安裝工具 / Assembly kit	5	46.50.xxx	0,80
29.01.006	安裝工具 / Assembly kit	6	46.60.xxx	0,90
29.01.008	安裝工具 / Assembly kit	8	46.80.xxx	1,35
29.01.010	安裝工具 / Assembly kit	10	46.10.xxx	1,40
29.01.012	安裝工具 / Assembly kit	12	46.12.xxx	1,50



直齒類，磨削齒，20° 壓力角
straight tooth system, ground teeth, 20° pressure angle



訂貨號 Order code	模數 Module	L ₁	齒數 N° of teeth b	h _k	h ₀	f	a	l	孔數 N° of holes h	d ₁	d ₂	t	a ₁	l ₁	d ₃	GT _f /300 ¹⁾	kg			
28 20 025	2	251,3	40	24	24	22,0	2	62,8	125,66	2	8	7	11	7	31,3	188,7	5,7	0,022	1,00	
28 21 025	2	251,3	40	24	24	22,0	2	無裝配孔 / without mounting holes										-	0,022	1,00
28 20 050	2	502,7	80	24	24	22,0	2	62,8	125,66	4	8	7	11	7	31,3	440,1	5,7	0,022	2,10	
28 21 050	2	502,7	80	24	24	22,0	2	ohne Befestigungsbohrungen / without mounting holes										-	0,022	2,10
28 20 100	2	1005,3	160	24	24	22,0	2	62,8	125,66	8	8	7	11	7	31,3	942,7	5,7	0,022	4,20	
28 21 100	2	1005,3	160	24	24	22,0	2	無裝配孔 / without mounting holes										-	0,022	4,20
28 30 025	3	254,5	27	29	29	26,0	2	63,6	127,23	2	9	10	15	9	34,4	185,7	7,7	0,024	1,50	
28 31 025	3	254,5	27	29	29	26,0	2	無裝配孔 / without mounting holes										-	0,024	1,50
28 30 050	3	508,9	54	29	29	26,0	2	63,6	127,23	4	9	10	15	9	34,4	440,1	7,7	0,024	3,00	
28 31 050	3	508,9	54	29	29	26,0	2	無裝配孔 / without mounting holes										-	0,024	3,00
28 30 100	3	1017,9	108	29	29	26,0	2	63,6	127,23	8	9	10	15	9	34,4	949,1	7,7	0,024	6,00	
28 31 100	3	1017,9	108	29	29	26,0	2	無裝配孔 / without mounting holes										-	0,024	6,00
28 40 025	4	251,3	20	39	39	35,0	3	62,8	125,66	2	12	10	15	9	37,5	176,3	7,7	0,025	2,60	
28 41 025	4	251,3	20	39	39	35,0	3	無裝配孔 / without mounting holes										-	0,025	2,60
28 40 050	4	502,7	40	39	39	35,0	3	62,8	125,66	4	12	10	15	9	37,5	427,7	7,7	0,025	5,30	
28 41 050	4	502,7	40	39	39	35,0	3	無裝配孔 / without mounting holes										-	0,025	5,30
28 40 100	4	1005,3	80	39	39	35,0	3	62,8	125,66	8	12	10	15	9	37,5	930,3	7,7	0,025	10,50	
28 41 100	4	1005,3	80	39	39	35,0	3	無裝配孔 / without mounting holes										-	0,025	10,50

材料16-MnCr5，材料編號N0.1.7131，齒面高頻淬火，硬度約60HRC；
淬火後磨削所有面，因為祇是齒形部分高頻淬火，所以不影響打孔和
裝銷釘。

Material 16-Mn Cr5, material no. 1.7131, case-hardened
and teeth induction-hardened to approx. 60 HRC; ground on
all sides after hardening. Since only the teeth are induction-
hardened, subsequent drilling and pinning is possible.

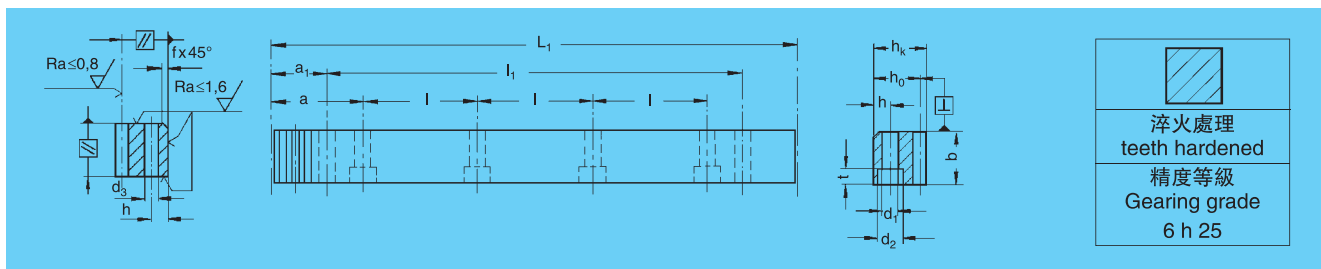
1) GT_f /300 = 整體節距誤差，即齒輪測量長度與理論長度 L₃₀₀ = (m /
cos β) · π · Z₃₀₀ 相比的最大容許偏差（每300mm）。
為確保齒條和齒輪傳動的連續潤滑，建議選用ZI-2/3頁所介紹的電
控潤滑器。

1) GT_f /300 = total pitch error, i.e. the max. permissible deviation
(per 300 mm) of the measured length of the rack compared to the
theoretical length L₃₀₀, with L₃₀₀ = (m / cos β) · π · Z₃₀₀.
To ensure continuous lubrication of rack and pinion drives, we
recommend to use electronic lubricators as described on page
ZI-2/3!





直齒類，磨削齒，20° 壓力角
straight tooth system, ground teeth, 20° pressure angle



訂貨號 Order code	模數 Module	L ₁	齒數 N° of teeth	b	h _k	h ₀	f	a	l	孔數 N° of holes	h	d ₁	d ₂	t	a ₁	l ₁	d ₃	GT _f /300 ¹⁾	kg			
28 20 105	2	1005,3	160	24	24	22,0	2	62,8	125,66	8	8	7	11	7	31,3	942,7	5,7	0,022	4,20			
28 21 105	2	1005,3	160	24	24	22,0	2	無裝配孔 / without mounting holes												-	0,022	4,20
28 20 205	2	2010,62	320	24	24	22,0	2	62,8	125,66	16	8	7	11	7	31,3	1948,0	5,7	0,022	8,40			
28 21 205	2	2010,62	320	24	24	22,0	2	無裝配孔 / without mounting holes												-	0,022	8,40
28 30 105	3	1017,90	108	29	29	26,0	2	63,6	127,23	8	9	10	15	9	34,4	949,1	7,7	0,024	6,00			
28 31 105	3	1017,90	108	29	29	26,0	2	無裝配孔 / without mounting holes												7,7	0,024	6,00
28 30 205	3	2035,75	216	29	29	26,0	2	63,6	127,23	16	9	10	15	9	34,4	1967,0	7,7	0,024	12,00			
28 31 205	3	2035,75	216	29	29	26,0	2	無裝配孔 / without mounting holes												-	0,024	12,00
28 40 105	4	1005,30	80	39	39	35,0	3	62,8	125,66	8	12	10	15	9	37,5	930,3	7,7	0,025	10,50			
28 41 105	4	1005,30	80	39	39	35,0	3	無裝配孔 / without mounting holes												-	0,025	10,50
28 40 205	4	2010,62	160	39	39	35,0	3	62,8	125,66	16	12	10	15	9	37,5	1935,6	7,7	0,025	21,00			
28 41 205	4	2010,62	160	39	39	35,0	3	無裝配孔 / without mounting holes												-	0,025	21,00
28 50 055	5	502,60	32	49	39	34	3	62,8	125,66	4	12	14	20	13	30,1	442,4	11,7	0,025	6,70			
28 51 055	5	502,60	32	49	39	34	3	無裝配孔 / without mounting holes												0,025	6,70	
28 50 105	5	1005,30	64	49	39	34	3	62,8	125,66	8	12	14	20	13	30,1	945,0	11,7	0,025	13,40			
28 51 105	5	1005,30	64	49	39	34	3	無裝配孔 / without mounting holes												0,025	13,40	
28 50 155	5	1507,96	96	49	39	34	3	62,8	125,66	12	12	14	20	13	30,1	1447,7	11,7	0,025	20,10			
28 51 155	5	1507,96	96	49	39	34	3	無裝配孔 / without mounting holes												0,025	20,10	
28 50 205	5	2010,62	128	49	39	34	3	62,8	125,66	16	12	14	20	13	30,1	1950,4	11,7	0,025	26,80			
28 51 205	5	2010,62	128	49	39	34	3	無裝配孔 / without mounting holes												0,025	26,80	
28 50 999	5	251,32	16	49	39	34	安裝塊 / companion part of assembly												3,25			
28 60 055	6	508,90	27	59	49	43	3	63,6	127,23	4	16	18	26	17	31,4	446,1	15,7	0,026	10,40			
28 61 055	6	508,90	27	59	49	43	3	無裝配孔 / without mounting holes												0,026	10,40	
28 60 105	6	1017,88	54	59	49	43	3	63,6	127,23	8	16	18	26	17	31,4	955,0	15,7	0,026	20,20			
28 61 105	6	1017,88	54	59	49	43	3	無裝配孔 / without mounting holes												0,026	20,20	
28 60 155	6	1526,81	81	59	49	43	3	63,6	127,23	12	16	18	26	17	31,4	1464,0	15,7	0,026	30,30			
28 61 155	6	1526,81	81	59	49	43	3	無裝配孔 / without mounting holes												0,026	30,30	
28 60 205	6	2035,75	108	59	49	43	3	63,6	127,23	16	16	18	26	17	31,4	1973,0	15,7	0,026	40,40			
28 61 205	6	2035,75	108	59	49	43	3	無裝配孔 / without mounting holes												0,026	40,40	
28 60 999	6	245,04	13	59	49	43	安裝塊 / companion part of assembly												4,83			
28 80 055	8	502,65	20	79	79	71	3	62,8	125,66	4	25	22	33	21	26,6	449,45	19,7	0,027	22,38			
28 81 055	8	502,65	20	79	79	71	3	無裝配孔 / without mounting holes												0,027	22,38	
28 80 105	8	1005,30	40	79	79	71	3	62,8	125,66	8	25	22	33	21	26,6	952	19,7	0,027	44,76			
28 81 105	8	1005,30	40	79	79	71	3	無裝配孔 / without mounting holes												0,027	44,76	
28 80 205	8	2010,61	80	79	79	71	3	62,8	125,66	16	25	22	33	21	26,6	1957,3	19,7	0,027	89,50			
28 81 205	8	2010,61	80	79	79	71	3	無裝配孔 / without mounting holes												0,027	89,50	
28 80 999	8	251,32	10	79	79	71	安裝塊 / companion part of assembly												11,08			
28 10 105	10	1005,30	32	99	99	89	3	62,83	125,66	8	32	33	48	32	125,66	753,96	19,7	0,028	68,72			
28 11 105	10	1005,30	32	99	99	89	3	無裝配孔 / without mounting holes												0,028	68,72	
28 10 999	10	219,91	7	79	79	69	安裝塊 / companion part of assembly												10,67			
28 12 105	12	1017,90	27	120	120	108	3	63,60	127,23	8	40	39	58	38	127,23	763,40	19,7	0,029	111,00			
28 13 105	12	1017,90	27	120	120	108	3	無裝配孔 / without mounting holes												0,029	120,00	
28 12 999	12	263,90	7	99	87	89	安裝塊 / companion part of assembly												18,10			

材料C45，材料編號NO.1.0504，特殊處理的光亮鋼，拉伸強度大約650N/mm²，齒面高頻淬火硬度50~55HRC；淬硬後磨削加工，因為祇是齒形部分高頻淬火，所以不影響打孔裝銷釘。

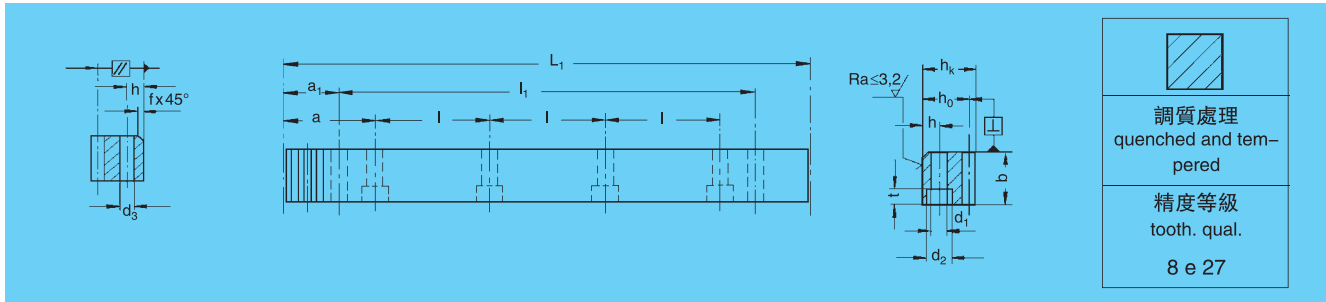
Material C 45, mat. no. 1.0504, of specially treated bright steel with a tensile strength of approx. 650 N/mm². Teeth induction-hardened to 50 to 55 HRC; ground on all sides after hardening. Since only the teeth are induction-hardened, subsequent drilling and pinning is possible.

1) GT_f / 300 = 整體節距誤差，即齒輪測量長度與理論長度 L₃₀₀ = (m / cos β) · π · Z₃₀₀ 相比的最大容許偏差 (每300mm)。為確保齒條和齒輪傳動的連續潤滑，建議選用ZI-2/3頁所介紹的電控潤滑器。

1) GT_f / 300 = total pitch error, i.e. the max. permissible deviation (per 300 mm) of the measured length of the rack compared to the theoretical length L₃₀₀, with L₃₀₀ = (m / cos β) · π · z₃₀₀. To ensure continuous lubrication of rack and pinion drives, we recommend to use electronic lubricators as described on page ZI-2/3!



直齒類，銑削齒，20° 壓力角
straight tooth system, milled teeth, 20° pressure angle



訂貨號 Order code	模數 Module	L ₁	齒數 N° of teeth	b	h _k	h _o	f	a	l	孔數 N° of holes	h	d ₁	d ₂	t	a ₁	l ₁	d ₃	GT _f /300 ¹⁾	kg
33 21 050	2	502,65	80	25	24	22	2	62,83	125,66	4	8	7	11	7	31,3	440,1	5,7	0,044	2,20
33 20 050	2	502,65	80	25	24	22	2	無裝配孔 / without mounting holes										0,044	2,20
33 21 100	2	1005,31	160	25	24	22	2	62,83	125,66	8	8	7	11	7	31,3	942,7	5,7	0,044	4,30
33 20 100	2	1005,31	160	25	24	22	2	無裝配孔 / without mounting holes										0,044	4,30
33 21 200	2	2010,62	320	25	24	22	2	62,83	125,66	16	8	7	11	7	31,3	1948,0	5,7	0,044	8,60
33 20 200	2	2010,62	320	25	24	22	2	無裝配孔 / without mounting holes										0,044	8,60
33 31 050	3	508,94	54	30	29	26	2	63,62	127,23	4	9	10	15	9	34,4	440,1	7,7	0,046	3,10
33 30 050	3	508,94	54	30	29	26	2	無裝配孔 / without mounting holes										0,046	3,10
33 31 100	3	1017,88	108	30	29	26	2	63,62	127,23	8	9	10	15	9	34,4	949,1	7,7	0,046	6,20
33 30 100	3	1017,88	108	30	29	26	2	無裝配孔 / without mounting holes										0,046	6,20
33 31 200	3	2035,75	216	30	29	26	2	63,62	127,23	16	9	10	15	9	34,4	1967,0	7,7	0,046	12,40
33 30 200	3	2035,75	216	30	29	26	2	無裝配孔 / without mounting holes										0,046	12,40
33 41 050	4	502,65	40	40	39	35	3	62,83	125,66	4	12	10	15	9	37,5	427,7	7,7	0,048	5,50
33 40 050	4	502,65	40	40	39	35	3	無裝配孔 / without mounting holes										0,048	5,50
33 41 100	4	1005,31	80	40	39	35	3	62,83	125,66	8	12	10	15	9	37,5	930,3	7,7	0,048	11,00
33 40 100	4	1005,31	80	40	39	35	3	無裝配孔 / without mounting holes										0,048	11,00
33 41 200	4	2010,62	160	40	39	35	3	62,83	125,66	16	12	10	15	9	37,5	1935,6	7,7	0,048	22,00
33 40 200	4	2010,62	160	40	39	35	3	無裝配孔 / without mounting holes										0,048	22,00
33 51 050	5	502,65	32	50	39	34	3	62,83	125,66	4	12	14	20	13	30,2	442,3	11,7	0,050	6,80
33 50 050	5	502,65	32	50	39	34	3	無裝配孔 / without mounting holes										0,050	6,80
33 51 100	5	1005,31	64	50	39	34	3	62,83	125,66	8	12	14	20	13	30,2	945,0	11,7	0,050	13,60
33 50 100	5	1005,31	64	50	39	34	3	無裝配孔 / without mounting holes										0,050	13,60
33 51 200	5	2010,62	128	50	39	34	3	62,83	125,66	16	12	14	20	13	30,2	1950,4	11,7	0,050	27,20
33 50 200	5	2010,62	128	50	39	34	3	無裝配孔 / without mounting holes										0,050	27,20
28 50 999	5	251,32	16	49	39	34		安裝塊 / companion part of assembly											3,25



高質量，特殊處理的光亮鋼，拉伸強度大約900N/mm²，齒條基準面和安裝面銑削加工。

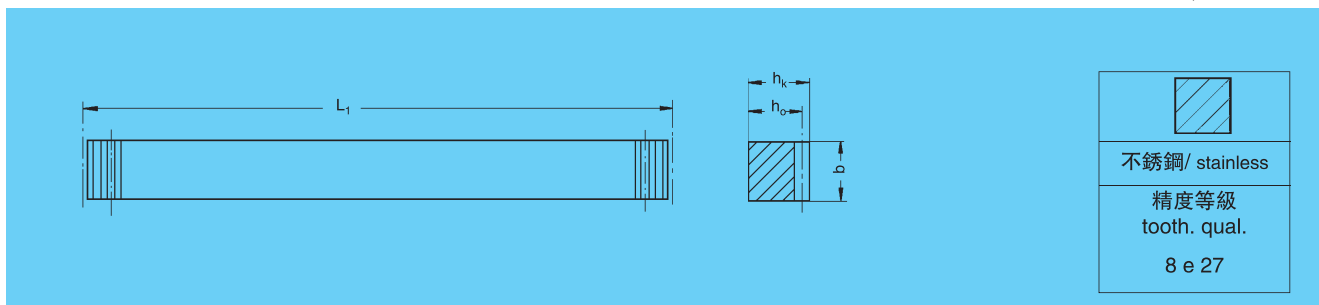
Of high-quality, specially treated bright steel with a tensile strength of approx. 900 N/mm². Back face of racks machined.

1) GT_f/300 = 整體節距誤差，即齒輪測量長度與理論長度 L₃₀₀ = (m / cos β) · π · Z₃₀₀ 相比的最大容許偏差 (每300mm)。為確保齒條和齒輪傳動的連續潤滑，建議選用Z1-2/3頁所介紹的電控潤滑器。

1) GT_f/300 = total pitch error, i.e. the max. permissible deviation (per 300 mm) of the measured length of the rack compared to the theoretical length L₃₀₀, with L₃₀₀ = (m / cos β) · π · Z₃₀₀. To ensure continuous lubrication of rack and pinion drives, we recommend to use electronic lubricators as described on page Z1-2/3!



直齒類，銑削齒，20° 壓力角
straight tooth system, milled teeth, 20° pressure angle



訂貨號 Order code	齒數 N° of teeth		h_k	h_o	f	a	l	孔數 N° of holes		d_1	d_2	t	a_1	l_1	d_3	GT _f /300 ¹⁾	kg
模數 / Module 1																	
36 00 050	499,5	159	10	10	9,0	-	-	-	-	-	-	-	-	-	-	0,040	0,35
36 00 100	999,0	318	10	10	9,0	-	-	-	-	-	-	-	-	-	-	0,040	0,70
模數 / Module 1,5																	
36 01 050	499,5	106	15	15	13,5	-	-	-	-	-	-	-	-	-	-	0,042	0,78
36 01 100	999,0	212	15	15	13,5	-	-	-	-	-	-	-	-	-	-	0,042	1,55
模數 / Module 2																	
36 02 050	502,6	80	20	20	18,0	-	-	-	-	-	-	-	-	-	-	0,044	1,40
36 02 100	999,0	159	20	20	18,0	-	-	-	-	-	-	-	-	-	-	0,044	2,80
36 02 200	1998,0	318	20	20	18,0	-	-	-	-	-	-	-	-	-	-	0,044	5,60
模數 / Module 3																	
36 04 050	499,5	53	30	30	27,0	-	-	-	-	-	-	-	-	-	-	0,046	3,10
36 04 100	999,0	106	30	30	27,0	-	-	-	-	-	-	-	-	-	-	0,046	6,20
36 04 200	1998,0	212	30	30	27,0	-	-	-	-	-	-	-	-	-	-	0,046	12,50

材料 X 8 CrNi S 18-9 材料編號 NO. 1.4305.

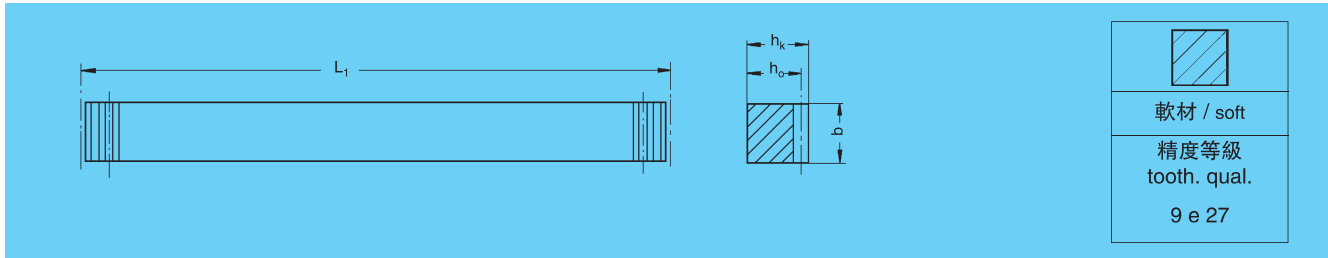
Material X 8 CrNi S 18-9, Mat.No. 1.4305.

1) $GT_f / 300$ = 整體節距誤差，即齒輪測量長度與理論長度 $L_{300} = (m / \cos \beta) \cdot \pi \cdot Z_{300}$ 相比的最大容許偏差（每300mm）。
為確保齒條和齒輪傳動的連續潤滑，建議選用Z1-2/3頁所介紹的電控潤滑器。

1) $GT_f / 300$ = total pitch error, i.e. the max. permissible deviation (per 300 mm) of the measured length of the rack compared to the theoretical length L_{300} , with $L_{300} = (m / \cos \beta) \cdot \pi \cdot Z_{300}$.
To ensure continuous lubrication of rack and pinion drives, we recommend to use electronic lubricators as described on page Z1-2/3!



直齒類，銑削齒，20° 壓力角
straight tooth system, milled teeth, 20° pressure angle,



訂貨號 Order code	模數 Module	L_1	齒數 N° of teeth	b	h_k	h_o	說明 Remark	GT _f /300 ¹⁾	kg
25 10 025	1	251,33	80	15	15	14	正方尺寸 / Square dimension	0,055	0,41
25 10 050	1	499,51	159	15	15	14	正方尺寸 / Square dimension	0,055	0,82
25 10 100	1	999,03	318	15	15	14	正方尺寸 / Square dimension	0,055	1,64
25 15 025	1,5	249,76	53	17	17	15,5	正方尺寸 / Square dimension	0,059	0,51
25 15 050	1,5	499,51	106	17	17	15,5	正方尺寸 / Square dimension	0,059	1,03
25 15 100	1,5	999,03	212	17	17	15,5	正方尺寸 / Square dimension	0,059	2,06
25 15 200	1,5	1998,05	424	17	17	15,5	正方尺寸 / Square dimension	0,059	4,11
25 20 025	2	251,33	40	20	20	18	正方尺寸 / Square dimension	0,061	0,71
25 20 050	2	502,65	80	20	20	18	正方尺寸 / Square dimension	0,061	1,41
25 20 100	2	999,03	159	20	20	18	正方尺寸 / Square dimension	0,061	2,81
25 20 150	2	1507,96	240	20	20	18	正方尺寸 / Square dimension	0,061	4,25
25 20 200	2	1998,05	318	20	20	18	正方尺寸 / Square dimension	0,061	5,62
25 20 300	2	3015,93	480	20	20	18	正方尺寸 / Square dimension	0,061	8,49
25 25 025	2,5	251,33	32	25	25	22,5	正方尺寸 / Square dimension	0,063	1,10
25 25 050	2,5	502,65	64	25	25	22,5	正方尺寸 / Square dimension	0,063	2,21
25 25 100	2,5	997,46	127	25	25	22,5	正方尺寸 / Square dimension	0,063	4,38
25 25 200	2,5	2002,77	255	25	25	22,5	正方尺寸 / Square dimension	0,063	8,80
25 30 025	3	254,47	27	30	30	27	正方尺寸 / Square dimension	0,065	1,61
25 30 051	3	508,94	54	30	30	27	正方尺寸 / Square dimension	0,065	3,22
25 30 101	3	1017,88	108	30	30	27	正方尺寸 / Square dimension	0,065	6,44
25 30 150	3	1526,81	162	30	30	27	正方尺寸 / Square dimension	0,065	9,66
25 30 201	3	2035,75	216	30	30	27	正方尺寸 / Square dimension	0,065	12,88
25 30 300	3	3053,63	324	30	30	27	正方尺寸 / Square dimension	0,065	19,32
25 40 025	4	251,33	20	40	40	36	正方尺寸 / Square dimension	0,068	2,83
25 40 050	4	502,65	40	40	40	36	正方尺寸 / Square dimension	0,068	5,65
25 40 100	4	1005,31	80	40	40	36	正方尺寸 / Square dimension	0,068	11,31
25 40 150	4	1507,96	120	40	40	36	正方尺寸 / Square dimension	0,068	19,97
25 40 201	4	2010,62	160	40	40	36	正方尺寸 / Square dimension	0,068	22,61
25 40 300	4	3015,93	240	40	40	36	正方尺寸 / Square dimension	0,068	33,93



訂貨號 Order code	模數 Module	L_1	齒數 N° of teeth	b	h_k	h_o	說明 Remark	GT _f /300 ¹⁾	kg
25 30 050	3	499,51	53	30	30	27	舊規格 / not for new design	0,065	3,16
25 30 100	3	999,03	106	30	30	27	舊規格 / not for new design	0,065	6,32
25 30 200	3	1998,05	212	30	30	27	舊規格 / not for new design	0,065	12,64
25 40 200	4	1998,05	159	40	40	36	舊規格 / not for new design	0,068	22,47

材料C45，材料編號NO.1.0504，特殊處理的光亮鋼，拉伸強度大約650N/mm²。

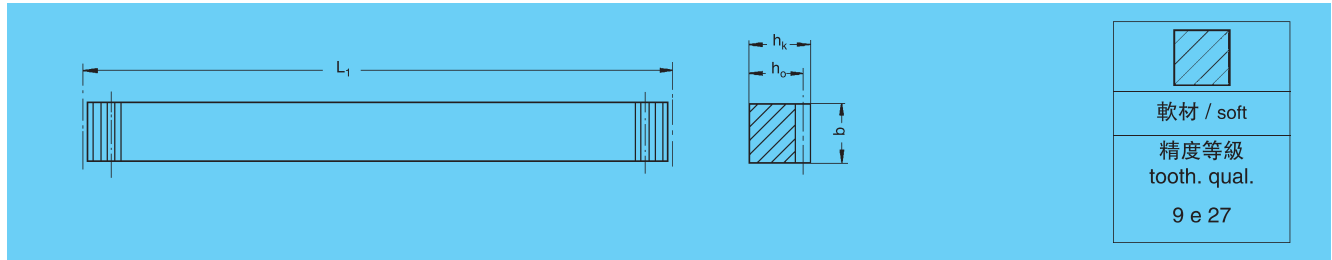
Material C 45, Mat.No. 1.0504, of specially treated bright steel with a tensile strength of approx. 650 N/mm².

1) GT_f / 300 = 整體節距誤差，即齒輪測量長度與理論長度 L₃₀₀ = (m / cos β) · π · Z₃₀₀ 相比的最大容許偏差 (每300mm)。
為確保齒條和齒輪傳動的連續潤滑，建議選用Z1-2/3頁所介紹的電控潤滑器。

1) GT_f / 300 = total pitch error, i.e. the max. permissible deviation (per 300 mm) of the measured length of the rack compared to the theoretical length L₃₀₀, with L₃₀₀ = (m / cos β) · π · Z₃₀₀.
To ensure continuous lubrication of rack and pinion drives, we recommend to use electronic lubricators as described on page Z1-2/3!



直齒類，銑削齒，20° 壓力角
straight tooth system, milled teeth, 20° pressure angle,



訂貨號 Order code	模數 Module	L_1	齒數 N° of teeth	h_k	h_o	說明 Remark	GT _f /300 ¹⁾	
25 50 025	5	251,33	16	50	40	非正方尺寸 / Not square dimension	0,070	3,44
25 50 050	5	502,65	32	50	40	非正方尺寸 / Not square dimension	0,070	6,87
25 50 100	5	1005,31	64	50	40	非正方尺寸 / Not square dimension	0,070	13,74
25 50 150	5	1507,96	96	50	40	非正方尺寸 / Not square dimension	0,070	20,40
25 50 200	5	2010,62	128	50	40	非正方尺寸 / Not square dimension	0,070	27,48
25 52 100	5	1005,31	64	50	50	正方尺寸 / Square dimension	0,070	17,10
25 52 200	5	2010,62	128	50	50	正方尺寸 / Square dimension	0,070	34,20
28 50 999	5	251,32	16	49	39	安裝塊 / companion part of assembly		3,25
25 60 051	6	508,94	27	60	50	非正方尺寸 / Not square dimension	0,072	10,49
25 60 101	6	1017,88	54	60	50	非正方尺寸 / Not square dimension	0,072	20,99
25 60 201	6	2035,75	108	60	50	非正方尺寸 / Not square dimension	0,072	41,97
25 62 101	6	1017,88	54	60	60	正方尺寸 / Square dimension	0,072	25,00
25 62 201	6	2035,75	108	60	60	正方尺寸 / Square dimension	0,072	50,00
28 60 999	6	245,04	13	59	49	安裝塊 / companion part of assembly		4,83
25 80 025	8	251,32	10	80	79,5	正方尺寸 / Square dimension	0,075	11,10
25 80 100	8	1005,31	40	80	79,5	正方尺寸 / Square dimension	0,075	44,63
25 80 200	8	2010,62	80	80	79,5	正方尺寸 / Square dimension	0,075	89,26
28 80 999	8	251,32	10	79	79	正方尺寸 / Square dimension		11,08
25 11 100	10	1005,30	32	100	100	正方尺寸 / Square dimension	0,077	70,60
28 10 999	10	219,91	7	79	69	安裝塊 / companion part of assembly		10,67

訂貨號 Order code	L_1	齒數 N° of teeth	h_k	h_o	說明 Remark	GT _f /300 ¹⁾		
25 60 050	6	490,09	26	60	50	舊規格 / not for new design	0,072	10,10
25 60 100	6	999,03	53	60	50	舊規格 / not for new design	0,072	20,60
25 60 200	6	1998,05	106	60	50	舊規格 / not for new design	0,072	41,20

材料C45，材料編號NO.1.0504，特殊處理的光亮鋼，拉伸強度大約650N/mm²。

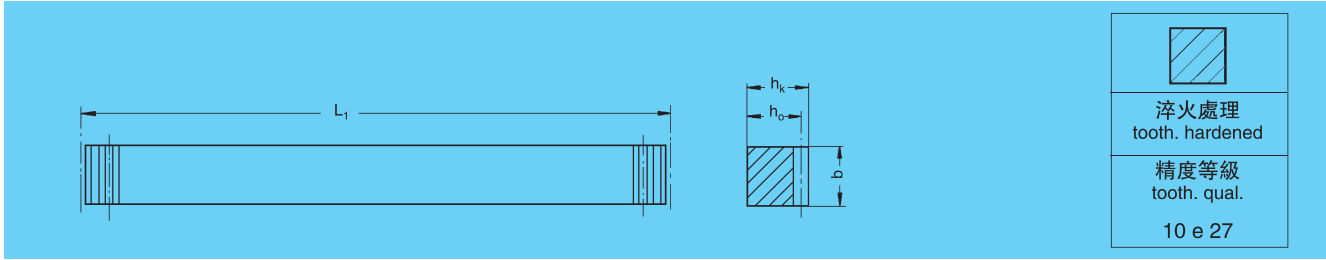
Material C 45, Mat.No. 1.0504, of specially treated bright steel with a tensile strength of approx. 650 N/mm².

1) GT_f / 300 = 整體節距誤差，即齒輪測量長度與理論長度 L₃₀₀ = (m / cos β) · π · Z₃₀₀ 相比的最大容許偏差（每300mm）。為確保齒條和齒輪傳動的連續潤滑，建議選用ZI-2/3頁所介紹的電控潤滑器。

1) GT_f / 300 = total pitch error, i.e. the max. permissible deviation (per 300 mm) of the measured length of the rack compared to the theoretical length L₃₀₀, with L₃₀₀ = (m / cos β) · π · z₃₀₀. To ensure continuous lubrication of rack and pinion drives, we recommend to use electronic lubricators as described on page ZI-2/3!



直齒類，銑削齒，20° 壓力角
straight tooth system, milled teeth, 20° pressure angle



訂貨號 Order code	模數 Module	L_1	齒數 N° of teeth	h_k	h_o	說明 Remark	GT _f /300 ¹⁾	kg	
27 10 025	1	251,33	80	15	15	14	正方形尺寸 / Square dimension	0,078	0,41
27 10 050	1	499,51	159	15	15	14	正方形尺寸 / Square dimension	0,078	0,82
27 10 100	1	999,03	318	15	15	14	正方形尺寸 / Square dimension	0,078	1,64
27 15 025	1,5	249,76	53	17	17	15,5	正方形尺寸 / Square dimension	0,082	0,51
27 15 050	1,5	499,51	106	17	17	15,5	正方形尺寸 / Square dimension	0,082	1,03
27 15 100	1,5	999,03	212	17	17	15,5	正方形尺寸 / Square dimension	0,082	2,06
27 15 200	1,5	1998,05	424	17	17	15,5	正方形尺寸 / Square dimension	0,082	4,11
27 20 025	2	251,33	40	20	20	18	正方形尺寸 / Square dimension	0,086	0,71
27 20 050	2	502,65	80	20	20	18	正方形尺寸 / Square dimension	0,086	1,41
27 20 100	2	999,03	159	20	20	18	正方形尺寸 / Square dimension	0,086	2,81
27 20 150	2	1507,96	240	20	20	18	正方形尺寸 / Square dimension	0,086	4,25
27 20 200	2	1998,05	318	20	20	18	正方形尺寸 / Square dimension	0,086	5,62
27 20 300	2	3015,93	480	20	20	18	正方形尺寸 / Square dimension	0,086	8,49
27 25 025	2,5	251,33	32	25	25	22,5	正方形尺寸 / Square dimension	0,088	1,10
27 25 050	2,5	502,65	64	25	25	22,5	正方形尺寸 / Square dimension	0,088	2,21
27 25 100	2,5	997,46	127	25	25	22,5	正方形尺寸 / Square dimension	0,088	4,38
27 25 200	2,5	2002,77	255	25	25	22,5	正方形尺寸 / Square dimension	0,088	8,80
27 30 025	3	254,47	27	30	30	27	正方形尺寸 / Square dimension	0,091	1,61
27 30 051	3	508,94	54	30	30	27	正方形尺寸 / Square dimension	0,091	3,22
27 30 101	3	1017,88	108	30	30	27	正方形尺寸 / Square dimension	0,091	6,44
27 30 150	3	1526,81	162	30	30	27	正方形尺寸 / Square dimension	0,091	9,66
27 30 201	3	2035,75	216	30	30	27	正方形尺寸 / Square dimension	0,091	12,88
27 30 300	3	3053,63	324	30	30	27	正方形尺寸 / Square dimension	0,091	19,32
27 40 025	4	251,33	20	40	40	36	正方形尺寸 / Square dimension	0,095	2,83
27 40 050	4	502,65	40	40	40	36	正方形尺寸 / Square dimension	0,095	5,65
27 40 100	4	1005,31	80	40	40	36	正方形尺寸 / Square dimension	0,095	11,31
27 40 150	4	1507,96	120	40	40	36	正方形尺寸 / Square dimension	0,095	19,97
27 40 201	4	2010,62	160	40	40	36	正方形尺寸 / Square dimension	0,095	22,61
27 40 300	4	3015,93	240	40	40	36	正方形尺寸 / Square dimension	0,095	33,93



訂貨號 Order code	模數 Module	L_1	齒數 N° of teeth	h_k	h_o	說明 Remark	GT _f /300 ¹⁾	kg	
27 30 050	3	499,51	53	30	30	27	舊規格 / not for new design	0,091	3,16
27 30 100	3	999,03	106	30	30	27	舊規格 / not for new design	0,091	6,32
27 30 200	3	1998,05	212	30	30	27	舊規格 / not for new design	0,091	12,64
27 40 200	4	1998,05	159	40	40	36	舊規格 / not for new design	0,095	22,47

材料C45，材料編號NO.1.0504，特殊處理的光亮鋼，拉伸強度大約650N/mm²，齒面高頻淬火硬度50~55HRC。

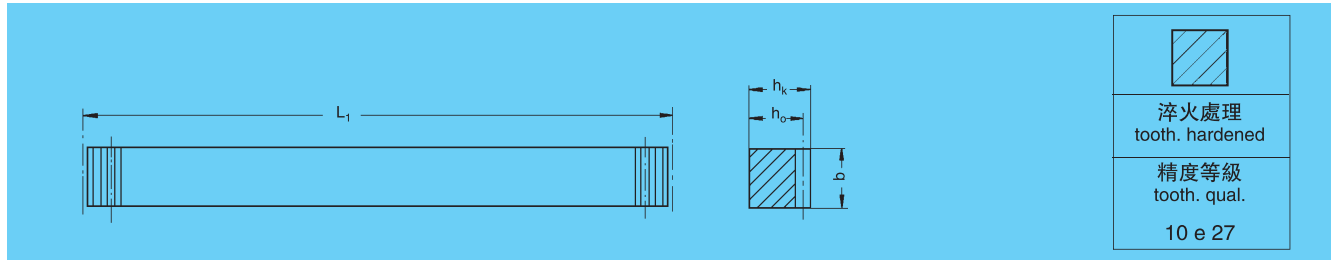
Material C 45, Mat.No. 1.0504, of specially treated bright steel with a tensile strength of approx. 650 N/mm². Teeth are induction hardened to 50 to 55 HRC.

1) GT_f / 300 = 整體節距誤差，即齒輪測量長度與理論長度 L₃₀₀ = (m / cos β) · π · Z₃₀₀ 相比的最大容許偏差（每300mm）。為確保齒條和齒輪傳動的連續潤滑，建議選用Z1-2/3頁所介紹的電控潤滑器。

1) GT_f / 300 = total pitch error, i.e. the max. permissible deviation (per 300 mm) of the measured length of the rack compared to the theoretical length L₃₀₀, with L₃₀₀ = (m / cos β) · π · Z₃₀₀. To ensure continuous lubrication of rack and pinion drives, we recommend to use electronic lubricators as described on page Z1-2/3!



直齒類，銑削齒，20° 壓力角
straight tooth system, milled teeth, 20° pressure angle



訂貨號 Order code	模數 Module	L ₁	齒數 N° of teeth	b	h _k	h _o	說明 Remark	GT _f /300 ¹⁾	
27 50 025	5	251,33	16	50	40	35	非正方尺寸 / Not square dimension	0,098	3,44
27 50 050	5	502,65	32	50	40	35	非正方尺寸 / Not square dimension	0,098	6,87
27 50 100	5	1005,31	64	50	40	35	非正方尺寸 / Not square dimension	0,098	13,74
27 50 150	5	1507,96	96	50	40	35	非正方尺寸 / Not square dimension	0,098	20,40
27 50 200	5	2010,62	128	50	40	35	非正方尺寸 / Not square dimension	0,098	27,48
27 52 100	5	1005,31	64	50	50	45	正方尺寸 / Square dimension	0,098	17,10
27 52 200	5	2010,62	128	50	50	45	正方尺寸 / Square dimension	0,098	34,20
28 50 999	5	251,32	16	49	39	34	安裝塊 / companion part of assembly		3,25
27 60 051	6	508,94	27	60	50	44	非正方尺寸 / Not square dimension	0,100	10,49
27 60 101	6	1017,88	54	60	50	44	非正方尺寸 / Not square dimension	0,100	20,99
27 60 201	6	2035,75	108	60	50	44	非正方尺寸 / Not square dimension	0,100	41,97
27 62 101	6	1017,88	54	60	60	54	正方尺寸 / Square dimension	0,100	25,00
27 62 201	6	2035,75	108	60	60	54	正方尺寸 / Square dimension	0,100	50,00
28 60 999	6	245,04	13	59	49	43	安裝塊 / companion part of assembly		4,83
27 80 100	8	1005,31	40	80	79,5	71,5	正方尺寸 / Square dimension	0,104	44,63
27 80 200	8	2010,62	80	80	79,5	71,5	正方尺寸 / Square dimension	0,104	89,26
28 80 999	8	251,32	10	79	79	71	安裝塊 / companion part of assembly		11,08
27 11 100	10	1005,30	32	100	100	90	正方尺寸 / Square dimension	0,108	70,60
28 10 999	10	219,91	7	79	79	69	安裝塊 / companion part of assembly		10,67

訂貨號 Order code	L ₁	齒數 N° of teeth	b	h _k	h _o	說明 Remark	GT _f /300 ¹⁾		
27 60 050	6	490,09	26	60	50	44	舊規格 / not for new design	0,100	10,10
27 60 100	6	999,03	53	60	50	44	舊規格 / not for new design	0,100	20,60
27 60 200	6	1998,05	106	60	50	44	舊規格 / not for new design	0,100	41,20

材料C45，材料編號NO.1.0504，特殊處理的光亮鋼，拉伸強度大約650N/mm²，齒面高頻淬火硬度50 ~ 55HRC。

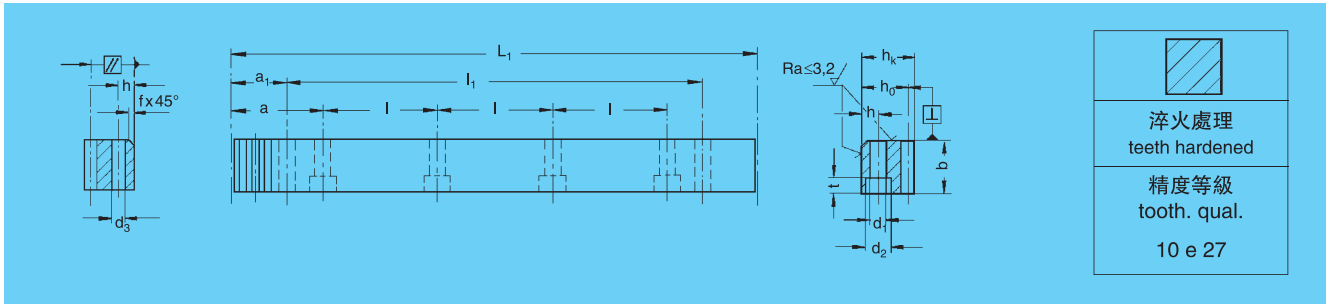
Material C 45, Mat.No. 1.0504, of specially treated bright steel with a tensile strength of approx. 650 N/mm². Teeth are induction hardened to 50 to 55 HRC.

1) GT_f/300 = 整體節距誤差，即齒輪測量長度與理論長度 L₃₀₀ = (m / cos β) · π · Z₃₀₀ 相比的最大容許偏差 (每300mm)。為確保齒條和齒輪傳動的連續潤滑，建議選用ZI-2/3頁所介紹的電控潤滑器。

1) GT_f /300 = total pitch error, i.e. the max. permissible deviation (per 300 mm) of the measured length of the rack compared to the theoretical length L₃₀₀, with L₃₀₀ = (m / cos β) · π · z₃₀₀. To ensure continuous lubrication of rack and pinion drives, we recommend to use electronic lubricators as described on page ZI-2/3!



直齒類，銑削齒，20° 壓力角
straight tooth system, milled teeth, 20° pressure angle



訂貨號 Order code	模數 Module	齒數 L ₁ N° of teeth	b	h _k	h _o	f	a	l	孔數 N° of holes	h	d ₁	d ₂	t	a ₁	l ₁	d ₃	GT _f /300 ¹⁾	kg	
34 20 050	2	502,65	80	24	24	22	2	62,83	125,66	4	8	7	11	7	31,3	440,1	5,7	0,086	2,1
34 21 050	2	502,65	80	24	24	22	2	無裝配孔 / without mounting holes										0,086	2,1
34 20 100	2	1005,31	160	24	24	22	2	62,83	125,66	8	8	7	11	7	31,3	942,7	5,7	0,086	4,2
34 21 100	2	1005,31	160	24	24	22	2	無裝配孔 / without mounting holes										0,086	4,2
34 20 200	2	2010,62	320	24	24	22	2	62,83	125,66	16	8	7	11	7	31,3	1948,0	5,7	0,086	8,4
34 21 200	2	2010,62	320	24	24	22	2	無裝配孔 / without mounting holes										0,086	8,4
34 30 050	3	508,94	54	29	29	26	2	63,62	127,23	4	9	10	15	9	34,4	440,1	7,7	0,091	3,0
34 31 050	3	508,94	54	29	29	26	2	無裝配孔 / without mounting holes										0,091	3,0
34 30 100	3	1017,88	108	29	29	26	2	63,62	127,23	8	9	10	15	9	34,4	949,1	7,7	0,091	6,0
34 31 100	3	1017,88	108	29	29	26	2	無裝配孔 / without mounting holes										0,091	6,0
34 30 200	3	2035,75	216	29	29	26	2	63,62	127,23	16	9	10	15	9	34,4	1967	7,7	0,091	12,0
34 31 200	3	2035,75	216	29	29	26	2	無裝配孔 / without mounting holes										0,091	12,0
34 40 050	4	502,65	40	39	39	35	3	62,83	125,66	4	12	10	15	9	37,5	427,7	7,7	0,095	5,3
34 41 050	4	502,65	40	39	39	35	3	無裝配孔 / without mounting holes										0,095	5,3
34 40 100	4	1005,31	80	39	39	35	3	62,83	125,66	8	12	10	15	9	37,5	930,3	7,7	0,095	10,2
34 41 100	4	1005,31	80	39	39	35	3	無裝配孔 / without mounting holes										0,095	10,2
34 40 200	4	2010,62	160	39	39	35	3	62,83	125,66	16	12	10	15	9	37,5	1935,6	7,7	0,095	20,5
34 41 200	4	2010,62	160	39	39	35	3	無裝配孔 / without mounting holes										0,095	20,5
34 50 050	5	502,65	32	49	39	34	3	62,83	125,66	4	12	14	20	13	30,2	442,3	11,7	0,098	6,9
34 51 050	5	502,65	32	49	39	34	3	無裝配孔 / without mounting holes										0,098	6,9
34 50 100	5	1005,31	64	49	39	34	3	62,83	125,66	8	12	14	20	13	30,2	945,0	11,7	0,098	13,8
34 51 100	5	1005,31	64	49	39	34	3	無裝配孔 / without mounting holes										0,098	13,8
34 50 200	5	2010,62	128	49	39	34	3	62,83	125,66	16	12	14	20	13	30,2	1950,3	11,7	0,098	27,5
34 51 200	5	2010,62	128	49	39	34	3	無裝配孔 / without mounting holes										0,098	27,5
28 50 999	5	251,32	16	49	39	34		安裝塊 / companion part of assembly											3,25
34 60 050	6	508,94	27	59	49	43	3	63,62	127,23	4	16	18	26	17	31,4	446,1	15,7	0,100	10,5
34 61 050	6	508,94	27	59	49	43	3	無裝配孔 / without mounting holes										0,100	10,5
34 60 100	6	1017,88	54	59	49	43	3	63,62	127,23	8	16	18	26	17	31,4	955,0	15,7	0,100	21,0
34 61 100	6	1017,88	54	59	49	43	3	無裝配孔 / without mounting holes										0,100	21,0
34 60 200	6	2035,75	108	59	49	43	3	63,62	127,23	16	16	18	26	17	31,4	1972,9	15,7	0,100	42,0
34 61 200	6	2035,75	108	59	49	43	3	無裝配孔 / without mounting holes										0,100	42,0
28 60 999	6	245,04	13	59	49	43		安裝塊 / companion part of assembly											4,83



材料C45，材料編號NO.1.0504，特殊處理的光亮鋼，拉伸強度大約650N/mm²，齒面高頻淬火硬度50 ~ 55HRC；齒條基準面和安裝面銑削加工。

Material C 45, Mat.No. 1.0504, of specially treated bright steel with a tensile strength of approx. 650 N/mm². Teeth induction-hardened to 50 to 55 HRC. Backs and contact faces of racks machined. Since only the teeth are induction hardened, subsequent drilling and pinning is possible.

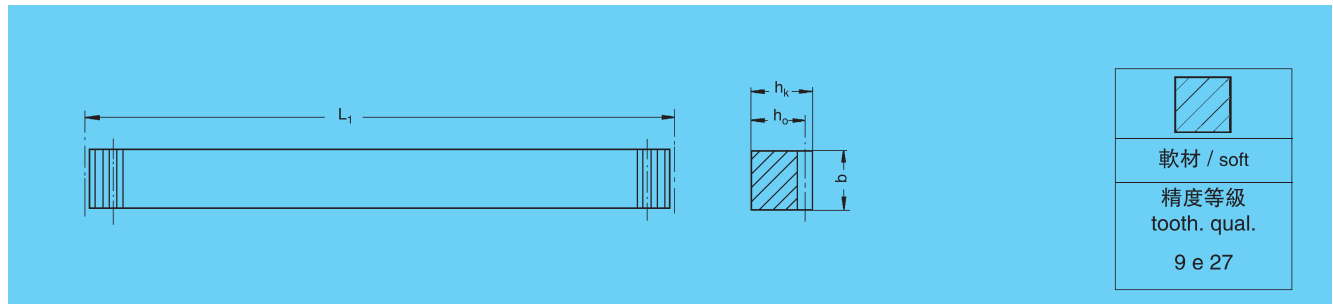
1) GTf /300 = 整體節距誤差，即齒輪測量長度與理論長度 L₃₀₀ = (m / cos β) · π · Z₃₀₀ 相比的最大容許偏差（每300mm）。為確保齒條和齒輪傳動的連續潤滑，建議選用ZI-2/3頁所介紹的電控潤滑器。

1) GT_f /300 = total pitch error, i.e. the max. permissible deviation (per 300 mm) of the measured length of the rack compared to the theoretical length L₃₀₀, with L₃₀₀ = (m / cos β) · π · Z₃₀₀. To ensure continuous lubrication of rack and pinion drives, we recommend to use electronic lubricators as described on page ZI-2/3!



直齒類，銑削齒，20° 壓力角
straight tooth system, milled teeth, 20° pressure angle

mm – 節距
mm pitch



訂貨號 Order code	模數 module m	L ₁	齒數 no. of teeth z	b	h _k	h _o	a	l	h	d ₁	d ₂	GT _f /300 ¹⁾	
/ Pitch 5 mm													
37 06 025	1,591	250	50	15	14,8	13,2	-	-	-	-	-	0,059	0,39
37 06 050	1,591	500	100	15	14,8	13,2	-	-	-	-	-	0,059	0,78
37 06 100	1,591	1000	200	15	14,8	13,2	-	-	-	-	-	0,059	1,55
節距 / Pitch 10 mm													
37 08 025	3,183	250	25	30	29,7	26,5	-	-	-	-	-	0,065	1,55
37 08 050	3,183	500	50	30	29,7	26,5	-	-	-	-	-	0,065	3,10
37 08 100	3,183	1000	100	30	29,7	26,5	-	-	-	-	-	0,065	6,20
37 08 200	3,183	2000	200	30	29,7	26,5	-	-	-	-	-	0,065	12,40

材料C45，材料編號NO.1.0504，特殊處理的光亮鋼，拉伸強度大約650N/mm²。

Material C 45, Mat.No. 1.0504, specially treated bright steel with a tensile strength of approx. 650 N/mm².

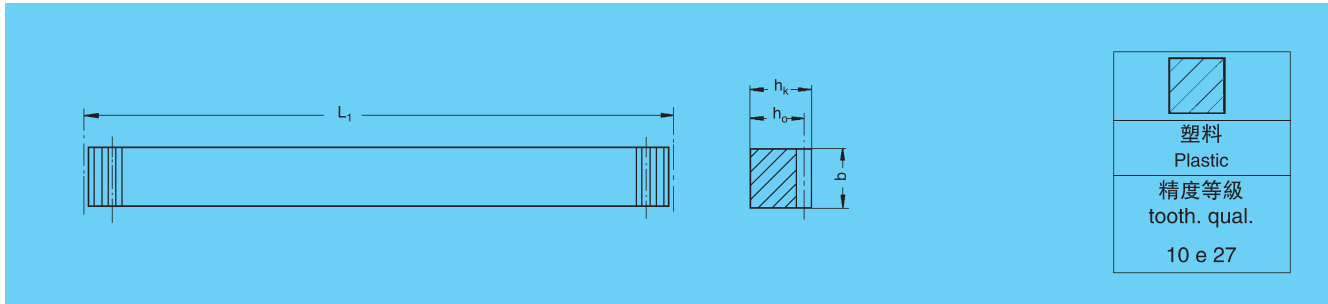
1) GT_f/300 = 整體節距誤差，即齒輪測量長度與理論長度 L₃₀₀ = (m / cos β) · π · Z₃₀₀ 相比的最大容許偏差（每300mm）。為確保齒條和齒輪傳動的連續潤滑，建議選用ZI-2/3頁所介紹的電控潤滑器。

1) GT_f /300 = total pitch error, i.e. the max. permissible deviation (per 300 mm) of the measured length of the rack compared to the theoretical length L₃₀₀, with L₃₀₀ = (m / cos β) · π · Z₃₀₀. To ensure continuous lubrication of rack and pinion drives, we recommend to use electronic lubricators as described on page ZI-2/3!



直齒類，銑削齒，20° 壓力角
straight tooth system, milled teeth, 20° pressure angle

塑料
Plastic



訂貨號 Order code	L ₁	齒數 no. of teeth z	b	h _k	h _o	a	l	h	d ₁	d ₂	GT _f /300 ¹⁾	kg
模數 / Module 1												
26 10 025	251,3	80	15	15	14,0	-	-	-	-	-	0,078	0,08
26 10 050	499,5	159	15	15	14,0	-	-	-	-	-	0,078	0,15
26 10 100	999,0	318	15	15	14,0	-	-	-	-	-	0,078	0,30
模數 / Module 1,5												
26 15 025	249,8	53	17	17	15,5	-	-	-	-	-	0,082	0,09
26 15 050	499,5	106	17	17	15,5	-	-	-	-	-	0,082	0,18
26 15 100	999,0	212	17	17	15,5	-	-	-	-	-	0,082	0,36
模數 / Module 2												
26 20 025	251,3	40	20	20	18,0	-	-	-	-	-	0,086	0,13
26 20 050	502,7	80	20	20	18,0	-	-	-	-	-	0,086	0,25
26 20 100	999,0	159	20	20	18,0	-	-	-	-	-	0,086	0,50
模數 / Module 2,5												
26 25 025	251,3	32	25	25	22,5	-	-	-	-	-	0,088	0,15
26 25 050	502,7	64	25	25	22,5	-	-	-	-	-	0,088	0,30
26 25 100	997,5	127	25	25	22,5	-	-	-	-	-	0,088	0,60
模數 / Module 3												
26 30 025	254,5	27	30	30	27,0	-	-	-	-	-	0,091	0,20
26 30 050	499,5	53	30	30	27,0	-	-	-	-	-	0,091	0,40
26 30 100	999,0	106	30	30	27,0	-	-	-	-	-	0,091	0,80



POM塑料，由于這種材料隨濕度和溫度變化很小，所以特別適用于制作齒條，其表面硬度和拉伸強度非常高，抗腐蝕的相關數據見我們的產品型錄。

Of plastic POM. This material is particularly suitable for racks because deformations due to temperature fluctuations and/or moisture absorption are minimal and its surface hardness and tensile strength are very high. Chemical resistance data are contained in our main catalogue.

1) GT_f/300 = 整體節距誤差，即齒輪測量長度與理論長度 L₃₀₀ = (m / cos β) · π · Z₃₀₀ 相比的最大容許偏差 (每300mm)。為確保齒條和齒輪傳動的連續潤滑，建議選用Z1-2/3頁所介紹的電控潤滑器。

1) GT_f/300 = total pitch error, i.e. the max. permissible deviation (per 300 mm) of the measured length of the rack compared to the theoretical length L₃₀₀, with L₃₀₀ = (m / cos β) · π · Z₃₀₀. To ensure continuous lubrication of rack and pinion drives, we recommend to use electronic lubricators as described on page Z1-2/3!