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Fenghua Transmission Technology (Jiangsu) Co.,Ltd.

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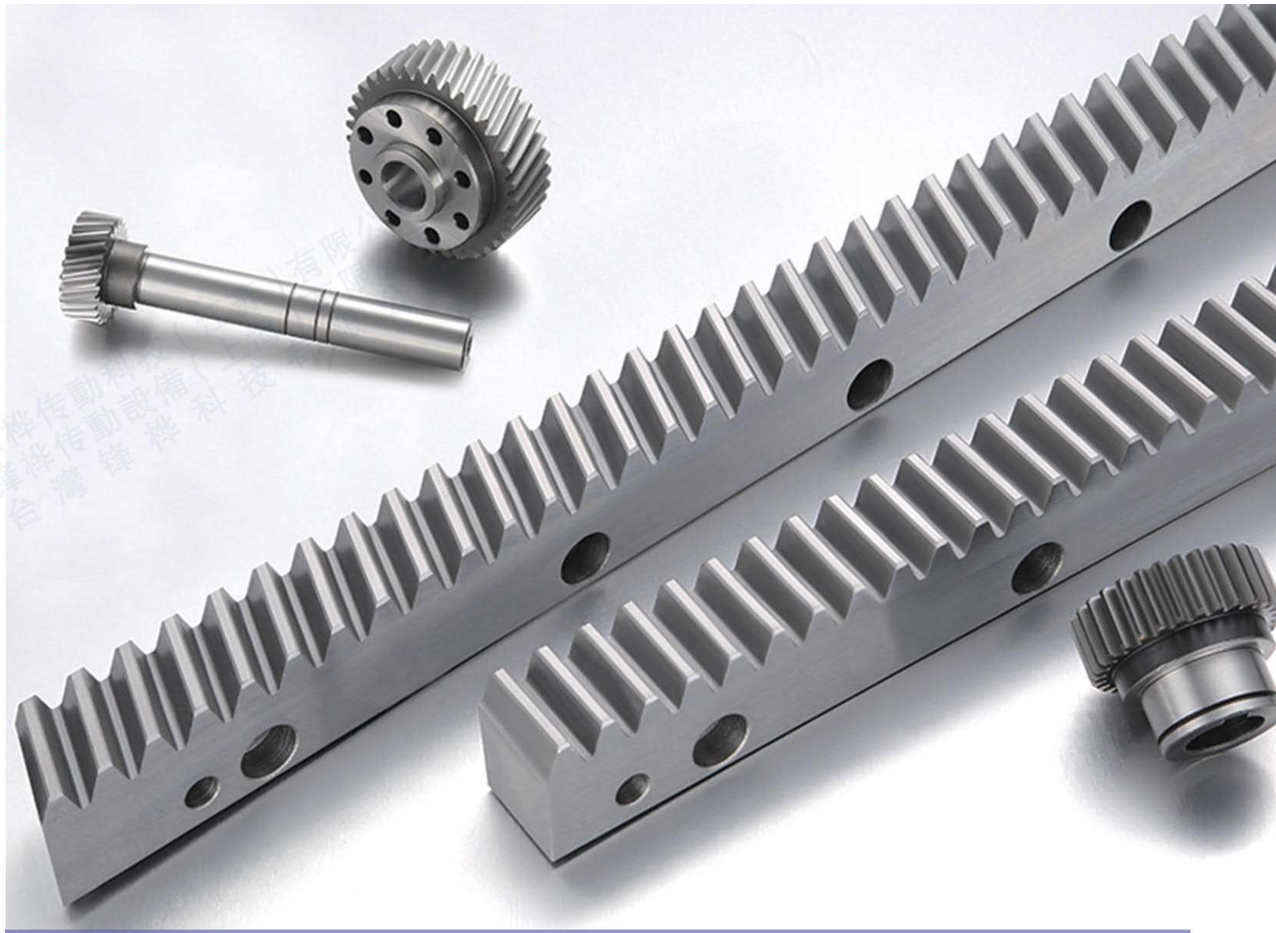

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Grinding Rack.Gear

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3F FAMED 锋桦®

锋桦传動科技（江苏）有限公司
锋桦传動設備（上海）有限公司
台灣锋桦科技有限公司

Fenghua Transmission Technology (Jiangsu) Co.,Ltd.

3F FAMED 锋桦® 公司簡介 Company Introduction

锋樺傳動科技(江蘇)有限公司，由專業制造齒輪工廠開始發展，工廠同仁及研發團隊具有二十幾年齒輪制造研發及設計經驗，工廠早期和臺灣行星減速器技術團隊合作，成立行星減速器事業部，合作研發行星齒輪減速機系列產品綫設計及制造工藝，所生產的系列伺服專用精密減速器具低背隙(5–8arcmin)、低噪音(60dAB)、高效率(≧95%)之三大特性。產品可以搭配任意伺服工廠所生產伺服馬達、步進馬達，高精密行星減速器具有降低轉速、高轉矩化、增加馬達轉子慣性，提高剛性、縮短啓動與停止定位時間，馬達功率小型化，同時提高慣性負載的安定性與降低振動的功能。

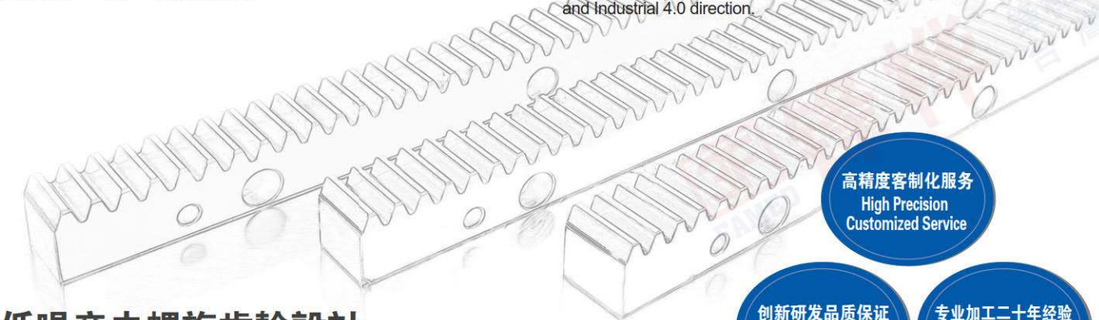
爲提升產品升級、適應高精度等級產品適用範疇，工廠後期產品優化升級，全系列上綫–高精度斜齒行星減速器，具有超低背隙(1~3arcmin)精度等級，新開發產品可直接替換德國和日本品牌，產品系列全部齊全,尺寸和精度和日系德系減速器完全匹配,在升級行星減速器產品同時，工廠堅持以研發創新爲企業發展方向，陸續研發推出適用于自動化不同安裝和輸出需求的（90度精密直角減速器），多關節機器人行業減速器（RV高精密擺纜針輪減速器）和美國天才發明家C.W.Musser創造發明的波動齒輪裝置原理發明（諧波減速器），及（精密齒輪齒條）產品，也可以非標定制減速器，產品廣泛運用工具機(龍門機床)，激光切割機,木工雕刻機，3C自動化，光伏設備，鋰電池等新能源設備領域，全伺服紙巾機械，精度凹凸版印刷機，精密塗布機，伺服彎管機，數控彈簧機等自動化程度較高設備等都有鋒樺減速器的使用。

工廠產品有匹配大量產品庫存，希望協同伺服電機廠家及系統集成商，扎根全球市場，立志通過優良的產品，服務于全球自動化行業和機器人領域，爲全球機器人事業和工業4.0方向服務。

Fenghua Transmission Technology (Jiangsu) Co.,Ltd. is developed from a factory which professionally manufactures the gears. All staffs of factory and R & D team have more than 20 years' gear manufacturing and designing experience. The factory cooperated with Taiwan planetary gearbox technology team in the early period, and then established business department of the planetary gearbox , and developed the design and manufacturing process of product line of planetary gearbox series. The servo exclusive-used precision gearbox series the company produced are with three features of low backlash (5~8 arcmin), low noise (60dAB) and high efficiency (≧95%). Products can be compatible with servo motors and stepper motors produced by any servo factory. High precision planetary reducers features of reducing rotating speed, increasing torque greatly, increasing inertia of the motor rotor, improving rigidity, shortening the locating time of start and stop, miniaturizing the motor power and improving the stability of the inertia load and reducing the vibration at the same time.

In order to upgrade products, and adapt to the applicable range of high precision grade products, the factory launched the whole series of high precision helical planetary gearbox in late stage. With ultra-low backlash (1-3 arcmin) precision grade, the newly developed products can directly replace the sizes of the products produced by Germany and Japan. All product series are completed, and sizes and precision can perfectly match with that of Japanese and Germany. While upgrading planetary reducer products, the factory insists on the concept of R&D as the development direction of the company. Then the factory successively developed and launched 90 degree precision right angle gearboxes which are suitable for automation with different installation and output requirements , multi-joint robot industry reducers (RV high precision pin-wheel reducers), and harmonic reducers making use of the principle of the wave gear device invented by American genius inventor C. W. Musser, and precision gear & rack products. The factory can also customize the reducer. The products are widely used in tool machines (Planning Machine Tools), laser cutting machines, woodworking engraving machines, 3C automation, photovoltaic equipment, lithium battery and other fields of new energy equipment. And Fenghua gearboxes can also be found in fully servo paper towel machines, precision concave-convex printing machines, precision coating machines, servo pipe benders, CNC spring machines and other highly automated equipment.

The company matches a large stocks of products to coordinate with servo motor manufacturers and system integration traders, rooting in the domestic market, and determined to serve the domestic automatic industry and robotic field by excellent products and serve for the Chinese robot cause and Industrial 4.0 direction.



高精度客制化服务 High Precision Customized Service

创新研发品质保证 Innovative R & D Quality Assurance

专业加工二十年经验 Professional Processing 20 Years of Experience

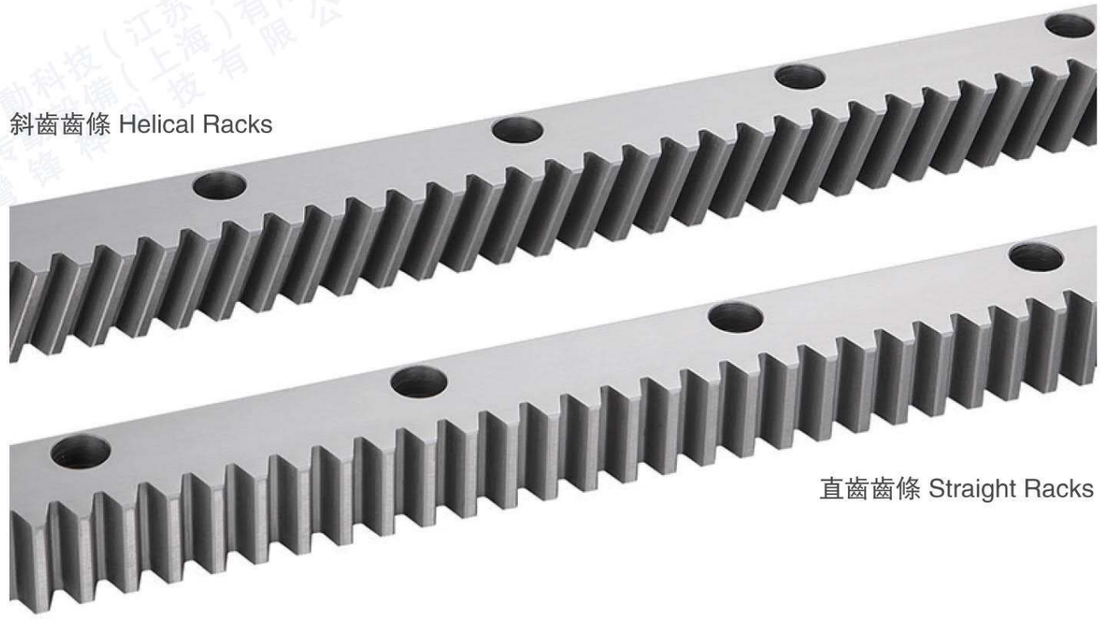
低噪音内螺旋齒輪設計
Low noise internal helical gear design

目 録 CONTENTS

齒條目錄
Content of Racks

型號 Code	材料 Material	齒條類型 Type	棒型 Shape	齒面處理 Teeth Treatment	硬度處理 Hardness	模數 Module	精度等級 Grade DIN	頁碼 Page
CHTGH-Q5	S45C	斜齒齒條 Helical	四角棒 Tetragon	齒研 Teeth Ground	熱處理 Hardened HRC 50°-55°	2, 3, 4, 5	DIN 5	03
CHTGH-Q6	S45C	斜齒齒條 Helical	四角棒 Tetragon	齒研 Teeth Ground	熱處理 Hardened HRC 50°-55°	1.5, 2, 3, 4, 5, 6,8, 10, 12	DIN 6	04
CHTGH-Q7	S45C	斜齒齒條 Helical	四角棒 Tetragon	齒研 Teeth Ground	熱處理 Hardened HRC 50°-55°	1.5, 2, 3, 4, 5, 6,8, 10, 12	DIN 7	05
CHTM-Q8	S45C	斜齒齒條 Helical	四角棒 Tetragon	精銑 Milled	無 Soft HRC 10°-12°	1.5, 2, 3, 4, 5, 6,8, 10, 12	DIN 8	06
CHTMQ-Q8	S45C	斜齒齒條 Helical	四角棒 Tetragon	精銑 Milled	調質 Quenched HRC 18°-20°	1.5, 2, 3, 4, 5, 6,8, 10, 12	DIN 8	07
CHTMH-Q10	S45C	斜齒齒條 Helical	四角棒 Tetragon	精銑 Milled	熱處理 Hardened HRC 50°-55°	1.5, 2, 3, 4, 5, 6,8, 10, 12	DIN 10	08
CSTGH-Q5	S45C	直齒齒條 Straight	四角棒 Tetragon	齒研 Teeth Ground	熱處理 Hardened HRC 50°-55°	2, 3, 4, 5	DIN 5	09
CSTGH-Q6	S45C	直齒齒條 Straight	四角棒 Tetragon	齒研 Teeth Ground	熱處理 Hardened HRC 50°-55°	1.5, 2, 3, 4, 5, 6,8, 10, 12	DIN 6	10
CSTGH-Q7	S45C	直齒齒條 Straight	四角棒 Tetragon	齒研 Teeth Ground	熱處理 Hardened HRC 50°-55°	1.5, 2, 3, 4, 5, 6,8, 10, 12	DIN 7	11
CSTM-Q8	S45C	直齒齒條 Straight	四角棒 Tetragon	精銑 Milled	無 Soft HRC 10°-12°	1.5, 2, 3, 4, 5, 6,8, 10, 12	DIN 8	12
CSTMQ-Q8	S45C	直齒齒條 Straight	四角棒 Tetragon	精銑 Milled	調質 Quenched HRC 18°-20°	1.5, 2, 3, 4, 5, 6,8, 10, 12	DIN 8	13
CSTMH-Q10	S45C	直齒齒條 Straight	四角棒 Tetragon	精銑 Milled	熱處理 Hardened HRC 50°-55°	1.5, 2, 3, 4, 5, 6,8, 10, 12	DIN 10	14

齒條型號說明
Rack Code Instruction

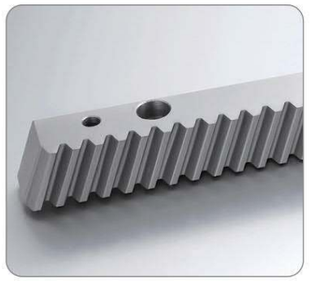


1st	2nd	3rd	4th	5th	6th	7th	8th
材料 Material	齒型 Type	棒型 Shape	齒面處理 Teeth Treatment	硬度處理 Hardness	模數 Module	長度 Length	等級 Grade
C	S	T	G	H	020	10	Q5
C= 中碳鋼	S=直齒 H=斜齒	T=四角棒	M=精銑 G=齒研	Q=調質 H=硬化處理	M1.5~M10	05=500mm 10=1000mm 15=1500mm 20=2000mm	Q=DIN Q5~Q10
C= S45C	S=Straight H=Helical	T=Tetragon	M=Milled G=Ground	H=Hardened Q=Quenched			

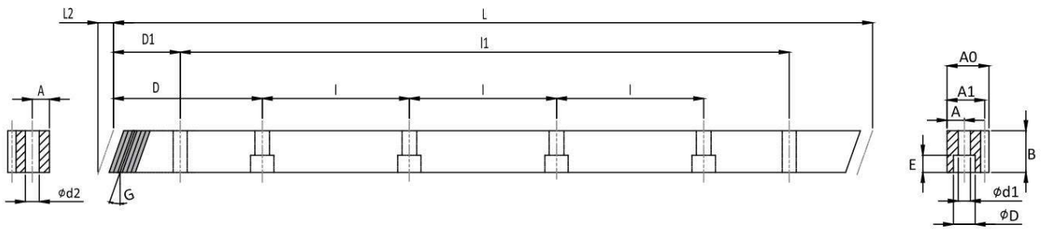
備註：長度、鑽孔、材質、表面處理等特殊要求，皆可客製。

Remarks : Lengths, holes, materials, surface treatments and other special requirements all could be customized.

CHTGH-Q5 系列 斜齒齒研齒條
CHTGH-Q5 Series Helical Teeth Ground Racks



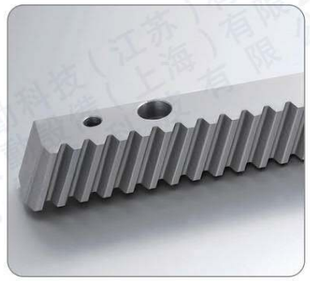
齒面精度等級 DIN 5 Tooth Surface Accuracy Grade DIN 5	
總齒距誤差 / Total Pitch Error: GTf /1000 ≦0.026 mm	
系列 CHTGH-Q5 斜齒齒研齒條	Series CHTGH-Q5 Helical Teeth Ground Racks
材料 45C (中碳鋼)	Material 45C (Medium Carbon Steel)
右旋角 19°31'42"	Right Hand Angle 19°31'42"
硬度 HRC 50~55°	Hardness HRC 50~55°
硬化處理后四面研磨與齒研	Ground on all sides after hardening.
室溫在攝氏25°為準	Room Temperature is 25°C



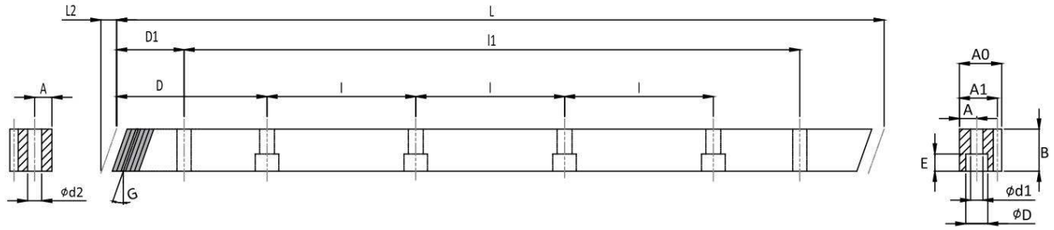
單位 / Dimension : mm

型號 Code	Q	模數 Module	L	L2	齒數 No. of Teeth	B	A0	A1	D	l	孔數 No. of Holes	A	ød1	øD	E	D1	l1	ød2	KG
CHTGH02010	-Q5	2	1000.00	8.50	150	24	24	22	62.5	125	8	8	7	11	7	31.7	936.60	5.7	3.9
CHTGH03010	-Q5	3	1000.00	10.30	100	29	29	26	62.5	125	8	9	10	15	9	35.0	930.00	7.7	5.7
CHTGH04010	-Q5	4	1000.00	13.80	75	39	39	35	62.5	125	8	12	10	15	9	33.3	933.40	7.7	10.2
CHTGH05010	-Q5	5	1000.00	17.40	60	49	39	34	62.5	125	8	12	14	20	13	37.5	925.00	11.7	12.8

CHTGH-Q6 系列 斜齒齒研齒條
CHTGH-Q6 Series Helical Teeth Ground Racks



齒面精度等級 DIN 6 Tooth Surface Accuracy Grade DIN 6	
總齒距誤差 / Total Pitch Error: GTf /1000 ≦0.036 mm、GTf /2000 ≦0.047 mm (≦0.024/1000 mm)	
系列 CHTGH-Q6 斜齒齒研齒條	Series CHTGH-Q6 Helical Teeth Ground Racks
材料 45C (中碳鋼)	Material 45C (Medium Carbon Steel)
右旋角 19°31'42"	Right Hand Angle 19°31'42"
硬度 HRC 50~55°	Hardness HRC 50~55°
硬化處理后四面研磨與齒研	Ground on all sides after hardening.

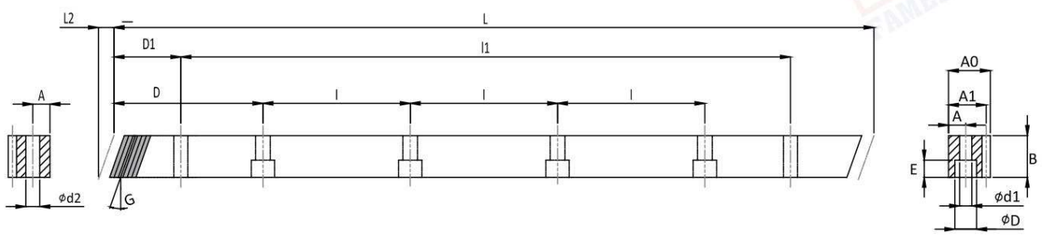


單位 / Dimension : mm

型號 Code	Q	模數 Module	L	L2	齒數 No. of Teeth	B	A0	A1	D	l	孔數 No. of Holes	A	ød1	øD	E	D1	l1	ød2	KG
CHTGH01510	-Q6	1.5	1000.00	6.00	200	17	17	15.5	62.5	125	8	7	6	9.5	7	31.7	936.60	5.7	1.9
CHTGH02010	-Q6	2	1000.00	8.50	150	24	24	22	62.5	125	8	8	7	11	7	31.7	936.60	5.7	3.9
CHTGH02020	-Q6	2	2000.00	8.50	300	24	24	22	62.5	125	16	8	7	11	7	31.7	1936.60	5.7	7.7
CHTGH03010	-Q6	3	1000.00	10.30	100	29	29	26	62.5	125	8	9	10	15	9	35.0	930.00	7.7	5.7
CHTGH03020	-Q6	3	2000.00	10.30	200	29	29	26	62.5	125	16	9	10	15	9	35.0	1930.00	7.7	11.3
CHTGH04010	-Q6	4	1000.00	13.80	75	39	39	35	62.5	125	8	12	10	15	9	33.3	933.40	7.7	10.2
CHTGH04020	-Q6	4	2000.00	13.80	150	39	39	35	62.5	125	16	12	10	15	9	33.3	1933.40	7.7	20.4
CHTGH05010	-Q6	5	1000.00	17.40	60	49	39	34	62.5	125	8	12	14	20	13	37.5	925.00	11.7	12.8
CHTGH05020	-Q6	5	2000.00	17.40	120	49	39	34	62.5	125	16	12	14	20	13	37.5	1925.00	11.7	25.6
CHTGH06010	-Q6	6	1000.00	20.90	50	59	49	43	62.5	125	8	16	18	26	17	37.5	925.00	15.7	19.4
CHTGH06020	-Q6	6	2000.00	20.90	100	59	49	43	62.5	125	16	16	18	26	17	37.5	1925.00	15.7	38.8
CHTGH08010	-Q6	8	960.00	28.00	36	79	79	71	60.0	120	8	25	22	33	21	120	720.00	19.7	40.2
CHTGH08020	-Q6	8	1920.00	28.00	72	79	79	71	60.0	120	16	25	22	33	21	120	1680.00	19.7	80.4
CHTGH10010	-Q6	10	1000.00	35.11	30	99	99	89	62.5	125	8	32	33	48	32	125	750.00	19.7	65.7
CHTGH12010	-Q6	12	1000.00	42.56	25	120	120	108	40.0	125	8	40	39	58	38	125	750.00	19.7	96.6

CHTGH-Q7 系列 斜齒齒研齒條
CHTGH-Q7 Series Helical Teeth Ground Racks

齒面精度等級 DIN 7 Tooth Surface Accuracy Grade DIN 7	
總齒距誤差 / Total Pitch Error: GTf /1000 ≦0.048 mm、GTf /2000 ≦0.062 mm (≦0.034/1000 mm)	
系列 CHTGH-Q7 斜齒齒研齒條	Series CHTGH-Q7 Helical Teeth Ground Racks
材料 45C (中碳鋼)	Material 45C (Medium Carbon Steel)
右旋角 19°31'42"	Right Hand Angle 19°31'42"
硬度 HRC 50~55°	Hardness HRC 50~55°
硬化處理后四面研磨與齒研	Ground on all sides after hardening.

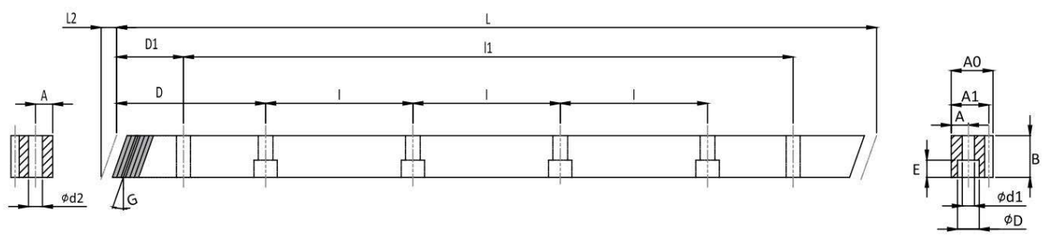


單位 / Dimension : mm

型號 Code	Q	模數 Module	L	L2	齒數 No. of Teeth	B	A0	A1	D	l	孔數 No. of Holes	A	ød1	øD	E	D1	l1	ød2	KG
CHTGH01510	-Q7	1.5	1000.00	6.00	200	17	17	15.50	62.5	125	8	7	6	9.5	7	31.7	936.60	5.7	1.9
CHTGH02010	-Q7	2	1000.00	8.50	150	24	24	22	62.5	125	8	8	7	11	7	31.7	936.60	5.7	3.9
CHTGH02020	-Q7	2	2000.00	8.50	300	24	24	22	62.5	125	16	8	7	11	7	31.7	1936.60	5.7	7.7
CHTGH03010	-Q7	3	1000.00	10.30	100	29	29	26	62.5	125	8	9	10	15	9	35.0	930.00	7.7	5.7
CHTGH03020	-Q7	3	2000.00	10.30	200	29	29	26	62.5	125	16	9	10	15	9	35.0	1930.00	7.7	11.3
CHTGH04010	-Q7	4	1000.00	13.80	75	39	39	35	62.5	125	8	12	10	15	9	33.3	933.40	7.7	10.2
CHTGH04020	-Q7	4	2000.00	13.80	150	39	39	35	62.5	125	16	12	10	15	9	33.3	1933.40	7.7	20.4
CHTGH05010	-Q7	5	1000.00	17.40	60	49	39	34	62.5	125	8	12	14	20	13	37.5	925.00	11.7	12.8
CHTGH05020	-Q7	5	2000.00	17.40	120	49	39	34	62.5	125	16	12	14	20	13	37.5	1925.00	11.7	25.6
CHTGH06010	-Q7	6	1000.00	20.90	50	59	49	43	62.5	125	8	16	18	26	17	37.5	925.00	15.7	19.4
CHTGH06020	-Q7	6	2000.00	20.90	100	59	49	43	62.5	125	16	16	18	26	17	37.5	1925.00	15.7	38.8
CHTGH08010	-Q7	8	960.00	28.00	36	79	79	71	60.0	120	8	25	22	33	21	120	720.00	19.7	40.2
CHTGH08020	-Q7	8	1920.00	28.00	72	79	79	71	60.0	120	16	25	22	33	21	120	1680.00	19.7	80.4
CHTGH10010	-Q7	10	1000.00	35.11	30	99	99	89	62.5	125	8	32	33	48	32	125	750.00	19.7	65.7
CHTGH12010	-Q7	12	1000.00	42.56	25	120	120	108	40.0	125	8	40	39	58	38	125	750.00	19.7	96.6

CHTM-Q8 系列 斜齒精銑齒條
CHTM-Q8 Series Helical Milled Racks

齒面精度等級 DIN 8 Tooth Surface Accuracy Grade DIN 8	
總齒距誤差 / Total Pitch Error: GTf /1000 ≦0.06 mm、GTf /2000 ≦0.08 mm	
系列 CHTM-Q8 斜齒精銑齒條	Series CHTM-Q8 Helical Milled Racks
材料 45C (中碳鋼)	Material 45C (Medium Carbon Steel)
右旋角 19°31'42"	Right Hand Angle 19°31'42"
硬度 HRC 10~12°	Hardness HRC 10~12°

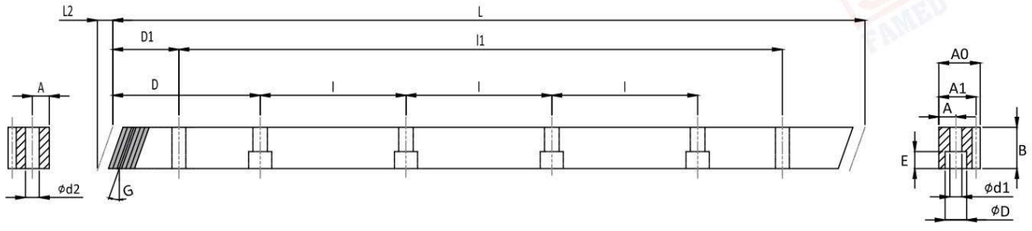


單位 / Dimension : mm

型號 Code	Q	模數 Module	L	L2	齒數 No. of Teeth	B	A0	A1	D	l	孔數 No. of Holes	A	ød1	øD	E	D1	l1	ød2	KG
CHTM01510	-Q8	1.5	1000	6.00	200	17	17	15.5	62.5	125	8	7	6	9.5	7	31.7	936.6	5.70	1.9
CHTM02010	-Q8	2	1000	8.90	150	25	24	22	62.5	125	8	8	7	11	7	31.7	936.6	5.70	4.0
CHTM02020	-Q8	2	2000	8.90	300	25	24	22	62.5	125	16	8	7	11	7	31.7	1936.6	5.70	8.1
CHTM03010	-Q8	3	1000	10.60	100	30	29	26	62.5	125	8	9	10	15	9	35.0	930.0	7.70	5.8
CHTM03020	-Q8	3	2000	10.60	200	30	29	26	62.5	125	16	9	10	15	9	35.0	1930.0	7.70	11.7
CHTM04010	-Q8	4	1000	14.20	75	40	39	35	62.5	125	8	12	10	15	9	33.3	933.4	7.70	10.5
CHTM04020	-Q8	4	2000	14.20	150	40	39	35	62.5	125	16	12	10	15	9	33.3	1933.4	7.70	20.9
CHTM05010	-Q8	5	1000	17.40	60	49	39	34	62.5	125	8	12	14	20	13	37.5	925.0	11.70	12.8
CHTM05020	-Q8	5	2000	17.40	120	49	39	34	62.5	125	16	12	14	20	13	37.5	1925.0	11.70	25.6
CHTM06010	-Q8	6	1000	20.90	50	59	49	43	62.5	125	8	16	18	26	17	37.5	925.0	15.70	19.4
CHTM06020	-Q8	6	2000	20.90	100	59	49	43	62.5	125	16	16	18	26	17	37.5	1925.0	15.70	38.8
CHTM08010	-Q8	8	960	28.00	36	79	79	71	60.0	120	8	25	22	33	21	120.0	720.0	19.70	40.2
CHTM08020	-Q8	8	1920	28.00	72	79	79	71	60.0	120	16	25	22	33	21	120.0	1680.0	19.70	80.4
CHTM10010	-Q8	10	1000	35.11	30	99	99	89	62.5	125	8	32	33	48	32	125.0	750.0	19.70	65.7

CHTMQ-Q8 系列 斜齒調質齒條
CHTMQ-Q8 Series Helical Quenched Racks

齒面精度等級 DIN 8 Tooth Surface Accuracy Grade DIN 8	
總齒距誤差 / Total Pitch Error：GTf /1000 ≦0.06 mm、GTf /2000 ≦0.08 mm	
系列 CHTMQ-Q8 斜齒調質齒條	Series CHTGH-Q7 Helical Quenched Racks
材料 45C (中碳鋼)	Material 45C (Medium Carbon Steel)
右旋角 19°31'42"	Right Hand Angle 19°31'42"
硬度 HRC 18~20°	Hardness: Soft HRC 18~20°

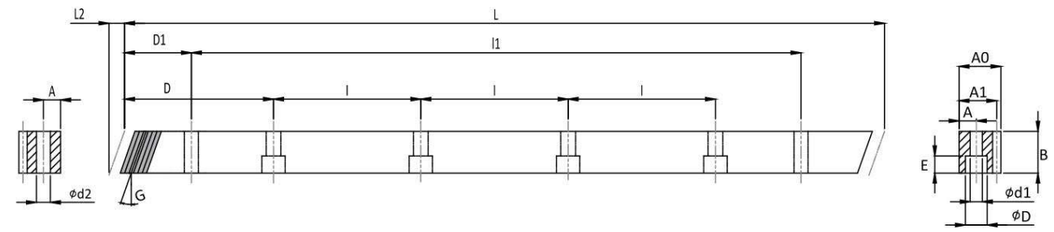


單位 / Dimension : mm

型號 Code	Q	模數 Module	L	L2	齒數 No. of Teeth	B	A0	A1	D	l	孔數 No. of Holes	A	ød1	øD	E	D1	l1	ød2	KG
CHTMQ01510	-Q8	1.5	1000	6.00	200	17	17	15.5	62.5	125	8	7	6	9.5	7	31.7	936.6	5.7	1.9
CHTMQ02010	-Q8	2	1000	8.90	150	25	24	22	62.5	125	8	8	7	11	7	31.7	936.6	5.7	4.0
CHTMQ02020	-Q8	2	2000	8.90	300	25	24	22	62.5	125	16	8	7	11	7	31.7	1936.6	5.7	8.1
CHTMQ03010	-Q8	3	1000	10.60	100	30	29	26	62.5	125	8	9	10	15	9	35.0	930.0	7.7	5.8
CHTMQ03020	-Q8	3	2000	10.60	200	30	29	26	62.5	125	16	9	10	15	9	35.0	1930.0	7.7	11.7
CHTMQ04010	-Q8	4	1000	14.20	75	40	39	35	62.5	125	8	12	10	15	9	33.3	933.4	7.7	10.5
CHTMQ04020	-Q8	4	2000	14.20	150	40	39	35	62.5	125	16	12	10	15	9	33.3	1933.4	7.7	20.9
CHTMQ05010	-Q8	5	1000	17.40	60	49	39	34	62.5	125	8	12	14	20	13	37.5	925.0	11.7	12.8
CHTMQ05020	-Q8	5	2000	17.40	120	49	39	34	62.5	125	16	12	14	20	13	37.5	1925.0	11.7	25.6
CHTMQ06010	-Q8	6	1000	20.90	50	59	49	43	62.5	125	8	16	18	26	17	37.5	925.0	15.7	19.4
CHTMQ06020	-Q8	6	2000	20.90	100	59	49	43	62.5	125	16	16	18	26	17	37.5	1925.0	15.7	38.8
CHTMQ08010	-Q8	8	960	28.00	36	79	79	71	60.0	120	8	25	22	33	21	120.0	720.0	19.7	40.2
CHTMQ08020	-Q8	8	1920	28.00	72	79	79	71	60.0	120	16	25	22	33	21	120.0	1680.0	19.7	80.4
CHTMQ10010	-Q8	10	1000	35.11	30	99	99	89	62.5	125	8	32	33	48	32	125.0	750.0	19.7	65.7

CHTMH-Q10 系列 斜齒硬化齒條
CHTMH-Q10 Series Helical Hardened Racks

齒面精度等級 DIN 10 Tooth Surface Accuracy Grade DIN 10	
總齒距誤差 / Total Pitch Error：GTf /1000 ≦0.15 mm	
系列 CHTMH-Q10 斜齒硬化齒條	Series CHTMH-Q10 Helical Hardened Racks
材料 45C (中碳鋼)	Material 45C (Medium Carbon Steel)
右旋角 19°31'42"	Right Hand Angle 19°31'42"
硬度 HRC 50~55°	Hardness: Soft HRC 50~55°
高週波后，側面有黑痕，可另增表面處理(噴砂、磷酸鹽、表面研磨)以美化表面。	After Haardening, there are black traces on sides. It could be beautified by extra surface treatment (sandblasted, phosphated, surface ground) on request.

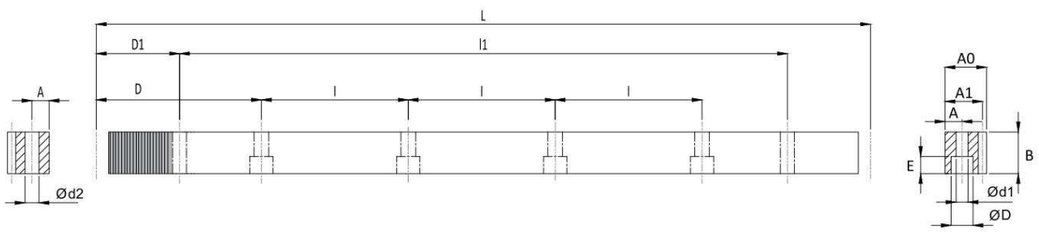


單位 / Dimension : mm

型號 Code	Q	模數 Module	L	L2	齒數 No. of Teeth	B	A0	A1	D	l	孔數 No. of Holes	A	ød1	øD	E	D1	l1	ød2	KG
CHTMH01510	-Q10	1.5	1000	6.00	200	17	17	15.5	62.5	125	8	7	6	9.5	7	31.7	936.6	5.7	1.9
CHTMH02010	-Q10	2	1000	8.50	150	24	24	22	62.5	125	8	8	7	11	7	31.7	936.6	5.7	3.9
CHTMH02020	-Q10	2	2000	8.50	300	24	24	22	62.5	125	16	8	7	11	7	31.7	1936.6	5.7	7.7
CHTMH03010	-Q10	3	1000	10.30	100	29	29	26	62.5	125	8	9	10	15	9	35.0	930.0	7.7	5.7
CHTMH03020	-Q10	3	2000	10.30	200	29	29	26	62.5	125	16	9	10	15	9	35.0	1930.0	7.7	11.3
CHTMH04010	-Q10	4	1000	13.80	75	39	39	35	62.5	125	8	12	10	15	9	33.3	933.4	7.7	10.2
CHTMH04020	-Q10	4	2000	13.80	150	39	39	35	62.5	125	16	12	10	15	9	33.3	1933.4	7.7	20.4
CHTMH05010	-Q10	5	1000	17.40	60	49	39	34	62.5	125	8	12	14	20	13	37.5	925.0	11.7	12.8
CHTMH05020	-Q10	5	2000	17.40	120	49	39	34	62.5	125	16	12	14	20	13	37.5	1925.0	11.7	25.6
CHTMH06010	-Q10	6	1000	20.90	50	59	49	43	62.5	125	8	16	18	26	17	37.5	925.0	15.7	19.4
CHTMH06020	-Q10	6	2000	20.90	100	59	49	43	62.5	125	16	16	18	26	17	37.5	1925.0	15.7	38.8
CHTMH08010	-Q10	8	960	28.00	36	79	79	71	60.0	120	8	25	22	33	21	120.0	720.0	19.7	40.2
CHTMH08020	-Q10	8	1920	28.00	72	79	79	71	60.0	120	16	25	22	33	21	120.0	1680.0	19.7	80.4
CHTMH10010	-Q10	10	1000	35.11	30	99	99	89	62.5	125	8	32	33	48	32	125.0	750.0	19.7	65.7
CHTMH12010	-Q10	12	1000	42.56	25	120	120	108	40.0	125	8	40	39	58	38	102.5	750.0	19.7	96.6

CSTGH-Q5 系列 直齒齒研齒條
CSTGH-Q5 Series Straight Teeth Ground Racks

齒面精度等級 DIN 5 Tooth Surface Accuracy Grade DIN 5	
總齒距誤差 / Total Pitch Error: GTf /1000 ≦0.026 mm	
系列 CSTGH-Q5 直齒齒研齒條	Series CSTGH-Q5 Straight Teeth Ground Racks
材料 45C (中碳鋼)	Material 45C (Medium Carbon Steel)
硬度 HRC 50~55°	Hardness HRC 50~55°
硬化處理后四面研磨與齒研	Ground on all sides after hardening.
室溫在攝氏25°為準	Room Temperature is 25°C

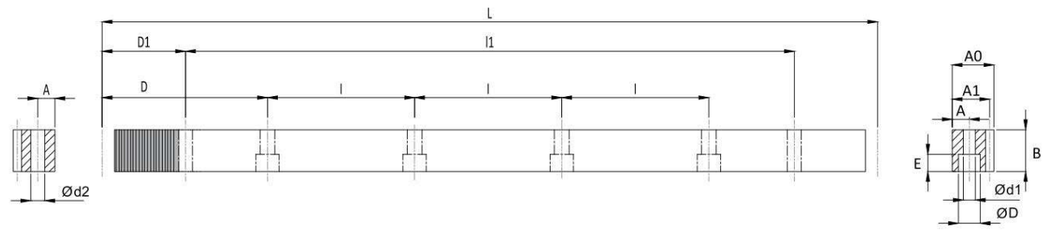


單位 / Dimension : mm

型號 Code	Q	模數 Module	L	齒數 No. of Teeth	B	A0	A1	D	l	孔數 No. of Holes	A	ød1	øD	E	D1	l1	ød2	KG
CSTGH02010	-Q5	2	1005.31	160	24	24	22	62.83	125.66	8	8	7	11	7	31.3	942.70	5.7	3.9
CSTGH03010	-Q5	3	1017.88	108	29	29	26	63.62	127.23	8	9	10	15	9	34.4	949.10	7.7	5.8
CSTGH04010	-Q5	4	1005.31	80	39	39	35	62.83	125.66	8	12	10	15	9	37.5	930.30	7.7	10.3
CSTGH05010	-Q5	5	1005.31	64	49	39	34	62.83	125.66	8	12	14	20	13	30.1	945.00	11.7	12.9

CSTGH-Q6 系列 直齒齒研齒條
CSTGH-Q6 Series Straight Teeth Ground Racks

齒面精度等級 DIN 6 Tooth Surface Accuracy Grade DIN 6	
總齒距誤差 / Total Pitch Error: GTf /1000 ≦0.036 mm、GTf /2000 ≦0.047 mm (≦0.024/1000 mm)	
系列 CSTGH-Q6 直齒齒研齒條	Series CSTGH-Q6 Straight Teeth Ground Racks
材料 45C (中碳鋼)	Material 45C (Medium Carbon Steel)
硬度 HRC 50~55°	Hardness HRC 50~55°
硬化處理后四面研磨與齒研	Ground on all sides after hardening.



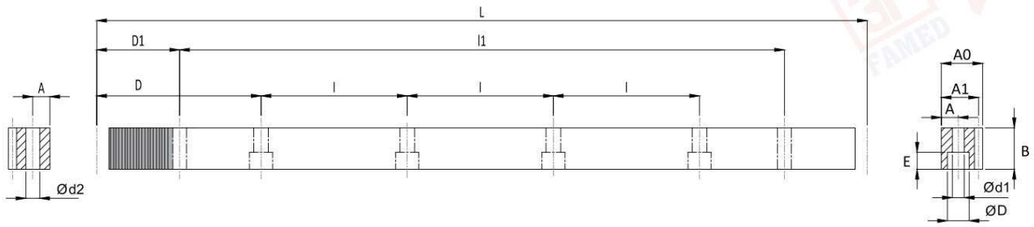
單位 / Dimension : mm

型號 Code	Q	模數 Module	L	齒數 No. of Teeth	B	A0	A1	D	l	孔數 No. of Holes	A	ød1	øD	E	D1	l1	ød2	KG
CSTGH01510	-Q6	1.5	999.03	212	17	17	15.5	62.44	124.88	8	7	6	9.5	7	29	941.00	5.7	1.9
CSTGH02010	-Q6	2	1005.31	160	24	24	22	62.83	125.66	8	8	7	11	7	31.3	942.70	5.7	3.9
CSTGH02020	-Q6	2	2010.62	320	24	24	22	62.83	125.66	16	8	7	11	7	31.3	1948.00	5.7	7.8
CSTGH03010	-Q6	3	1017.88	108	29	29	26	63.62	127.23	8	9	10	15	9	34.4	949.10	7.7	5.8
CSTGH03020	-Q6	3	2035.75	216	29	29	26	63.62	127.23	16	9	10	15	9	34.4	1967.00	7.7	11.5
CSTGH04010	-Q6	4	1005.31	80	39	39	35	62.83	125.66	8	12	10	15	9	37.5	930.30	7.7	10.3
CSTGH04020	-Q6	4	2010.62	160	39	39	35	62.83	125.66	16	12	10	15	9	37.5	1935.60	7.7	20.5
CSTGH05010	-Q6	5	1005.31	64	49	39	34	62.83	125.66	8	12	14	20	13	30.1	945.00	11.7	12.9
CSTGH05020	-Q6	5	2010.62	128	49	39	34	62.83	125.66	16	12	14	20	13	30.1	1950.40	11.7	25.8
CSTGH06010	-Q6	6	1017.88	54	59	49	43	63.62	127.23	8	16	18	26	17	31.4	955.00	15.7	19.7
CSTGH06020	-Q6	6	2035.75	108	59	49	43	63.62	127.23	16	16	18	26	17	31.4	1973.00	15.7	39.5
CSTGH08010	-Q6	8	1005.31	40	79	79	71	62.83	125.66	8	25	22	33	21	26.6	952.00	19.7	42.1
CSTGH08020	-Q6	8	2010.61	80	79	79	71	62.83	125.66	16	25	22	33	21	26.6	1957.40	19.7	84.2
CSTGH10010	-Q6	10	1005.31	32	99	99	89	62.83	125.66	8	32	33	48	32	125.66	754.00	19.7	66.1
CSTGH12010	-Q6	12	1017.88	27	120	120	108	63.62	127.23	8	40	39	58	38	127.23	763.40	19.7	98.3

CSTGH-Q7 系列 直齒齒研齒條
CSTGH-Q7 Series Straight Teeth Ground Racks

齒面精度等級 DIN 7
Tooth Surface Accuracy Grade DIN 7

總齒距誤差 / Total Pitch Error: GTf /1000 ≦0.048 mm、GTf /2000 ≦0.062 mm (≦0.034/1000 mm)	
系列 CSTGH-Q7 直齒齒研齒條	Series CSTGH-Q7 Straight Teeth Ground Racks
材料 45C (中碳鋼)	Material 45C (Medium Carbon Steel)
硬度 HRC 50~55°	Hardness HRC 50~55°
硬化處理后四面研磨與齒研	Ground on all sides after hardening.



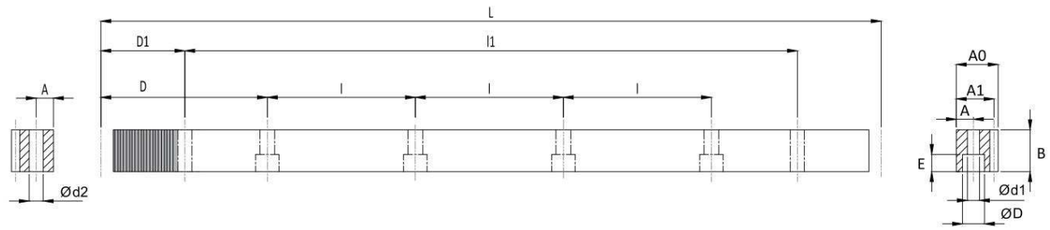
單位 / Dimension : mm

型號 Code	Q	模數 Module	L	齒數 No. of Teeth	B	A0	A1	D	l	孔數 No. of Holes	A	ød1	øD	E	D1	l1	ød2	KG
CSTGH01510	-Q7	1.5	999.03	212	17	17	15.5	62.44	124.88	8	7	6	9.5	7	29	941.00	5.7	1.9
CSTGH02010	-Q7	2	1005.31	160	24	24	22	62.83	125.66	8	8	7	11	7	31.3	942.70	5.7	3.9
CSTGH02020	-Q7	2	2010.62	320	24	24	22	62.83	125.66	16	8	7	11	7	31.3	1948.00	5.7	7.8
CSTGH03010	-Q7	3	1017.88	108	29	29	26	63.62	127.23	8	9	10	15	9	34.4	949.10	7.7	5.8
CSTGH03020	-Q7	3	2035.75	216	29	29	26	63.62	127.23	16	9	10	15	9	34.4	1967.00	7.7	11.5
CSTGH04010	-Q7	4	1005.31	80	39	39	35	62.83	125.66	8	12	10	15	9	37.5	930.30	7.7	10.3
CSTGH04020	-Q7	4	2010.62	160	39	39	35	62.83	125.66	16	12	10	15	9	37.5	1935.60	7.7	20.5
CSTGH05010	-Q7	5	1005.31	64	49	39	34	62.83	125.66	8	12	14	20	13	30.1	945.00	11.7	12.9
CSTGH05020	-Q7	5	2010.62	128	49	39	34	62.83	125.66	16	12	14	20	13	30.1	1950.40	11.7	25.8
CSTGH06010	-Q7	6	1017.88	54	59	49	43	63.62	127.23	8	16	18	26	17	31.4	955.00	15.7	19.7
CSTGH06020	-Q7	6	2035.75	108	59	49	43	63.62	127.23	16	16	18	26	17	31.4	1973.00	15.7	39.5
CSTGH08010	-Q7	8	1005.31	40	79	79	71	62.83	125.66	8	25	22	33	21	26.6	952.00	19.7	42.1
CSTGH08020	-Q7	8	2010.61	80	79	79	71	62.83	125.66	16	25	22	33	21	26.6	1957.40	19.7	84.2
CSTGH10010	-Q7	10	1005.31	32	99	99	89	62.83	125.66	8	32	33	48	32	125.66	754.00	19.7	66.1
CSTGH12010	-Q7	12	1017.88	27	120	120	108	63.62	127.23	8	40	39	58	38	127.23	763.40	19.7	98.3

CSTM-Q8 系列 直齒精銑齒條
CSTM-Q8 Series Straight Milled Racks

齒面精度等級 DIN 8
Tooth Surface Accuracy Grade DIN 8

總齒距誤差 / Total Pitch Error: GTf /1000 ≦0.06 mm、GTf /2000 ≦0.08 mm	
系列 CSTM-Q8 直齒精銑齒條	Series CSTM-Q8 Straight Milled Racks
材料 45C (中碳鋼)	Material 45C (Medium Carbon Steel)
硬度 HRC 10~12°	Hardness HRC 10~12°



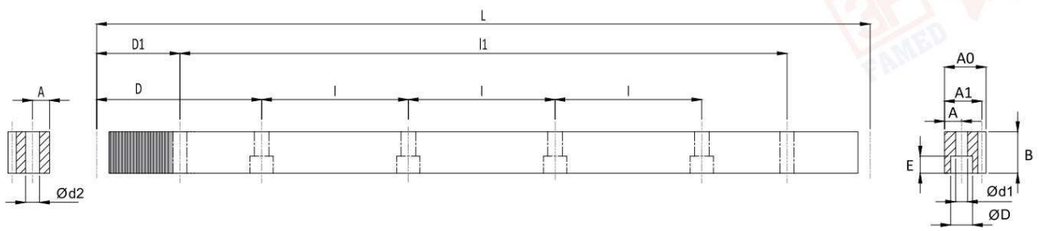
單位 / Dimension : mm

型號 Code	Q	模數 Module	L	齒數 No. of Teeth	B	A0	A1	D	l	孔數 No. of Holes	A	ød1	øD	E	D1	l1	ød2	KG
CSTM01510	-Q8	1.5	999.03	212	17	17	15.5	62.44	124.88	8	7	6	9.5	7	29	941.00	5.7	1.9
CSTM02010	-Q8	2	1005.31	160	25	24	22	62.83	125.66	8	8	7	11	7	31.3	942.70	5.7	4.1
CSTM02020	-Q8	2	2010.62	320	25	24	22	62.83	125.66	16	8	7	11	7	31.3	1948.00	5.7	8.1
CSTM03010	-Q8	3	1017.88	108	30	29	26	63.62	127.23	8	9	10	15	9	34.4	949.10	7.7	5.9
CSTM03020	-Q8	3	2035.75	216	30	29	26	63.62	127.23	16	9	10	15	9	34.4	1967.00	7.7	11.9
CSTM04010	-Q8	4	1005.31	80	40	39	35	62.83	125.66	8	12	10	15	9	37.5	930.30	7.7	10.5
CSTM04020	-Q8	4	2010.62	160	40	39	35	62.83	125.66	16	12	10	15	9	37.5	1935.60	7.7	21.0
CSTM05010	-Q8	5	1005.31	64	49	39	34	62.83	125.66	8	12	14	20	13	30.1	945.00	11.7	12.9
CSTM05020	-Q8	5	2010.62	128	49	39	34	62.83	125.66	16	12	14	20	13	30.1	1950.40	11.7	25.8
CSTM06010	-Q8	6	1017.88	54	59	49	43	63.62	127.23	8	16	18	26	17	31.4	955.00	15.7	19.7
CSTM06020	-Q8	6	2035.75	108	59	49	43	63.62	127.23	16	16	18	26	17	31.4	1973.00	15.7	39.5
CSTM08010	-Q8	8	1005.31	40	79	79	71	62.83	125.66	8	25	22	33	21	26.6	952.00	19.7	42.1
CSTM08020	-Q8	8	2010.61	80	79	79	71	62.83	125.66	16	25	22	33	21	26.6	1957.40	19.7	84.2
CSTM10010	-Q8	10	1005.31	32	99	99	89	62.83	125.66	8	32	33	48	32	125.66	754.00	19.7	66.1
CSTM12010	-Q8	12	1017.88	27	120	120	108	63.62	127.23	8	40	39	58	38	127.23	763.40	19.7	98.3

CSTMQ-Q8 系列 直齒調質齒條
CSTMQ-Q8 Series Straight Quenched Rack

齒面精度等級 DIN 8
Tooth Surface Accuracy Grade DIN 8

總齒距誤差 / Total Pitch Error：GTf /1000 ≦0.06 mm、GTf /2000 ≦0.08 mm	
系列 CSTMQ-Q8 直齒調質齒條	Series CSTMQ-Q8 Straight Quenched Rack
材料 45C (中碳鋼)	Material 45C (Medium Carbon Steel)
硬度 HRC 18~20°	Hardness HRC 18~20°



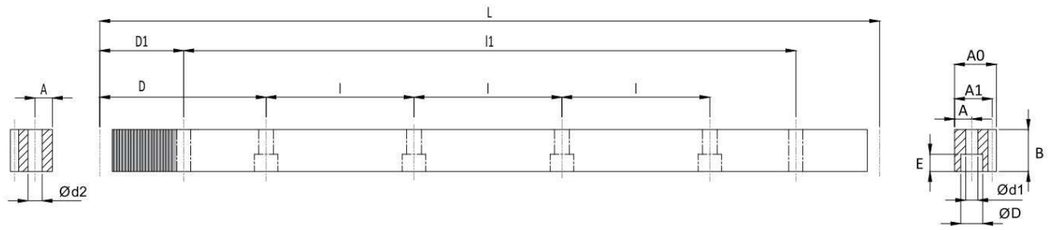
單位 / Dimension : mm

型號 Code	Q	模數 Module	L	齒數 No. of Teeth	B	A0	A1	D	l	孔數 No. of Holes	A	ød1	øD	E	D1	l1	ød2	KG
CSTMQ01510	-Q8	1.5	999.03	212	17	17	15.5	62.44	124.88	8	7	6	9.5	7	29	941.00	5.7	1.9
CSTMQ02010	-Q8	2	1005.31	160	25	24	22	62.83	125.66	8	8	7	11	7	31.3	942.70	5.7	4.1
CSTMQ02020	-Q8	2	2010.62	320	25	24	22	62.83	125.66	16	8	7	11	7	31.3	1948.00	5.7	8.1
CSTMQ03010	-Q8	3	1017.88	108	30	29	26	63.62	127.23	8	9	10	15	9	34.4	949.10	7.7	5.9
CSTMQ03020	-Q8	3	2035.75	216	30	29	26	63.62	127.23	16	9	10	15	9	34.4	1967.00	7.7	11.9
CSTMQ04010	-Q8	4	1005.31	80	40	39	35	62.83	125.66	8	12	10	15	9	37.5	930.30	7.7	10.5
CSTMQ04020	-Q8	4	2010.62	160	40	39	35	62.83	125.66	16	12	10	15	9	37.5	1935.60	7.7	21.0
CSTMQ05010	-Q8	5	1005.31	64	49	39	34	62.83	125.66	8	12	14	20	13	30.1	945.00	11.7	12.9
CSTMQ05020	-Q8	5	2010.62	128	49	39	34	62.83	125.66	16	12	14	20	13	30.1	1950.40	11.7	25.8
CSTMQ06010	-Q8	6	1017.88	54	59	49	43	63.62	127.23	8	16	18	26	17	31.4	955.00	15.7	19.7
CSTMQ06020	-Q8	6	2035.75	108	59	49	43	63.62	127.23	16	16	18	26	17	31.4	1973.00	15.7	39.5
CSTMQ08010	-Q8	8	1005.31	40	79	79	71	62.83	125.66	8	25	22	33	21	26.6	952.00	19.7	42.1
CSTMQ08020	-Q8	8	2010.61	80	79	79	71	62.83	125.66	16	25	22	33	21	26.6	1957.40	19.7	84.2
CSTMQ10010	-Q8	10	1005.31	32	99	99	89	62.83	125.66	8	32	33	48	32	125.66	754.00	19.7	66.1
CSTMQ12010	-Q8	12	1017.88	27	120	120	108	63.62	127.23	8	40	39	58	38	127.23	763.40	19.7	98.3

CSTMH-Q10 系列 直齒硬化齒條
CSTMH-Q10 Series Straight Milled Racks

齒面精度等級 DIN 10
Tooth Surface Accuracy Grade DIN 10

總齒距誤差 / Total Pitch Error：GTf /1000 ≦0.15 mm	
系列 CSTMH-Q10 直齒硬化齒條	Series CSTMH-Q10 Straight Hardened Racks
材料 45C (中碳鋼)	Material 45C (Medium Carbon Steel)
硬度 HRC 50~55°	Hardness HRC 50~55°
高週波后，側面有黑痕，可另增表面處理(噴砂、磷酸鹽、表面研磨)以美化表面。	After Haardening, there are black traces on sides. It could be beautified by extra surface treatment (sandblasted, phosphated, surface ground) on request.



單位 / Dimension : mm

型號 Code	Q	模數 Module	L	齒數 No. of Teeth	B	A0	A1	D	l	孔數 No. of Holes	A	ød1	øD	E	D1	l1	ød2	KG
CSTMH01510	-Q10	1.5	999.03	212	17	17	15.5	62.44	124.88	8	7	6	9.5	7	29	941.00	5.7	1.9
CSTMH02010	-Q10	2	1005.31	160	24	24	22	62.83	125.66	8	8	7	11	7	31.3	942.70	5.7	4.1
CSTMH02020	-Q10	2	2010.62	320	24	24	22	62.83	125.66	16	8	7	11	7	31.3	1948.00	5.7	8.1
CSTMH03010	-Q10	3	1017.88	108	29	29	26	63.62	127.23	8	9	10	15	9	34.4	949.10	7.7	5.9
CSTMH03020	-Q10	3	2035.75	216	29	29	26	63.62	127.23	16	9	10	15	9	34.4	1967.00	7.7	11.9
CSTMH04010	-Q10	4	1005.31	80	39	39	35	62.83	125.66	8	12	10	15	9	37.5	930.30	7.7	10.3
CSTMH04020	-Q10	4	2010.62	160	39	39	35	62.83	125.66	16	12	10	15	9	37.5	1935.60	7.7	20.5
CSTMH05010	-Q10	5	1005.31	64	49	39	34	62.83	125.66	8	12	14	20	13	30.1	945.00	11.7	12.9
CSTMH05020	-Q10	5	2010.62	128	49	39	34	62.83	125.66	16	12	14	20	13	30.1	1950.30	11.7	25.8
CSTMH06010	-Q10	6	1017.88	54	59	49	43	63.62	127.23	8	16	18	26	17	31.4	955.00	15.7	19.7
CSTMH06020	-Q10	6	2035.75	108	59	49	43	63.62	127.23	16	16	18	26	17	31.4	1973.00	15.7	39.5
CSTMH08010	-Q10	8	1005.31	40	79	79	71	62.83	125.66	8	25	22	33	21	26.6	952.00	19.7	42.1
CSTMH10010	-Q10	10	1005.31	32	99	99	89	62.83	125.66	8	32	33	48	32	125.7	754.00	19.7	66.1

齒輪目錄
Content of Pinions

型號 Code	材料 Material	齒輪類型 Type	齒面處理 Teeth Treatment	硬度處理 Hardness	模數 Module	精度等級 Grade DIN	頁碼 Page
MHFGH-Q6	SCM440	斜齒法蘭齒輪 Helical Flange	齒研 Teeth Ground	HRC 50~55°	2, 3, 4, 5	DIN 6	17
CHGH-Q6	S45C	斜齒齒輪 Helical	齒研 Teeth Ground	HRC 50~55°	1.5, 2, 3, 4, 5, 6, 8, 10	DIN 6	18~22
CHGH-Q7	S45C	斜齒齒輪 Helical	齒研 Teeth Ground	HRC 50~55°	1.5, 2, 3, 4, 5, 6, 8, 10	DIN 7	23~27
CHM-Q8	S45C	斜齒齒輪 Helical	精銑 Milled	無 Soft	1.5, 2, 3, 4, 5, 6, 8, 10	DIN 8	28-~32
CHMH-Q10	S45C	斜齒齒輪 Helical	精銑 Milled	HRC 50~55°	1.5, 2, 3, 4, 5, 6, 8, 10	DIN 10	33~37
CSGH-Q6	S45C	直齒齒輪 Straight	齒研 Teeth Ground	HRC 50~55°	2, 3, 4, 5, 6, 8	DIN 6	38~43
CSGH-Q7	S45C	直齒齒輪 Straight	齒研 Teeth Ground	HRC 50~55°	2, 3, 4, 5, 6, 8	DIN 7	44~49
CSM-Q8	S45C	直齒齒輪 Straight	精銑 Milled	無 Soft	1, 1.5, 2, 2.5, 3, 4, 5, 6, 8, 10	DIN 8	50~58
CSMH-Q10	S45C	直齒齒輪 Straight	精銑 Milled	HRC 50~55°	1, 1.5, 2, 2.5, 3, 4, 5, 6, 8, 10	DIN 10	59~67

齒輪型號說明
Pinion Code Instruction

1st	2nd	3rd	4th	5th	6th	7th	8th
材料 Material	齒型 Type	系列 Series	齒面處理 Teeth Treatment	硬度處理 Hardness	模數 Module	齒數 No of Teeth	等級 Grade
C	S	(F)	G	H	020	21	Q6
C= 中碳鋼 M=合金鋼	S=直齒 H=斜齒	F=法蘭式	M=精銑 G=齒研	H=硬化處理	M1.5~M10	16~95	Q=DIN Q6~Q10
C= S45C M=SCM440	S=Straight H=Helical	F=Flange	M=Milled G=Ground	H=Hardened			

MHFGH-Q6 斜齒法蘭齒研齒輪
MHFGH-Q6 Helical Flange Tooth Ground Pinions

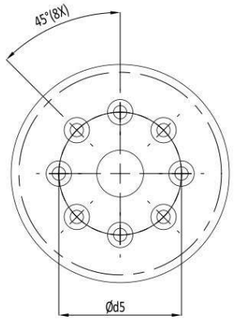


圖1/Fig1.

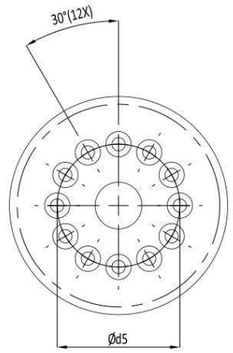
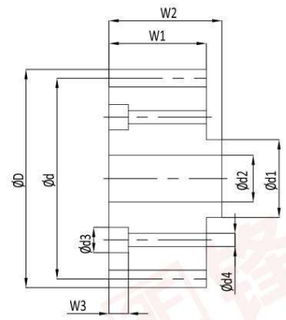


圖2/Fig2.



單位 / Dimension : mm

型號 Code	圖 Fig.	Q	齒數 No. of Teeth	轉位係數 Shift Coefficient	ØD	節圓直徑 Pitch Dia. Ød	結合節圓直徑 Working Pitch Dia.	d1	d5	w1	w2	d4	d3	W3	d2
模數 2 Module 2															
MHFGH 020 261	1	-Q6	26	0.407	60.800	55.174	56.800	20.0	31.5	26	29	5.5	9.5	12.0	16.2
MHFGH 020 271	1	-Q6	27	0.000	61.296	57.296	57.296	20.0	31.5	30	33	5.5	9.5	11.0	16.2
MHFGH 020 291	1	-Q6	29	0.415	67.200	61.540	63.200	20.0	31.5	26	29	5.5	9.5	12.0	16.2
MHFGH 020 351	1	-Q6	35	0.382	79.800	74.272	75.800	20.0	31.5	26	29	5.5	9.5	12.0	16.2
MHFGH 020 291	1	-Q6	29	0.415	67.200	61.540	63.200	25.0	40	26	29	6.6	11.0	10.5	20.3
MHFGH 020 331	1	-Q6	33	0.393	75.599	70.028	71.599	31.5	50	26	29	6.6	11.0	14.0	23.7
MHFGH 020 361	1	-Q6	36	0.000	80.394	76.394	76.394	31.5	50	30	33	6.6	11.0	8.0	23.7
MHFGH 020 371	1	-Q6	37	0.421	84.200	78.517	80.200	31.5	50	26	29	6.6	11.0	14.0	23.7
MHFGH 020 372	2	-Q6	37	0.421	84.200	78.517	80.200	31.5	50	26	29	6.6	11.0	14.0	23.7
模數 3 Module 3															
MHFGH 030 311	2	-Q6	31	0.354	106.800	98.676	100.800	31.5	50	31	35	6.6	11.0	14.0	23.7
MHFGH 030 351	2	-Q6	35	0.365	119.600	111.409	113.600	50.0	80	31	35	9.0	14.0	10.5	32.2
MHFGH 030 401	2	-Q6	40	0.379	135.599	127.324	129.599	50.0	80	31	35	9.0	14.0	10.5	32.2
模數 4 Module 4															
MHFGH 040 301	2	-Q6	30	0.000	135.324	127.324	127.324	50.0	80	45	49	9.0	14.0	9.5	32.2
MHFGH 040 381	2	-Q6	38	0.240	171.200	161.277	163.200	80.0	125	41	45	11.0	17.5	10.5	56.1
模數 5 Module 5															
MHFGH 050 211	2	-Q6	21	0.000	121.109	111.409	111.409	50.0	80	59	64	9.0	14.0	11.5	32.2
MHFGH 050 361	2	-Q6	36	0.000	200.986	190.986	190.986	80.0	125	55	60	11.0	17.5	12.5	56.1

CHGH-Q6 系列 斜齒齒研齒輪
CHGH-Q6 Series Helical Teeth Ground Pinions

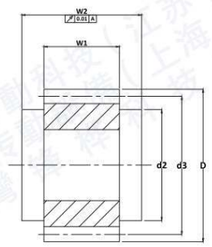


圖1/Fig1.

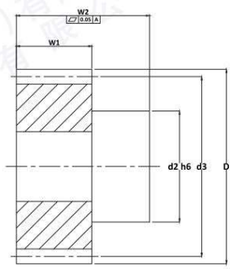
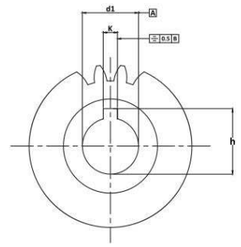


圖2/Fig2.



齒面精度等級 DIN 6
Tooth Surface Accuracy Grade DIN 6

系列 CHGH-Q6 斜齒齒研齒輪
材料 45C (中碳鋼)
左旋角 19°31'42"
硬度 HRC 50~55°

Series CHGH-Q6 Helical Teeth Ground Pinions
Material 45C (Medium Carbon Steel)
Left hand Angle 19°31'42"
Hardness: HRC 50~55°

單位 / Dimension : mm

型號 Code	圖 Fig.	Q	齒數 No. of Teeth	d1H6	d2	d3	D	w1	w2	k	h	KG
模數 1.5 Module 1.5												
CHGH 015 201	1	-Q6	20	11	25	31.83	34.83	20	22	4	12.8	0.1
CHGH 015 202	1	-Q6	20	14	25	31.83	34.83	20	22	5	16.3	0.1
CHGH 015 203	1	-Q6	20	16	25	31.83	34.83	20	22	5	18.3	0.1
CHGH 015 211	2	-Q6	21	16	30	33.42	36.42	20	46	5	18.3	0.2
模數 2 Module 2												
CHGH 020 181	1	-Q6	18	16	25	38.197	42.2	28	30	5	18.3	0.2
CHGH 020 201	1	-Q6	20	19	30	42.44	46.4	28	30	6	21.8	0.2
CHGH 020 202	2	-Q6	20	19	30	42.44	46.4	28	56	6	21.8	0.2
CHGH 020 203	1	-Q6	20	20	30	42.44	46.4	28	30	6	22.8	0.2
CHGH 020 204	2	-Q6	20	22	36	42.44	46.4	28	56	6	24.8	0.2
CHGH 020 205	1	-Q6	20	22	30	42.44	46.4	28	30	6	24.8	0.2
CHGH 020 211	1	-Q6	21	16	25	44.56	48.6	28	30	5	18.3	0.3
CHGH 020 212	2	-Q6	21	22	36	44.56	48.6	28	56	6	24.8	0.3
CHGH 020 221	1	-Q6	22	19	30	46.69	50.7	28	30	6	21.8	0.3
CHGH 020 222	2	-Q6	22	19	30	46.69	50.7	28	56	6	21.8	0.3
CHGH 020 223	1	-Q6	22	22	30	46.69	50.7	28	30	6	24.8	0.3
CHGH 020 224	2	-Q6	22	22	36	46.69	50.7	28	56	6	24.8	0.3
CHGH 020 251	1	-Q6	25	19	30	53.05	57.1	28	30	6	21.8	0.4
CHGH 020 252	2	-Q6	25	19	30	53.05	57.1	28	56	6	21.8	0.4
CHGH 020 253	1	-Q6	25	20	30	53.05	57.1	28	30	6	22.8	0.4
CHGH 020 254	1	-Q6	25	22	30	53.05	57.1	28	30	6	24.8	0.4
CHGH 020 255	2	-Q6	25	22	36	53.05	57.1	28	56	6	24.8	0.4
CHGH 020 256	1	-Q6	25	25	36	53.05	57.1	28	30	6	27.8	0.4

CHGH-Q6 系列 斜齒齒研齒輪
CHGH-Q6 Series Helical Teeth Ground Pinions

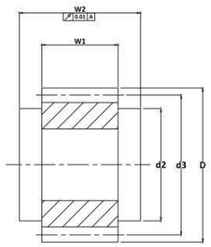


圖1/Fig1.

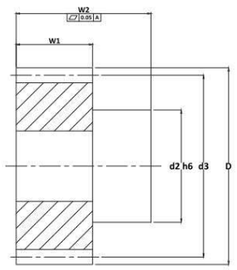
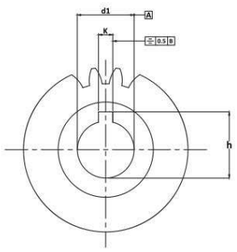


圖2/Fig2.



齒面精度等級 DIN 6
Tooth Surface Accuracy Grade DIN 6

系列 CHGH-Q6 斜齒齿研齒輪
材料 45C (中碳鋼)
左旋角 19°31'42"
硬度 HRC 50~55°

Series CHGH-Q6 Helical Teeth Ground Pinions
Material 45C (Medium Carbon Steel)
Left hand Angle 19°31'42"
Hardness: HRC 50~55°

單位 / Dimension : mm

型號 Code	圖 Fig.	Q	齒數 No. of Teeth	d1H6	d2	d3	D	w1	w2	k	h	KG
模數 2 Module 2												
CHGH 020 281	1	-Q6	28	19	30	59.42	63.4	28	30	6	21.8	0.4
CHGH 020 282	2	-Q6	28	19	30	59.42	63.4	28	56	6	21.8	0.4
CHGH 020 283	1	-Q6	28	22	30	59.42	63.4	28	30	6	24.8	0.4
CHGH 020 284	2	-Q6	28	22	36	59.42	63.4	28	56	6	24.8	0.4
CHGH 020 285	1	-Q6	28	35	48	59.42	63.4	28	30	10	38.3	0.4
CHGH 020 301	1	-Q6	30	16	25	63.66	67.7	28	30	5	18.3	0.7
CHGH 020 302	1	-Q6	30	20	30	63.66	67.7	28	30	6	22.8	0.7
CHGH 020 303	2	-Q6	30	22	36	63.66	67.7	28	56	6	24.8	0.7
CHGH 020 304	1	-Q6	30	25	36	63.66	67.7	28	30	8	28.3	0.7
CHGH 020 305	1	-Q6	30	30	45	63.66	67.7	28	30	8	33.3	0.7
CHGH 020 306	2	-Q6	30	30	50	63.66	67.7	28	60	8	33.3	0.7
CHGH 020 307	2	-Q6	30	32	55	63.66	67.7	28	65	10	35.3	0.7
CHGH 020 321	1	-Q6	32	20	30	67.91	71.9	28	30	6	22.8	0.7
CHGH 020 322	1	-Q6	32	22	30	67.91	71.9	28	30	6	24.8	0.7
CHGH 020 323	2	-Q6	32	22	36	67.91	71.9	28	56	6	27.8	0.7
CHGH 020 324	1	-Q6	32	25	36	67.91	71.9	28	30	8	28.3	0.7
CHGH 020 325	1	-Q6	32	35	48	67.91	71.9	28	30	10	38.3	0.7
CHGH 020 361	1	-Q6	36	35	48	76.39	80.4	28	30	10	38.3	0.8
CHGH 020 391	2	-Q6	39	32	55	82.76	86.8	28	65	10	35.3	1.4
CHGH 020 401	1	-Q6	40	35	48	84.88	88.9	28	30	10	38.3	1.2

CHGH-Q6系列 斜齒齒研齒輪
CHGH-Q6 Series Helical Teeth Ground Pinions

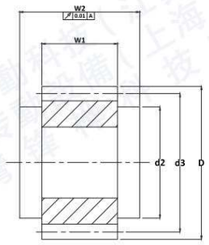


圖1/Fig1.

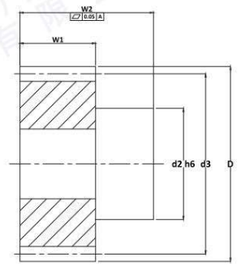
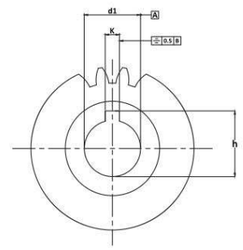


圖2/Fig2.



齒面精度等級 DIN 6
Tooth Surface Accuracy Grade DIN 6

系列 CHGH-Q6 斜齒齿研齒輪
材料 45C (中碳鋼)
左旋角 19°31'42"
硬度 HRC 50~55°

Series CHGH-Q6 Helical Teeth Ground Pinions
Material 45C (Medium Carbon Steel)
Left hand Angle 19°31'42"
Hardness: HRC 50~55°

單位 / Dimension : mm

型號 Code	圖 Fig.	Q	齒數 No. of Teeth	d1H6	d2	d3	D	w1	w2	k	h	KG
模數 3 Module 3												
CHGH 030 201	2	-Q6	20	22	36	63.66	69.7	28	56	6	24.8	0.7
CHGH 030 202	2	-Q6	20	25	44	63.66	69.7	28	60	8	28.3	0.7
CHGH 030 203	1	-Q6	20	30	45	63.66	69.7	28	30	8	33.3	0.7
CHGH 030 204	2	-Q6	20	30	50	63.66	69.7	28	60	8	33.3	0.7
CHGH 030 205	2	-Q6	20	32	55	63.66	69.7	28	65	10	35.3	0.7
CHGH 030 206	1	-Q6	20	35	48	63.66	69.7	28	30	10	38.3	0.7
CHGH 030 221	1	-Q6	22	25	36	70.03	76.0	28	30	8	28.3	0.8
CHGH 030 222	1	-Q6	22	30	45	70.03	76.0	28	30	8	33.3	0.8
CHGH 030 223	2	-Q6	22	32	55	70.03	76.0	28	65	10	35.3	0.9
CHGH 030 224	1	-Q6	22	35	48	70.03	76.0	28	30	10	38.3	0.8
CHGH 030 225	2	-Q6	22	40	62	70.03	76.0	28	65	12	43.3	0.9
CHGH 030 251	2	-Q6	25	22	36	79.58	85.6	28	56	6	24.8	1.1
CHGH 030 252	1	-Q6	25	25	36	79.58	85.6	28	30	8	28.3	1.1
CHGH 030 253	2	-Q6	25	25	44	79.58	85.6	28	60	8	28.3	1.1
CHGH 030 254	1	-Q6	25	30	45	79.58	85.6	28	30	8	33.3	1.1
CHGH 030 255	2	-Q6	25	30	50	79.58	85.6	28	60	8	33.3	1.1
CHGH 030 256	2	-Q6	25	32	55	79.58	85.6	28	65	10	35.3	1.1
CHGH 030 257	1	-Q6	25	35	48	79.58	85.6	28	30	10	38.3	1.1
CHGH 030 258	2	-Q6	25	35	55	79.58	85.6	28	65	10	38.3	1.1
CHGH 030 259	1	-Q6	25	40	70	79.58	85.6	28	50	12	43.3	1.1
CHGH 030 2510	2	-Q6	25	40	62	79.58	85.6	28	65	12	43.3	1.1
CHGH 030 281	2	-Q6	28	32	55	89.13	95.1	28	65	10	35.3	1.1
CHGH 030 282	2	-Q6	28	40	62	89.13	95.1	28	65	12	43.3	1.1
CHGH 030 321	2	-Q6	32	32	55	101.86	107.85	28	65	10	35.3	2.0
CHGH 030 322	2	-Q6	32	40	62	101.86	107.85	28	65	12	43.3	2.0

CHGH-Q6 系列 斜齒齒研齒輪
CHGH-Q6 Series Helical Teeth Ground Pinions

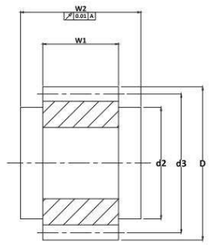


圖1/Fig1.

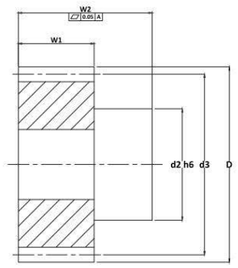
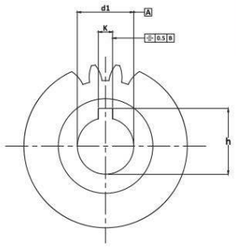


圖2/Fig2.



齒面精度等級 DIN 6
Tooth Surface Accuracy Grade DIN 6

系列 CHGH-Q6 斜齒齒研齒輪
材料 45C (中碳鋼)
左旋角 19°31'42"
硬度 HRC 50~55°

Series CHGH-Q6 Helical Teeth Ground Pinions
Material 45C (Medium Carbon Steel)
Left hand Angle 19°31'42"
Hardness: HRC 50~55°

單位 / Dimension : mm

型號 Code	圖 Fig.	Q	齒數 No. of Teeth	d1H6	d2	d3	D	w1	w2	k	h	KG
模數 4 Module 4												
CHGH 040 151	1	-Q6	15	35	52	63.66	71.7	40	50	10	38.3	1.5
CHGH 040 181	2	-Q6	18	32	55	76.39	84.4	40	75	10	35.3	1.5
CHGH 040 201	1	-Q6	20	35	52	84.88	92.9	40	50	10	38.3	1.8
CHGH 040 202	1	-Q6	20	45	65	84.88	92.9	40	50	14	48.8	1.7
CHGH 040 211	2	-Q6	21	32	55	89.13	97.1	40	75	10	35.3	1.9
CHGH 040 212	2	-Q6	21	35	55	89.13	97.1	40	75	10	38.3	1.9
CHGH 040 213	2	-Q6	21	40	62	89.13	97.1	40	75	12	43.3	1.9
CHGH 040 214	2	-Q6	21	45	68	89.13	97.1	40	75	14	48.8	1.8
CHGH 040 221	1	-Q6	22	35	52	93.37	101.4	40	50	10	38.3	2.3
CHGH 040 222	1	-Q6	22	45	65	93.37	101.4	40	50	14	48.8	2.0
CHGH 040 241	2	-Q6	24	32	55	101.86	109.9	40	75	10	35.3	2.5
CHGH 040 242	2	-Q6	24	35	55	101.86	109.9	40	75	10	38.3	2.5
CHGH 040 243	2	-Q6	24	40	62	101.86	109.9	40	75	12	43.3	2.5
CHGH 040 244	2	-Q6	24	45	68	101.86	109.9	40	75	14	48.8	2.5
CHGH 040 245	2	-Q6	24	55	80	101.86	109.9	40	80	16	59.3	2.5
CHGH 040 251	1	-Q6	25	35	52	106.1	114.1	40	50	10	38.3	3.0
CHGH 040 252	1	-Q6	25	45	65	106.1	114.1	40	50	14	48.8	3.0
CHGH 040 253	2	-Q6	25	55	80	106.1	114.1	40	80	16	59.3	3.0

CHGH-Q6 系列 斜齒齒研齒輪
CHGH-Q6 Series Helical Teeth Ground Pinions

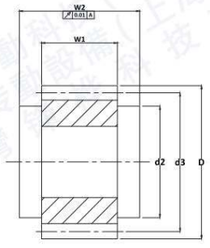


圖1/Fig1.

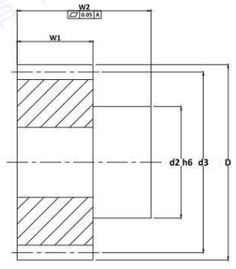
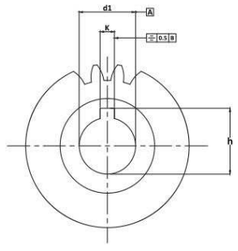


圖2/Fig2.



齒面精度等級 DIN 6
Tooth Surface Accuracy Grade DIN 6

系列 CHGH-Q6 斜齒齒研齒輪
材料 45C (中碳鋼)
左旋角 19°31'42"
硬度 HRC 50~55°

Series CHGH-Q6 Helical Teeth Ground Pinions
Material 45C (Medium Carbon Steel)
Left hand Angle 19°31'42"
Hardness: HRC 50~55°

單位 / Dimension : mm

型號 Code	圖 Fig.	Q	齒數 No. of Teeth	d1H6	d2	d3	D	w1	w2	k	h	KG
模數 5 Module 5												
CHGH 050 181	2	-Q6	18	45	68	95.49	105.5	50	85	14	48.8	2.8
CHGH 050 241	2	-Q6	24	45	68	127.32	137.3	50	85	14	48.8	5.0
CHGH 050 242	2	-Q6	24	55	80	127.32	137.3	50	90	16	59.3	5.0
CHGH 050 243	2	-Q6	24	75	110	127.32	137.3	50	110	20	79.9	5.5
模數 6 Module 6												
CHGH 060 201	2	-Q6	20	55	80	127	139.3	60	100	16	59.3	5.8
CHGH 060 202	2	-Q6	20	75	110	127	139.3	60	120	20	79.9	6.3
CHGH 060 253	2	-Q6	25	55	80	159	171.2	60	100	16	59.3	9.0
CHGH 060 254	2	-Q6	25	75	110	159	171.2	60	120	20	79.9	9.5
模數 8 Module 8												
CHGH 080 181	2	-Q6	18	75	110	152.79	168.8	80	140	20	79.9	11.0
CHGH 080 202	2	-Q6	20	85	125	169.8	185.8	80	145	22	90.4	14.0
模數 10 Module 10												
CHGH 100201	2	-Q6	20	85	125	212.21	232.2	100	165	22	90.4	26.0

CHGH-Q7 系列 斜齒齒研齒輪
CHGH-Q7 Series Helical Teeth Ground Pinions

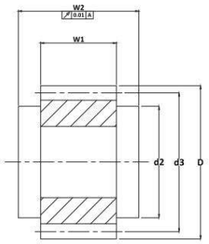


圖1/Fig1.

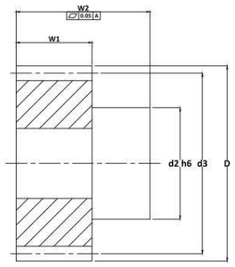
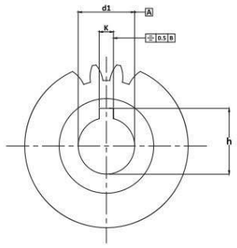


圖2/Fig2.



齒面精度等級 DIN 7
Tooth Surface Accuracy Grade DIN 7

系列 CHGH-Q7 斜齒齿研齒輪
材料 45C (中碳鋼)
左旋角 19°31'42"
硬度 HRC 50~55°

Series CHGH-Q7 Helical Teeth Ground Pinions
Material 45C (Medium Carbon Steel)
Left hand Angle 19°31'42"
Hardness: HRC 50~55°

單位 / Dimension : mm

型號 Code	圖 Fig.	Q	齒數 No. of Teeth	d1H6	d2	d3	D	w1	w2	k	h	KG
模數 1.5 Module 1.5												
CHGH 015 201	1	-Q7	20	11	25	31.83	34.83	20	22	4	12.8	0.1
CHGH 015 201	1	-Q7	20	13	25	31.83	34.83	20	22	5	15.3	0.1
CHGH 015 202	1	-Q7	20	14	25	31.83	34.83	20	22	5	16.3	0.1
CHGH 015 203	1	-Q7	20	16	25	31.83	34.83	20	22	5	18.3	0.1
CHGH 015 211	2	-Q7	21	16	30	33.42	36.42	20	46	5	18.3	0.2
模數 2 Module 2												
CHGH 020 181	1	-Q7	18	16	25	38.197	42.2	28	30	5	18.3	0.2
CHGH 020 201	1	-Q7	20	19	30	42.44	46.4	28	30	6	21.8	0.2
CHGH 020 202	2	-Q7	20	19	30	42.44	46.4	28	56	6	21.8	0.2
CHGH 020 203	1	-Q7	20	20	30	42.44	46.4	28	30	6	22.8	0.2
CHGH 020 204	2	-Q7	20	22	36	42.44	46.4	28	56	6	24.8	0.2
CHGH 020 205	1	-Q7	20	22	30	42.44	46.4	28	30	6	24.8	0.2
CHGH 020 211	1	-Q7	21	16	25	44.56	48.6	28	30	5	18.3	0.3
CHGH 020 212	2	-Q7	21	22	36	44.56	48.6	28	56	6	24.8	0.3
CHGH 020 221	1	-Q7	22	19	30	46.69	50.7	28	30	6	21.8	0.3
CHGH 020 222	2	-Q7	22	19	30	46.69	50.7	28	56	6	21.8	0.3
CHGH 020 223	1	-Q7	22	22	30	46.69	50.7	28	30	6	24.8	0.3
CHGH 020 224	2	-Q7	22	22	36	46.69	50.7	28	56	6	24.8	0.3
CHGH 020 251	1	-Q7	25	19	30	53.05	57.1	28	30	6	21.8	0.4
CHGH 020 252	2	-Q7	25	19	30	53.05	57.1	28	56	6	21.8	0.4
CHGH 020 253	1	-Q7	25	20	30	53.05	57.1	28	30	6	22.8	0.4
CHGH 020 254	1	-Q7	25	22	30	53.05	57.1	28	30	6	24.8	0.4
CHGH 020 255	2	-Q7	25	22	36	53.05	57.1	28	56	6	24.8	0.4
CHGH 020 256	1	-Q7	25	25	36	53.05	57.1	28	30	8	28.3	0.4

CHGH-Q7 系列 斜齒齒研齒輪
CHGH-Q7 Series Helical Teeth Ground Pinions

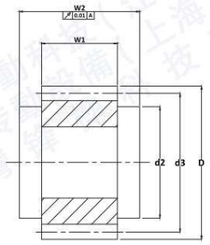


圖1/Fig1.

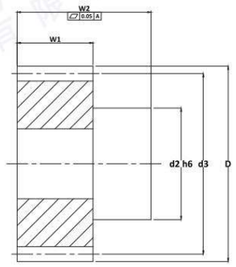
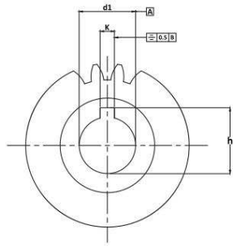


圖2/Fig2.



齒面精度等級 DIN 7
Tooth Surface Accuracy Grade DIN 7

系列 CHGH-Q7 斜齒齿研齒輪
材料 45C (中碳鋼)
左旋角 19°31'42"
硬度 HRC 50~55°

Series CHGH-Q7 Helical Teeth Ground Pinions
Material 45C (Medium Carbon Steel)
Left hand Angle 19°31'42"
Hardness: HRC 50~55°

單位 / Dimension : mm

型號 Code	圖 Fig.	Q	齒數 No. of Teeth	d1H6	d2	d3	D	w1	w2	k	h	KG
模數 2 Module 2												
CHGH 020 281	1	-Q7	28	19	30	59.42	63.4	28	30	6	21.8	0.4
CHGH 020 282	2	-Q7	28	19	30	59.42	63.4	28	56	6	21.8	0.4
CHGH 020 283	1	-Q7	28	22	30	59.42	63.4	28	30	6	24.8	0.4
CHGH 020 284	2	-Q7	28	22	36	59.42	63.4	28	56	6	24.8	0.4
CHGH 020 285	1	-Q7	28	35	48	59.42	63.4	28	30	10	38.3	0.4
CHGH 020 301	1	-Q7	30	16	25	63.66	67.7	28	30	5	18.3	0.7
CHGH 020 302	1	-Q7	30	20	30	63.66	67.7	28	30	6	22.8	0.7
CHGH 020 303	2	-Q7	30	22	36	63.66	67.7	28	56	6	24.8	0.7
CHGH 020 304	1	-Q7	30	25	36	63.66	67.7	28	30	8	28.3	0.7
CHGH 020 305	1	-Q7	30	30	45	63.66	67.7	28	30	8	33.3	0.7
CHGH 020 306	2	-Q7	30	30	50	63.66	67.7	28	60	8	33.3	0.7
CHGH 020 307	2	-Q7	30	32	55	63.66	67.7	28	65	10	35.3	0.7
CHGH 020 321	1	-Q7	32	20	30	67.91	71.9	28	30	6	22.8	0.7
CHGH 020 322	1	-Q7	32	22	30	67.91	71.9	28	30	6	24.8	0.7
CHGH 020 323	2	-Q7	32	22	36	67.91	71.9	28	56	6	27.8	0.7
CHGH 020 324	1	-Q7	32	25	36	67.91	71.9	28	30	8	28.3	0.7
CHGH 020 325	1	-Q7	32	35	48	67.91	71.9	28	30	10	38.3	0.7
CHGH 020 361	1	-Q7	36	35	48	76.39	80.4	28	30	10	38.3	0.8
CHGH 020 391	2	-Q7	39	32	55	82.76	86.8	28	65	10	35.3	1.4
CHGH 020 401	1	-Q7	40	35	48	84.88	88.9	28	30	10	38.3	1.2

CHGH-Q7 系列 斜齒齒研齒輪
CHGH-Q7 Series Helical Teeth Ground Pinions

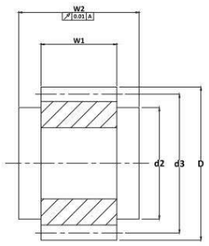


圖1/Fig1.

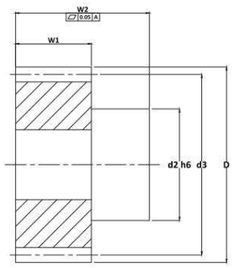
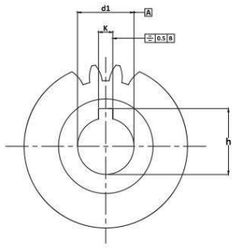


圖2/Fig2.



齒面精度等級 DIN 7
Tooth Surface Accuracy Grade DIN 7

系列 CHGH-Q7 斜齒齒研齒輪
材料 45C (中碳鋼)
左旋角 19°31'42"
硬度 HRC 50~55°

Series CHGH-Q7 Helical Teeth Ground Pinions
Material 45C (Medium Carbon Steel)
Left hand Angle 19°31'42"
Hardness: HRC 50~55°

單位 / Dimension : mm

型號 Code	圖 Fig.	Q	齒數 No. of Teeth	d1H6	d2	d3	D	w1	w2	k	h	KG
模數 3 Module 3												
CHGH 030 201	2	-Q7	20	22	36	63.66	69.7	28	56	6	24.8	0.7
CHGH 030 202	2	-Q7	20	25	44	63.66	69.7	28	60	8	28.3	0.7
CHGH 030 203	1	-Q7	20	30	45	63.66	69.7	28	30	8	33.3	0.7
CHGH 030 204	2	-Q7	20	30	50	63.66	69.7	28	60	8	33.3	0.7
CHGH 030 205	2	-Q7	20	32	55	63.66	69.7	28	65	10	35.3	0.7
CHGH 030 206	1	-Q7	20	35	48	63.66	69.7	28	30	10	38.3	0.7
CHGH 030 221	1	-Q7	22	25	36	70.03	76.0	28	30	8	28.3	0.8
CHGH 030 222	1	-Q7	22	30	45	70.03	76.0	28	30	8	33.3	0.8
CHGH 030 223	2	-Q7	22	32	55	70.03	76.0	28	65	10	35.3	0.9
CHGH 030 224	1	-Q7	22	35	48	70.03	76.0	28	30	10	38.3	0.8
CHGH 030 225	2	-Q7	22	40	62	70.03	76.0	28	65	12	43.3	0.9
CHGH 030 251	2	-Q7	25	22	36	79.58	85.6	28	56	6	24.8	1.1
CHGH 030 252	1	-Q7	25	25	36	79.58	85.6	28	30	8	28.3	1.1
CHGH 030 253	2	-Q7	25	25	44	79.58	85.6	28	60	8	28.3	1.1
CHGH 030 254	1	-Q7	25	30	45	79.58	85.6	28	30	8	33.3	1.1
CHGH 030 255	2	-Q7	25	30	50	79.58	85.6	28	60	8	33.3	1.1
CHGH 030 256	2	-Q7	25	32	55	79.58	85.6	28	65	10	35.3	1.1
CHGH 030 257	1	-Q7	25	35	48	79.58	85.6	28	30	10	38.3	1.1
CHGH 030 258	2	-Q7	25	35	55	79.58	85.6	28	65	10	38.3	1.1
CHGH 030 259	1	-Q7	25	40	70	79.58	85.6	28	50	12	43.3	1.1
CHGH 030 2510	2	-Q7	25	40	62	79.58	85.6	28	65	12	43.3	1.1
CHGH 030 281	2	-Q7	28	32	55	89.13	95.1	28	65	10	35.3	1.1
CHGH 030 282	2	-Q7	28	40	62	89.13	95.1	28	65	12	43.3	1.1
CHGH 030 321	2	-Q7	32	32	55	101.86	107.85	28	65	10	35.3	2.0
CHGH 030 322	2	-Q7	32	40	62	101.86	107.85	28	65	12	43.3	2.0

CHGH-Q7 系列 斜齒齒研齒輪
CHGH-Q7 Series Helical Teeth Ground Pinions

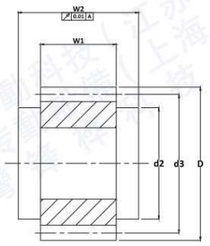


圖1/Fig1.

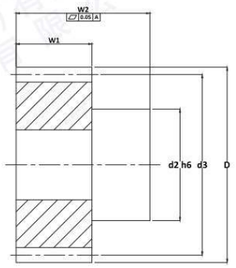
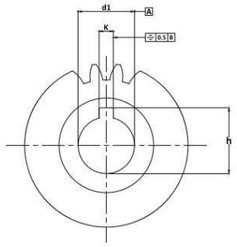


圖2/Fig2.



齒面精度等級 DIN 7
Tooth Surface Accuracy Grade DIN 7

系列 CHGH-Q7 斜齒齒研齒輪
材料 45C (中碳鋼)
左旋角 19°31'42"
硬度 HRC 50~55°

Series CHGH-Q7 Helical Teeth Ground Pinions
Material 45C (Medium Carbon Steel)
Left hand Angle 19°31'42"
Hardness: HRC 50~55°

單位 / Dimension : mm

型號 Code	圖 Fig.	Q	齒數 No. of Teeth	d1H6	d2	d3	D	w1	w2	k	h	KG
模數 4 Module 4												
CHGH 040 151	1	-Q7	15	35	52	63.66	71.7	40	50	10	38.3	1.5
CHGH 040 181	2	-Q7	18	32	55	76.39	84.4	40	75	10	35.3	1.5
CHGH 040 201	1	-Q7	20	35	52	84.88	92.9	40	50	10	38.3	1.8
CHGH 040 202	1	-Q7	20	45	65	84.88	92.9	40	50	14	48.8	1.7
CHGH 040 211	2	-Q7	21	32	55	89.13	97.1	40	75	10	35.3	1.9
CHGH 040 212	2	-Q7	21	35	55	89.13	97.1	40	75	10	38.3	1.9
CHGH 040 213	2	-Q7	21	40	62	89.13	97.1	40	75	12	43.3	1.9
CHGH 040 214	2	-Q7	21	45	68	89.13	97.1	40	75	14	48.8	1.8
CHGH 040 221	1	-Q7	22	35	52	93.37	101.4	40	50	10	38.3	2.3
CHGH 040 222	1	-Q7	22	45	65	93.37	101.4	40	50	14	48.8	2.0
CHGH 040 241	2	-Q7	24	32	55	101.86	109.9	40	75	10	35.3	2.5
CHGH 040 242	2	-Q7	24	35	55	101.86	109.9	40	75	10	38.3	2.5
CHGH 040 243	2	-Q7	24	40	62	101.86	109.9	40	75	12	43.3	2.5
CHGH 040 244	2	-Q7	24	45	68	101.86	109.9	40	75	14	48.8	2.5
CHGH 040 245	2	-Q7	24	55	80	101.86	109.9	40	80	16	59.3	2.5
CHGH 040 251	1	-Q7	25	35	52	106.1	114.1	40	50	10	38.3	3.0
CHGH 040 252	1	-Q7	25	45	65	106.1	114.1	40	50	14	48.8	3.0
CHGH 040 253	2	-Q7	25	55	80	106.1	114.1	40	80	16	59.3	3.0

CHGH-Q7 系列 斜齒齒研齒輪
CHGH-Q7 Series Helical Teeth Ground Pinions

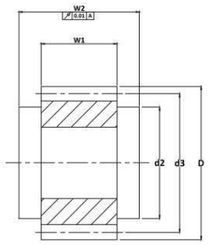


圖1/Fig1.

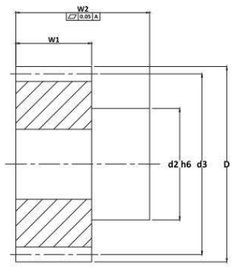
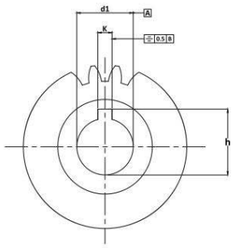


圖2/Fig2.



齒面精度等級 DIN 7
Tooth Surface Accuracy Grade DIN 7

系列 CHGH-Q7 斜齒齒研齒輪
材料 45C (中碳鋼)
左旋角 19°31'42"
硬度 HRC 50~55°

Series CHGH-Q7 Helical Teeth Ground Pinions
Material 45C (Medium Carbon Steel)
Left hand Angle 19°31'42"
Hardness: HRC 50~55°

單位 / Dimension : mm

型號 Code	圖 Fig.	Q	齒數 No. of Teeth	d1H6	d2	d3	D	w1	w2	k	h	KG
模數 5 Module 5												
CHGH 050 181	2	-Q7	18	45	68	95.49	105.5	50	85	14	48.8	2.8
CHGH 050 241	2	-Q7	24	45	68	127.32	137.3	50	85	14	48.8	5.0
CHGH 050 242	2	-Q7	24	55	80	127.32	137.3	50	90	16	59.3	5.0
CHGH 050 243	2	-Q7	24	75	110	127.32	137.3	50	110	20	79.9	5.5
模數 6 Module 6												
CHGH 060 201	2	-Q7	20	55	80	127.23	139.3	60	100	16	59.3	5.8
CHGH 060 202	2	-Q7	20	75	110	127.23	139.3	60	120	20	79.9	6.3
CHGH 060 253	2	-Q7	25	55	80	159.16	171.2	60	100	16	59.3	9.0
CHGH 060 254	2	-Q7	25	75	110	159.16	171.2	60	120	20	79.9	9.5
模數 8 Module 8												
CHGH 080 181	2	-Q7	18	75	110	152.79	168.8	80	140	20	79.9	11.0
CHGH 080 202	2	-Q7	20	85	125	169.8	185.8	80	145	22	90.4	14.0
模數 10 Module 10												
CHGH 100 201	2	-Q7	20	85	125	212.21	232.2	100	165	22	90.4	26.0

CHM-Q8 系列 斜齒齒輪
CHM-Q8 Series Helical Soft Pinions

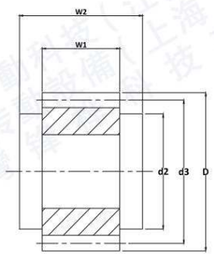


圖1/Fig1.

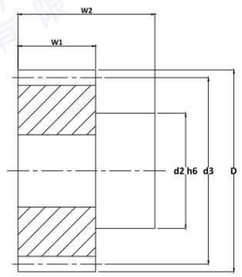
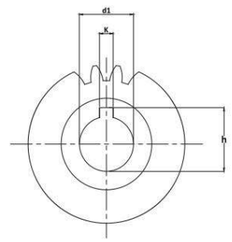


圖2/Fig2.



齒面精度等級 DIN 8
Tooth Surface Accuracy Grade DIN 8

系列 CHM-Q8 斜齒齒輪
材料 45C (中碳鋼)
左旋角 19°31'42"

Series CHM-Q8 Helical Soft Pinions
Material 45C (Medium Carbon Steel)
Left hand Angle 19°31'42"

單位 / Dimension : mm

型號 Code	圖 Fig.	Q	齒數 No. of Teeth	d1H6	d2	d3	D	w1	w2	k	h	KG
模數 1.5 Module 1.5												
CHM 015 201	1	-Q8	20	11	25	31.83	34.83	20	22	4	12.8	0.1
CHM 015 201	1	-Q8	20	13	25	31.83	34.83	20	22	5	15.3	0.1
CHM 015 202	1	-Q8	20	14	25	31.83	34.83	20	22	5	16.3	0.1
CHM 015 203	1	-Q8	20	16	25	31.83	34.83	20	22	5	18.3	0.1
CHM 015 211	2	-Q8	21	16	30	33.42	36.42	20	46	5	18.3	0.2
模數 2 Module 2												
CHM 020 181	1	-Q8	18	16	25	38.197	42.2	28	30	5	18.3	0.2
CHM 020 201	1	-Q8	20	19	30	42.44	46.4	28	30	6	21.8	0.2
CHM 020 202	2	-Q8	20	19	30	42.44	46.4	28	56	6	21.8	0.2
CHM 020 203	1	-Q8	20	20	30	42.44	46.4	28	30	6	22.8	0.2
CHM 020 204	2	-Q8	20	22	36	42.44	46.4	28	56	6	24.8	0.2
CHM 020 205	1	-Q8	20	22	30	42.44	46.4	28	30	6	24.8	0.2
CHM 020 211	1	-Q8	21	16	25	44.56	48.6	28	30	5	18.3	0.3
CHM 020 212	2	-Q8	21	22	36	44.56	48.6	28	56	6	24.8	0.3
CHM 020 221	1	-Q8	22	19	30	46.69	50.7	28	30	6	21.8	0.3
CHM 020 222	2	-Q8	22	19	30	46.69	50.7	28	56	6	21.8	0.3
CHM 020 223	1	-Q8	22	22	30	46.69	50.7	28	30	6	24.8	0.3
CHM 020 224	2	-Q8	22	22	36	46.69	50.7	28	56	6	24.8	0.3
CHM 020 251	1	-Q8	25	19	30	53.05	57.1	28	30	6	21.8	0.4
CHM 020 252	2	-Q8	25	19	30	53.05	57.1	28	56	6	21.8	0.4
CHM 020 253	1	-Q8	25	20	30	53.05	57.1	28	30	6	22.8	0.4
CHM 020 254	1	-Q8	25	22	30	53.05	57.1	28	30	6	24.8	0.4
CHM 020 255	2	-Q8	25	22	36	53.05	57.1	28	56	6	24.8	0.4
CHM 020 256	1	-Q8	25	25	36	53.05	57.1	28	30	8	28.3	0.4

CHM-Q8 系列 斜齒齒輪
CHM-Q8 Series Helical Soft Pinions

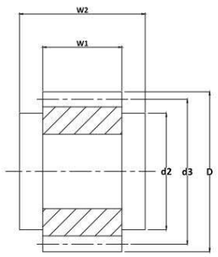


圖1/Fig1.

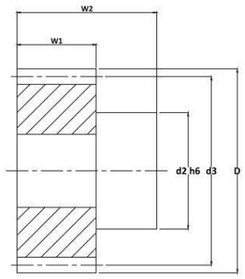
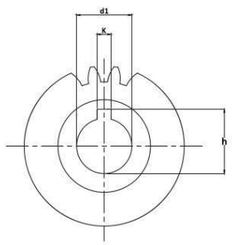


圖2/Fig2.



齒面精度等級 DIN 8
Tooth Surface Accuracy Grade DIN 8

系列 CHM-Q8 斜齒齒輪
材料 45C (中碳鋼)
左旋角 19°31'42"

Series CHM-Q8 Helical Soft Pinions
Material 45C (Medium Carbon Steel)
Left hand Angle 19°31'42"

單位 / Dimension : mm

型號 Code	圖 Fig.	Q	齒數 No. of Teeth	d1H6	d2	d3	D	w1	w2	k	h	KG
模數 2 Module 2												
CHM 020 281	1	-Q8	28	19	30	59.42	63.4	28	30	6	21.8	0.4
CHM 020 282	2	-Q8	28	19	30	59.42	63.4	28	56	6	21.8	0.4
CHM 020 283	1	-Q8	28	22	30	59.42	63.4	28	30	6	24.8	0.4
CHM 020 284	2	-Q8	28	22	36	59.42	63.4	28	56	6	24.8	0.4
CHM 020 285	1	-Q8	28	35	48	59.42	63.4	28	30	10	38.3	0.4
CHM 020 301	1	-Q8	30	16	25	63.66	67.7	28	30	5	18.3	0.7
CHM 020 302	1	-Q8	30	20	30	63.66	67.7	28	30	6	22.8	0.7
CHM 020 303	2	-Q8	30	22	36	63.66	67.7	28	56	6	24.8	0.7
CHM 020 304	1	-Q8	30	25	36	63.66	67.7	28	30	8	28.3	0.7
CHM 020 305	1	-Q8	30	30	45	63.66	67.7	28	30	8	33.3	0.7
CHM 020 306	2	-Q8	30	30	50	63.66	67.7	28	60	8	33.3	0.7
CHM 020 307	2	-Q8	30	32	55	63.66	67.7	28	65	10	35.3	0.7
CHM 020 321	1	-Q8	32	20	30	67.91	71.9	28	30	6	22.8	0.7
CHM 020 322	1	-Q8	32	22	30	67.91	71.9	28	30	6	24.8	0.7
CHM 020 323	2	-Q8	32	22	36	67.91	71.9	28	56	6	27.8	0.7
CHM 020 324	1	-Q8	32	25	36	67.91	71.9	28	30	8	28.3	0.7
CHM 020 325	1	-Q8	32	35	48	67.91	71.9	28	30	10	38.3	0.7
CHM 020 361	1	-Q8	36	35	48	76.39	80.4	28	30	10	38.3	0.8
CHM 020 391	2	-Q8	39	32	55	82.76	86.8	28	65	10	35.3	1.4
CHM 020 401	1	-Q8	40	35	48	84.88	88.9	28	30	10	38.3	1.2

CHM-Q8 系列 斜齒齒輪
CHM-Q8 Series Helical Soft Pinions

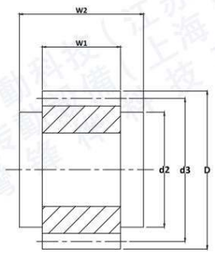


圖1/Fig1.

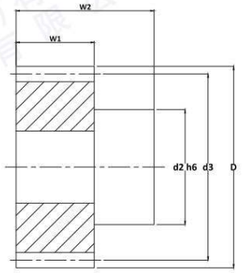
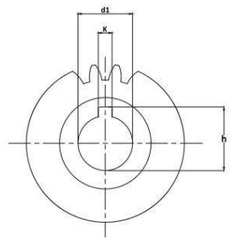


圖2/Fig2.



齒面精度等級 DIN 8
Tooth Surface Accuracy Grade DIN 8

系列 CHM-Q8 斜齒齒輪
材料 45C (中碳鋼)
左旋角 19°31'42"

Series CHM-Q8 Helical Soft Pinions
Material 45C (Medium Carbon Steel)
Left hand Angle 19°31'42"

單位 / Dimension : mm

型號 Code	圖 Fig.	Q	齒數 No. of Teeth	d1H6	d2	d3	D	w1	w2	k	h	KG
模數 3 Module 3												
CHM 030 201	2	-Q8	20	22	36	63.66	69.7	28	56	6	24.8	0.7
CHM 030 202	2	-Q8	20	25	44	63.66	69.7	28	60	8	28.3	0.7
CHM 030 203	1	-Q8	20	30	45	63.66	69.7	28	30	8	33.3	0.7
CHM 030 204	2	-Q8	20	30	50	63.66	69.7	28	60	8	33.3	0.7
CHM 030 205	2	-Q8	20	32	55	63.66	69.7	28	65	10	35.3	0.7
CHM 030 206	1	-Q8	20	35	48	63.66	69.7	28	30	10	38.3	0.7
CHM 030 221	1	-Q8	22	25	36	70.03	76.0	28	30	8	28.3	0.8
CHM 030 222	1	-Q8	22	30	45	70.03	76.0	28	30	8	33.3	0.8
CHM 030 223	2	-Q8	22	32	55	70.03	76.0	28	65	10	35.3	0.9
CHM 030 224	1	-Q8	22	35	48	70.03	76.0	28	30	10	38.3	0.8
CHM 030 225	2	-Q8	22	40	62	70.03	76.0	28	65	12	43.3	0.9
CHM 030 251	2	-Q8	25	22	36	79.58	85.6	28	56	6	24.8	1.1
CHM 030 252	1	-Q8	25	25	36	79.58	85.6	28	30	8	28.3	1.1
CHM 030 253	2	-Q8	25	25	44	79.58	85.6	28	60	8	28.3	1.1
CHM 030 254	1	-Q8	25	30	45	79.58	85.6	28	30	8	33.3	1.1
CHM 030 255	2	-Q8	25	30	50	79.58	85.6	28	60	8	33.3	1.1
CHM 030 256	2	-Q8	25	32	55	79.58	85.6	28	65	10	35.3	1.1
CHM 030 257	1	-Q8	25	35	48	79.58	85.6	28	30	10	38.3	1.1
CHM 030 258	2	-Q8	25	35	55	79.58	85.6	28	65	10	38.3	1.1
CHM 030 259	1	-Q8	25	40	70	79.58	85.6	28	50	12	43.3	1.1
CHM 030 2510	2	-Q8	25	40	62	79.58	85.6	28	65	12	43.3	1.1
CHM 030 281	2	-Q8	28	32	55	89.13	95.1	28	65	10	35.3	1.1
CHM 030 282	2	-Q8	28	40	62	89.13	95.1	28	65	12	43.3	1.1
CHM 030 321	2	-Q8	32	32	55	101.86	107.85	28	65	10	35.3	2.0
CHM 030 322	2	-Q8	32	40	62	101.86	107.85	28	65	12	43.3	2.0

CHM-Q8 系列 斜齒齒輪
CHM-Q8 Series Helical Soft Pinions

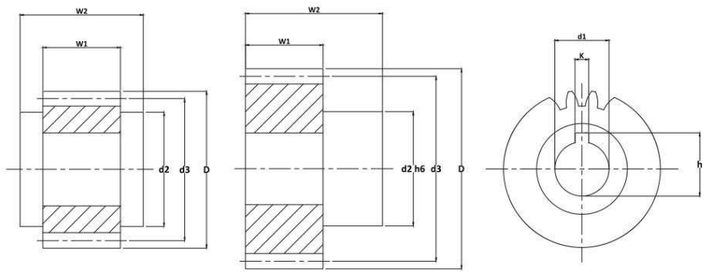


圖1/Fig1.　圖2/Fig2.

齒面精度等級 DIN 8
Tooth Surface Accuracy Grade DIN 8

系列 CHM-Q8 斜齒齒輪
材料 45C (中碳鋼)
左旋角 19°31'42"

Series CHM-Q8 Helical Soft Pinions
Material 45C (Medium Carbon Steel)
Left hand Angle 19°31'42"

單位 / Dimension : mm

型號 Code	圖 Fig.	Q	齒數 No. of Teeth	d1H6	d2	d3	D	w1	w2	k	h	KG
模數 4 Module 4												
CHM 040 151	1	-Q8	15	35	52	63.66	71.7	40	50	10	38.3	1.5
CHM 040 181	2	-Q8	18	32	55	76.39	84.4	40	75	10	35.3	1.5
CHM 040 201	1	-Q8	20	35	52	84.88	92.9	40	50	10	38.3	1.8
CHM 040 202	1	-Q8	20	45	65	84.88	92.9	40	50	14	48.8	1.7
CHM 040 211	2	-Q8	21	32	55	89.13	97.1	40	75	10	35.3	1.9
CHM 040 212	2	-Q8	21	35	55	89.13	97.1	40	75	10	38.3	1.9
CHM 040 213	2	-Q8	21	40	62	89.13	97.1	40	75	12	43.3	1.9
CHM 040 214	2	-Q8	21	45	68	89.13	97.1	40	75	14	48.8	1.8
CHM 040 221	1	-Q8	22	35	52	93.37	101.4	40	50	10	38.3	2.3
CHM 040 222	1	-Q8	22	45	65	93.37	101.4	40	50	14	48.8	2.0
CHM 040 241	2	-Q8	24	32	55	101.86	109.9	40	75	10	35.3	2.5
CHM 040 242	2	-Q8	24	35	55	101.86	109.9	40	75	10	38.3	2.5
CHM 040 243	2	-Q8	24	40	62	101.86	109.9	40	75	12	43.3	2.5
CHM 040 244	2	-Q8	24	45	68	101.86	109.9	40	75	14	48.8	2.5
CHM 040 245	2	-Q8	24	55	80	101.86	109.9	40	80	16	59.3	2.5
CHM 040 251	1	-Q8	25	35	52	106.10	114.1	40	50	10	38.3	3.0
CHM 040 252	1	-Q8	25	45	65	106.10	114.1	40	50	14	48.8	3.0
CHM 040 253	2	-Q8	25	55	80	106.10	114.1	40	80	16	59.3	3.0

CHM-Q8 系列 斜齒齒輪
CHM-Q8 Series Helical Soft Pinions

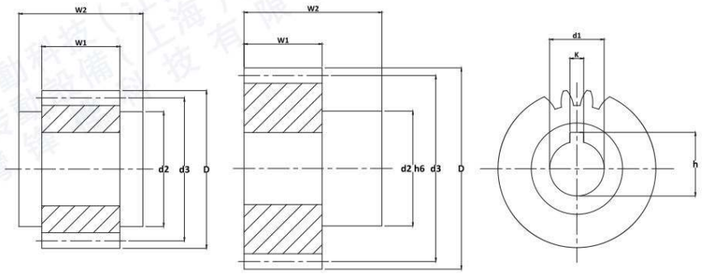


圖1/Fig1.　圖2/Fig2.

齒面精度等級 DIN 8
Tooth Surface Accuracy Grade DIN 8

系列 CHM-Q8 斜齒齒輪
材料 45C (中碳鋼)
左旋角 19°31'42"

Series CHM-Q8 Helical Soft Pinions
Material 45C (Medium Carbon Steel)
Left hand Angle 19°31'42"

單位 / Dimension : mm

型號 Code	圖 Fig.	Q	齒數 No. of Teeth	d1H6	d2	d3	D	w1	w2	k	h	KG
模數 5 Module 5												
CHM 050 181	2	-Q8	18	45	68	95.49	105.5	50	85	14	48.8	2.8
CHM 050 241	2	-Q8	24	45	68	127.32	137.3	50	85	14	48.8	5.0
CHM 050 242	2	-Q8	24	55	80	127.32	137.3	50	90	16	59.3	5.0
CHM 050 243	2	-Q8	24	75	110	127.32	137.3	50	110	20	79.9	5.5
模數 6 Module 6												
CHM 060 201	2	-Q8	20	55	80	127.32	139.3	60	100	16	59.3	5.8
CHM 060 202	2	-Q8	20	75	110	127.32	139.3	60	120	20	79.9	6.3
CHM 060 253	2	-Q8	25	55	80	159.16	171.2	60	100	16	59.3	9.0
CHM 060 254	2	-Q8	25	75	110	159.16	171.2	60	120	20	79.9	9.5
模數 8 Module 8												
CHM 080 181	2	-Q8	18	75	110	152.79	168.8	80	140	20	79.9	11.0
CHM 080 202	2	-Q8	20	85	125	169.8	185.8	80	145	22	90.4	14.0
模數 10 Module 10												
CHM 100 201	2	-Q8	20	85	125	212.21	232.2	100	165	22	90.4	26.0

CHMH-Q10 系列 斜齒硬化齒輪
CHMH-Q10 Series Helical Hardened Pinions

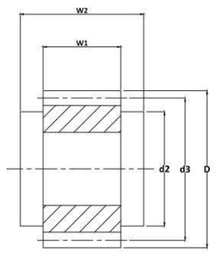


圖1/Fig1.

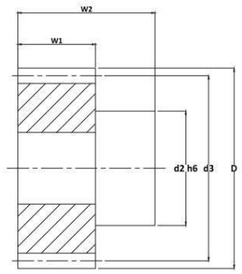
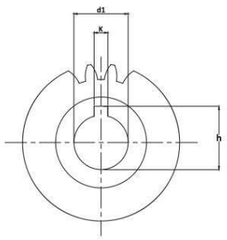


圖2/Fig2.



齒面精度等級 DIN 10
Tooth Surface Accuracy Grade DIN 10

系列 CHMH-Q10 斜齒硬化齒輪
材料 45C (中碳鋼)
左旋角 19°31'42"
硬度 HRC 50~55°

Series CHMH-Q10 Helical Hardened Pinions
Material 45C (Medium Carbon Steel)
Left hand Angle 19°31'42"
Hardness: HRC 50~55°

單位 / Dimension : mm

型號 Code	圖 Fig.	Q	齒數 No. of Teeth	d1H6	d2	d3	D	w1	w2	k	h	KG
模數 1.5 Module 1.5												
CHMH 015 201	1	-Q10	20	11	25	31.83	34.83	20	22	4	12.8	0.1
CHMH 015 201	1	-Q10	20	13	25	31.83	34.83	20	22	5	15.3	0.1
CHMH 015 202	1	-Q10	20	14	25	31.83	34.83	20	22	5	16.3	0.1
CHMH 015 203	1	-Q10	20	16	25	31.83	34.83	20	22	5	18.3	0.1
CHMH 015 211	2	-Q10	21	16	30	33.42	36.42	20	46	5	18.3	0.2
模數 2 Module 1.5												
CHMH 020 181	1	-Q10	18	16	25	38.197	42.2	28	30	5	18.3	0.2
CHMH 020 201	1	-Q10	20	19	30	42.44	46.4	28	30	6	21.8	0.2
CHMH 020 202	2	-Q10	20	19	30	42.44	46.4	28	56	6	21.8	0.2
CHMH 020 203	1	-Q10	20	20	30	42.44	46.4	28	30	6	22.8	0.2
CHMH 020 204	2	-Q10	20	22	36	42.44	46.4	28	56	6	24.8	0.2
CHMH 020 205	1	-Q10	20	22	30	42.44	46.4	28	30	6	24.8	0.2
CHMH 020 211	1	-Q10	21	16	25	44.56	48.6	28	30	5	18.3	0.3
CHMH 020 212	2	-Q10	21	22	36	44.56	48.6	28	56	6	24.8	0.3
CHMH 020 221	1	-Q10	22	19	30	46.69	50.7	28	30	6	21.8	0.3
CHMH 020 222	2	-Q10	22	19	30	46.69	50.7	28	56	6	21.8	0.3
CHMH 020 223	1	-Q10	22	22	30	46.69	50.7	28	30	6	24.8	0.3
CHMH 020 224	2	-Q10	22	22	36	46.69	50.7	28	56	6	24.8	0.3
CHMH 020 251	1	-Q10	25	19	30	53.05	57.1	28	30	6	21.8	0.4
CHMH 020 252	2	-Q10	25	19	30	53.05	57.1	28	56	6	21.8	0.4
CHMH 020 253	1	-Q10	25	20	30	53.05	57.1	28	30	6	22.8	0.4
CHMH 020 254	1	-Q10	25	22	30	53.05	57.1	28	30	6	24.8	0.4
CHMH 020 255	2	-Q10	25	22	36	53.05	57.1	28	56	6	24.8	0.4
CHMH 020 256	1	-Q10	25	25	36	53.05	57.1	28	30	6	27.8	0.4

CHMH-Q10 系列 斜齒硬化齒輪
CHMH-Q10 Series Helical Hardened Pinions

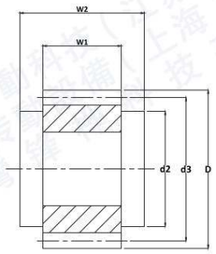


圖1/Fig1.

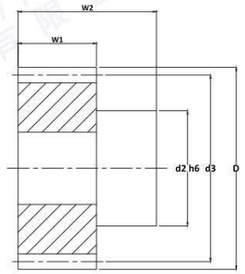
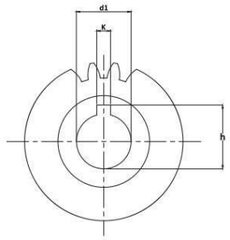


圖2/Fig2.



齒面精度等級 DIN 10
Tooth Surface Accuracy Grade DIN 10

系列 CHMH-Q10 斜齒硬化齒輪
材料 45C (中碳鋼)
左旋角 19°31'42"
硬度 HRC 50~55°

Series CHMH-Q10 Helical Hardened Pinions
Material 45C (Medium Carbon Steel)
Left hand Angle 19°31'42"
Hardness: HRC 50~55°

單位 / Dimension : mm

型號 Code	圖 Fig.	Q	齒數 No. of Teeth	d1H6	d2	d3	D	w1	w2	k	h	KG
模數 2 Module 2												
CHMH 020 281	1	-Q10	28	19	30	59.42	63.4	28	30	6	21.8	0.4
CHMH 020 282	2	-Q10	28	19	30	59.42	63.4	28	56	6	21.8	0.4
CHMH 020 283	1	-Q10	28	22	30	59.42	63.4	28	30	6	24.8	0.4
CHMH 020 284	2	-Q10	28	22	36	59.42	63.4	28	56	6	24.8	0.4
CHMH 020 285	1	-Q10	28	35	48	59.42	63.4	28	30	10	38.3	0.4
CHMH 020 301	1	-Q10	30	16	25	63.66	67.7	28	30	5	18.3	0.7
CHMH 020 302	1	-Q10	30	20	30	63.66	67.7	28	30	6	22.8	0.7
CHMH 020 303	2	-Q10	30	22	36	63.66	67.7	28	56	6	24.8	0.7
CHMH 020 304	1	-Q10	30	25	36	63.66	67.7	28	30	8	28.3	0.7
CHMH 020 305	1	-Q10	30	30	45	63.66	67.7	28	30	8	33.3	0.7
CHMH 020 306	2	-Q10	30	30	50	63.66	67.7	28	60	8	33.3	0.7
CHMH 020 307	2	-Q10	30	32	55	63.66	67.7	28	65	10	35.3	0.7
CHMH 020 321	1	-Q10	32	20	30	67.91	71.9	28	30	6	22.8	0.7
CHMH 020 322	1	-Q10	32	22	30	67.91	71.9	28	30	6	24.8	0.7
CHMH 020 323	2	-Q10	32	22	36	67.91	71.9	28	56	6	27.8	0.7
CHMH 020 324	1	-Q10	32	25	36	67.91	71.9	28	30	8	28.3	0.7
CHMH 020 325	1	-Q10	32	35	48	67.91	71.9	28	30	10	38.3	0.7
CHMH 020 361	1	-Q10	36	35	48	76.39	80.4	28	30	10	38.3	0.8
CHMH 020 391	2	-Q10	39	32	55	82.76	86.8	28	65	10	35.3	1.4
CHMH 020 401	1	-Q10	40	35	48	84.88	88.9	28	30	10	38.3	1.2

CHMH-Q10 系列 斜齒硬化齒輪
CHMH-Q10 Series Helical Hardened Pinions

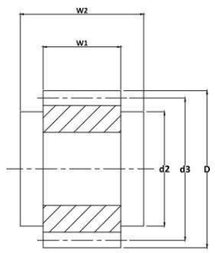


圖1/Fig1.

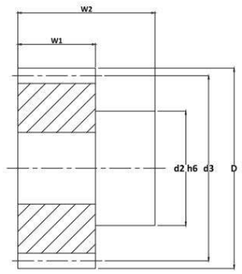
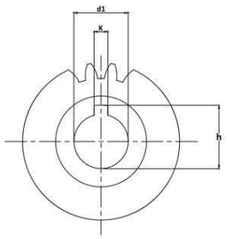


圖2/Fig2.



齒面精度等級 DIN 10
Tooth Surface Accuracy Grade DIN 10

系列 CHMH-Q10 斜齒硬化齒輪
材料 45C (中碳鋼)
左旋角 19°31'42"
硬度 HRC 50~55°

Series CHMH-Q10 Helical Hardened Pinions
Material 45C (Medium Carbon Steel)
Left hand Angle 19°31'42"
Hardness: HRC 50~55°

單位 / Dimension : mm

型號 Code	圖 Fig.	Q	齒數 No. of Teeth	d1H6	d2	d3	D	w1	w2	k	h	KG
模數 3 Module 3												
CHMH 030 201	2	-Q10	20	22	36	63.66	69.7	28	56	6	24.8	0.7
CHMH 030 202	2	-Q10	20	25	44	63.66	69.7	28	60	8	28.3	0.7
CHMH 030 203	1	-Q10	20	30	45	63.66	69.7	28	30	8	33.3	0.7
CHMH 030 204	2	-Q10	20	30	50	63.66	69.7	28	60	8	33.3	0.7
CHMH 030 205	2	-Q10	20	32	55	63.66	69.7	28	65	10	35.3	0.7
CHMH 030 206	1	-Q10	20	35	48	63.66	69.7	28	30	10	38.3	0.7
CHMH 030 221	1	-Q10	22	25	36	70.03	76.0	28	30	8	28.3	0.8
CHMH 030 222	1	-Q10	22	30	45	70.03	76.0	28	30	8	33.3	0.8
CHMH 030 223	2	-Q10	22	32	55	70.03	76.0	28	65	10	35.3	0.9
CHMH 030 224	1	-Q10	22	35	48	70.03	76.0	28	30	10	38.3	0.8
CHMH 030 225	2	-Q10	22	40	62	70.03	76.0	28	65	12	43.3	0.9
CHMH 030 251	2	-Q10	25	22	36	79.58	85.6	28	56	6	24.8	1.1
CHMH 030 252	1	-Q10	25	25	36	79.58	85.6	28	30	8	28.3	1.1
CHMH 030 253	2	-Q10	25	25	44	79.58	85.6	28	60	8	28.3	1.1
CHMH 030 254	1	-Q10	25	30	45	79.58	85.6	28	30	8	33.3	1.1
CHMH 030 255	2	-Q10	25	30	50	79.58	85.6	28	60	8	33.3	1.1
CHMH 030 256	2	-Q10	25	32	55	79.58	85.6	28	65	10	35.3	1.1
CHMH 030 257	1	-Q10	25	35	48	79.58	85.6	28	30	10	38.3	1.1
CHMH 030 258	2	-Q10	25	35	55	79.58	85.6	28	65	10	38.3	1.1
CHMH 030 259	1	-Q10	25	40	70	79.58	85.6	28	50	12	43.3	1.1
CHMH 030 2510	2	-Q10	25	40	62	79.58	85.6	28	65	12	43.3	1.1
CHMH 030 281	2	-Q10	28	32	55	89.13	95.1	28	65	10	35.3	1.1
CHMH 030 282	2	-Q10	28	40	62	89.13	95.1	28	65	12	43.3	1.1
CHMH 030 321	2	-Q10	32	32	55	101.86	107.85	28	65	10	35.3	2.0
CHMH 030 322	2	-Q10	32	40	62	101.86	107.85	28	65	12	43.3	2.0

CHMH-Q10 系列 斜齒硬化齒輪
CHMH-Q10 Series Helical Hardened Pinions

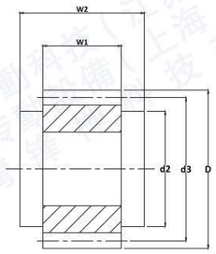


圖1/Fig1.

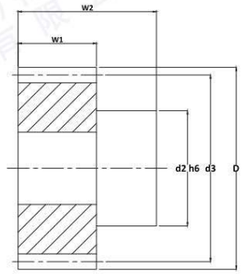
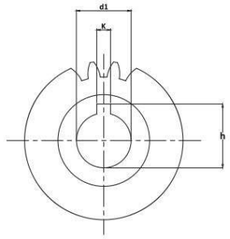


圖2/Fig2.



齒面精度等級 DIN 10
Tooth Surface Accuracy Grade DIN 10

系列 CHMH-Q10 斜齒硬化齒輪
材料 45C (中碳鋼)
左旋角 19°31'42"
硬度 HRC 50~55°

Series CHMH-Q10 Helical Hardened Pinions
Material 45C (Medium Carbon Steel)
Left hand Angle 19°31'42"
Hardness: HRC 50~55°

單位 / Dimension : mm

型號 Code	圖 Fig.	Q	齒數 No. of Teeth	d1H6	d2	d3	D	w1	w2	k	h	KG
模數 4 Module 4												
CHMH 040 151	1	-Q10	15	35	52	63.66	71.7	40	50	10	38.3	1.5
CHMH 040 181	2	-Q10	18	32	55	76.39	84.4	40	75	10	35.3	1.5
CHMH 040 201	1	-Q10	20	35	52	84.88	92.9	40	50	10	38.3	1.8
CHMH 040 202	1	-Q10	20	45	65	84.88	92.9	40	50	14	48.8	1.7
CHMH 040 211	2	-Q10	21	32	55	89.13	97.1	40	75	10	35.3	1.9
CHMH 040 212	2	-Q10	21	35	55	89.13	97.1	40	75	10	38.3	1.9
CHMH 040 213	2	-Q10	21	40	62	89.13	97.1	40	75	12	43.3	1.9
CHMH 040 214	2	-Q10	21	45	68	89.13	97.1	40	75	14	48.8	1.8
CHMH 040 221	1	-Q10	22	35	52	93.37	101.4	40	50	10	38.3	2.3
CHMH 040 222	1	-Q10	22	45	65	93.37	101.4	40	50	14	48.8	2.0
CHMH 040 241	2	-Q10	24	32	55	101.86	109.9	40	75	10	35.3	2.5
CHMH 040 242	2	-Q10	24	35	55	101.86	109.9	40	75	10	38.3	2.5
CHMH 040 243	2	-Q10	24	40	62	101.86	109.9	40	75	12	43.3	2.5
CHMH 040 244	2	-Q10	24	45	68	101.86	109.9	40	75	14	48.8	2.5
CHMH 040 245	2	-Q10	24	55	80	101.86	109.9	40	80	16	59.3	2.5
CHMH 040 251	1	-Q10	25	35	52	106.10	114.1	40	50	10	38.3	3.0
CHMH 040 252	1	-Q10	25	45	65	106.10	114.1	40	50	14	48.8	3.0
CHMH 040 253	2	-Q10	25	55	80	106.10	114.1	40	80	16	59.3	3.0

CHMH-Q10 系列 斜齒硬化齒輪
CHMH-Q10 Series Helical Hardened Pinions

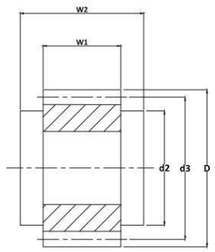


圖1/Fig1.

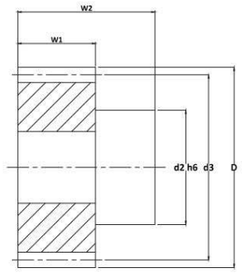
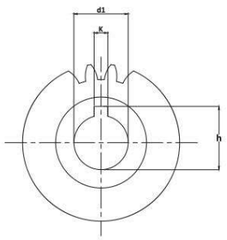


圖2/Fig2.



齒面精度等級 DIN 10
Tooth Surface Accuracy Grade DIN 10

系列 CHMH-Q10 斜齒硬化齒輪
材料 45C (中碳鋼)
左旋角 19°31'42"
硬度 HRC 50~55°

Series CHMH-Q10 Helical Hardened Pinions
Material 45C (Medium Carbon Steel)
Left hand Angle 19°31'42"
Hardness: HRC 50~55°

單位 / Dimension : mm

型號 Code	圖 Fig.	Q	齒數 No. of Teeth	d1H6	d2	d3	D	w1	w2	k	h	KG
模數 5 Module 5												
CHMH 050 181	2	-Q10	18	45	68	95.49	105.5	50	85	14	48.8	2.8
CHMH 050 241	2	-Q10	24	45	68	127.32	137.3	50	85	14	48.8	5.0
CHMH 050 242	2	-Q10	24	55	80	127.32	137.3	50	90	16	59.3	5.0
CHMH 050 243	2	-Q10	24	75	110	127.32	137.3	50	110	20	79.9	5.5
模數 6 Module 6												
CHMH 060 201	2	-Q10	20	55	80	127.32	139.3	60	100	16	59.3	5.8
CHMH 060 202	2	-Q10	20	75	110	127.32	139.3	60	120	20	79.9	6.3
CHMH 060 253	2	-Q10	25	55	80	159.16	171.2	60	100	16	59.3	9.0
CHMH 060 254	2	-Q10	25	75	110	159.16	171.2	60	120	20	79.9	9.5
模數 8 Module 8												
CHMH 080 181	2	-Q10	18	75	110	152.79	168.8	80	140	20	79.9	11.0
CHMH 080 202	2	-Q10	20	85	125	169.8	185.8	80	145	22	90.4	14.0
模數 10 Module 10												
CHMH 100 201	2	-Q10	20	85	125	212.21	232.2	100	165	22	90.4	26.0

CSGH-Q6 系列 直齒齒研齒輪
CSGH-Q6 Series Straight Teeth Ground Pinions

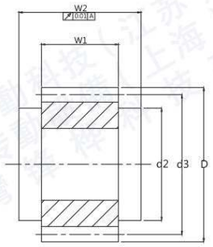


圖1/Fig1.

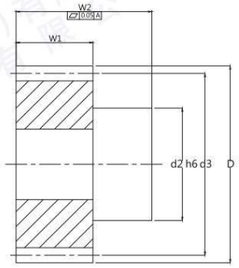
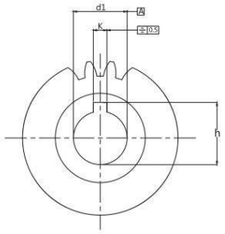


圖2/Fig2.



齒面精度等級 DIN 6
Tooth Surface Accuracy Grade DIN 6

系列 CSGH-Q6 直齒齒研齒輪
材料 45C (中碳鋼)
硬度 HRC 50~55°

Series CSGH-Q6 Straight Teeth Ground Pinions
Material 45C (Medium Carbon Steel)
Hardness: HRC 50~55°

單位 / Dimension : mm

型號 Code	圖 Fig.	Q	齒數 No. of Teeth	d1H6	d2	d3	D	w1	w2	k	h	KG
模數 2 Module 2												
CSGH 02016 1	1	-Q6	16	15	25	32	36	28	30	5	17.3	0.1
CSGH 02018 1	1	-Q6	18	15	30	36	40	28	30	5	17.3	0.2
CSGH 02018 2	1	-Q6	18	20	25	36	40	28	30	6	22.8	0.2
CSGH 02020 1	1	-Q6	20	15	25	40	44	28	30	6	17.8	0.2
CSGH 02020 2	1	-Q6	20	19	30	40	44	28	30	6	21.8	0.2
CSGH 02020 3	2	-Q6	20	19	30	40	44	28	56	6	21.8	0.2
CSGH 02020 4	1	-Q6	20	20	30	40	44	28	30	6	22.8	0.2
CSGH 02020 5	1	-Q6	20	22	30	40	44	28	30	6	24.8	0.2
CSGH 02020 6	2	-Q6	20	22	36	40	44	28	56	6	24.8	0.3
CSGH 02022 1	1	-Q6	22	15	25	44	48	28	30	5	17.3	0.3
CSGH 02022 2	1	-Q6	22	19	30	44	48	28	30	6	21.8	0.3
CSGH 02022 3	2	-Q6	22	19	30	44	48	28	56	6	21.8	0.3
CSGH 02022 4	1	-Q6	22	20	30	44	48	28	30	6	22.8	0.3
CSGH 02022 5	2	-Q6	22	22	36	44	48	28	56	6	24.8	0.3
CSGH 02022 6	1	-Q6	22	22	30	44	48	28	30	6	24.8	0.3
CSGH 02022 7	1	-Q6	22	25	36	44	48	28	30	8	28.3	0.2
CSGH 02025 1	2	-Q6	25	16	30	50	54	28	54	5	18.3	0.3
CSGH 02025 2	1	-Q6	25	19	30	50	54	28	30	6	21.8	0.3
CSGH 02025 3	2	-Q6	25	19	30	50	54	28	56	6	21.8	0.3
CSGH 02025 4	1	-Q6	25	20	30	50	54	28	30	6	22.8	0.4
CSGH 02025 5	1	-Q6	25	22	30	50	54	28	30	6	24.8	0.3
CSGH 02025 6	2	-Q6	25	22	36	50	54	28	56	6	24.8	0.4
CSGH 02025 7	1	-Q6	25	25	36	50	54	28	30	8	28.3	0.3
CSGH 02025 8	1	-Q6	25	30	45	50	54	28	30	8	33.3	0.3
CSGH 02028 1	1	-Q6	28	19	30	56	60	28	30	6	21.8	0.5
CSGH 02028 2	2	-Q6	28	19	30	56	60	28	56	6	21.8	0.5
CSGH 02028 3	1	-Q6	28	20	30	56	60	28	30	6	22.8	0.5
CSGH 02028 4	1	-Q6	28	22	30	56	60	28	30	6	24.8	0.3
CSGH 02028 5	2	-Q6	28	22	36	56	60	28	56	6	24.8	0.3
CSGH 02028 6	1	-Q6	28	25	36	56	60	28	30	8	28.3	0.4
CSGH 02028 7	1	-Q6	28	30	45	56	60	28	30	8	33.3	0.4
CSGH 02028 8	2	-Q6	28	30	50	56	60	28	60	8	33.3	0.4
CSGH 02028 9	1	-Q6	28	35	48	56	60	28	30	10	38.3	0.3
CSGH 02032 1	2	-Q6	32	16	30	64	68	28	54	5	18.3	0.6

CSGH-Q6 系列 直齒齒研齒輪
CSGH-Q6 Series Straight Teeth Ground Pinions

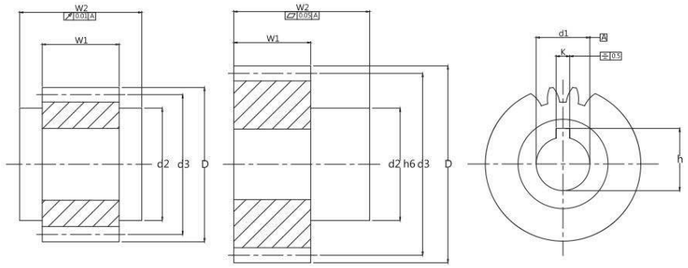


圖1/Fig1.　圖2/Fig2.

齒面精度等級 DIN 6
Tooth Surface Accuracy Grade DIN 6

系列 CSGH-Q6 直齒齒研齒輪
材料 45C (中碳鋼)
硬度 HRC 50~55°

Series CSGH-Q6 Straight Teeth Ground Pinions
Material 45C (Medium Carbon Steel)
Hardness: HRC 50~55°

單位 / Dimension : mm

型號 Code	圖 Fig.	Q	齒數 No. of Teeth	d1H6	d2	d3	D	w1	w2	k	h	KG
模數 2 Module 2												
CSGH 02032 2	1	-Q6	32	20	30	64	68	28	30	6	22.8	0.6
CSGH 02032 3	1	-Q6	32	22	30	64	68	28	30	6	24.8	0.4
CSGH 02032 4	2	-Q6	32	22	36	64	68	28	56	6	24.8	0.6
CSGH 02032 5	1	-Q6	32	25	36	64	68	28	30	8	28.3	0.6
CSGH 02032 6	1	-Q6	32	30	45	64	68	28	30	8	33.3	0.6
CSGH 02032 7	2	-Q6	32	30	50	64	68	28	60	8	33.3	0.6
CSGH 02032 8	2	-Q6	32	32	55	64	68	28	65	10	35.3	0.5
CSGH 02032 9	1	-Q6	32	35	48	64	68	28	30	10	38.3	0.5
CSGH 02036 1	1	-Q6	36	20	30	72	76	28	30	6	22.8	0.8
CSGH 02036 2	1	-Q6	36	25	36	72	76	28	30	8	28.3	0.8
CSGH 02036 3	1	-Q6	36	30	45	72	76	28	30	8	33.3	0.7
CSGH 02036 4	1	-Q6	36	35	48	72	76	28	30	10	38.3	0.7
CSGH 02036 5	2	-Q6	36	40	62	72	76	28	65	12	43.3	0.5
CSGH 02036 6	1	-Q6	36	45	58	72	76	28	30	14	48.8	0.6
CSGH 02040 1	1	-Q6	40	15	36	80	84	28	30	5	17.3	1.0
CSGH 02040 2	1	-Q6	40	20	30	80	84	28	30	6	22.8	1.0
CSGH 02040 3	1	-Q6	40	25	36	80	84	28	30	8	28.3	1.0
CSGH 02040 4	1	-Q6	40	30	45	80	84	28	30	8	33.3	1.0
CSGH 02040 5	2	-Q6	40	32	55	80	84	28	65	10	35.3	0.9
CSGH 02040 6	1	-Q6	40	35	48	80	84	28	30	10	38.3	0.9
CSGH 02040 7	2	-Q6	40	40	62	80	84	28	65	12	43.3	0.7
CSGH 02040 8	1	-Q6	40	45	58	80	84	28	30	14	48.8	0.8
CSGH 02040 9	2	-Q6	40	45	68	80	84	28	65	14	48.8	1.3
CSGH 02045 1	1	-Q6	45	20	30	90	94	28	30	6	22.8	1.3
CSGH 02045 2	1	-Q6	45	25	36	90	94	28	30	8	28.3	1.2
CSGH 02045 3	1	-Q6	45	35	48	90	94	28	30	10	38.3	1.2
CSGH 02045 4	1	-Q6	45	45	58	90	94	28	30	14	48.8	1.1
CSGH 02050 1	1	-Q6	50	20	30	100	104	28	30	6	22.8	1.6
CSGH 02050 2	1	-Q6	50	25	36	100	104	28	30	8	28.3	1.5
CSGH 02050 3	1	-Q6	50	35	48	100	104	28	30	10	38.3	1.5
CSGH 02050 4	1	-Q6	50	45	58	100	104	28	30	14	48.8	1.4
CSGH 02050 5	2	-Q6	50	45	68	100	104	28	65	14	48.8	2.0
CSGH 02056 1	1	-Q6	56	25	36	112	116	28	30	8	28.3	1.9
CSGH 02056 1	1	-Q6	56	35	48	112	116	28	30	10	38.3	1.8

CSGH-Q6 系列 直齒齒研齒輪
CSGH-Q6 Series Straight Teeth Ground Pinions

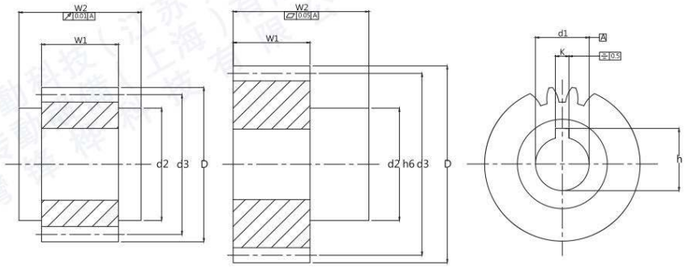


圖1/Fig1.　圖2/Fig2.

齒面精度等級 DIN 6
Tooth Surface Accuracy Grade DIN 6

系列 CSGH-Q6 直齒齒研齒輪
材料 45C (中碳鋼)
硬度 HRC 50~55°

Series CSGH-Q6 Straight Teeth Ground Pinions
Material 45C (Medium Carbon Steel)
Hardness: HRC 50~55°

單位 / Dimension : mm

型號 Code	圖 Fig.	Q	齒數 No. of Teeth	d1H6	d2	d3	D	w1	w2	k	h	KG
模數 3 Module 3												
CSGH 030181	1	-Q6	18	25	36	54	60	28	30	8	28.3	0.4
CSGH 030201	1	-Q6	20	25	36	60	66	28	30	8	28.3	0.5
CSGH 030202	1	-Q6	20	30	45	60	66	28	30	8	33.3	0.5
CSGH 030203	1	-Q6	20	35	48	60	66	28	30	10	38.3	0.5
CSGH 030221	2	-Q6	22	22	36	66	72	28	56	6	24.8	0.8
CSGH 030222	1	-Q6	22	25	36	66	72	28	30	8	28.3	0.6
CSGH 030223	2	-Q6	22	25	44	66	72	28	60	8	28.3	0.9
CSGH 030224	1	-Q6	22	30	45	66	72	28	30	8	33.3	0.6
CSGH 030225	2	-Q6	22	32	55	66	72	28	65	10	35.3	1.1
CSGH 030226	2	-Q6	22	30	50	66	72	28	60	8	33.3	0.9
CSGH 030227	1	-Q6	22	35	48	66	72	28	30	10	38.3	0.6
CSGH 030228	2	-Q6	22	35	55	66	72	28	65	10	38.3	0.9
CSGH 030229	2	-Q6	22	40	62	66	72	28	65	12	43.3	1.1
CSGH 030251	1	-Q6	25	25	36	75	81	28	30	8	28.3	0.9
CSGH 030252	1	-Q6	25	30	45	75	81	28	30	8	33.3	0.9
CSGH 030253	2	-Q6	25	32	55	75	81	28	65	10	35.3	1.3
CSGH 030254	1	-Q6	25	35	48	75	81	28	30	10	38.3	0.9
CSGH 030255	2	-Q6	25	40	62	75	81	28	65	12	43.3	1.3
CSGH 030256	1	-Q6	25	45	58	75	81	28	30	14	48.8	0.7
CSGH 030281	2	-Q6	28	22	36	84	90	28	56	6	24.8	1.4
CSGH 030282	1	-Q6	28	25	36	84	90	28	30	8	28.3	1.2
CSGH 030283	2	-Q6	28	25	44	84	90	28	60	8	28.3	1.4
CSGH 030284	1	-Q6	28	30	45	84	90	28	30	8	33.3	1.2
CSGH 030285	2	-Q6	28	30	50	84	90	28	60	8	33.3	1.4
CSGH 030286	2	-Q6	28	32	55	84	90	28	65	10	35.3	1.5
CSGH 030287	1	-Q6	28	35	48	84	90	28	30	10	38.3	1.0
CSGH 030288	2	-Q6	28	35	55	84	90	28	65	10	38.3	1.5
CSGH 030289	2	-Q6	28	40	62	84	90	28	65	12	43.3	1.5

CSGH-Q6 系列 直齒齒研齒輪
CSGH-Q6 Series Straight Teeth Ground Pinions

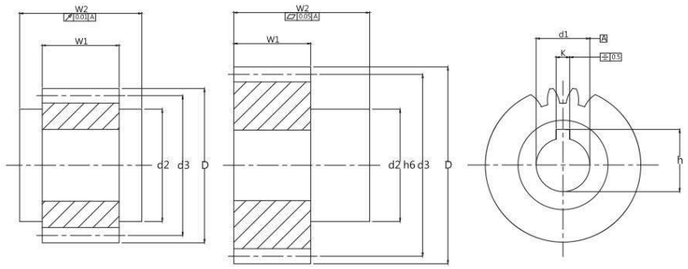


圖1/Fig1.　圖2/Fig2.

齒面精度等級 DIN 6
Tooth Surface Accuracy Grade DIN 6

系列 CSGH-Q6 直齒齒研齒輪
材料 45C (中碳鋼)
硬度 HRC 50~55°

Series CSGH-Q6 Straight Teeth Ground Pinions
Material 45C (Medium Carbon Steel)
Hardness: HRC 50~55°

單位 / Dimension : mm

型號 Code	圖 Fig.	Q	齒數 No. of Teeth	d1H6	d2	d3	D	w1	w2	k	h	KG
模數 3 Module 3												
CSGH 030 28 10	1	-Q6	28	45	58	84	90	28	30	14	48.8	0.9
CSGH 030 28 11	2	-Q6	28	45	68	84	90	28	65	14	48.8	1.5
CSGH 030 32 1	1	-Q6	32	25	36	96	102	28	30	8	28.3	1.6
CSGH 030 32 3	1	-Q6	32	30	45	96	102	28	30	8	33.3	1.5
CSGH 030 32 3	2	-Q6	32	32	55	96	102	28	65	10	35.3	1.9
CSGH 030 32 4	1	-Q6	32	35	48	96	102	28	30	10	38.3	1.5
CSGH 030 32 5	2	-Q6	32	40	62	96	102	28	65	12	43.3	1.9
CSGH 030 32 6	1	-Q6	32	45	58	96	102	28	30	14	48.8	1.3
CSGH 030 32 7	1	-Q6	32	60	80	96	102	28	30	18	64.4	1.1
CSGH 030 36 1	1	-Q6	36	25	36	108	114	28	30	8	28.3	1.9
CSGH 030 36 2	1	-Q6	36	35	48	108	114	28	30	10	38.3	1.9
CSGH 030 36 3	1	-Q6	36	45	58	108	114	28	30	14	48.8	1.8
CSGH 030 36 4	2	-Q6	36	45	68	108	114	28	65	14	48.8	2.2
CSGH 030 36 5	1	-Q6	36	60	80	108	114	28	30	18	64.4	1.5
CSGH 030 40 1	1	-Q6	40	25	36	120	126	28	30	8	28.3	2.4
CSGH 030 40 2	1	-Q6	40	35	48	120	126	28	30	10	38.3	2.4
CSGH 030 40 3	1	-Q6	40	45	58	120	126	28	30	14	48.8	2.2
CSGH 030 40 4	1	-Q6	40	60	80	120	126	28	30	18	64.4	1.9
CSGH 030 45 1	1	-Q6	45	25	36	135	141	28	30	8	28.3	3.0
CSGH 030 45 2	1	-Q6	45	35	48	135	141	28	30	10	38.3	2.6
CSGH 030 45 3	1	-Q6	45	45	58	135	141	28	30	14	48.8	2.4
CSGH 030 45 4	1	-Q6	45	60	80	135	141	28	30	18	64.4	2.5
CSGH 030 50 1	1	-Q6	50	35	48	150	156	28	30	10	38.3	3.6
CSGH 030 50 2	1	-Q6	50	45	58	150	156	28	30	14	48.8	3.6
CSGH 030 56 1	1	-Q6	56	45	58	168	174	28	30	14	48.8	4.4
CSGH 030 63 1	1	-Q6	63	45	58	189	195	28	30	14	48.8	5.5
CSGH 030 63 2	1	-Q6	63	60	80	189	195	28	30	18	64.4	5.5

CSGH-Q6 系列 直齒齒研齒輪
CSGH-Q6 Series Straight Teeth Ground Pinions

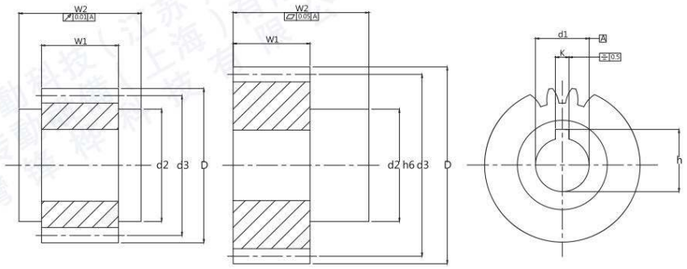


圖1/Fig1.　圖2/Fig2.

齒面精度等級 DIN 6
Tooth Surface Accuracy Grade DIN 6

系列 CSGH-Q6 直齒齒研齒輪
材料 45C (中碳鋼)
硬度 HRC 50~55°

Series CSGH-Q6 Straight Teeth Ground Pinions
Material 45C (Medium Carbon Steel)
Hardness: HRC 50~55°

單位 / Dimension : mm

型號 Code	圖 Fig.	Q	齒數 No. of Teeth	d1H6	d2	d3	D	w1	w2	k	h	KG
模數 4 Module 4												
CSGH 040 201	2	-Q6	20	32	55	80	88	40	75	10	35.3	1.8
CSGH 040 202	1	-Q6	20	35	52	80	88	40	50	10	38.3	1.4
CSGH 040 203	2	-Q6	20	35	55	80	88	40	75	10	38.3	1.8
CSGH 040 204	1	-Q6	20	45	65	80	88	40	50	14	48.8	1.3
CSGH 040 205	2	-Q6	20	40	62	80	88	40	75	12	43.3	1.8
CSGH 040 221	1	-Q6	22	35	52	88	96	40	50	10	38.3	1.8
CSGH 040 222	1	-Q6	22	45	65	88	96	40	50	14	48.8	1.6
CSGH 040 223	2	-Q6	22	45	68	88	96	40	75	14	48.8	2.0
CSGH 040 251	2	-Q6	25	32	55	100	108	40	75	10	35.3	2.6
CSGH 040 252	1	-Q6	25	35	52	100	108	40	50	10	38.3	2.3
CSGH 040 253	2	-Q6	25	35	55	100	108	40	75	10	38.3	2.6
CSGH 040 254	2	-Q6	25	40	62	100	108	40	75	12	43.3	2.6
CSGH 040 255	1	-Q6	25	45	65	100	108	40	50	14	48.8	2.0
CSGH 040 256	2	-Q6	25	55	80	100	108	40	80	16	59.3	2.6
CSGH 040 281	1	-Q6	28	35	52	112	120	40	50	10	38.3	3.0
CSGH 040 282	1	-Q6	28	45	65	112	120	40	50	14	48.8	2.8
CSGH 040 283	2	-Q6	28	45	68	112	120	40	75	14	48.8	3.0
CSGH 040 321	1	-Q6	32	35	52	128	136	40	50	10	38.3	3.8
CSGH 040 322	1	-Q6	32	45	65	128	136	40	50	14	48.8	3.8
CSGH 040 323	2	-Q6	32	55	80	128	136	40	80	16	59.3	4.0
CSGH 040 324	2	-Q6	32	75	110	128	136	40	100	20	79.9	5.0
CSGH 040 401	1	-Q6	40	45	65	160	168	40	50	14	48.8	6.0
CSGH 040 402	1	-Q6	40	60	80	160	168	40	50	18	64.4	5.8
CSGH 040 403	2	-Q6	40	75	110	160	168	40	100	20	79.9	7.2

CSGH-Q6 系列 直齒齒研齒輪
CSGH-Q6 Series Straight Teeth Ground Pinions

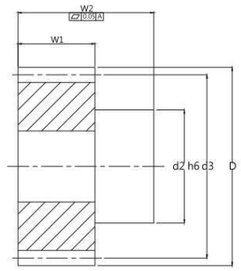
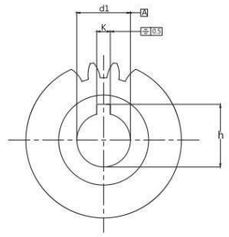


圖2/Fig2.



齒面精度等級 DIN 6
Tooth Surface Accuracy Grade DIN 6

系列 CSGH-Q6 直齒齒研齒輪
材料 45C (中碳鋼)
硬度 HRC 50~55°

Series CSGH-Q6 Straight Teeth Ground Pinions
Material 45C (Medium Carbon Steel)
Hardness: HRC 50~55°

單位 / Dimension : mm

型號 Code	圖 Fig.	Q	齒數 No. of Teeth	d1H6	d2	d3	D	w1	w2	k	h	KG
模數 5 Module 5												
CSGH 050 211	2	-Q6	21	45	68	105	115	50	85	14	48.8	3.8
CSGH 050 212	2	-Q6	21	55	80	105	115	50	90	16	59.3	3.8
CSGH 050 251	2	-Q6	25	45	68	125	135	50	85	14	48.8	5.2
CSGH 050 252	2	-Q6	25	55	80	125	135	50	90	16	59.3	5.2
CSGH 050 253	2	-Q6	25	75	110	125	135	50	110	20	79.9	4.8
模數 6 Module 6												
CSGH 060 211	2	-Q6	21	55	80	126	138	60	100	16	59.3	5.6
CSGH 060 212	2	-Q6	21	75	110	126	138	60	120	20	79.9	4.7
CSGH 060 251	2	-Q6	25	55	80	150	162	60	100	16	59.3	8.0
CSGH 060 252	2	-Q6	25	75	110	150	162	60	120	20	79.9	7.1
模數 8 Module 8												
CSGH 080 201	2	-Q6	20	75	110	160	176	80	140	20	79.9	12.0
CSGH 080 202	2	-Q6	20	85	125	160	176	80	145	22	90.4	12.0

CSGH-Q7 系列 直齒齒研齒輪
CSGH-Q7 Series Straight Teeth Ground Pinions

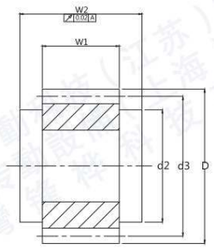


圖1/Fig1.

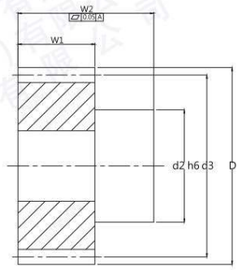
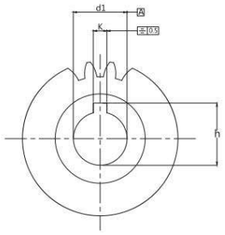


圖2/Fig2.



齒面精度等級 DIN 7
Tooth Surface Accuracy Grade DIN 7

系列 CSGH-Q7 直齒齒研齒輪
材料 45C (中碳鋼)
硬度 HRC 50~55°

Series CSGH-Q7 Straight Teeth Ground Pinions
Material 45C (Medium Carbon Steel)
Hardness: HRC 50~55°

單位 / Dimension : mm

型號 Code	圖 Fig.	Q	齒數 No. of Teeth	d1H6	d2	d3	D	w1	w2	k	h	KG
模數 2 Module 2												
CSGH 020 161	1	-Q7	16	15	25	32	36	28	30	5	17.3	0.1
CSGH 020 181	1	-Q7	18	15	30	36	40	28	30	5	17.3	0.2
CSGH 020 182	1	-Q7	18	20	25	36	40	28	30	6	22.8	0.2
CSGH 020 201	1	-Q7	20	15	25	40	44	28	30	6	17.8	0.2
CSGH 020 202	1	-Q7	20	19	30	40	44	28	30	6	21.8	0.2
CSGH 020 203	2	-Q7	20	19	30	40	44	28	56	6	21.8	0.2
CSGH 020 204	1	-Q7	20	20	30	40	44	28	30	6	22.8	0.2
CSGH 020 205	1	-Q7	20	22	30	40	44	28	30	6	24.8	0.2
CSGH 020 206	2	-Q7	20	22	36	40	44	28	56	6	24.8	0.3
CSGH 020 221	1	-Q7	22	15	25	44	48	28	30	5	17.3	0.3
CSGH 020 222	1	-Q7	22	19	30	44	48	28	30	6	21.8	0.3
CSGH 020 223	2	-Q7	22	19	30	44	48	28	56	6	21.8	0.3
CSGH 020 224	1	-Q7	22	20	30	44	48	28	30	6	22.8	0.3
CSGH 020 225	2	-Q7	22	22	36	44	48	28	56	6	24.8	0.3
CSGH 020 226	1	-Q7	22	22	30	44	48	28	30	6	24.8	0.3
CSGH 020 227	1	-Q7	22	25	36	44	48	28	30	8	28.3	0.2
CSGH 020 251	2	-Q7	25	16	30	50	54	28	54	5	18.3	0.3
CSGH 020 252	1	-Q7	25	19	30	50	54	28	30	6	21.8	0.3
CSGH 020 253	2	-Q7	25	19	30	50	54	28	56	6	21.8	0.3
CSGH 020 254	1	-Q7	25	20	30	50	54	28	30	6	22.8	0.4
CSGH 020 255	1	-Q7	25	22	30	50	54	28	30	6	24.8	0.3
CSGH 020 256	2	-Q7	25	22	36	50	54	28	56	6	24.8	0.4
CSGH 020 257	1	-Q7	25	25	36	50	54	28	30	8	28.3	0.3
CSGH 020 258	1	-Q7	25	30	45	50	54	28	30	8	33.3	0.3
CSGH 020 281	1	-Q7	28	19	30	56	60	28	30	6	21.8	0.5
CSGH 020 282	2	-Q7	28	19	30	56	60	28	56	6	21.8	0.5
CSGH 020 283	1	-Q7	28	20	30	56	60	28	30	6	22.8	0.5
CSGH 020 284	1	-Q7	28	22	30	56	60	28	30	6	24.8	0.3
CSGH 020 285	2	-Q7	28	22	36	56	60	28	56	6	24.8	0.3
CSGH 020 286	1	-Q7	28	25	36	56	60	28	30	8	28.3	0.4
CSGH 020 287	1	-Q7	28	30	45	56	60	28	30	8	33.3	0.4
CSGH 020 288	2	-Q7	28	30	50	56	60	28	60	8	33.3	0.4
CSGH 020 289	1	-Q7	28	35	48	56	60	28	30	10	38.3	0.3
CSGH 020 321	2	-Q7	32	16	30	64	68	28	54	5	18.3	0.6

CSGH-Q7 系列 直齒齒研齒輪
CSGH-Q7 Series Straight Teeth Ground Pinions

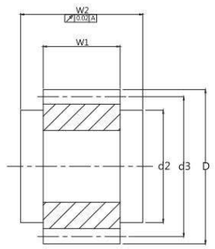


圖1/Fig1.

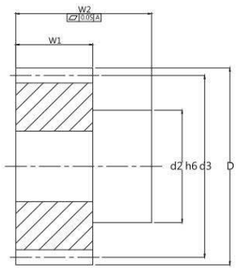
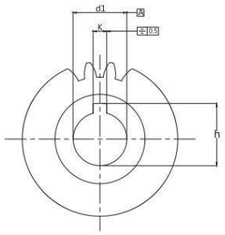


圖2/Fig2.



齒面精度等級 DIN 7
Tooth Surface Accuracy Grade DIN 7

系列 CSGH-Q7 直齒齒研齒輪
材料 45C (中碳鋼)
硬度 HRC 50~55°

Series CSGH-Q7 Straight Teeth Ground Pinions
Material 45C (Medium Carbon Steel)
Hardness: HRC 50~55°

單位 / Dimension : mm

型號 Code	圖 Fig.	Q	齒數 No. of Teeth	d1H6	d2	d3	D	w1	w2	k	h	KG
模數 2 Module 2												
CSGH 020 322	1	-Q7	32	20	30	64	68	28	30	6	22.8	0.6
CSGH 020 323	1	-Q7	32	22	30	64	68	28	30	6	24.8	0.4
CSGH 020 324	2	-Q7	32	22	36	64	68	28	56	6	24.8	0.6
CSGH 020 325	1	-Q7	32	25	36	64	68	28	30	8	28.3	0.6
CSGH 020 326	1	-Q7	32	30	45	64	68	28	30	8	33.3	0.6
CSGH 020 327	2	-Q7	32	30	50	64	68	28	60	8	33.3	0.6
CSGH 020 328	2	-Q7	32	32	55	64	68	28	65	10	35.3	0.5
CSGH 020 329	1	-Q7	32	35	48	64	68	28	30	10	38.3	0.5
CSGH 020 361	1	-Q7	36	20	30	72	76	28	30	6	22.8	0.8
CSGH 020 362	1	-Q7	36	25	36	72	76	28	30	8	28.3	0.8
CSGH 020 363	1	-Q7	36	30	45	72	76	28	30	8	33.3	0.7
CSGH 020 364	1	-Q7	36	35	48	72	76	28	30	10	38.3	0.7
CSGH 020 365	2	-Q7	36	40	62	72	76	28	65	12	43.3	0.5
CSGH 020 366	1	-Q7	36	45	58	72	76	28	30	14	48.8	0.6
CSGH 020 401	1	-Q7	40	15	36	80	84	28	30	5	17.3	1.0
CSGH 020 402	1	-Q7	40	20	30	80	84	28	30	6	22.8	1.0
CSGH 020 403	1	-Q7	40	25	36	80	84	28	30	8	28.3	1.0
CSGH 020 404	1	-Q7	40	30	45	80	84	28	30	8	33.3	1.0
CSGH 020 405	2	-Q7	40	32	55	80	84	28	65	10	35.3	0.9
CSGH 020 406	1	-Q7	40	35	48	80	84	28	30	10	38.3	0.9
CSGH 020 407	2	-Q7	40	40	62	80	84	28	65	12	43.3	0.7
CSGH 020 408	1	-Q7	40	45	58	80	84	28	30	14	48.8	0.8
CSGH 020 409	2	-Q7	40	45	68	80	84	28	65	14	48.8	1.3
CSGH 020 451	1	-Q7	45	20	30	90	94	28	30	6	22.8	1.3
CSGH 020 452	1	-Q7	45	25	36	90	94	28	30	8	28.3	1.2
CSGH 020 453	1	-Q7	45	35	48	90	94	28	30	10	38.3	1.2
CSGH 020 454	1	-Q7	45	45	58	90	94	28	30	14	48.8	1.1
CSGH 020 501	1	-Q7	50	20	30	100	104	28	30	6	22.8	1.6
CSGH 020 502	1	-Q7	50	25	36	100	104	28	30	8	28.3	1.5
CSGH 020 503	1	-Q7	50	35	48	100	104	28	30	10	38.3	1.5
CSGH 020 504	1	-Q7	50	45	58	100	104	28	30	14	48.8	1.4
CSGH 020 505	2	-Q7	50	45	68	100	104	28	65	14	48.8	2.0
CSGH 020 561	1	-Q7	56	25	36	112	116	28	30	8	28.3	1.9
CSGH 020 561	1	-Q7	56	35	48	112	116	28	30	10	38.3	1.8

CSGH-Q7 系列 直齒齒研齒輪
CSGH-Q7 Series Straight Teeth Ground Pinions

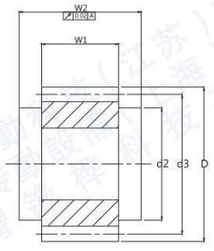


圖1/Fig1.

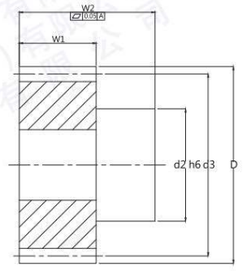
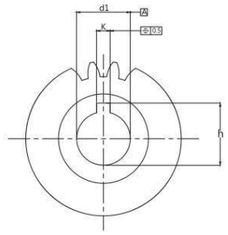


圖2/Fig2.



齒面精度等級 DIN 7
Tooth Surface Accuracy Grade DIN 7

系列 CSGH-Q7 直齒齒研齒輪
材料 45C (中碳鋼)
硬度 HRC 50~55°

Series CSGH-Q7 Straight Teeth Ground Pinions
Material 45C (Medium Carbon Steel)
Hardness: HRC 50~55°

單位 / Dimension : mm

型號 Code	圖 Fig.	Q	齒數 No. of Teeth	d1H6	d2	d3	D	w1	w2	k	h	KG
模數 3 Module 3												
CSGH 030 181	1	-Q7	18	25	36	54	60	28	30	8	28.3	0.4
CSGH 030 201	1	-Q7	20	25	36	60	66	28	30	8	28.3	0.5
CSGH 030 202	1	-Q7	20	30	45	60	66	28	30	8	33.3	0.5
CSGH 030 203	1	-Q7	20	35	48	60	66	28	30	10	38.3	0.5
CSGH 030 221	2	-Q7	22	22	36	66	72	28	56	6	24.8	0.8
CSGH 030 222	1	-Q7	22	25	36	66	72	28	30	8	28.3	0.6
CSGH 030 223	2	-Q7	22	25	44	66	72	28	60	8	28.3	0.9
CSGH 030 224	1	-Q7	22	30	45	66	72	28	30	8	33.3	0.6
CSGH 030 225	2	-Q7	22	32	55	66	72	28	65	10	35.3	1.1
CSGH 030 226	2	-Q7	22	30	50	66	72	28	60	8	33.3	0.9
CSGH 030 227	1	-Q7	22	35	48	66	72	28	30	10	38.3	0.6
CSGH 030 228	2	-Q7	22	35	55	66	72	28	65	10	38.3	0.9
CSGH 030 229	2	-Q7	22	40	62	66	72	28	65	12	43.3	1.1
CSGH 030 251	1	-Q7	25	25	36	75	81	28	30	8	28.3	0.9
CSGH 030 252	1	-Q7	25	30	45	75	81	28	30	8	33.3	0.9
CSGH 030 253	2	-Q7	25	32	55	75	81	28	65	10	35.3	1.3
CSGH 030 254	1	-Q7	25	35	48	75	81	28	30	10	38.3	0.9
CSGH 030 255	2	-Q7	25	40	62	75	81	28	65	12	43.3	1.3
CSGH 030 256	1	-Q7	25	45	58	75	81	28	30	14	48.8	0.7
CSGH 030 281	2	-Q7	28	22	36	84	90	28	56	6	24.8	1.4
CSGH 030 282	1	-Q7	28	25	36	84	90	28	30	8	28.3	1.2
CSGH 030 283	2	-Q7	28	25	44	84	90	28	60	8	28.3	1.4
CSGH 030 284	1	-Q7	28	30	45	84	90	28	30	8	33.3	1.2
CSGH 030 285	2	-Q7	28	30	50	84	90	28	60	8	33.3	1.4
CSGH 030 286	2	-Q7	28	32	55	84	90	28	65	10	35.3	1.5
CSGH 030 287	1	-Q7	28	35	48	84	90	28	30	10	38.3	1.0
CSGH 030 288	2	-Q7	28	35	55	84	90	28	65	10	38.3	1.5
CSGH 030 289	2	-Q7	28	40	62	84	90	28	65	12	43.3	1.5

CSGH-Q7 系列 直齒齒研齒輪
CSGH-Q7 Series Straight Teeth Ground Pinions

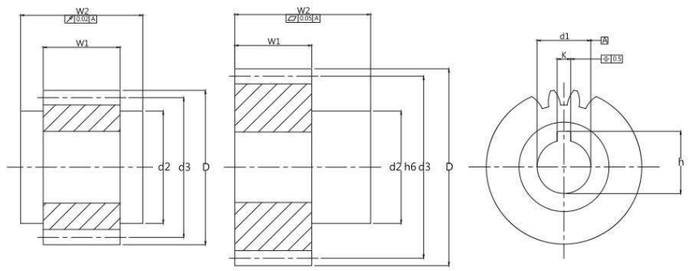


圖1/Fig1.　圖2/Fig2.

齒面精度等級 DIN 7
Tooth Surface Accuracy Grade DIN 7

系列 CSGH-Q7 直齒齒研齒輪
材料 45C (中碳鋼)
硬度 HRC 50~55°

Series CSGH-Q7 Straight Teeth Ground Pinions
Material 45C (Medium Carbon Steel)
Hardness: HRC 50~55°

單位 / Dimension : mm

型號 Code	圖 Fig.	Q	齒數 No. of Teeth	d1H6	d2	d3	D	w1	w2	k	h	KG
模數 3 Module 3												
CSGH 030 28 10	1	-Q7	28	45	58	84	90	28	30	14	48.8	0.9
CSGH 030 28 11	2	-Q7	28	45	68	84	90	28	65	14	48.8	1.5
CSGH 030 32 1	1	-Q7	32	25	36	96	102	28	30	8	28.3	1.6
CSGH 030 32 3	1	-Q7	32	30	45	96	102	28	30	8	33.3	1.5
CSGH 030 32 3	2	-Q7	32	32	55	96	102	28	65	10	35.3	1.9
CSGH 030 32 4	1	-Q7	32	35	48	96	102	28	30	10	38.3	1.5
CSGH 030 32 5	2	-Q7	32	40	62	96	102	28	65	12	43.3	1.9
CSGH 030 32 6	1	-Q7	32	45	58	96	102	28	30	14	48.8	1.3
CSGH 030 32 7	1	-Q7	32	60	80	96	102	28	30	18	64.4	1.1
CSGH 030 36 1	1	-Q7	36	25	36	108	114	28	30	8	28.3	1.9
CSGH 030 36 2	1	-Q7	36	35	48	108	114	28	30	10	38.3	1.9
CSGH 030 36 3	1	-Q7	36	45	58	108	114	28	30	14	48.8	1.8
CSGH 030 36 4	2	-Q7	36	45	68	108	114	28	65	14	48.8	2.2
CSGH 030 36 5	1	-Q7	36	60	80	108	114	28	30	18	64.4	1.5
CSGH 030 40 1	1	-Q7	40	25	36	120	126	28	30	8	28.3	2.4
CSGH 030 40 2	1	-Q7	40	35	48	120	126	28	30	10	38.3	2.4
CSGH 030 40 3	1	-Q7	40	45	58	120	126	28	30	14	48.8	2.2
CSGH 030 40 4	1	-Q7	40	60	80	120	126	28	30	18	64.4	1.9
CSGH 030 45 1	1	-Q7	45	25	36	135	141	28	30	8	28.3	3.0
CSGH 030 45 2	1	-Q7	45	35	48	135	141	28	30	10	38.3	2.6
CSGH 030 45 3	1	-Q7	45	45	58	135	141	28	30	14	48.8	2.4
CSGH 030 45 4	1	-Q7	45	60	80	135	141	28	30	18	64.4	2.5
CSGH 030 50 1	1	-Q7	50	35	48	150	156	28	30	10	38.3	3.6
CSGH 030 50 2	1	-Q7	50	45	58	150	156	28	30	14	48.8	3.6
CSGH 030 56 1	1	-Q7	56	45	58	168	174	28	30	14	48.8	4.4
CSGH 030 63 1	1	-Q7	63	45	58	189	195	28	30	14	48.8	5.5
CSGH 030 63 2	1	-Q7	63	60	80	189	195	28	30	18	64.4	5.5

CSGH-Q7 系列 直齒齒研齒輪
CSGH-Q7 Series Straight Teeth Ground Pinions

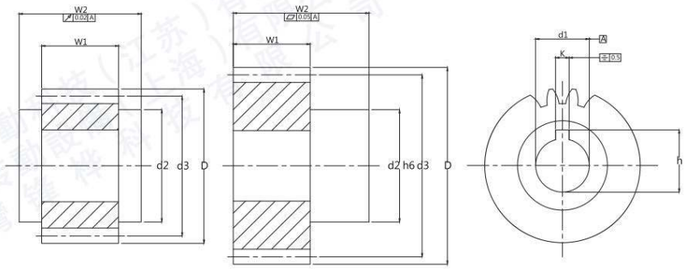


圖1/Fig1.　圖2/Fig2.

齒面精度等級 DIN 7
Tooth Surface Accuracy Grade DIN 7

系列 CSGH-Q7 直齒齒研齒輪
材料 45C (中碳鋼)
硬度 HRC 50~55°

Series CSGH-Q7 Straight Teeth Ground Pinions
Material 45C (Medium Carbon Steel)
Hardness: HRC 50~55°

單位 / Dimension : mm

型號 Code	圖 Fig.	Q	齒數 No. of Teeth	d1H6	d2	d3	D	w1	w2	k	h	KG
模數 4 Module 4												
CSGH 040 20 1	2	-Q7	20	32	55	80	88	40	75	10	35.3	1.8
CSGH 040 20 2	1	-Q7	20	35	52	80	88	40	50	10	38.3	1.4
CSGH 040 20 3	2	-Q7	20	35	55	80	88	40	75	10	38.3	1.8
CSGH 040 20 4	1	-Q7	20	45	65	80	88	40	50	14	48.8	1.3
CSGH 040 20 5	2	-Q7	20	40	62	80	88	40	75	12	43.3	1.8
CSGH 040 22 1	1	-Q7	22	35	52	80	88	40	50	10	38.3	1.8
CSGH 040 22 2	1	-Q7	22	45	65	80	88	40	50	14	48.8	1.6
CSGH 040 22 3	2	-Q7	22	45	68	80	88	40	75	14	48.8	2.0
CSGH 040 25 1	2	-Q7	25	32	55	100	108	40	75	10	35.3	2.6
CSGH 040 25 2	1	-Q7	25	35	52	100	108	40	50	10	38.3	2.3
CSGH 040 25 3	2	-Q7	25	35	55	100	108	40	75	10	38.3	2.6
CSGH 040 25 4	2	-Q7	25	40	62	100	108	40	75	12	43.3	2.6
CSGH 040 25 5	1	-Q7	25	45	65	100	108	40	50	14	48.8	2.0
CSGH 040 25 6	2	-Q7	25	55	80	100	108	40	80	16	59.3	2.6
CSGH 040 28 1	1	-Q7	28	35	52	112	120	40	50	10	38.3	3.0
CSGH 040 28 2	1	-Q7	28	45	65	112	120	40	50	14	48.8	2.8
CSGH 040 28 3	2	-Q7	28	45	68	112	120	40	75	14	48.8	3.0
CSGH 040 32 1	1	-Q7	32	35	52	128	136	40	50	10	38.3	3.8
CSGH 040 32 2	1	-Q7	32	45	65	128	136	40	50	14	48.8	3.8
CSGH 040 32 3	2	-Q7	32	55	80	128	136	40	80	16	59.3	4.0
CSGH 040 32 4	2	-Q7	32	75	110	128	136	40	100	20	79.9	5.0
CSGH 040 40 1	1	-Q7	40	45	65	160	168	40	50	14	48.8	6.0
CSGH 040 40 2	1	-Q7	40	60	80	160	168	40	50	18	64.4	5.8
CSGH 040 40 3	2	-Q7	40	75	110	160	168	40	100	20	79.9	7.2

CSGH-Q7 系列 直齒齒研齒輪
CSGH-Q7 Series Straight Teeth Ground Pinions

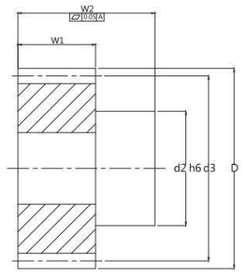
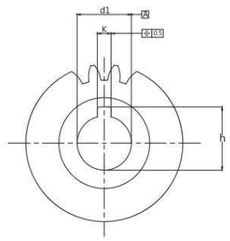


圖2/Fig2.



齒面精度等級 DIN 7
Tooth Surface Accuracy Grade DIN 7

系列 CSGH-Q7 直齒齒研齒輪
材料 45C (中碳鋼)
硬度 HRC 50~55°

Series CSGH-Q7 Straight Teeth Ground Pinions
Material 45C (Medium Carbon Steel)
Hardness: HRC 50~55°

單位 / Dimension : mm

型號 Code	圖 Fig.	Q	齒數 No. of Teeth	d1H6	d2	d3	D	w1	w2	k	h	KG
模數 5 Module 5												
CSGH 050 21 1	2	-Q7	21	45	68	105	115	50	85	14	48.8	3.8
CSGH 050 21 2	2	-Q7	21	55	80	105	115	50	90	16	59.3	3.8
CSGH 050 25 1	2	-Q7	25	45	68	125	135	50	85	14	48.8	5.2
CSGH 050 25 2	2	-Q7	25	55	80	125	135	50	90	16	59.3	5.2
CSGH 050 25 3	2	-Q7	25	75	110	125	135	50	110	20	79.9	4.8
模數 6 Module 6												
CSGH 060 21 1	2	-Q7	21	55	80	126	138	60	100	16	59.3	5.6
CSGH 060 21 2	2	-Q7	21	75	110	126	138	60	120	20	79.9	4.7
CSGH 060 25 1	2	-Q7	25	55	80	150	162	60	100	16	59.3	8.0
CSGH 060 25 2	2	-Q7	25	75	110	150	162	60	120	20	79.9	7.1
模數 8 Module 8												
CSGH 080 20 1	2	-Q7	20	75	110	160	176	80	140	20	79.9	12.0
CSGH 080 20 2	2	-Q7	20	85	125	160	176	80	145	22	90.4	12.0

CSM-Q8 系列 直齒齒輪
CSM-Q8 Series Straight Soft Pinions

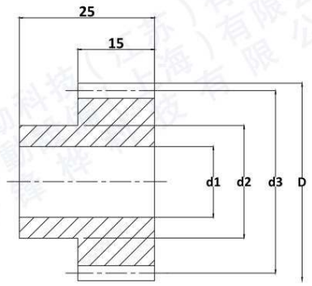


圖1/Fig1.

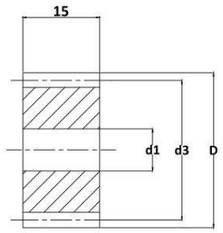


圖2/Fig2.

齒面精度等級 DIN 8
Tooth Surface Accuracy Grade DIN 8

系列 CSM-Q8 直齒齒輪
材料 45C (中碳鋼)

Series CSM-Q8 Straight Soft Pinions
Material 45C (Medium Carbon Steel)

單位 / Dimension : mm

型號 Code	圖 Fig.	Q	齒數 No. of Teeth	d1H6	d2	d3	D	w1	w2	k	h	KG
模數 1 Module 1												
CSM 0100121	1	-Q8	12	6	9	12.0	14.0	*	*	*	*	0.1
CSM 0100131	1	-Q8	13	6	9	13.0	15.0	*	*	*	*	0.1
CSM 0100141	1	-Q8	14	6	11	14.0	16.0	*	*	*	*	0.1
CSM 0100151	1	-Q8	15	6	12	15.0	17.0	*	*	*	*	0.1
CSM 0100161	1	-Q8	16	6	12	16.0	18.0	*	*	*	*	0.1
CSM 0100171	1	-Q8	17	6	14	17.0	19.0	*	*	*	*	0.1
CSM 0100181	1	-Q8	18	6	15	18.0	20.0	*	*	*	*	0.1
CSM 0100191	1	-Q8	19	6	15	19.0	21.0	*	*	*	*	0.1
CSM 0100201	1	-Q8	20	6	16	20.0	22.0	*	*	*	*	0.1
CSM 0100211	1	-Q8	21	6	16	21.0	23.0	*	*	*	*	0.1
CSM 0100221	1	-Q8	22	6	18	22.0	24.0	*	*	*	*	0.1
CSM 0100231	1	-Q8	23	6	18	23.0	25.0	*	*	*	*	0.1
CSM 0100241	1	-Q8	24	9	20	24.0	26.0	*	*	*	*	0.1
CSM 0100251	1	-Q8	25	9	20	25.0	27.0	*	*	*	*	0.1
CSM 0100301	1	-Q8	30	9	20	30.0	32.0	*	*	*	*	0.1
CSM 0100351	1	-Q8	35	9	25	35.0	37.0	*	*	*	*	0.2
CSM 0100381	1	-Q8	38	9	25	38.0	40.0	*	*	*	*	0.2
CSM 0100401	1	-Q8	40	9	25	40.0	42.0	*	*	*	*	0.2
CSM 0100451	1	-Q8	45	9	30	45.0	47.0	*	*	*	*	0.3
CSM 0100481	1	-Q8	48	9	30	48.0	50.0	*	*	*	*	0.3
CSM 0100501	1	-Q8	50	9	30	50.0	52.0	*	*	*	*	0.3
CSM 0100571	1	-Q8	57	9	40	57.0	59.0	*	*	*	*	0.4
CSM 0100601	1	-Q8	60	9	40	60.0	62.0	*	*	*	*	0.4
CSM 0100761	2	-Q8	76	10	*	76.0	78.0	*	*	*	*	0.6
CSM 0100801	2	-Q8	80	10	*	80.0	82.0	*	*	*	*	0.6
CSM 0100951	2	-Q8	95	10	*	95.0	97.0	*	*	*	*	0.9
CSM 0101001	2	-Q8	100	10	*	100.0	102.0	*	*	*	*	1.0
CSM 0101141	2	-Q8	114	10	*	114.0	116.0	*	*	*	*	1.2

CSM-Q8 系列 直齒齒輪
CSM-Q8 Series Straight Soft Pinions

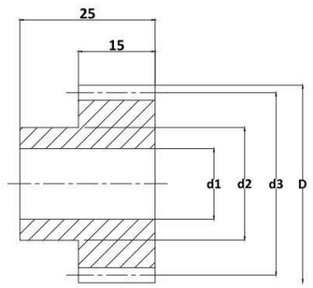


圖1/Fig1.

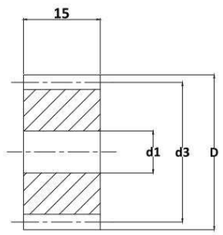


圖2/Fig2.

齒面精度等級 DIN 8
Tooth Surface Accuracy Grade DIN 8

系列 CSM-Q8 直齒齒輪
材料 45C (中碳鋼)

Series CSM-Q8 Straight Soft Pinions
Material 45C (Medium Carbon Steel)

單位 / Dimension : mm

型號 Code	圖 Fig.	Q	齒數 No. of Teeth	d1H6	d2	d3	D	w1	w2	k	h	KG
模數 1.5 Module 1.5												
CSM 0150121	1	-Q8	12	6	14	18.0	21.0	*	*	*	*	0.1
CSM 0150131	1	-Q8	13	6	14	19.5	22.5	*	*	*	*	0.1
CSM 0150141	1	-Q8	14	6	16	21.0	24.0	*	*	*	*	0.1
CSM 0150151	1	-Q8	15	6	18	22.5	25.5	*	*	*	*	0.1
CSM 0150161	1	-Q8	16	6	18	24.0	27.0	*	*	*	*	0.1
CSM 0150171	1	-Q8	17	9	20	25.5	28.5	*	*	*	*	0.1
CSM 0150181	1	-Q8	18	9	20	27.0	30.0	*	*	*	*	0.1
CSM 0150191	1	-Q8	19	9	20	28.5	31.5	*	*	*	*	0.1
CSM 0150201	1	-Q8	20	9	25	30.0	33.0	*	*	*	*	0.1
CSM 0150211	1	-Q8	21	9	25	31.5	34.5	*	*	*	*	0.1
CSM 0150221	1	-Q8	22	9	25	33.0	36.0	*	*	*	*	0.1
CSM 0150231	1	-Q8	23	9	25	34.5	37.5	*	*	*	*	0.2
CSM 0150241	1	-Q8	24	9	25	36.0	39.0	*	*	*	*	0.2
CSM 0150251	1	-Q8	25	9	25	37.5	40.5	*	*	*	*	0.2
CSM 0150301	1	-Q8	30	9	30	45.0	48.0	*	*	*	*	0.2
CSM 0150351	1	-Q8	35	9	40	52.5	55.5	*	*	*	*	0.2
CSM 0150381	1	-Q8	38	9	40	57.0	60.0	*	*	*	*	0.4
CSM 0150401	1	-Q8	40	9	40	60.0	63.0	*	*	*	*	0.4
CSM 0150451	1	-Q8	45	12	50	67.5	70.5	*	*	*	*	0.6
CSM 0150481	1	-Q8	48	12	50	72.0	75.0	*	*	*	*	0.7
CSM 0150501	1	-Q8	50	12	50	75.0	78.0	*	*	*	*	0.8
CSM 0150571	1	-Q8	57	12	60	85.5	88.5	*	*	*	*	1.0
CSM 0150601	1	-Q8	60	12	60	90.0	93.0	*	*	*	*	1.2
CSM 0150761	2	-Q8	76	16	*	114.0	117.0	*	*	*	*	1.4
CSM 0150801	2	-Q8	80	16	*	120.0	123.0	*	*	*	*	1.5
CSM 0150951	2	-Q8	95	20	*	142.5	145.5	*	*	*	*	2.1

CSM-Q8 系列 直齒齒輪
CSM-Q8 Series Straight Soft Pinions

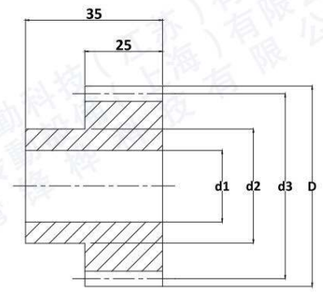


圖1/Fig1.

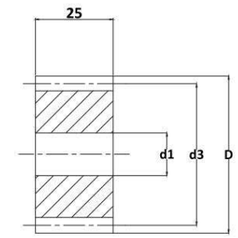


圖2/Fig2.

齒面精度等級 DIN 8
Tooth Surface Accuracy Grade DIN 8

系列 CSM-Q8 直齒齒輪
材料 45C (中碳鋼)

Series CSM-Q8 Straight Soft Pinions
Material 45C (Medium Carbon Steel)

單位 / Dimension : mm

型號 Code	圖 Fig.	Q	齒數 No. of Teeth	d1H6	d2	d3	D	w1	w2	k	h	KG
模數 2 Module 2												
CSM 020 0121	1	-Q8	12	9	18	24.0	28.0	*	*	*	*	0.1
CSM 020 0131	1	-Q8	13	9	19	26.0	30.0	*	*	*	*	0.1
CSM 020 0141	1	-Q8	14	9	19	28.0	32.0	*	*	*	*	0.1
CSM 020 0151	1	-Q8	15	9	24.5	30.0	34.0	*	*	*	*	0.2
CSM 020 0161	1	-Q8	16	9	25	32.0	36.0	*	*	*	*	0.2
CSM 020 0171	1	-Q8	17	9	25	34.0	38.0	*	*	*	*	0.2
CSM 020 0181	1	-Q8	18	9	25	36.0	40.0	*	*	*	*	0.2
CSM 020 0191	1	-Q8	19	9	25	38.0	42.0	*	*	*	*	0.2
CSM 020 0201	1	-Q8	20	9	30	40.0	44.0	*	*	*	*	0.2
CSM 020 0211	1	-Q8	21	9	30	42.0	46.0	*	*	*	*	0.3
CSM 020 0221	1	-Q8	22	9	30	44.0	48.0	*	*	*	*	0.3
CSM 020 0231	1	-Q8	23	9	30	46.0	50.0	*	*	*	*	0.3
CSM 020 0241	1	-Q8	24	12	35	48.0	52.0	*	*	*	*	0.4
CSM 020 0251	1	-Q8	25	12	35	50.0	54.0	*	*	*	*	0.4
CSM 020 0281	1	-Q8	28	12	40	56.0	60.0	*	*	*	*	0.5
CSM 020 0301	1	-Q8	30	12	40	60.0	64.0	*	*	*	*	0.5
CSM 020 0321	1	-Q8	32	12	40	64.0	68.0	*	*	*	*	0.6
CSM 020 0351	1	-Q8	35	12	50	70.0	74.0	*	*	*	*	0.7
CSM 020 0361	1	-Q8	36	12	50	72.0	76.0	*	*	*	*	0.9
CSM 020 0381	1	-Q8	38	12	50	76.0	80.0	*	*	*	*	1.0
CSM 020 0401	1	-Q8	40	12	50	80.0	84.0	*	*	*	*	1.0
CSM 020 0451	1	-Q8	45	12	60	90.0	94.0	*	*	*	*	1.3
CSM 020 0481	1	-Q8	48	15	70	96.0	100.0	*	*	*	*	1.5
CSM 020 0501	1	-Q8	50	15	70	100.0	104.0	*	*	*	*	1.6
CSM 020 0561	1	-Q8	56	15	70	112.0	116.0	*	*	*	*	1.9
CSM 020 0571	1	-Q8	57	15	70	114.0	118.0	*	*	*	*	2.0
CSM 020 0601	1	-Q8	60	15	70	120.0	124.0	*	*	*	*	2.4
CSM 020 0761	2	-Q8	76	20	*	152.0	156.0	*	*	*	*	2.8
CSM 020 0801	2	-Q8	80	20	*	160.0	164.0	*	*	*	*	3.1
CSM 020 0951	2	-Q8	95	20	*	190.0	194.0	*	*	*	*	4.4

CSM-Q8 系列 直齒齒輪
CSM-Q8 Series Straight Soft Pinions

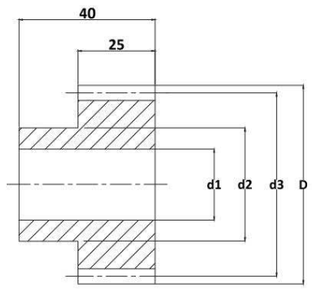


圖1/Fig1.

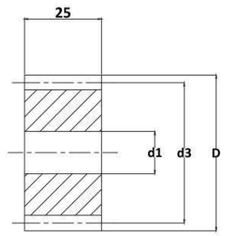


圖2/Fig2.

齒面精度等級 DIN 8
Tooth Surface Accuracy Grade DIN 8

系列 CSM-Q8 直齒齒輪
材料 45C (中碳鋼)

Series CSM-Q8 Straight Soft Pinions
Material 45C (Medium Carbon Steel)

單位 / Dimension : mm

型號 Code	圖 Fig.	Q	齒數 No. of Teeth	d1H6	d2	d3	D	w1	w2	k	h	KG
模數 2.5 Module 2.5												
CSM 0250121	1	-Q8	12	9	20	30.0	35.0	*	*	*	*	0.2
CSM 0250131	1	-Q8	13	9	20	32.5	37.5	*	*	*	*	0.2
CSM 0250141	1	-Q8	14	9	25	35.0	40.0	*	*	*	*	0.2
CSM 0250151	1	-Q8	15	9	25	37.5	42.5	*	*	*	*	0.3
CSM 0250161	1	-Q8	16	9	30	40.0	45.0	*	*	*	*	0.3
CSM 0250171	1	-Q8	17	9	30	42.5	47.5	*	*	*	*	0.4
CSM 0250181	1	-Q8	18	9	35	45.0	50.0	*	*	*	*	0.4
CSM 0250191	1	-Q8	19	12	35	47.5	52.5	*	*	*	*	0.4
CSM 0250201	1	-Q8	20	12	35	50.0	55.0	*	*	*	*	0.5
CSM 0250211	1	-Q8	21	12	35	52.5	57.5	*	*	*	*	0.5
CSM 0250221	1	-Q8	22	12	40	55.0	60.0	*	*	*	*	0.5
CSM 0250231	1	-Q8	23	12	40	57.5	62.5	*	*	*	*	0.6
CSM 0250241	1	-Q8	24	12	40	60.0	65.0	*	*	*	*	0.7
CSM 0250251	1	-Q8	25	12	45	62.5	67.5	*	*	*	*	0.8
CSM 0250301	1	-Q8	30	12	50	75.0	80.0	*	*	*	*	1.0
CSM 0250351	1	-Q8	35	12	60	87.5	92.5	*	*	*	*	1.5
CSM 0250381	1	-Q8	38	12	60	95.0	100.0	*	*	*	*	1.7
CSM 0250401	1	-Q8	40	12	70	100.0	105.0	*	*	*	*	1.8
CSM 0250451	1	-Q8	45	15	70	112.5	117.5	*	*	*	*	2.4
CSM 0250481	1	-Q8	48	15	80	120.0	125.0	*	*	*	*	2.8
CSM 0250501	1	-Q8	50	15	80	125.0	130.0	*	*	*	*	2.9
CSM 0250571	1	-Q8	57	15	90	142.5	147.5	*	*	*	*	3.7
CSM 0250601	1	-Q8	60	15	90	150.0	155.0	*	*	*	*	4.0
CSM 0260762	2	-Q8	76	20	*	190.0	195.0	*	*	*	*	
CSM 0270802	2	-Q8	80	25	*	200.0	205.0	*	*	*	*	6.1
CSM 0280952	2	-Q8	95	25	*	237.5	242.5	*	*	*	*	

CSM-Q8 系列 直齒齒輪
CSM-Q8 Series Straight Soft Pinions

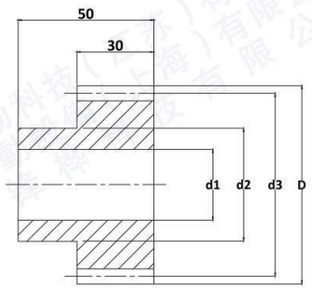


圖1/Fig1.

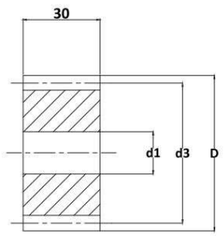


圖2/Fig2.

齒面精度等級 DIN 8
Tooth Surface Accuracy Grade DIN 8

系列 CSM-Q8 直齒齒輪
材料 45C (中碳鋼)

Series CSM-Q8 Straight Soft Pinions
Material 45C (Medium Carbon Steel)

單位 / Dimension : mm

型號 Code	圖 Fig.	Q	齒數 No. of Teeth	d1H6	d2	d3	D	w1	w2	k	h	KG
模數 3 Module 3												
CSM 0300121	1	-Q8	12	14	25	36	42	*	*	*	*	0.3
CSM 0300131	1	-Q8	13	14	25	39	45	*	*	*	*	0.3
CSM 0300141	1	-Q8	14	14	25	42	48	*	*	*	*	0.3
CSM 0300151	1	-Q8	15	14	35	45	51	*	*	*	*	0.4
CSM 0300161	1	-Q8	16	14	35	48	54	*	*	*	*	0.5
CSM 0300171	1	-Q8	17	14	42	51	57	*	*	*	*	0.7
CSM 0300181	1	-Q8	18	14	45	54	60	*	*	*	*	0.7
CSM 0300191	1	-Q8	19	14	45	57	63	*	*	*	*	0.8
CSM 0300201	1	-Q8	20	14	45	60	66	*	*	*	*	0.8
CSM 0300211	1	-Q8	21	14	45	63	69	*	*	*	*	0.9
CSM 0300221	1	-Q8	22	14	50	66	72	*	*	*	*	1.1
CSM 0300231	1	-Q8	23	14	50	69	75	*	*	*	*	1.1
CSM 0300241	1	-Q8	24	14	50	72	78	*	*	*	*	1.2
CSM 0300251	1	-Q8	25	14	60	75	81	*	*	*	*	1.4
CSM 0300271	1	-Q8	27	14	60	81	87	*	*	*	*	1.6
CSM 0300281	1	-Q8	28	14	60	84	90	*	*	*	*	1.7
CSM 0300301	1	-Q8	30	14	60	90	96	*	*	*	*	1.8
CSM 0300321	1	-Q8	32	14	60	96	102	*	*	*	*	2.0
CSM 0300351	1	-Q8	35	14	80	105	111	*	*	*	*	2.7
CSM 0300361	1	-Q8	36	14	80	108	114	*	*	*	*	2.8
CSM 0300381	1	-Q8	38	14	80	114	120	*	*	*	*	3.0
CSM 0300401	1	-Q8	40	14	80	120	126	*	*	*	*	3.3
CSM 0300451	2	-Q8	45	20	*	135	141	*	*	*	*	3.3
CSM 0300481	2	-Q8	48	20	*	144	150	*	*	*	*	3.8
CSM 0300501	2	-Q8	50	25	*	150	156	*	*	*	*	4.1
CSM 0300521	2	-Q8	52	25	*	156	162	*	*	*	*	4.5
CSM 0300561	2	-Q8	56	25	*	168	174	*	*	*	*	5.3
CSM 0300601	2	-Q8	60	25	*	180	186	*	*	*	*	6.0
CSM 0300761	2	-Q8	76	25	*	228	234	*	*	*	*	9.6
CSM 0300801	2	-Q8	80	25	*	240	246	*	*	*	*	
CSM 0300951	2	-Q8	95	25	*	285	291	*	*	*	*	15.0

CSM-Q8 系列 直齒齒輪
CSM-Q8 Series Straight Soft Pinions

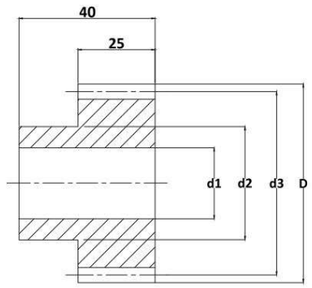


圖1/Fig1.

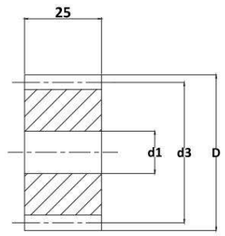


圖2/Fig2.

齒面精度等級 DIN 8
Tooth Surface Accuracy Grade DIN 8

系列 CSM-Q8 直齒齒輪
材料 45C (中碳鋼)

Series CSM-Q8 Straight Soft Pinions
Material 45C (Medium Carbon Steel)

單位 / Dimension : mm

型號 Code	圖 Fig.	Q	齒數 No. of Teeth	d1H6	d2	d3	D	w1	w2	k	h	KG
模數 4 Module 4												
CSM 0400121	1	-Q8	12	16	35	48	56	*	*	*	*	0.6
CSM 0400131	1	-Q8	13	16	35	52	60	*	*	*	*	0.7
CSM 0400141	1	-Q8	14	16	45	56	64	*	*	*	*	0.9
CSM 0400151	1	-Q8	15	16	45	60	68	*	*	*	*	1.0
CSM 0400161	1	-Q8	16	16	45	64	72	*	*	*	*	1.1
CSM 0400171	1	-Q8	17	16	50	68	76	*	*	*	*	1.3
CSM 0400181	1	-Q8	18	16	50	72	80	*	*	*	*	1.4
CSM 0400191	1	-Q8	19	16	60	76	84	*	*	*	*	1.7
CSM 0400201	1	-Q8	20	16	60	80	88	*	*	*	*	1.8
CSM 0400211	1	-Q8	21	16	70	84	92	*	*	*	*	2.2
CSM 0400221	1	-Q8	22	16	70	88	96	*	*	*	*	2.5
CSM 0400231	1	-Q8	23	16	75	92	100	*	*	*	*	2.6
CSM 0400241	1	-Q8	24	16	75	96	104	*	*	*	*	2.7
CSM 0400251	1	-Q8	25	16	75	100	108	*	*	*	*	2.8
CSM 0400301	1	-Q8	30	16	75	120	128	*	*	*	*	2.9
CSM 0400381	2	-Q8	38	25	*	152	160	*	*	*	*	4.0
CSM 0400401	2	-Q8	40	25	*	160	168	*	*	*	*	5.7
CSM 0400451	2	-Q8	45	25	*	180	188	*	*	*	*	6.3
CSM 0400481	2	-Q8	48	25	*	192	200	*	*	*	*	
CSM 0400501	2	-Q8	50	25	*	200	208	*	*	*	*	9.8
CSM 0400521	2	-Q8	52	25		208	216	*	*	*	*	
CSM 0400561	2	-Q8	56	25	*	224	232	*	*	*	*	12.3
CSM 0400601	2	-Q8	60	25	*	240	248	*	*	*	*	14.2
CSM 0400761	2	-Q8	76	25		304	312	*	*	*	*	
CSM 0400801	2	-Q8	80	25	*	320	328	*	*	*	*	25.2
CSM 0400951	2	-Q8	95	25	*	380	388	*	*	*	*	35.6

CSM-Q8 系列 直齒齒輪
CSM-Q8 Series Straight Soft Pinions

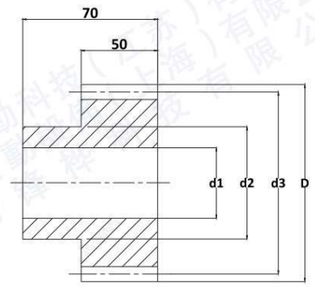


圖1/Fig1.

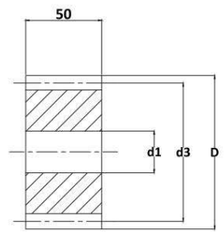


圖2/Fig2.

齒面精度等級 DIN 8
Tooth Surface Accuracy Grade DIN 8

系列 CSM-Q8 直齒齒輪
材料 45C (中碳鋼)

Series CSM-Q8 Straight Soft Pinions
Material 45C (Medium Carbon Steel)

單位 / Dimension : mm

型號 Code	圖 Fig.	Q	齒數 No. of Teeth	d1H6	d2	d3	D	w1	w2	k	h	KG
模數 5 Module 5												
CSM 0500121	1	-Q8	12	20	45	60	70	*	*	*	*	1.2
CSM 0500131	1	-Q8	13	20	45	65	75	*	*	*	*	1.4
CSM 0500141	1	-Q8	14	20	55	70	80	*	*	*	*	1.8
CSM 0500151	1	-Q8	15	20	60	75	85	*	*	*	*	2.0
CSM 0500161	1	-Q8	16	20	60	80	90	*	*	*	*	2.1
CSM 0500171	1	-Q8	17	20	70	85	95	*	*	*	*	2.2
CSM 0500181	1	-Q8	18	20	70	90	100	*	*	*	*	2.6
CSM 0500191	1	-Q8	19	20	70	95	105	*	*	*	*	2.8
CSM 0500201	1	-Q8	20	20	70	100	110	*	*	*	*	3.1
CSM 0500211	1	-Q8	21	20	70	105	115	*	*	*	*	3.8
CSM 0500221	1	-Q8	22	20	80	110	120	*	*	*	*	4.3
CSM 0500231	1	-Q8	23	20	80	115	125	*	*	*	*	4.7
CSM 0500241	1	-Q8	24	20	80	120	130	*	*	*	*	5.0
CSM 0500251	1	-Q8	25	20	80	125	135	*	*	*	*	5.4
CSM 0500301	1	-Q8	30	20	90	150	160	*	*	*	*	7.7
CSM 0500361	2	-Q8	36	30	*	180	190	*	*	*	*	9.9
CSM 0500381	2	-Q8	38	30	*	190	200	*	*	*	*	
CSM 0500401	2	-Q8	40	30	*	200	210	*	*	*	*	12.3
CSM 0500451	2	-Q8	45	30	*	225	235	*	*	*	*	16.0
CSM 0500481	2	-Q8	48	30	*	240	250	*	*	*	*	
CSM 0500501	2	-Q8	50	30	*	250	260	*	*	*	*	19.2
CSM 0500521	2	-Q8	52	30	*	260	270	*	*	*	*	
CSM 0500561	2	-Q8	56	30	*	280	290	*	*	*	*	
CSM 0500601	2	-Q8	60	30	*	300	310	*	*	*	*	
CSM 0500761	2	-Q8	76	30	*	380	390	*	*	*	*	
CSM 0500801	2	-Q8	80	30	*	400	410	*	*	*	*	
CSM 0500951	2	-Q8	95	30	*	475	485	*	*	*	*	70.0

CSM-Q8 系列 直齒齒輪
CSM-Q8 Series Straight Soft Pinions

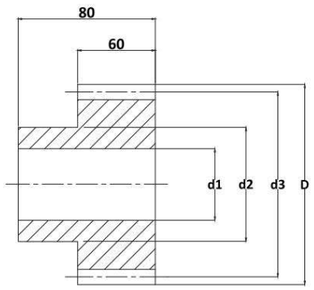


圖1/Fig1.

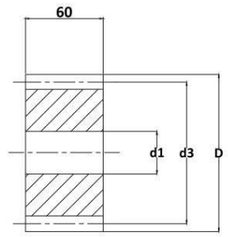


圖2/Fig2.

齒面精度等級 DIN 8
Tooth Surface Accuracy Grade DIN 8

系列 CSM-Q8 直齒齒輪
材料 45C (中碳鋼)

Series CSM-Q8 Straight Soft Pinions
Material 45C (Medium Carbon Steel)

單位 / Dimension : mm

型號 Code	圖 Fig.	Q	齒數 No. of Teeth	d1H6	d2	d3	D	w1	w2	k	h	KG
模數 6 Module 6												
CSM 0600151	1	-Q8	15	20	60	90	102	*	*	*	*	3.2
CSM 0600191	1	-Q8	19	20	80	114	126	*	*	*	*	5.4
CSM 0600201	1	-Q8	20	20	90	120	132	*	*	*	*	6.0
CSM 0600211	1	-Q8	21	20	90	126	138	*	*	*	*	6.7
CSM 0600221	1	-Q8	22	20	100	132	144	*	*	*	*	7.4
CSM 0600251	1	-Q8	25	20	110	150	162	*	*	*	*	9.6
CSM 0600301	2	-Q8	30	30	*	180	192	*	*	*	*	11.9
CSM 0600361	2	-Q8	36	30	*	216	228	*	*	*	*	17.2

CSM-Q8 系列 直齒齒輪
CSM-Q8 Series Straight Soft Pinions

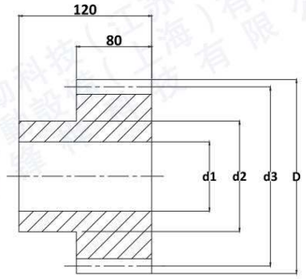


圖1/Fig1.

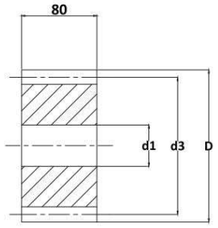


圖2/Fig2.

齒面精度等級 DIN 8
Tooth Surface Accuracy Grade DIN 8

系列 CSM-Q8 直齒齒輪
材料 45C (中碳鋼)

Series CSM-Q8 Straight Soft Pinions
Material 45C (Medium Carbon Steel)

單位 / Dimension : mm

型號 Code	圖 Fig.	Q	齒數 No. of Teeth	d1H6	d2	d3	D	w1	w2	k	h	KG
模數 8 Module 8												
CSM 080 0151	1	-Q8	15	40	90	120	136	*	*	*	*	7.7
CSM 080 0181	1	-Q8	18	40	100	144	160	*	*	*	*	9.9
CSM 080 0201	1	-Q8	20	40	120	160	176	*	*	*	*	14.8
CSM 080 0241	1	-Q8	24	40	150	192	208	*	*	*	*	22.0
CSM 080 0251	1	-Q8	25	40	150	200	216	*	*	*	*	23.8
CSM 080 0301	1	-Q8	30	40	190	240	256	*	*	*	*	32.0

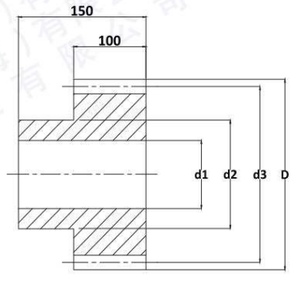


圖1/Fig1.

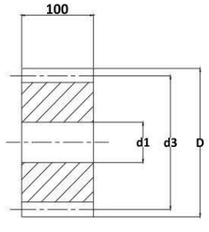


圖2/Fig2.

齒面精度等級 DIN 8
Tooth Surface Accuracy Grade DIN 8

系列 CSM-Q8 直齒齒輪
材料 45C (中碳鋼)

Series CSM-Q8 Straight Soft Pinions
Material 45C (Medium Carbon Steel)

單位 / Dimension : mm

型號 Code	圖 Fig.	Q	齒數 No. of Teeth	d1H6	d2	d3	D	w1	w2	k	h	KG
模數 10 Module 10												
CSM1000201	2	-Q8	20	40	150	200	220	**		**		35.0

CSMH-Q10 系列 直齒硬化齒輪
CSMH-Q10 Series Straight Hardened Pinions

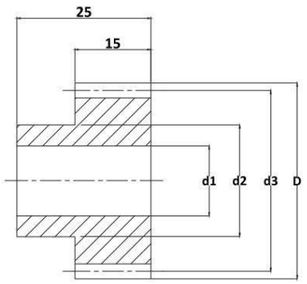


圖1/Fig1.

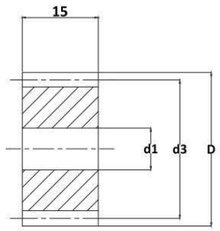


圖2/Fig2.

齒面精度等級 DIN 10
Tooth Surface Accuracy Grade DIN 10

系列 CSMH-Q10 直齒硬化齒輪
材料 45C (中碳鋼)
硬度 HRC 50~55°

Series CSMH-Q10 Straight Hardened Pinions
Material 45C (Medium Carbon Steel)
Hardness: HRC 50~55°

單位 / Dimension : mm

型號 Code	圖 Fig.	Q	齒數 No. of Teeth	d1H6	d2	d3	D	w1	w2	k	h	KG
模數 1 Module 1												
CSMH 010 0121	1	-Q10	12	6	9	12.0	14.0	*	*	*	*	0.1
CSMH 010 0131	1	-Q10	13	6	9	13.0	15.0	*	*	*	*	0.1
CSMH 010 0141	1	-Q10	14	6	11	14.0	16.0	*	*	*	*	0.1
CSMH 010 0151	1	-Q10	15	6	12	15.0	17.0	*	*	*	*	0.1
CSMH 010 0161	1	-Q10	16	6	12	16.0	18.0	*	*	*	*	0.1
CSMH 010 0171	1	-Q10	17	6	14	17.0	19.0	*	*	*	*	0.1
CSMH 010 0181	1	-Q10	18	6	15	18.0	20.0	*	*	*	*	0.1
CSMH 010 0191	1	-Q10	19	6	15	19.0	21.0	*	*	*	*	0.1
CSMH 010 0201	1	-Q10	20	6	16	20.0	22.0	*	*	*	*	0.1
CSMH 010 0211	1	-Q10	21	6	16	21.0	23.0	*	*	*	*	0.1
CSMH 010 0221	1	-Q10	22	6	18	22.0	24.0	*	*	*	*	0.1
CSMH 010 0231	1	-Q10	23	6	18	23.0	25.0	*	*	*	*	0.1
CSMH 010 0241	1	-Q10	24	9	20	24.0	26.0	*	*	*	*	0.1
CSMH 010 0251	1	-Q10	25	9	20	25.0	27.0	*	*	*	*	0.1
CSMH 010 0301	1	-Q10	30	9	20	30.0	32.0	*	*	*	*	0.1
CSMH 010 0351	1	-Q10	35	9	25	35.0	37.0	*	*	*	*	0.2
CSMH 010 0381	1	-Q10	38	9	25	38.0	40.0	*	*	*	*	0.2
CSMH 010 0401	1	-Q10	40	9	25	40.0	42.0	*	*	*	*	0.2
CSMH 010 0451	1	-Q10	45	9	30	45.0	47.0	*	*	*	*	0.3
CSMH 010 0481	1	-Q10	48	9	30	48.0	50.0	*	*	*	*	0.3
CSMH 010 0501	1	-Q10	50	9	30	50.0	52.0	*	*	*	*	0.3
CSMH 010 0571	1	-Q10	57	9	40	57.0	59.0	*	*	*	*	0.4
CSMH 010 0601	1	-Q10	60	9	40	60.0	62.0	*	*	*	*	0.4
CSMH 010 0761	2	-Q10	76	10	*	76.0	78.0	*	*	*	*	0.6
CSMH 010 0801	2	-Q10	80	10	*	80.0	82.0	*	*	*	*	0.6
CSMH 010 0951	2	-Q10	95	10	*	95.0	97.0	*	*	*	*	0.9
CSMH 010 1001	2	-Q10	100	10	*	100.0	102.0	*	*	*	*	1.0
CSMH 010 1141	2	-Q10	114	10	*	114.0	116.0	*	*	*	*	1.2

CSMH-Q10 系列 直齒硬化齒輪
CSMH-Q10 Series Straight Hardened Pinions

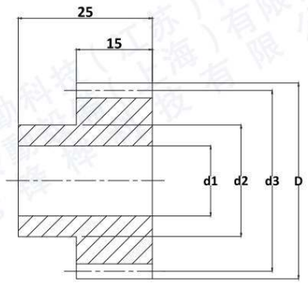


圖1/Fig1.

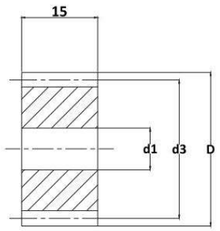


圖2/Fig2.

齒面精度等級 DIN 10
Tooth Surface Accuracy Grade DIN 10

系列 CSMH-Q10 直齒硬化齒輪
材料 45C (中碳鋼)
硬度 HRC 50~55°

Series CSMH-Q10 Straight Hardened Pinions
Material 45C (Medium Carbon Steel)
Hardness: HRC 50~55°

單位 / Dimension : mm

型號 Code	圖 Fig.	Q	齒數 No. of Teeth	d1H6	d2	d3	D	w1	w2	k	h	KG
模數 1.5 Module 1.5												
CSMH0150121	1	-Q10	12	6	14	18.0	21.0	*	*	*	*	0.1
CSMH0150131	1	-Q10	13	6	14	19.5	22.5	*	*	*	*	0.1
CSMH0150141	1	-Q10	14	6	16	21.0	24.0	*	*	*	*	0.1
CSMH0150151	1	-Q10	15	6	18	22.5	25.5	*	*	*	*	0.1
CSMH0150161	1	-Q10	16	6	18	24.0	27.0	*	*	*	*	0.1
CSMH0150171	1	-Q10	17	9	20	25.5	28.5	*	*	*	*	0.1
CSMH0150181	1	-Q10	18	9	20	27.0	30.0	*	*	*	*	0.1
CSMH0150191	1	-Q10	19	9	20	28.5	31.5	*	*	*	*	0.1
CSMH0150201	1	-Q10	20	9	25	30.0	33.0	*	*	*	*	0.1
CSMH0150211	1	-Q10	21	9	25	31.5	34.5	*	*	*	*	0.1
CSMH0150221	1	-Q10	22	9	25	33.0	36.0	*	*	*	*	0.1
CSMH0150231	1	-Q10	23	9	25	34.5	37.5	*	*	*	*	0.2
CSMH0150241	1	-Q10	24	9	25	36.0	39.0	*	*	*	*	0.2
CSMH0150251	1	-Q10	25	9	25	37.5	40.5	*	*	*	*	0.2
CSMH0150301	1	-Q10	30	9	30	45.0	48.0	*	*	*	*	0.2
CSMH0150351	1	-Q10	35	9	40	52.5	55.5	*	*	*	*	0.2
CSMH0150381	1	-Q10	38	9	40	57.0	60.0	*	*	*	*	0.4
CSMH0150401	1	-Q10	40	9	40	60.0	63.0	*	*	*	*	0.4
CSMH0150451	1	-Q10	45	12	50	67.5	70.5	*	*	*	*	0.6
CSMH0150481	1	-Q10	48	12	50	72.0	75.0	*	*	*	*	0.7
CSMH0150501	1	-Q10	50	12	50	75.0	78.0	*	*	*	*	0.8
CSMH0150571	1	-Q10	57	12	60	85.5	88.5	*	*	*	*	1.0
CSMH0150601	1	-Q10	60	12	60	90.0	93.0	*	*	*	*	1.2
CSMH0150761	2	-Q10	76	16	*	114.0	117.0	*	*	*	*	1.4
CSMH0150801	2	-Q10	80	16	*	120.0	123.0	*	*	*	*	1.5
CSMH0150951	2	-Q10	95	20	*	142.5	145.5	*	*	*	*	2.1

CSMH-Q10 系列 直齒硬化齒輪
CSMH-Q10 Series Straight Hardened Pinions

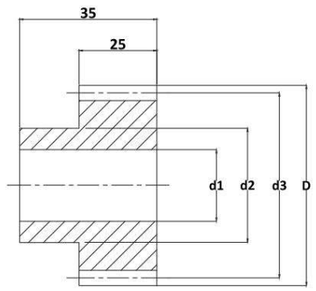


圖1/Fig1.

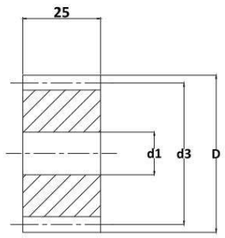


圖2/Fig2.

齒面精度等級 DIN 10
Tooth Surface Accuracy Grade DIN 10

系列 CSMH-Q10 直齒硬化齒輪
材料 45C (中碳鋼)
硬度 HRC 50~55°

Series CSMH-Q10 Straight Hardened Pinions
Material 45C (Medium Carbon Steel)
Hardness: HRC 50~55°

單位 / Dimension : mm

型號 Code	圖 Fig.	Q	齒數 No. of Teeth	d1H6	d2	d3	D	w1	w2	k	h	KG
模數 2 Module 2												
CSMH 0200121	1	-Q10	12	9	18	24.0	28.0	*	*	*	*	0.1
CSMH 0200131	1	-Q10	13	9	19	26.0	30.0	*	*	*	*	0.1
CSMH 0200141	1	-Q10	14	9	19	28.0	32.0	*	*	*	*	0.1
CSMH 0200151	1	-Q10	15	9	24.5	30.0	34.0	*	*	*	*	0.2
CSMH 0200161	1	-Q10	16	9	25	32.0	36.0	*	*	*	*	0.2
CSMH 0200171	1	-Q10	17	9	25	34.0	38.0	*	*	*	*	0.2
CSMH 0200181	1	-Q10	18	9	25	36.0	40.0	*	*	*	*	0.2
CSMH 0200191	1	-Q10	19	9	25	38.0	42.0	*	*	*	*	0.2
CSMH 0200201	1	-Q10	20	9	30	40.0	44.0	*	*	*	*	0.2
CSMH 0200211	1	-Q10	21	9	30	42.0	46.0	*	*	*	*	0.3
CSMH 0200221	1	-Q10	22	9	30	44.0	48.0	*	*	*	*	0.3
CSMH 0200231	1	-Q10	23	9	30	46.0	50.0	*	*	*	*	0.3
CSMH 0200241	1	-Q10	24	12	35	48.0	52.0	*	*	*	*	0.4
CSMH 0200251	1	-Q10	25	12	35	50.0	54.0	*	*	*	*	0.4
CSMH 0200281	1	-Q10	28	12	40	56.0	60.0	*	*	*	*	0.5
CSMH 0200301	1	-Q10	30	12	40	60.0	64.0	*	*	*	*	0.5
CSMH 0200321	1	-Q10	32	12	40	64.0	68.0	*	*	*	*	0.6
CSMH 0200351	1	-Q10	35	12	50	70.0	74.0	*	*	*	*	0.7
CSMH 0200361	1	-Q10	36	12	50	72.0	76.0	*	*	*	*	0.9
CSMH 0200381	1	-Q10	38	12	50	76.0	80.0	*	*	*	*	1.0
CSMH 0200401	1	-Q10	40	12	50	80.0	84.0	*	*	*	*	1.0
CSMH 0200451	1	-Q10	45	12	60	90.0	94.0	*	*	*	*	1.3
CSMH 0200481	1	-Q10	48	15	70	96.0	100.0	*	*	*	*	1.5
CSMH 0200501	1	-Q10	50	15	70	100.0	104.0	*	*	*	*	1.6
CSMH 0200561	1	-Q10	56	15	70	112.0	116.0	*	*	*	*	1.9
CSMH 0200571	1	-Q10	57	15	70	114.0	118.0	*	*	*	*	2.0
CSMH 0200601	1	-Q10	60	15	70	120.0	124.0	*	*	*	*	2.4
CSMH 0200761	2	-Q10	76	20	*	152.0	156.0	*	*	*	*	2.8
CSMH 0200801	2	-Q10	80	20	*	160.0	164.0	*	*	*	*	3.1
CSMH 0200951	2	-Q10	95	20	*	190.0	194.0	*	*	*	*	4.4

CSMH-Q10 系列 直齒硬化齒輪
CSMH-Q10 Series Straight Hardened Pinions

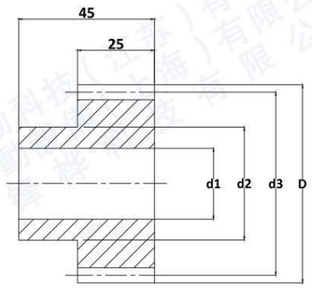


圖1/Fig1.

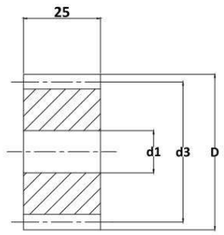


圖2/Fig2.

齒面精度等級 DIN 10
Tooth Surface Accuracy Grade DIN 10

系列 CSMH-Q10 直齒硬化齒輪
材料 45C (中碳鋼)
硬度 HRC 50~55°

Series CSMH-Q10 Straight Hardened Pinions
Material 45C (Medium Carbon Steel)
Hardness: HRC 50~55°

單位 / Dimension : mm

型號 Code	圖 Fig.	Q	齒數 No. of Teeth	d1H6	d2	d3	D	w1	w2	k	h	KG
模數 2.5 Module 2.5												
CSMH 0250121	1	-Q10	12	9	20	30.0	35.0	*	*	*	*	0.2
CSMH 0250131	1	-Q10	13	9	20	32.5	37.5	*	*	*	*	0.2
CSMH 0250141	1	-Q10	14	9	25	35.0	40.0	*	*	*	*	0.2
CSMH 0250151	1	-Q10	15	9	25	37.5	42.5	*	*	*	*	0.3
CSMH 0250161	1	-Q10	16	9	30	40.0	45.0	*	*	*	*	0.3
CSMH 0250171	1	-Q10	17	9	30	42.5	47.5	*	*	*	*	0.4
CSMH 0250181	1	-Q10	18	9	35	45.0	50.0	*	*	*	*	0.4
CSMH 0250191	1	-Q10	19	12	35	47.5	52.5	*	*	*	*	0.4
CSMH 0250201	1	-Q10	20	12	35	50.0	55.0	*	*	*	*	0.5
CSMH 0250211	1	-Q10	21	12	35	52.5	57.5	*	*	*	*	0.5
CSMH 0250221	1	-Q10	22	12	40	55.0	60.0	*	*	*	*	0.5
CSMH 0250231	1	-Q10	23	12	40	57.5	62.5	*	*	*	*	0.6
CSMH 0250241	1	-Q10	24	12	40	60.0	65.0	*	*	*	*	0.7
CSMH 0250251	1	-Q10	25	12	45	62.5	67.5	*	*	*	*	0.8
CSMH 0250301	1	-Q10	30	12	50	75.0	80.0	*	*	*	*	1.0
CSMH 0250351	1	-Q10	35	12	60	87.5	92.5	*	*	*	*	1.5
CSMH 0250381	1	-Q10	38	12	60	95.0	100.0	*	*	*	*	1.7
CSMH 0250401	1	-Q10	40	12	70	100.0	105.0	*	*	*	*	1.8
CSMH 0250451	1	-Q10	45	15	70	112.5	117.5	*	*	*	*	2.4
CSMH 0250481	1	-Q10	48	15	80	120.0	125.0	*	*	*	*	2.8
CSMH 0250501	1	-Q10	50	15	80	125.0	130.0	*	*	*	*	2.9
CSMH 0250571	1	-Q10	57	15	90	142.5	147.5	*	*	*	*	3.7
CSMH 0250601	1	-Q10	60	15	90	150.0	155.0	*	*	*	*	4.0
CSMH 0260762	1	-Q10	76	20	*	190.0	195.0	*	*	*	*	
CSMH 0270802	1	-Q10	80	25	*	200.0	205.0	*	*	*	*	6.1
CSMH 0280952	1	-Q10	95	25	*	237.5	242.5	*	*	*	*	

CSMH-Q10 系列 直齒硬化齒輪
CSMH-Q10 Series Straight Hardened Pinions

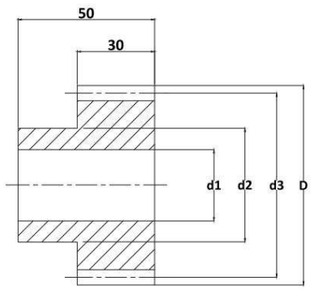


圖1/Fig1.

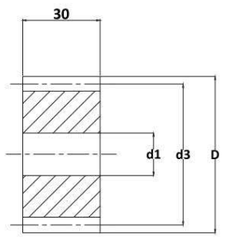


圖2/Fig2.

齒面精度等級 DIN 10
Tooth Surface Accuracy Grade DIN 10

系列 CSMH-Q10 直齒硬化齒輪
材料 45C (中碳鋼)
硬度 HRC 50~55°

Series CSMH-Q10 Straight Hardened Pinions
Material 45C (Medium Carbon Steel)
Hardness: HRC 50~55°

單位 / Dimension : mm

型號 Code	圖 Fig.	Q	齒數 No. of Teeth	d1H6	d2	d3	D	w1	w2	k	h	KG
模數 3 Module 3												
CSMH0300121	1	-Q10	12	14	25	36	42	*	*	*	*	0.3
CSMH0300131	1	-Q10	13	14	25	39	45	*	*	*	*	0.3
CSMH0300141	1	-Q10	14	14	25	42	48	*	*	*	*	0.3
CSMH0300151	1	-Q10	15	14	35	45	51	*	*	*	*	0.4
CSMH0300161	1	-Q10	16	14	35	48	54	*	*	*	*	0.5
CSMH0300171	1	-Q10	17	14	42	51	57	*	*	*	*	0.7
CSMH0300181	1	-Q10	18	14	45	54	60	*	*	*	*	0.7
CSMH0300191	1	-Q10	19	14	45	57	63	*	*	*	*	0.8
CSMH0300201	1	-Q10	20	14	45	60	66	*	*	*	*	0.8
CSMH0300211	1	-Q10	21	14	45	63	69	*	*	*	*	0.9
CSMH0300221	1	-Q10	22	14	50	66	72	*	*	*	*	1.1
CSMH0300231	1	-Q10	23	14	50	69	75	*	*	*	*	1.1
CSMH0300241	1	-Q10	24	14	50	72	78	*	*	*	*	1.2
CSMH0300251	1	-Q10	25	14	60	75	81	*	*	*	*	1.4
CSMH0300271	1	-Q10	27	14	60	81	87	*	*	*	*	1.6
CSMH0300281	1	-Q10	28	14	60	84	90	*	*	*	*	1.7
CSMH0300301	1	-Q10	30	14	60	90	96	*	*	*	*	1.8
CSMH0300321	1	-Q10	32	14	60	96	102	*	*	*	*	2.0
CSMH0300351	1	-Q10	35	14	80	105	111	*	*	*	*	2.7
CSMH0300361	1	-Q10	36	14	80	108	114	*	*	*	*	2.8
CSMH0300381	1	-Q10	38	14	80	114	120	*	*	*	*	3.0
CSMH0300401	1	-Q10	40	14	80	120	126	*	*	*	*	3.3
CSMH0300451	2	-Q10	45	20	*	135	141	*	*	*	*	3.3
CSMH0300481	2	-Q10	48	20	*	144	150	*	*	*	*	3.8
CSMH0300501	2	-Q10	50	25	*	150	156	*	*	*	*	4.1
CSMH0300521	2	-Q10	52	25	*	156	162	*	*	*	*	4.5
CSMH0300561	2	-Q10	56	25	*	168	174	*	*	*	*	5.3
CSMH0300601	2	-Q10	60	25	*	180	186	*	*	*	*	6.0
CSMH0300761	2	-Q10	76	25	*	228	234	*	*	*	*	9.6
CSMH0300801	2	-Q10	80	25	*	240	246	*	*	*	*	
CSMH0300951	2	-Q10	95	25	*	285	291	*	*	*	*	15.0

CSMH-Q10 系列 直齒硬化齒輪
CSMH-Q10 Series Straight Hardened Pinions

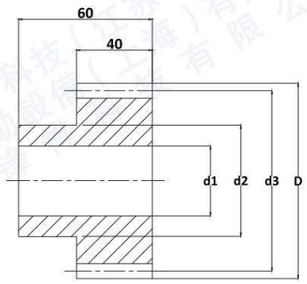


圖1/Fig1.

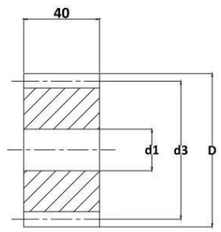


圖2/Fig2.

齒面精度等級 DIN 10
Tooth Surface Accuracy Grade DIN 10

系列 CSMH-Q10 直齒硬化齒輪
材料 45C (中碳鋼)
硬度 HRC 50~55°

Series CSMH-Q10 Straight Hardened Pinions
Material 45C (Medium Carbon Steel)
Hardness: HRC 50~55°

單位 / Dimension : mm

型號 Code	圖 Fig.	Q	齒數 No. of Teeth	d1H6	d2	d3	D	w1	w2	k	h	KG
模數 4 Module 4												
CSMH0400121	1	-Q10	12	16	35	48	56	*	*	*	*	0.6
CSMH0400131	1	-Q10	13	16	35	52	60	*	*	*	*	0.7
CSMH0400141	1	-Q10	14	16	45	56	64	*	*	*	*	0.9
CSMH0400151	1	-Q10	15	16	45	60	68	*	*	*	*	1.0
CSMH0400161	1	-Q10	16	16	45	64	72	*	*	*	*	1.1
CSMH0400171	1	-Q10	17	16	50	68	76	*	*	*	*	1.3
CSMH0400181	1	-Q10	18	16	50	72	80	*	*	*	*	1.4
CSMH0400191	1	-Q10	19	16	60	76	84	*	*	*	*	1.7
CSMH0400201	1	-Q10	20	16	60	80	88	*	*	*	*	1.8
CSMH0400211	1	-Q10	21	16	70	84	92	*	*	*	*	2.2
CSMH0400221	1	-Q10	22	16	70	88	96	*	*	*	*	2.5
CSMH0400231	1	-Q10	23	16	75	92	100	*	*	*	*	2.6
CSMH0400241	1	-Q10	24	16	75	96	104	*	*	*	*	2.7
CSMH0400251	1	-Q10	25	16	75	100	108	*	*	*	*	2.8
CSMH0400301	1	-Q10	30	16	75	120	128	*	*	*	*	2.9
CSMH0400381	2	-Q10	38	25	*	152	160	*	*	*	*	4.0
CSMH0400401	2	-Q10	40	25	*	160	168	*	*	*	*	5.7
CSMH0400451	2	-Q10	45	25	*	180	188	*	*	*	*	6.3
CSMH0400481	2	-Q10	48	25	*	192	200	*	*	*	*	
CSMH0400501	2	-Q10	50	25	*	200	208	*	*	*	*	9.8
CSMH0400521	2	-Q10	52	25		208	216	*	*	*	*	
CSMH0400561	2	-Q10	56	25	*	224	232	*	*	*	*	12.3
CSMH0400601	2	-Q10	60	25	*	240	248	*	*	*	*	14.2
CSMH0400761	2	-Q10	76	25		304	312	*	*	*	*	
CSMH0400801	2	-Q10	80	25	*	320	328	*	*	*	*	25.2
CSMH0400951	2	-Q10	95	25	*	380	388	*	*	*	*	35.6

CSMH-Q10 系列 直齒硬化齒輪
CSMH-Q10 Series Straight Hardened Pinions

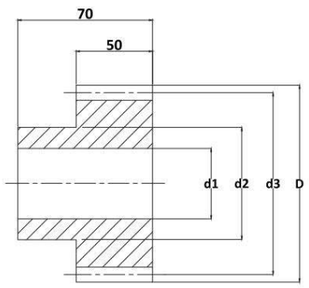


圖1/Fig1.

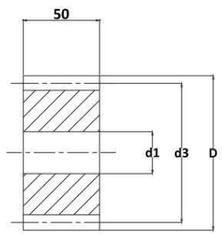


圖2/Fig2.

齒面精度等級 DIN 10
Tooth Surface Accuracy Grade DIN 10

系列 CSMH-Q10 直齒硬化齒輪
材料 45C (中碳鋼)
硬度 HRC 50~55°

Series CSMH-Q10 Straight Hardened Pinions
Material 45C (Medium Carbon Steel)
Hardness: HRC 50~55°

單位 / Dimension : mm

型號 Code	圖 Fig.	Q	齒數 No. of Teeth	d1H6	d2	d3	D	w1	w2	k	h	KG
模數 5 Module 5												
CSMH0500121	1	-Q10	12	20	45	60	70	*	*	*	*	1.2
CSMH0500131	1	-Q10	13	20	45	65	75	*	*	*	*	1.4
CSMH0500141	1	-Q10	14	20	55	70	80	*	*	*	*	1.8
CSMH0500151	1	-Q10	15	20	60	75	85	*	*	*	*	2.0
CSMH0500161	1	-Q10	16	20	60	80	90	*	*	*	*	2.1
CSMH0500171	1	-Q10	17	20	70	85	95	*	*	*	*	2.2
CSMH0500181	1	-Q10	18	20	70	90	100	*	*	*	*	2.6
CSMH0500191	1	-Q10	19	20	70	95	105	*	*	*	*	2.8
CSMH0500201	1	-Q10	20	20	70	100	110	*	*	*	*	3.1
CSMH0500211	1	-Q10	21	20	70	105	115	*	*	*	*	3.8
CSMH0500221	1	-Q10	22	20	80	110	120	*	*	*	*	4.3
CSMH0500231	1	-Q10	23	20	80	115	125	*	*	*	*	4.7
CSMH0500241	1	-Q10	24	20	80	120	130	*	*	*	*	5.0
CSMH0500251	1	-Q10	25	20	80	125	135	*	*	*	*	5.4
CSMH0500301	1	-Q10	30	20	90	150	160	*	*	*	*	7.7
CSMH0500361	2	-Q10	36	30	*	180	190	*	*	*	*	9.9
CSMH0500381	2	-Q10	38	30	*	190	200	*	*	*	*	
CSMH0500401	2	-Q10	40	30	*	200	210	*	*	*	*	12.3
CSMH0500451	2	-Q10	45	30	*	225	235	*	*	*	*	16.0
CSMH0500481	2	-Q10	48	30	*	240	250	*	*	*	*	
CSMH0500501	2	-Q10	50	30	*	250	260	*	*	*	*	19.2
CSMH0500521	2	-Q10	52	30	*	260	270	*	*	*	*	
CSMH0500561	2	-Q10	56	30	*	280	290	*	*	*	*	
CSMH0500601	2	-Q10	60	30	*	300	310	*	*	*	*	
CSMH0500761	2	-Q10	76	30	*	380	390	*	*	*	*	
CSMH0500801	2	-Q10	80	30	*	400	410	*	*	*	*	
CSMH0500951	2	-Q10	95	30	*	475	485	*	*	*	*	70.0

CSMH-Q10 系列 直齒硬化齒輪
CSMH-Q10 Series Straight Hardened Pinions

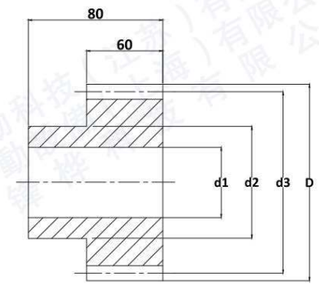


圖1/Fig1.

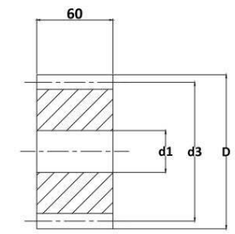


圖2/Fig2.

齒面精度等級 DIN 10
Tooth Surface Accuracy Grade DIN 10

系列 CSMH-Q10 直齒硬化齒輪
材料 45C (中碳鋼)
硬度 HRC 50~55°

Series CSMH-Q10 Straight Hardened Pinions
Material 45C (Medium Carbon Steel)
Hardness: HRC 50~55°

單位 / Dimension : mm

型號 Code	圖 Fig.	Q	齒數 No. of Teeth	d1H6	d2	d3	D	w1	w2	k	h	KG
模數 6 Module 6												
CSMH 060 0151	1	-Q10	15	20	60	90	102	*	*	*	*	3.2
CSMH 060 0191	1	-Q10	19	20	80	114	126	*	*	*	*	5.4
CSMH 060 0201	1	-Q10	20	20	90	120	132	*	*	*	*	6.0
CSMH 060 0211	1	-Q10	21	20	90	126	138	*	*	*	*	6.7
CSMH 060 0221	1	-Q10	22	20	100	132	144	*	*	*	*	7.4
CSMH 060 0251	1	-Q10	25	20	110	150	162	*	*	*	*	9.6
CSMH 060 0301	2	-Q10	30	30	*	180	192	*	*	*	*	11.9
CSMH 060 0361	2	-Q10	36	30	*	216	228	*	*	*	*	17.2

CSMH-Q10 系列 直齒硬化齒輪
CSMH-Q10 Series Straight Hardened Pinions

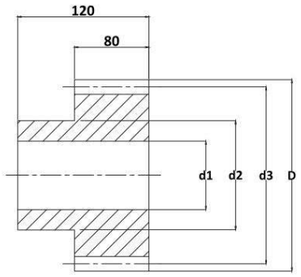


圖1/Fig1.

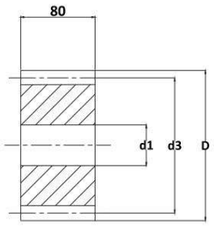


圖2/Fig2.

齒面精度等級 DIN 10
Tooth Surface Accuracy Grade DIN 10

系列 CSMH-Q10 直齒硬化齒輪
材料 45C (中碳鋼)
硬度 HRC 50~55°

Series CSMH-Q10 Straight Hardened Pinions
Material 45C (Medium Carbon Steel)
Hardness: HRC 50~55°

單位 / Dimension : mm

型號 Code	圖 Fig.	Q	齒數 No. of Teeth	d1H6	d2	d3	D	w1	w2	k	h	KG
模數 8 Module 8												
CSMH0800151	1	-Q10	15	40	90	120	136	*	*	*	*	7.7
CSMH0800181	1	-Q10	18	40	100	144	160	*	*	*	*	9.9
CSMH0800201	1	-Q10	20	40	120	160	176	*	*	*	*	14.8
CSMH0800241	1	-Q10	24	40	150	192	208	*	*	*	*	22.0
CSMH0800251	1	-Q10	25	40	150	200	216	*	*	*	*	23.8
CSMH0800301	1	-Q10	30	40	190	240	256	*	*	*	*	32.0

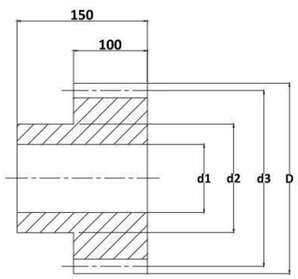


圖1/Fig1.

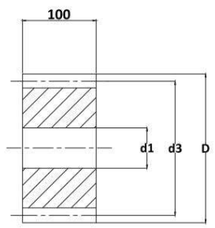


圖2/Fig2.

齒面精度等級 DIN 10
Tooth Surface Accuracy Grade DIN 10

系列 CSMH-Q10 直齒硬化齒輪
材料 45C (中碳鋼)
硬度 HRC 50~55°

Series CSMH-Q10 Straight Hardened Pinions
Material 45C (Medium Carbon Steel)
Hardness: HRC 50~55°

單位 / Dimension : mm

型號 Code	圖 Fig.	Q	齒數 No. of Teeth	d1H6	d2	d3	D	w1	w2	k	h	KG
模數 10 Module 10												
CSMH 100 0201	2	-Q10	20	40	150	200	220	*	*	*	*	35.0

導軌齒條目錄
Content of Guideway Racks

型號 Code	材料 Material	齒條齒型 Type	齒條齒型 Type	棒型 Shape	齒面處理 Teeth Treatment	硬度處理 Hardness	周節 CP	精度等級 Grade DIN	頁碼 Page
MSVGH-CP	SCM440	直齒 Straight	V型導軌齒條 V Type Guideway Rack	六角棒 Hexgan	齒研 Teeth Ground	熱處理 Hardened HRC 53°-58°	5, 7.5,10	DIN 6	70
MNVGH-00	SCM440	N/A	V型導軌 V Type Guideway	六角棒 Hexgan	研磨 Ground	熱處理 Hardened HRC 53°-58°	N/A	DIN 6	71
MSTGH-CP	SCM440	直齒 Straight	平軌齒條 Guideway Rack	四角棒 Tetragon	齒研 Teeth Ground	熱處理 Hardened HRC 53°-58°	5, 7.5, 10	DIN 6	72
MNTGH-00	SCM440	N/A	平面導軌 Guideway	四角棒 Tetragon	研磨 Ground	熱處理 Hardened HRC 53°-58°	N/A	DIN 6	73

導軌齒條型號說明
Guideway Rack Code Instruction

1st	2nd	3rd	4th	5th	6th	7th	8th
材料 Material	齒型 Type	棒型 Shape	齒面處理 Teeth Treatment	硬度處理 Hardness	周節 Circular Pitch	長度 Length	等級 Grade
M	S/H	V/T	G	H	CP	10	Q6
M=SCM440	S=直齒 H=斜齒	V=V型棒 T=四角棒(平面)	G=齒研/研磨	H=硬化處理	CP=周節	CP5=1030 CP7.5=1230 CP10=1230	Q=DIN
	S=Straight H=Helical	V=V Type Bar T=Tetragon Bar	G=Teeth Ground /Ground	H=Hardened	CP=Circular Pitch		

此樣本中的所有產品型號及參數如有變更恕不另行通告，訂貨前請與本公司聯絡確認
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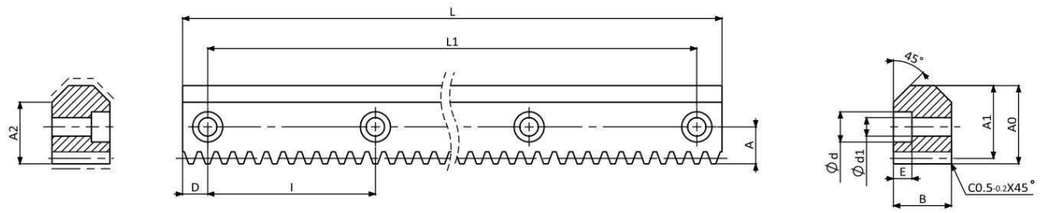
MSVGH-CP-Q6 系列 直齒V型齒研導軌齒條
MSVGH-CP-Q6 Series Straight V Type Ground Guideway Racks

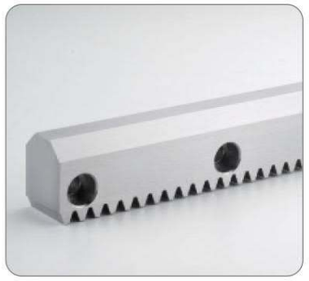
系列MSVGH-CP-Q6 直齒V型齒研導軌齒條 Series MSVGH-CP-Q6 Straight V Type Ground Guideway Racks	
材料 SCM440 (鉻鉬合金鋼)	Material SCM440 (Chromium Molybdenum Alloy Steel)
硬度 HRC 53~58°	Hardness HRC 53~58°
硬化處理後六面研磨與齒研	6 Sides Ground and Teeth Ground after hardening.



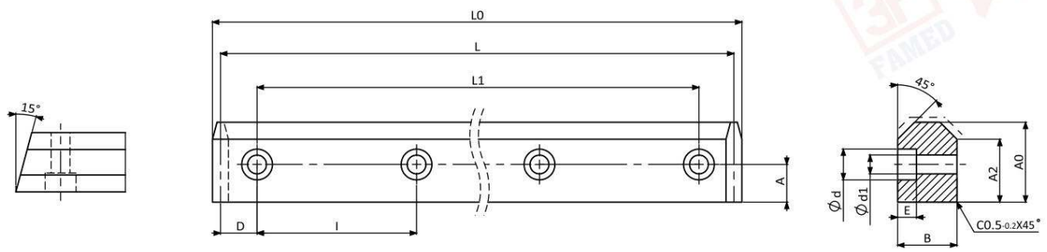
單位 / Dimension : mm

型號 Code	序號 No	Q	周節 CP	L	L1	模數 Module	B	A	A1	D	I	A	ød	ød1	E	A2	KG
MSVGH-CP05010	1	-Q6	5	1030	1000	1.5915	14.5	24.5	22.91	15	100	11.5	11	7	6.8	20.0	2.2
MSVGH-CP05010	2	-Q6	5	1030	1000	1.5915	19.5	29.5	27.91	15	100	14.0	15	9	9	23.5	3.5
MSVGH-CP07512	1	-Q6	7.5	1230	1200	2.3873	24.7	33.0	30.61	15	100	14.5	15	9	9	25.2	5.8
MSVGH-CP10012	1	-Q6	10	1230	1200	3.1831	34.6	46.6	43.42	15	100	18	18	11	11	36.7	11.7

MNVGH-00-Q6 系列 V型研磨導軌
MNVGH-00-Q6 Series V Type Ground Guideway



系列MNVGH-00-Q6 V型研磨導軌 Series MNVGH-00-Q6 V Type Ground Guideway	
材料 SCM440 (鉻鉬合金鋼)	Material SCM440 (Chromium Molybdenum Alloy Steel)
硬度 HRC 53~58°	Hardness HRC 53~58°
硬化處理後六面研磨	6 Sides Ground after hardening.

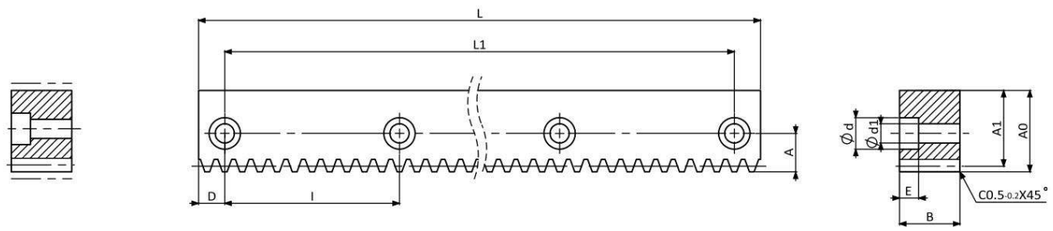


單位 / Dimension : mm

型號 Code	序號 No	Q	L0	L	L1	B	A0	D	I	ød	ød1	E	A2	KG
MNVGH-00	1	-Q6	1033.89	1030	1000	14.5	24.5	15	100	11	7	6.8	20.0	2.3
MNVGH-00	2	-Q6	1035.23	1030	1000	19.5	29.5	15	100	15	9	9	23.5	3.6
MNVGH-00	3	-Q6	1236.62	1230	1200	24.7	33.0	15	100	15	9	9	25.2	6.3
MNVGH-00	4	-Q6	1239.27	1230	1200	34.6	46.6	15	100	18	11	11	36.7	12.5

MSTGH-CP-Q6 系列 齒研平軌齒條
MSTGH-CP-Q6 Series Ground Guideway Racks

系列MSTGH-CP-Q6 齒研平軌齒條 Series MSTGH-CP-Q6 Ground Guideway Racks	
材料 SCM440 (鉻鉬合金鋼)	Material SCM440 (Chromium Molybdenum Alloy Steel)
硬度 HRC 53~58°	Hardness HRC 53~58°
硬化處理後四面研磨與齒研	4 Sides Ground and Teeth Ground after hardening.

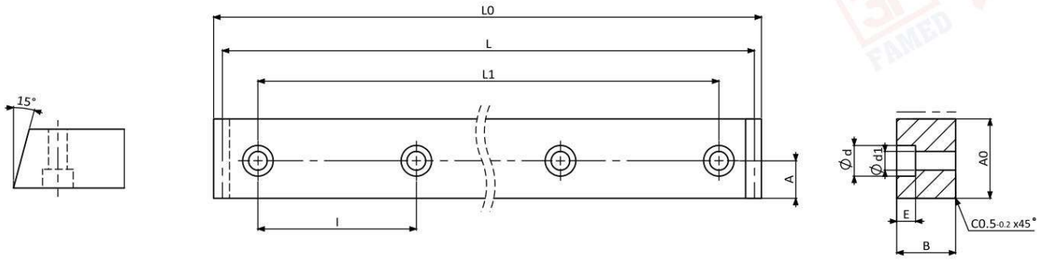


單位 / Dimension : mm

型號 Code	序號 No	Q	周節 CP	L	L1	模數 Module	B	A0	A1	D	I	A	ød	ød1	E	KG
MSTGH-CP 050 10	1	-Q6	5	1030	1000	1.5915	14.5	24.5	22.91	15	100	11.5	11	7	6.8	2.2
MSTGH-CP 050 10	2	-Q6	5	1030	1000	1.5915	19.5	29.5	27.91	15	100	14.0	15	9	9	3.5
MSTGH-CP 075 12	1	-Q6	7.5	1230	1200	2.3873	24.7	33.0	30.61	15	100	14.5	15	9	9	5.8
MSTGH-CP 100 12	1	-Q6	10	1230	1200	3.1831	34.6	46.6	43.42	15	100	18	18	11	11	11.7

MNTGH-00-Q6 系列 研磨平面導軌
MNTGH-00-Q6 Series Ground Guideway

系列MNTGH-00-Q6 研磨平面導軌 Series MNTGH-00-Q6 Ground Guideway	
材料 SCM440 (鉻鉬合金鋼)	Material SCM440 (Chromium Molybdenum Alloy Steel)
硬度 HRC 53~58°	Hardness HRC 53~58°
硬化處理後四面研磨	4 Sides Ground after hardening.



單位 / Dimension : mm

型號 Code	序號 No	Q	L0	L	L1	B	A0	D	l	ød	ød1	E	KG
MNTGH-00	1	-Q6	1033.89	1030	1000	14.5	24.5	15	100	11	7	6.8	2.5
MNTGH-00	2	-Q6	1035.23	1030	1000	19.5	29.5	15	100	15	9	9	4.0
MNTGH-00	3	-Q6	1236.62	1230	1200	24.7	33.0	15	100	15	9	9	6.8
MNTGH-00	4	-Q6	1239.27	1230	1200	34.6	46.6	15	100	18	11	11	13.4

滾輪目錄
Content of Rollers

滾輪型號說明
Roller Code Instruction

1st	2nd	3rd	4th
材料 Material	型狀 Type	心軸外徑 Shaft Diameter	偏心量 Excenter
U=軸承鋼	V= V型 R=圓型	15 20 25 35	Y=1mm N=0mm
U=SUJ2 (100Cr6)	V= V Type R=Round		Y=1mm N=0mm

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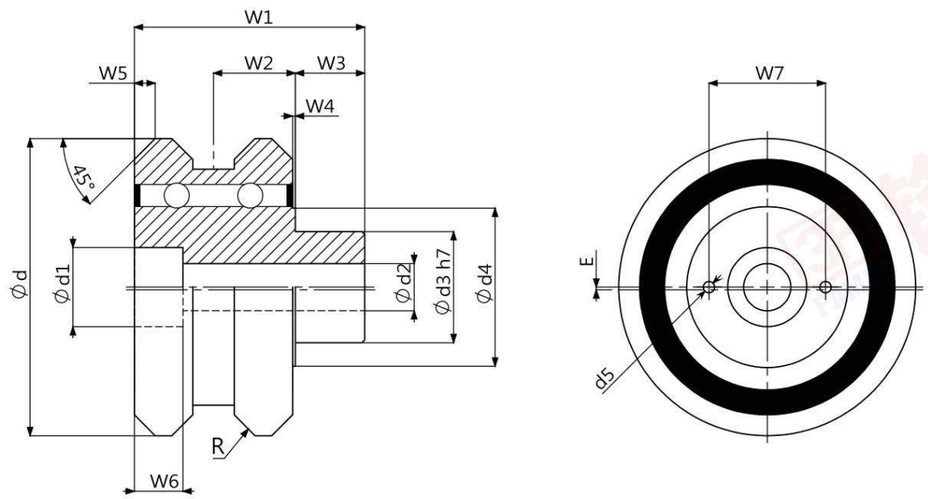
UV 導軌滾輪
UV Type Roller

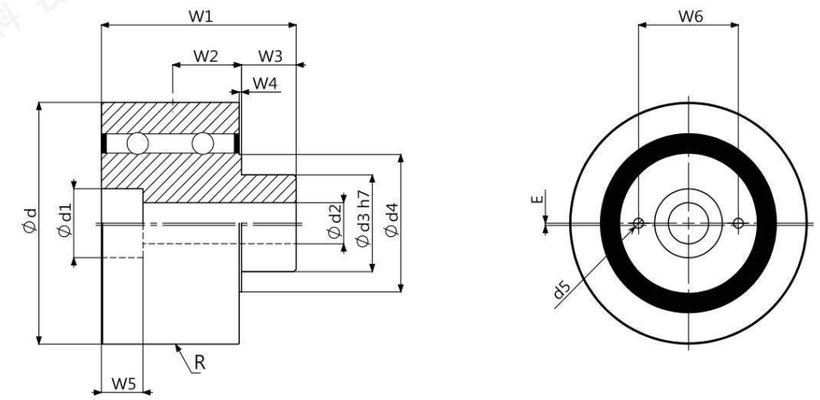


單位 / Dimension : mm

型號 Code	心軸外徑 Shaft Dia.	偏心量 Excenter	ød	ød1	W1	W5	W2	W3	W4	W6	R	ød2	ød3	ød4	W7	d5	Ga (μm)	KG
UV15Y	15	1 mm	53	13.5	35	2	12	12	1	9	R250	8.4	15h7	23.8	18.5	2.6x3	-3/+5	0.23
UV15N	15	0 mm	53	13.5	35	2	12	12	1	9	R250	8.4	15h7	23.8	18.5	2.6x3	-3/+5	0.23
UV20Y	20	1 mm	63	16.5	46	3	16	15	1	11	R300	10.5	20h7	27.7	22.5	2.6x3	-3/+5	0.45
UV20N	20	0 mm	63	16.5	46	3	16	15	1	11	R300	10.5	20h7	27.7	22.5	2.6x3	-3/+5	0.45
UV25Y	25	1 mm	77	20.5	60	3.5	20.5	20	1	13	R360	13	25h7	35.6	27.5	4.1x4.5	-3/+5	1.00
UV25N	25	0 mm	77	20.5	60	3.5	20.5	20	1	13	R360	13	25h7	35.6	27.5	4.1x4.5	-3/+5	1.00
UV35Y	35	1 mm	107	28.5	84	7.5	30	25	1	17.5	R500	17	40h7	56.9	42	4.1x4.5	-3/+5	2.50
UV35N	35	0 mm	107	28.5	84	7.5	30	25	1	17.5	R500	17	40h7	56.9	42	4.1x4.5	-3/+5	2.50

Ga (μm)內部軸向間隙/Internal Axial Tolerance

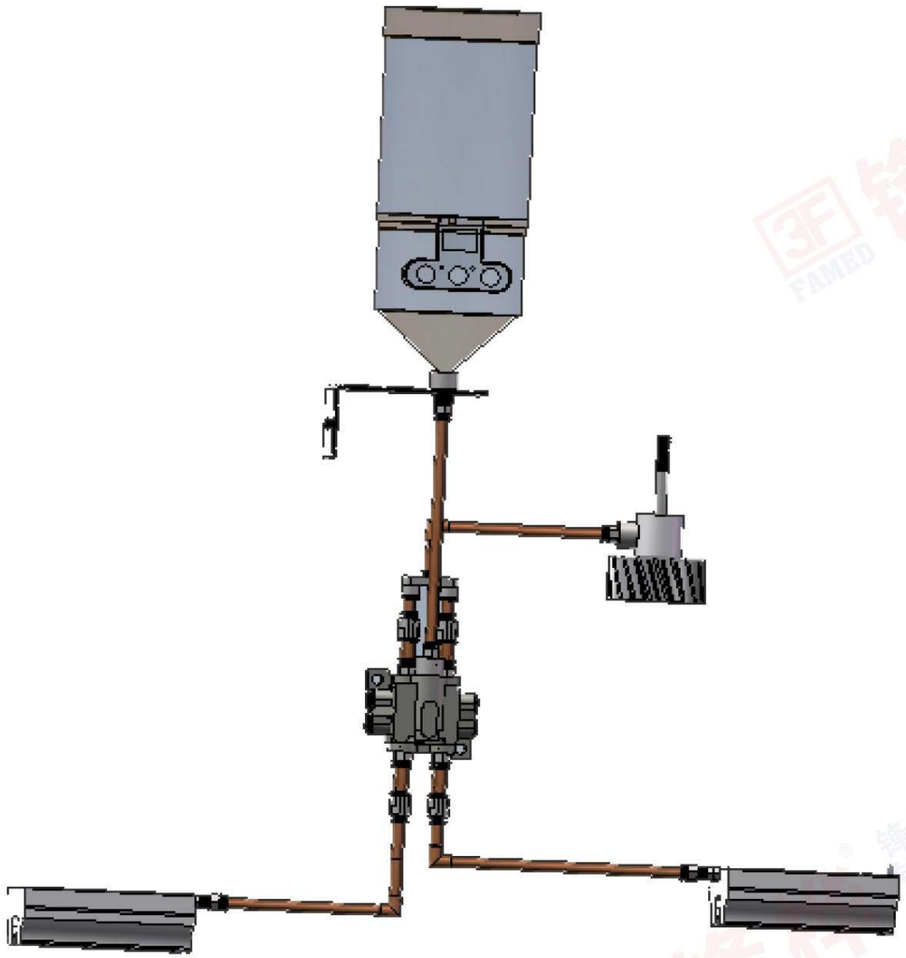
UR 平軌滾輪
UR Round Roller



單位 / Dimension : mm

型號 Code	心軸外徑 Shaft Dia.	偏心量 Excenter	ød	ød1	W1	W2	W3	W4	W5	R	ød2	ød3	ød4	W6	d5	Ga (μm)	KG
UR15Y	15	1 mm	47	13.5	35	12	12	1	9	R500	8.4	15h7	23.8	18.5	2.6x3	-3/+5	0.16
UR20Y	20	1 mm	72	16.5	46	16	15	1	11	R500	10.5	20h7	27.7	22.5	2.6x3	-3/+5	0.63
UR25Y	25	1 mm	85	20.5	60	20.5	20	1	13	R500	13	25h7	35.6	27.5	4.1x4.5	-3/+5	1.00
UR35Y	35	1 mm	100	28.5	84	30	25	1	17.5	R500	17	40h7	56.9	42	4.1x4.5	-3/+5	2.70

潤滑部件
Lubrication components



油壺 Oil pot

建議在使用齒輪傳動時同時采用正確的潤滑部件

It is suggested that at the same time when the gear transmission is used Use the correct lubricating parts

注油器

我們能提供以下兩種的注油器不可重復使用的注油器，此產品使用周期通常爲12（1，3，6）個月，產品本體會有相應該的周期設置，可以根據具體的應用來設定周期，一個周期結束後，使用者需要再采購相同規格的產品進行更換。可重復會用的注油器，此產品使用周期通常爲12（1，3，6）個月，產品本體會有相應該的周期設置，可以根據具體的應用來設定周期，一個月周期結束後，使用者需要按照操作説明爲產品中注入適量的潤滑（油品規格同購買時產品中所注入的一致），便可以繼續使用產品。

Lubricator

We can provide the following two types of oil injectors that are not reusable. The product use cycle is usually 12 (1, 3, 6) months. The product has the periodic setting of the product. The cycle can be set according to the specific application. After the end of a cycle, the user needs to repurchase the same specifications of the product. . A repeatable oil injector, the product use cycle is usually 12 (1, 3, 6) months. The product has the appropriate cycle setting. It can set the cycle according to the specific application. After the end of the one month period, the user needs to inject a proper amount of lubrication (oil product specification and purchase time) into the product according to the operation description. The same product is injected into the product, so we can continue to use the product.

型號説明 Code Instruction

材料 Material	齒型 Rack Type	模數 Module	齒數 NO.of teeth	聯接軸 Coupling shaft	注油器 lubricator
F	S	20	16	S	V125
F：羊毛氈	S=直齒 Straight LH：右旋 Left-hand RH：右旋 Right-hand	M 2	16	F：帶聯接軸 With coup ling shaft 舞 Without	V125：125cc V150：150cc M150：150cc M250：250cc

毛氈齒輪 Felt gear

毛氈齒輪適合用於齒條或者其他齒型傳動時，對傳動部位進行有效的接觸潤滑，其安裝位置不受限制。斜齒潤滑時要注意相應嚙合角度的匹配。

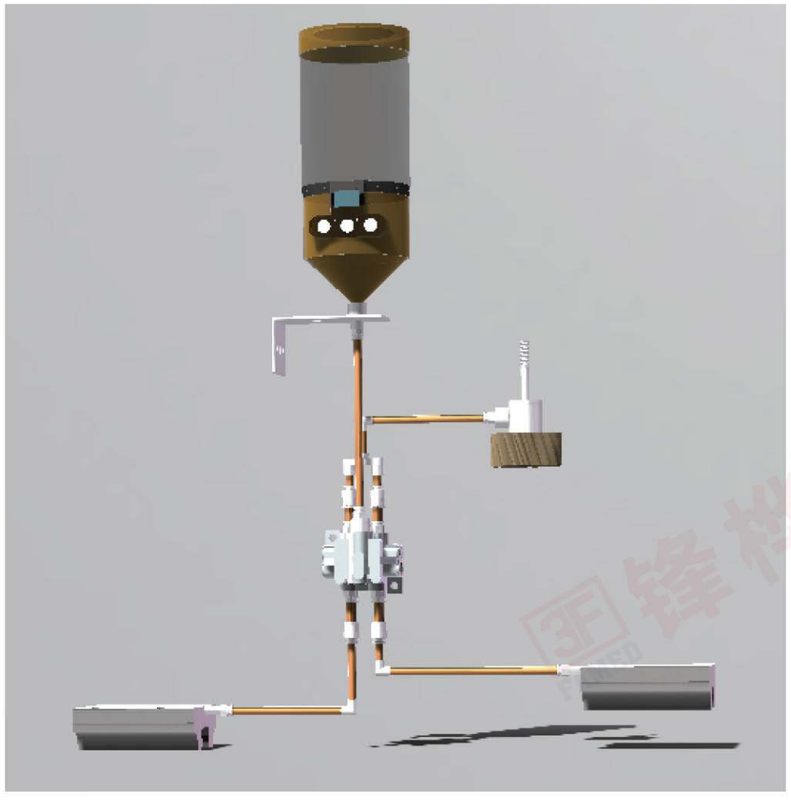
Felt gear is suitable for rack or other tooth type transmission, effective contact lubrication of transmission parts, installation position is not limited. Attention should be paid to the matching of engagement angles when helical teeth are lubricated.

安裝 Install

潤滑油/脂通過安裝軸的中心孔供給，中心孔通過導管連接到注油器上，油脂從油杯輸出到毛氈齒輪并流滲到潤滑點上，油脂類潤滑其管路外徑爲8mm，建議長度不超過1m。

The lubricating oil / grease is supplied by the center hole of the installation shaft. The center hole is connected to the injector through the catheter. The oil is exported from the oil cup to the felt gear and flows to the lubricating point. The grease lubricants the outer diameter of the pipeline is 8mm, and the proposed length is not more than 1m.

油壺 Oil pot



參數規範 Parameter specification

V

特 性	參數
气体类型	氮(N_2)气
气体发生方式	电化学
容量	125cc, 250cc
远程安装	可达 1m (3ft), 使用 8mm (5/16") 外径管子
工作指示灯	LCD 上的 “OPER” 闪烁
注油周期	1, 2, 3, 6, 12 个月并清洗 (P)
工作压力	最大 5kgf/㎠ (70psi)
工作温度范围	-20℃~55℃ (-4℉~131℉)
认证 / 防护等级	Ex ia IIC T4 / IP68

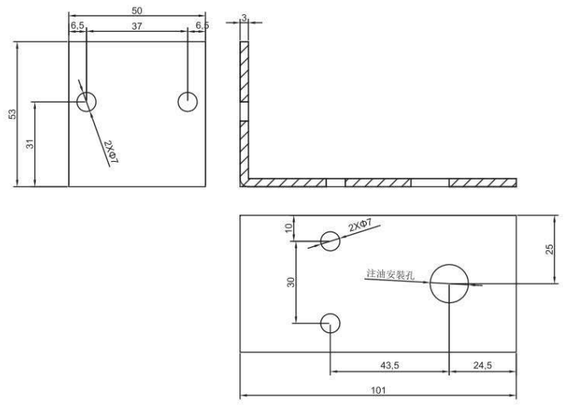
M

特 性	參數
容量	150cc, 250cc , 500cc
注油周期	1 25, 250cc, 500cc: 1, 2, 3, 6 & 12 个月
工作温度范围	-20℃~60℃
安装螺纹尺寸	1/2” PT
电池	直流 6 V 电池组 (可更换)
产品认证	UL, IECEx, ATEX, CNEx
保护等级	IP 65
尺寸	89X152mm 105X186mm

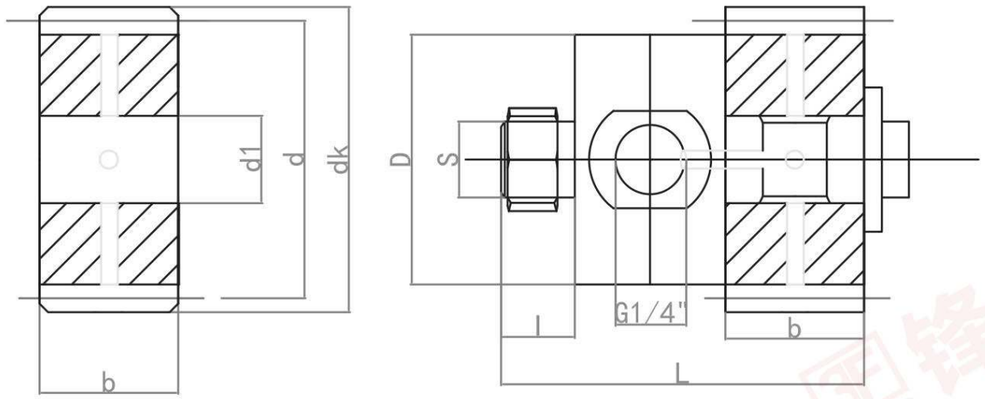
安裝支架 Mounting bracket

注油器的安裝孔在出廠時已經

和注油器——封應，此處不用再解釋。



毛氈齒輪及安裝配件
Felt gear and installation accessories



毛氈齒輪部分 F						安裝軸部分 S					型号
模數	齒數	d	d1	dk	b	D	S	b	l	L	
2	18LH	38. 2	12	42	25	30	M10	25.5	10	62	FLH02018
2	18RH										FRH02018
2	19	38	12	42	25	30	M10	25.5	10	62	FS02019
3	18LH	57. 3	12	63	30	30	M10	25.5	10	65	FLH03018
3	18RH										FRH03018
3	19	57	12	63	30	30	M10	25.5	10	65	FS03019
4	18LH	76. 4	12	84.4	40	30	M10	25.5	15	80	FLH04018
4	18RH										FRH04018
4	19	76	12	84	40	50	M12	25.5	15	80	FS04019
5	17LH	90. 2	20	100.2	50	50	M12	50.5	15	90	FLH05017
5	17RH										FRH05017
5	18	90	20	100	50	50	M12	50.5	15	90	FS05018
6	17LH	108. 2	20	120.2	60	50	M12	60.5	15	100	FLH06017
6	17RH										FRH06017
6	18	108	20	120	60	50	M12	60.5	15	100	FS06018
8	17LH	144.3	20	160	80	50	M12	80.5	15	120	FLH08017
8	17RH										FRH08017
8	18	144	20	160	80	50	M12	80.5	15	120	FS08018

齒條安裝手冊
Rack installation manual

本裝配說明指南適用於齒條的運輸、儲存、裝配、及保養，在所有相關專業人員從事並進行上述動作時，請先仔細並確實詳讀本說明書內容，若相關專業人員未仔細詳讀或不按相關操作規範進行齒條的運輸、儲存、裝配及保養而產生任何財產損失及人員受傷，本公司不負責任何賠償。

The instruction of installation is adapted for transportation, storage, assembly and maintenance of racks. All the relevant professionals should study carefully the content of the instruction before doing the actions as above. If any professionals don't study thoroughly nor follow up the regulations to do the actions of transportation, storage, assembly and maintenance of racks, any property damage or personal injury, we are irresponsible for any compensations.

齒條安裝說明大綱

(一)、運輸
運輸過程勿不正確堆疊、大力摔放或不正常的吊掛造成齒條扭變或損傷。

(二)、儲存
齒條應儲存於乾燥環境中，且溫度應於25℃，相對濕度60%最為適宜。並確實檢查齒條的包裝需完整，放置時應保持水平放置，避免傾斜、側放或直立放置。

(三)、裝配
齒條裝配請由經過合格訓練之專業人員來操作裝配，並確實準備相關裝配所需使用的器具。

(四)、保養事宜
請依造齒輪齒條運行的方式來制定保養計畫。

※若有任何問題，請與我司聯繫。

Outline of rack installation instructions

1. Transportation
During transportation process, please do not stack incorrectly, vigorously put or hang racks to make it twisted or damaged.

2. Storage
Racks should be stored in dry environment with temperature 25°C, and relative humidity should be 60% which is the best. To check the rack package should be completed and stored horizontally to avoid being sloping, leaning on one side or upright side.

3. Assembly
Rack assembly should be operated by well-trained and qualified professionals. Meanwhile, please prepare all the relevant tools accurately while assembling.

4. Maintenances
Please set up maintenance plans based on the running methods of rack and pinions.

Please do not hesitate to contact me if you have any queries.

齒條安裝操作說明

(一)、運輸
齒條於出廠時均經過整直，防鏽以及良好的包裝，使用熱縮膜來隔離空氣並保護齒條以避免碰撞。

本公司出產的齒條如果長度超過1米(100cm)或重量超過10公斤時，應由兩位或兩位以上的操作員協同搬運，可避免碰撞或不慎掉落。

若同時需搬運多支數量之齒條,請使用吊掛棧板,以避免工件滑落；並於吊掛工件時，隨時注意周邊環境避免工件掉落，或是碰撞周邊物品，而砸傷人員。

(二)、儲存
齒條應儲存於溫度適宜並且乾燥的環境中，溫度25℃、相對濕度60%最為適宜，齒條要進行倉庫存放前，應確實檢查齒條外部包裝的完整性。

由於齒條出廠前均經過良好的防鏽處理，在齒條上均塗抹防鏽油，並經過熱縮膜的包裝，以隔絕空氣接觸，並防止碰撞；在儲存齒條的過程中，應避免傾斜或是直立的放置齒條。

放置齒條的場所，需維持適宜的溫度及濕度的穩定，並且放置時應保持場所的穩定避免震動。

另外齒條平放時需避免任何不正常的堆疊，或是壓迫在齒條的上方，以避免齒條因外力壓迫而變形。

Description of rack installation operation

1. Transportation
All racks are straightened before delivering, and packed by thermal shrinkage film to isolate the air and to protect racks from collision.
If the rack length is over 1,000mm (100cm) or 10 kgs, it should be carried by 2 or more people to avoid collision or dropping.
If carrying plenty of racks, it should be hanged on a pallet to avoid racks dropping. During hanging, please pay attention to the surroundings to avoid dropping or colliding with somethings to injure people.

2. Storage
Racks should be stored in a suitable temperate and dry environment. The room temperature should be 25°C and relative humidity should be 60% which is the best. Before storage, the rack outside package should be inspected if completed.
Before delivering, all the racks are smeared anti-rust lubricant and packed by thermal shrinkage film to isolate air and prevent from collision. During the rack storage process, it should not be sloping, leaning on one side or upright side.
The rack storage place should be maintained in a suitable and stable temperature and humidity. Meanwhile, the place should be stable to avoid vibration.
Racks should be put on horizontally; prevent from any abnormally stacking, or oppress on the top of racks. So, the racks will not be twisted due to outside oppression.
To check the rack package should be completed and stored horizontally to avoid being sloping, leaning on one side or upright side.

(三)、裝配

3.1. 裝配操作前，檢查與準備

3.1.1 安裝齒條前請先確實檢查齒條外包裝的完整性，並在拆封齒條包裝時，請小心拆封，以避免齒條損傷。

3.1.2 安裝齒條前請先確認齒條的規格，並詳細檢查安裝時所需的安裝器具。

3. Assembly

3.1 Before assembly, check and prepare.

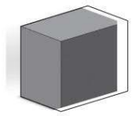
3.1.1 Before assembling racks, please do check the rack outside package and open the cartons carefully in case racks are damaged accidently.

3.1.2. Before assembling racks, please check racks' specifications and all the necessary assembly tools carefully.

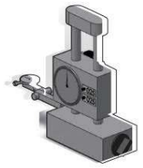
▶C型夾鉗(螺旋夾鉗)
C Type Clamp (Spiral Clamp)

▶外徑分離卡
O.D. Micrometer

▶螺絲(螺栓)
Screws (Bolts)



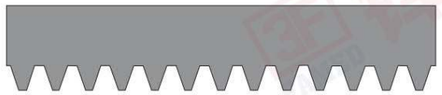
▶軟質墊塊
Soft pad



▶高度規
Height Gauge

▶檢測銷棒
Inspection Pin

▶扭力板手
Torque Wrench



▶反向齒規
Opposite Teeth Gauge

安裝器具參考圖1. / Installation Tool Reference Fig. 1

3.1.3 安裝齒條前須確保基座安裝承靠面的垂直度及平行度需在要求內，一般要求平行度為≦0.02mm/垂直度為≦0.02mm，如下圖2. 所示。

3.1.3 Before assembling, please assure the verticality and parallel of bearing surface of installation basement should be within the tolerance. The verticality is ≦0.02mm and parallel is ≦0.02mm as the Fig. 2 below.

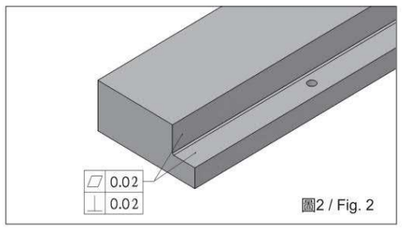


圖2 / Fig. 2

3.1.4 確實檢查齒條及基座安裝的承靠面的清潔及完整性，避免齒條及基座的接觸面有任何損傷或有殘餘毛屑。

3.1.5 安裝承靠面底部的倒角面，需注意干涉問題，如下圖3.箭頭所示。

⚠ 注意！齒條倒角尺寸須符合本公司要求的規範 ，(請參考表1)基座安裝承靠面的倒角量建議值最大不得超過0.3mm。

3.1.4 Please do check the bearing surface of rack and installation base clean and complete to avoid any damage or chippings.

3.1.5 The chamfering surface of installation bearing surface bottom have to be aware of the question as Fig 3 noted.

⚠ Attention! The rack chamfer angle should be apply with our standards (as chart 1). The recommended chamfer value of bearing surface of installation base should not exceed 0.3 mm at maximum.

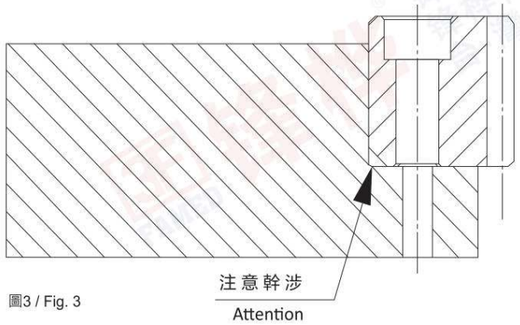
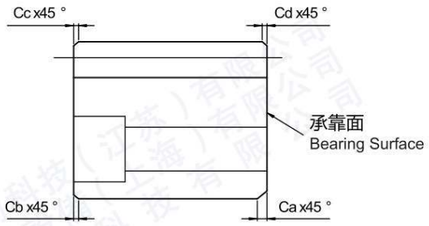


圖3 / Fig. 3



單位Unit: mm

Rack	Ca	Cb	Cc	Cd
M1.0	1.5mm	0.5mm	0.5mm	0.5mm
M1.5	1.5mm	0.5mm	0.5mm	0.5mm
M2.0	2.0mm	1.0mm	1.0mm	1.0mm
M3.0	2.0mm	1.0mm	1.0mm	1.0mm
M4.0	2.0mm	1.5mm	1.5mm	1.5mm
M5.0	3.0mm	1.5mm	1.5mm	1.5mm
M6.0	3.0mm	2.0mm	2.0mm	2.0mm
M8.0	4.0mm	2.0mm	2.0mm	2.0mm
M10	5.0mm	3.0mm	3.0mm	3.0mm
M12	5.0mm	3.0mm	3.0mm	3.0mm

表1 / Table 1

3.1.6 齒條的定位銷孔是專門提供齒條的重覆安裝時快速定位使用，若非重覆安裝，則不需要安裝定位銷孔。

3.2. 裝配步驟A-單支齒條裝配

3.2.1 將齒條放於枕木上，將檢測銷棒放置齒條的齒谷內，使用外徑分離卡檢測跨銷值，如圖4.。

3.1.6 Rack positioning pin hole is specially for quick positioning purpose when racks are assembled repeatedly. If no repeated demands, it is not necessary to assemble positioning pin hole.

3.2 Assembly Process A- Single Rack Assembly

3.2.1 Put the rack on the blocks; put the inspection pin in the rack valley of the teeth and use O.D. micrometer to check the over pin value as Fig 4.

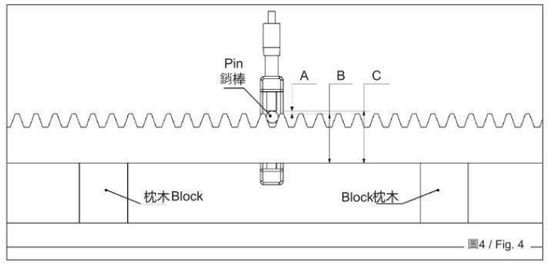


圖4 / Fig. 4

※ 齒條安裝前，請參考圖4. 的量測方式，確定齒條的跨銷值在精度等級內。

跨銷值計算公式：

跨銷值C=數值A+齒條總高度B

※檢測銷棒數值請參考表2。

※ Before assembling racks, please refer to the inspection method on Fig. 4 and assure the over-pin values of rack are within the quality grade tolerance.

Over-Pin Value Formula：

Over-Pin Value C= Value A + Total Rack Height B

※Please refer to Chart 2 for inspection over-pin value.

⚠ 注意！ 檢測銷棒建議直徑公差的最佳精準度為小於0.001mm。
Attention! The best tolerance of inspection pin diameter is 0.001mm.

單位Unit: mm

規格 Module	數值 Value	檢測銷棒 Inspection Pin	齒距 Pitch	
			斜齒 Helical (19°31'42")	直齒 Straight
M1.0	0.766	ψ2	3.333	3.142
M1.5	1.149	ψ3	5.000	4.712
M2.0	1.532	ψ4	6.667	6.283
M3.0	2.298	ψ6	10.000	9.425
M4.0	3.064	ψ8	13.333	12.566
M5.0	3.830	ψ10	16.667	15.708
M6.0	4.596	ψ12	20.000	18.850
M8.0	6.128	ψ16	26.667	25.133
M10.0	7.659	ψ20	33.333	31.416

表2 / Table 2

3.2.2 齒條置放於基座承靠面上，對齊螺絲孔距，微擰螺絲至沉頭螺絲孔接觸面，如下圖5.所示。

3.2.2 The rack is put on the top of the base of the bearing surface. Align the screw holes pitches. Slightly tighten the screws to the contact surface of countersunk head screw hole as the Fig. 5 as below.

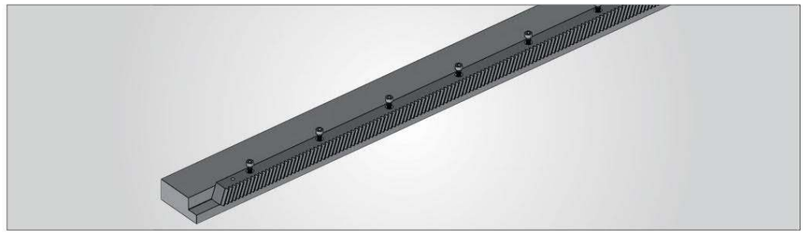


圖5 / Fig. 5

3.2.3 將C型夾鉗墊上軟質墊塊，再將齒條頭尾使用C型夾鉗固定，中間平均固定全部齒條與基座，讓齒條與基座承靠面完全貼合。(如圖6.示)

3.2.3 Place the C-type clamp on the soft pad, then fix the two ends of the racks by the C-type clamp. Fix the middle of the rack averagely on the base to assure the whole rack is attached to the bearing surface of the base completed as Fig. 6 below.

圖6 / Fig. 6

3.2.4 將檢測銷棒平均放置於齒條前中後五個檢測點，使用高度規測量檢測銷棒的最高點，檢測數值須與步驟2.1 所得之數值一致，如檢測出的數值不同，則將C 型夾鉗夾緊，調整至與步驟2.1 量測量出的數值一致即可，如圖7。

3.2.4 Place inspection pins averagely on the 5 inspection points of the rack. Use height gauge to measure the highest point of the inspection pins. The inspected values should be the same as step 3.2.1. If the values are different, please tighten the C-type clamp and fix the values to the same as step 3.2.1. as Fig. 7 below.

圖7 / Fig. 7

3. 2.5 將螺絲(螺栓)由中間端開始固定再往兩側擰緊。

3.2.6 將C 型夾鉗與軟性墊塊移除。

3.3 裝配步驟B-多支齒條裝配步驟

兩支或兩支以上齒條的裝配，裝配步驟依照裝配步驟A-單支齒條裝配的方式裝配，相接處需增加相接輔助器具反向齒規，作為銜接咬合之標準，以防止齒距誤差過大(如圖8)。

微擰螺絲後撤掉齒規(如圖9)，將檢測銷棒放置於左右相接處的齒谷內(如圖10)，微調相接的兩支齒條，使用高度規量測檢測銷棒最高點的數值(如圖10；ABC 三點)，使其三點數值與前面步驟3.2.1 用外徑分離卡檢測之數值相同(圖12)。

使用C 型夾鉗墊上軟質墊塊將齒條固定於基座，再使用扭力板手依序將固定螺絲鎖緊(圖13) ，螺絲(螺栓)扭力值可參考表3，待鎖緊後，撤掉測量銷棒、C 型夾鉗及軟質墊塊，即完成裝配步驟(圖14)。

⚠ 注意！三根齒條以上裝配，需由基座中央開始向兩側銜接裝配。

※ 多支齒條裝配操作步驟：

3.3.1 高度規量測檢測銷棒最高點的數值，量測的數值須與前面步驟3.2.1用外徑分離卡檢測之數值相同。

3.3.2 相接處需使用相接輔助器具反向齒規，作為銜接咬合之標準，以防止齒距誤差過大，如圖8。

3.2.5 Fix the screws (bolts) from the middle; then onward to the two ends of the racks.

3.2.6 Remove the C-type clamp and soft pads.

3.3 Assembly Process B- Multiple Racks Assembly

Two or more racks assembly, please follow up the assembly process A-single rack assembly. Between racks joint point, it’s necessary to increase an assistive device, opposite teeth gauge as the standard of joining racks up, to avoid pitch error too large. (Fig. 8)

Slightly tighten screws and remove opposite teeth gauge as Fig 9, and place the inspection pin on the teeth valley of the joint point pin (Fig 10/A,B,C points). Slightly adjust the jointing two racks and use height gauge to measure the highest point value of the inspection pin. The values of the three points should be the same as step 3.2.1, using O.D. micrometer to measure. (Fig. 12)

Use C-type clamp and place the soft pads on the rack base. Then, use torque wrench in sequence to fix and tighten screws(bolts). The screw torque values could be referred to Table 3. (Fig. 13) After tightening, remove the inspection pins, C-type clamp and soft pads. The assembly step is completed. (Fig. 14)

⚠ Attention! Three racks above assembly, it starts from the middle base, and onwards to the ends.

※ Multiple Racks Assembly Steps’ Instructions.

3.3.1 Measure the highest point of the inspection pin by height gauge. The measured values should be the same as the values by OD micrometer as step 3.2.1.

3.3.2 The two joint sides should be placed on the assistive device, opposite teeth gauge as the standard of joining racks up. to avoid pitch error too large. (Fig. 8)

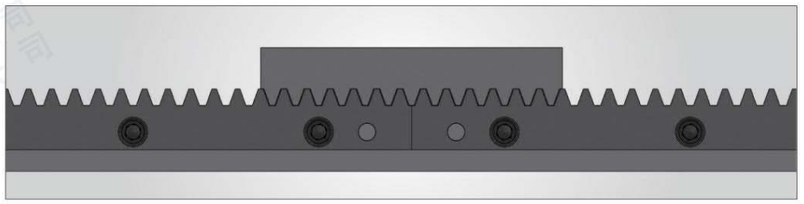


圖8 / Fig. 8

3.3.3 微擰螺絲後撤掉齒規，如圖9。

3.3.3 Slightly loose screws and remove the opposite teeth gauge. Fig 9.

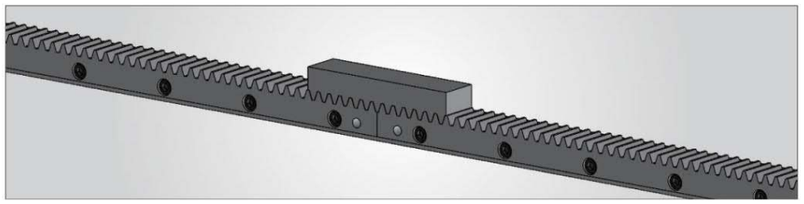


圖9 / Fig. 9

3.3.4 檢測銷棒放置於A、B、C 三點做檢測，如圖10。

3.3.4 Place the inspection pins on A, B, C three points. Fig 10.

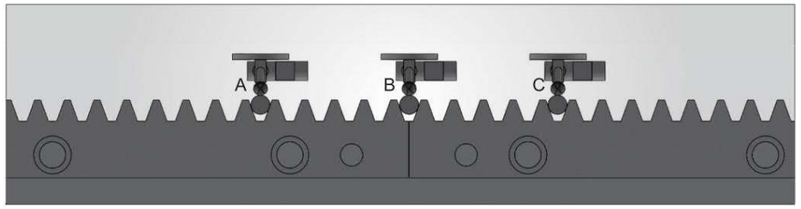


圖10 / Fig. 10

3.3.5 使用高度規量測檢測銷棒最高點的數值，使其三點檢測銷棒最高點數值與前面步驟3.3.1之數值相同，若中間檢測銷棒的最高點數值與左右兩支檢測銷棒最高點數值不同，可左右微調相接處齒條，得到三點檢測銷棒最高點之相同數值，如圖11。

3.3.5 Measure the values of the 3 highest points of the inspection pins by height gauge to assure the 3 values are the same as on 3.3.1. If values are different, slightly adjust the two jointed racks, to make the value of the highest point of inspection pin is the same as step 3.3.1 Fig 11.

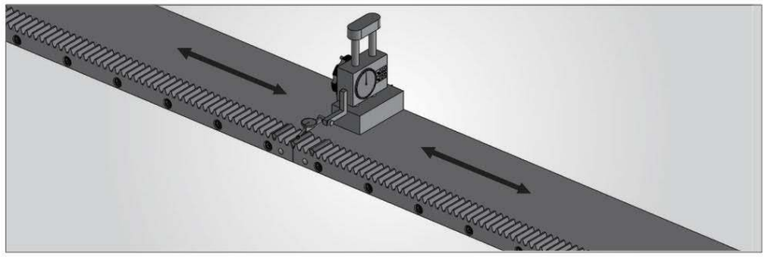


圖11 / Fig. 11

3.3.6 量測正確的檢測銷棒最高點數值後，使用C 型夾鉗墊上軟質墊塊，將齒條固定於基座，再使用扭力板手依序將固定螺絲鎖緊，如圖12。

3.3.6 Measure the correct value of the highest inspection pin; use C-type clamp and place soft pads to fix the rack on the base. Then, use torque wrench in sequence to fix and tighten screws as Fig. 12.

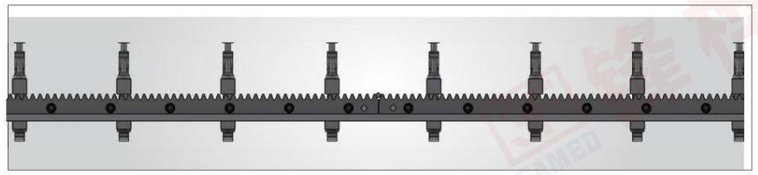


圖12 / Fig. 12

3.3.7 螺絲鎖緊後移除C 型夾鉗、軟質墊塊，完成裝配，如圖13。

3.3.7 Tighten screws and remove C-type clamp, soft pads. The assembly is completed. As Fig 13.

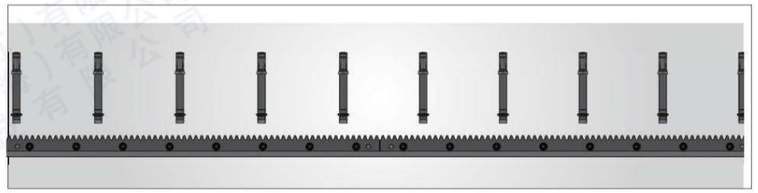


圖13 / Fig. 13

螺絲規格 / Screw Spec.	六角扳手/Hex Wrench (mm)	強度12.9 Torque Value(N.m)
M4*0.7P	3	4.3
M5*0.8P	4	7.5
M6*1.0P	5	13.4
M8*1.25P	6	30.5
M10*1.5P	8	61
M12*1.75P	10	102
M14*2.0P	12	162
M16*2.0P	14	249
M20*2.5P	17	481
M24*3.0P	19	836
M30*3.5P	22	1670

表3螺絲扭力值/ Table 3. Screw Torque

3.4 裝配完成檢查

3.4.1 清潔附著於齒面上防鏽油。

3.4.2 於齒面上塗抹有色塗料如:黃丹、紅丹或藍丹亦可(請勿塗抹無法清除之漆料)。

3.4.3 於齒條運作範圍內，齒輪反覆來回移動嚙合。

3.4.4 觀看齒面塗抹有色顏料的脫落情況，如圖14所示。

3.4.5 齒面嚙合狀況正確，則清除附著於齒面的有色塗料，裸露部分請塗抹防鏽油脂，若非正確請調整至正確狀況。

3.4. Inspection After Assembly.

3.4.1 Clean the lubricant oil on the racks.

3.4.2 Smear colored paint on racks such as lead oxide yellow powder, red powder and blue powder. (Please use clearable paints).

3.4.3 Inside the rack movement, the pinion runs back and forth to clench.

3.4.4 Observe the peeling situation on the painted teeth of the racks as Fig. 14.

3.4.5 If teeth clenches correctly, please clean the colored paint on the racks. Bare parts should be smeared anti-rust lubricant. If not correctly, please adjust it to correct.

如圖14.所示： 1.正確
2.不平行
3.不正確中心距

As the Fig. 14 : 1. Correct
2. Not Parallel
3. Center Distance Incorrect

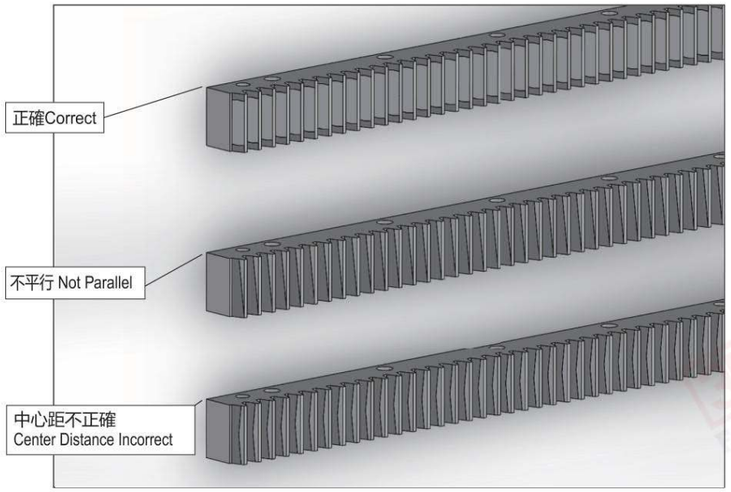


圖14 / Fig. 14

3.5. 運行前注意事項

3.5.1 齒條裝配無誤，齒面嚙合情況正確。

3.5.2 齒條與齒輪嚙合面須有適合之潤滑油脂。

3.5.3 運行範圍裡確定無人員，避免造成傷害。

3.5 Attentions by Operation

3.5.1 Racks Assembly correct. Teeth clench correct.

3.5.2. The clenching surface of rack and pinion needs lubricant oil.

3.5.3 Assure no people inside the operation area to avoid any injure.

(四)、保養

4.1 依照設備運作情況制定保養計畫表。

4.2 潤滑油脂請選用適當之油脂，依照選用之油脂決定潤滑之設備。

4.3 保養周期視磨耗情形增長或縮短計畫。

4.4 齒條若磨損嚴重或崩裂，請更換齒條，避免影響運行精度效能。

※齒條拆卸與保養請由經過訓練的人員進行處理。

4. Maintenances

4.1 Formulate a maintenance schedule according to the equipment operation situation.

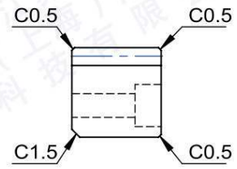
4.2 Please select suitable lubricant oil and decide lubricant system according to the lubricant oil.

4.3 Maintenance cycle should be increased or decreased, based on operation worn situation.

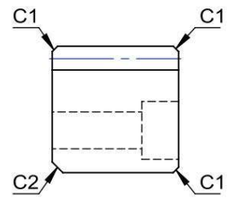
4.4 If racks are worn or damaged seriously, please replace new racks to avoid any impact on operation accuracy and efficiency.

※Rack replacement and maintenance should be operated by trained and qualified professionals.

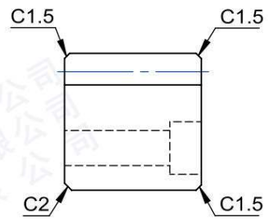
齒條標準倒角圓
Rack Standard Chamfer



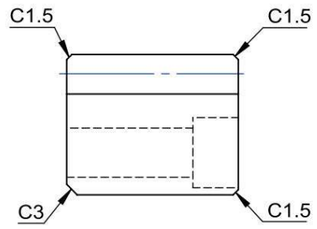
M1 & M1.5



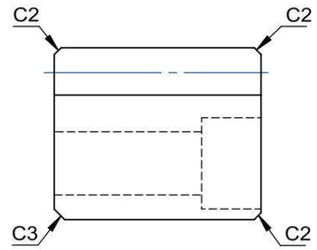
M2 & M3



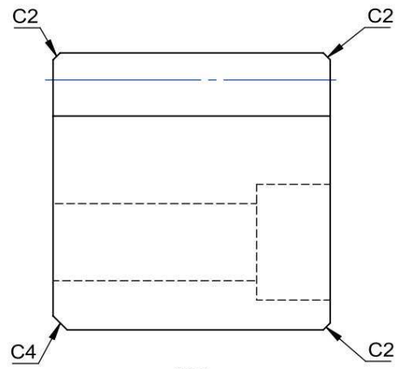
M4



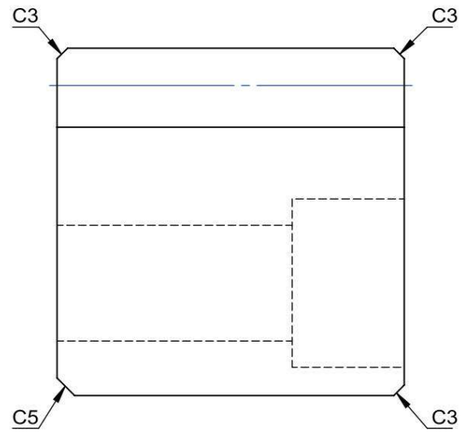
M5



M6



M8



M10 & M12

單位 / Unit: mm