



導軌齒條

Guideway Rack



公司簡介

原億昌機械將近四十年的生產經驗，擁有 ISO 9001 認證，與經濟部工研院產學合作，因應目前全球智能製造的趨勢，提供傳動系列零配件與設備，包含齒條（排齒）、導軌齒條、齒輪、滾輪、行星減速機和消除減速機等產品。

廣大客群包含各行業領域例如：CNC 機台、工具母機、木工機、印刷機、切割機、龍門銑床、磨床、鑽床、彎管機、機器人手臂、自動化倉儲設備、自動上下料軌道、沙灘車、汽車、航空母艦、半導體設備廠、起重機等。

原億昌產品優良，於 2015 年榮獲台灣第 12 屆國家品牌玉山獎，傑出企業類；2016 年極度精密齒條齒輪組，榮獲第十三屆國家品牌玉山獎最佳產品獎，與金炬獎十大績優商品獎。

原億昌以自有品牌 YYC 行銷市場，"You drive, You Control!" 你驅動，你掌控！為企業標語，目標是客戶所使用的驅動零件品質卓越，效能皆在客戶的掌控之中，將產品定位於中高端市場，已經行銷近五十多個國家，提供更多客戶滿意，是我們持續努力的目標。

COMPANY PROFILE

Yuan Yi Chang Machinery has 40 years of experience, with ISO 9001 certificate and work projects with Industrial Technology Research Institute. Corresponding to smart manufacturing trend globally, YYC offers different series of transmission parts and equipment including Rack, Guideway Rack, Pinion, Roller, Planetary Reducers, Backlash Free Reducers.

Our major clients include all kinds of industries and fields such as CNC machines, machine centers, wood-cutting machines, printing machines, cutting machines, gantry milling machines, grinding machines, drilling machines, bending machines, robotic arms, automatic storage equipment, automatic upload & unload track, ATV, aircraft carrier, semiconductor plant, cranes, and so on.

YYC has excellent quality capability. In 2015, we earned Best Enterprise of National Brand Yu-Shan Award. In 2016, our Ultra High Precision Rack and Pinion won Best Products of National Brand Yu-Shan Award and Golden Torch Prize.

Yuan Yi Chang has marketed by brand name "YYC" which means "You drive, You Control!" Every driven part with outstanding quality, so the performance is under customer's control. Products are target on middle to high end markets. Currently, we are exporting nearly 50 countries. To have more customers' satisfactions is our continuous goal.



世界主要齒條與齒輪標準規範

World Major Standard Specification of Racks and Pinions

簡稱 Specification	中文名稱	Full Name
AGMA	美國齒輪製造協會	American Gear Manufacturers Association
DIN	德國標準化學會	Deutsches Institut für Normung
ISO	國際標準化組織	International Organization for Standardization
JIS	日本工業標準	Japanese Industrial Standards

精度等級對照表

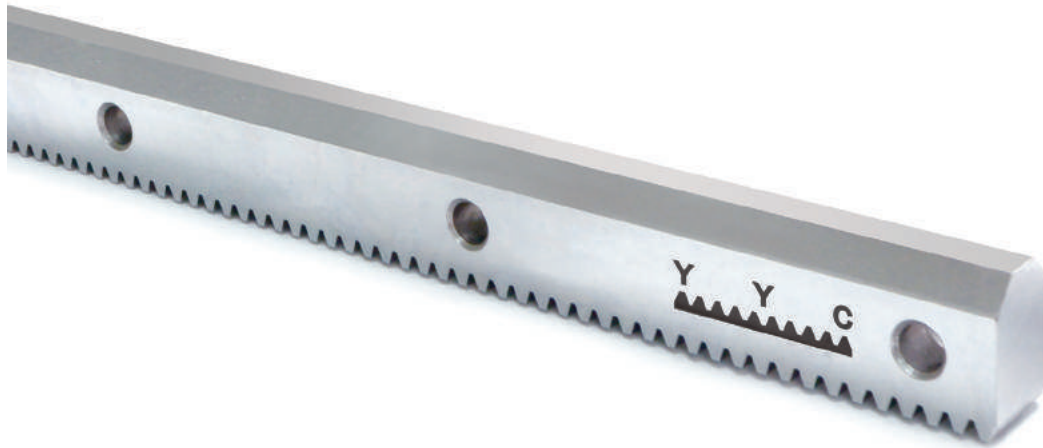
Quality Grade Comparison Table

規格 Standard	精 度 等 級 / Quality Grade											
ISO	1	2	3	4	5	6	7	8	9	10	11	12
DIN		2	3	4	5	6	7	8	9	10	11	12
AGMA		15	14	13	12	11	10	9	8	7	6	5
JIS				0	1	2	3	4	5	6	7	8
JIS N				N4	N5	N6	N7	N8	N9	N10		

以節距誤差比較：F_p f_p

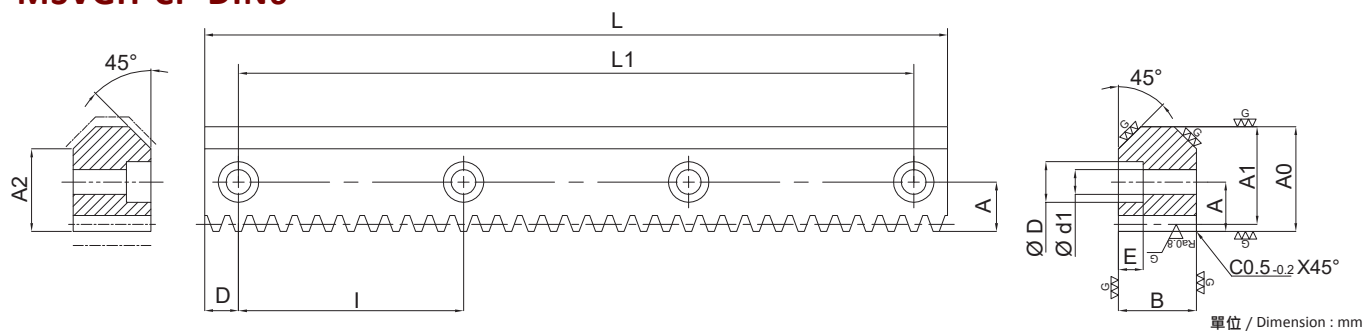
Compared with Pitch Error: F_p f_p

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	L	DIN
C= 中碳鋼 M= 合金鋼	S= 直齒 N= 無齒 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 00 = 平軌	10=1030 12=1230 or 1200	DIN 6 DIN 8
C=S45C M=SCM0440	S=Straight N=None H=Helical	V=V Type Bar T=Tetragon Bar	G=Teeth Ground /Ground	H=Hardened	CP=Circular Pitch 00=No Teeth		

MSVGH-CP-DIN6



系列 MSVGH-CP-DIN6 直齒 V 型齒研導軌齒條
品質等級 DIN6

材料 SCM440
硬度 HRC 53~58°
硬化處理後六面研磨與齒研
總齒距誤差：Fp /1000 ≤ 0.036 mm

Series MSVGH-CP-DIN6 Straight V Type Ground Guideway Racks
Quality Grade DIN6

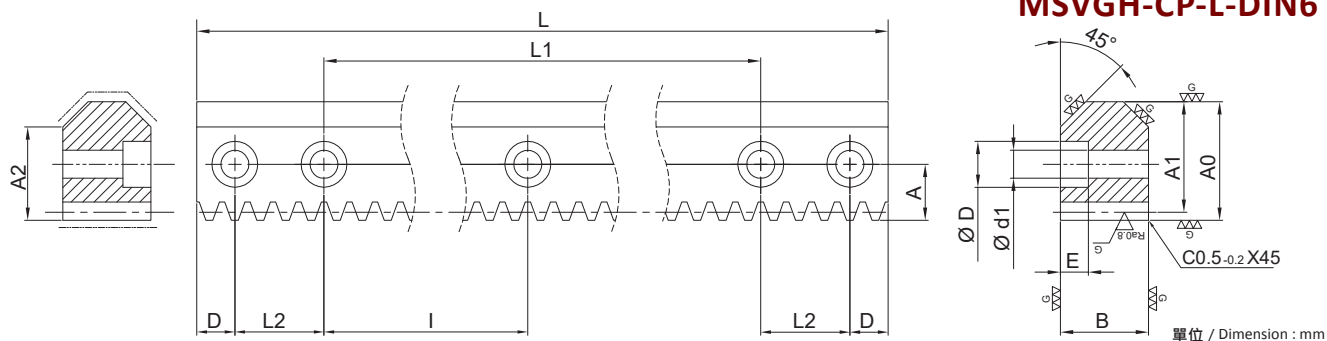
Material SCM440
Hardness: HRC 53~58°
6 Sides Ground and Teeth Ground after hardening.
Total Pitch Error: Fp /1000 ≤ 0.036 mm

型號 Code	周節 CP	齒數 No. of Teeth	L	L1	模數 Module	B	A0	A1	D	I	A	øD	ød1	E	A2	F _{ta} kN	KG
MSVGH-CP05010-1-DIN6	5	240	1030	1000	1.5915	14.5	24.5	22.91	15	100	11.5	11	7	7	20.0	6.51	2.2
MSVGH-CP05010-2-DIN6	5	240	1030	1000	1.5915	19.5	29.5	27.91	15	100	14.0	15	9	9	23.5	8.75	3.5
MSVGH-CP07512-1-DIN6	7.5	160	1230	1200	2.3873	24.7	33.0	30.61	15	100	14.5	15	9	9	25.2	16.51	5.8
MSVGH-CP10012-1-DIN6	10	120	1230	1200	3.1831	34.6	46.6	43.42	15	100	18.0	18	11	11	36.7	30.64	11.7

直齒 V 型齒研導軌齒條

Straight V Type Ground Guideway Racks

MSVGH-CP-L-DIN6



系列 MSVGH-CP-L-DIN6 直齒 V 型齒研導軌齒條
品質等級 DIN6

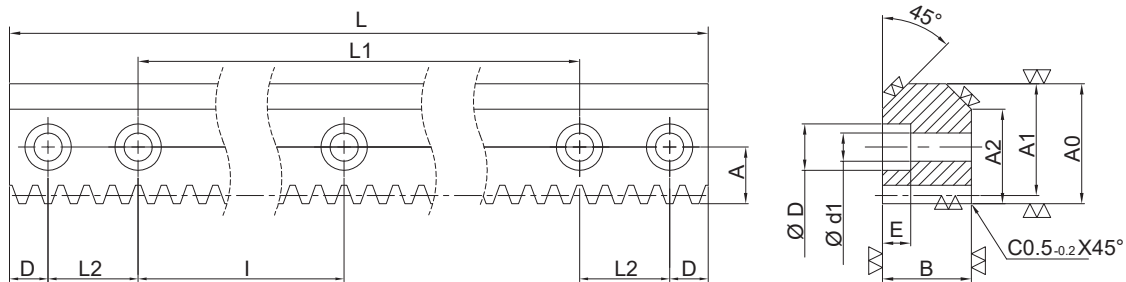
材料 SCM440
硬度 HRC 53~58°
硬化處理後六面研磨與齒研
總齒距誤差：Fp /1000 ≤ 0.036 mm

Series MSVGH-CP-L-DIN6 Straight V Type Ground Guideway Racks
Quality Grade DIN6

Material SCM440
Hardness: HRC 53~58°
6 Sides Ground and Teeth Ground after hardening.
Total Pitch Error: Fp /1000 ≤ 0.036 mm

型號 Code	周節 CP	齒數 No. of Teeth	L	L1	L2	模數 Module	B	A0	A1	D	I	A	ØD	Ød1	E	A2	F _{ta} kN	KG
MSVGH-CP050-1200-1-DIN6	5	240	1200	1100	35	1.5915	14.5	24.5	22.91	15	100	11.5	11	7	7	20.00	6.51	2.5
MSVGH-CP050-1200-2-DIN6	5	240	1200	1100	35	1.5915	19.5	29.5	27.91	15	100	14	15	9	9	23.50	8.75	4.0
MSVGH-CP075-1200-1-DIN6	7.5	160	1200	1100	35	2.3873	24.7	33.0	30.61	15	100	14.5	15	9	9	25.20	16.51	5.5
MSVGH-CP100-1200-1-DIN6	10	120	1200	1100	35	3.1831	34.6	46.6	43.42	15	100	18	18.0	11	11	36.70	30.64	11.4

CSVM-CP-L-DIN8



單位 / Dimension : mm

系列 CSVM-CP-L-DIN8 直齒 V 型精銑導軌齒條
品質等級 DIN8

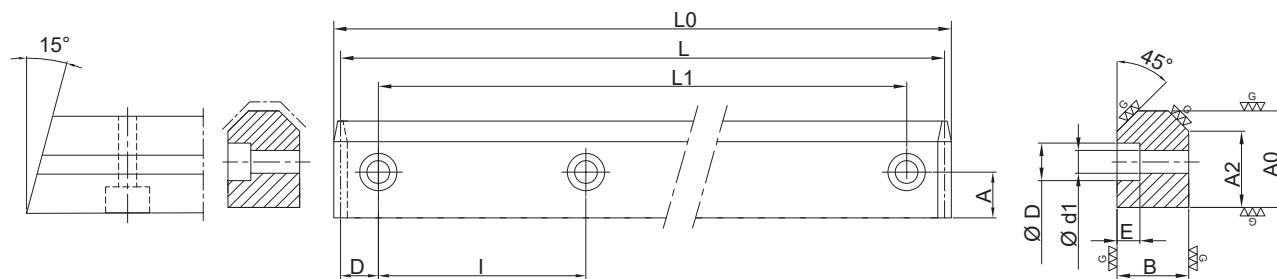
材料 S45C
硬度 HRC 10~12°
總齒距誤差 : $F_p / 1000 \leq 0.060 \text{ mm}$

Series CSVM-CP-L-DIN8 Straight V Type Milled Guideway Racks
Quality Grade DIN8

Material S45C
Hardness: HRC 10~12°
Total Pitch Error: $F_p / 1000 \leq 0.060 \text{ mm}$

型號 Code	周節 CP	齒數 No. of Teeth	L	L1	L2	模數 Module	B	A0	A1	D	I	A	øD	ød1	E	A2	F _{ta} kN	KG
CSVM-CP050-1200-1-DIN8	5	240	1200	1100	35	1.5915	14.5	24.5	22.91	15	100	11.5	11	7	7	20.00	3.29	2.5
CSVM-CP050-1200-2-DIN8	5	240	1200	1100	35	1.5915	19.5	29.5	27.91	15	100	14.0	15	9	9	23.50	4.42	4.0
CSVM-CP075-1200-1-DIN8	7.5	160	1200	1100	35	2.3873	24.7	33.0	30.61	15	100	14.5	15	9	9	25.20	8.34	5.5
CSVM-CP100-1200-1-DIN8	10	120	1200	1100	35	3.1831	34.6	46.6	43.42	15	100	18.0	18	11	11	36.70	15.48	11.4

MNVGH-00-DIN6



單位 / Dimension : mm

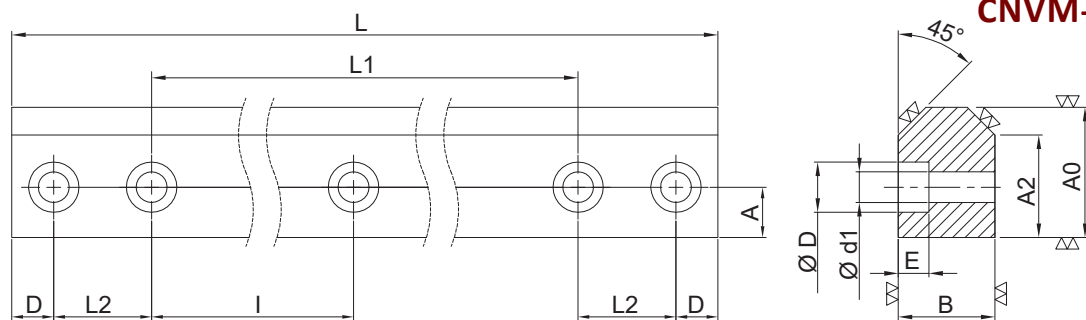
系列 MNVGH-00-DIN6 V 型研磨導軌
品質等級 DIN6

材料 SCM440
硬度 HRC 53~58°
硬化處理後六面研磨

Series MNVGH-00-DIN6 V Type Ground Guideway
Quality Grade DIN6

Material SCM440
Hardness: HRC 53~58°
6 Sides Ground after hardening.

型號 Code	L0	L	L1	B	A0	D	I	A	øD	ød1	E	A2	KG
MNVGH-001-DIN6	1033.89	1030	1000	14.5	24.5	15	100	11.5	11	7	7	20.0	2.3
MNVGH-002-DIN6	1035.23	1030	1000	19.5	29.5	15	100	14.0	15	9	9	23.5	3.6
MNVGH-003-DIN6	1236.62	1230	1200	24.7	33.0	15	100	14.5	15	9	9	25.2	6.3
MNVGH-004-DIN6	1239.27	1230	1200	34.6	46.6	15	100	18.0	18	11	11	36.7	12.5



單位 / Dimension : mm

系列 CNVM-L-DIN8 V 型精铣導軌
品質等級 DIN8

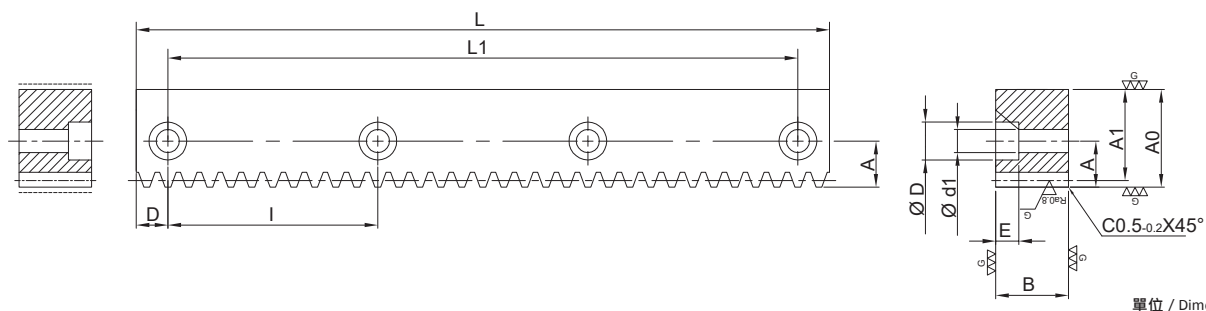
材料 S45C
硬度 HRC 10~12°

Series CNVM-L-DIN8 V Type Milled Guideway
Quality Grade DIN8

Material S45C
Hardness: HRC 10~12°

型號 Code	L	L1	L2	B	A0	D	I	A	ØD	Ød1	E	A2	KG
CNVM-1200-1-DIN8	1200	1100	35	14.5	24.5	15	100	11.5	11	7	7	20.0	2.8
CNVM-1200-2-DIN8	1200	1100	35	19.5	29.5	15	100	14.0	15	9	9	23.5	4.3
CNVM-1200-3-DIN8	1200	1100	35	24.7	33.0	15	100	14.5	15	9	9	25.2	7.6
CNVM-1200-4-DIN8	1200	1100	35	34.6	46.6	15	100	18.0	18	11	11	36.7	15.0

MSTGH-CP-DIN6



單位 / Dimension : mm

系列 MSTGH-CP-DIN6 齒研平軌齒條
品質等級 DIN6

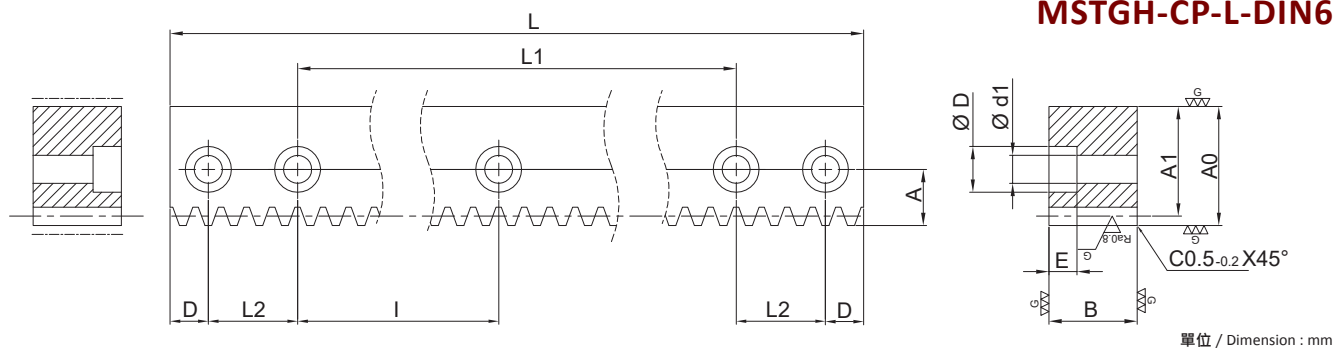
材料 SCM440
硬度 HRC 53~58°
硬化處理後四面研磨與齒研
總齒距誤差 : $F_p / 1000 \leq 0.036 \text{ mm}$

Series MSTGH-CP-DIN6 Ground Guideway Racks
Quality Grade DIN6

Material SCM440
Hardness: HRC 53~58°
4 Sides Ground and Teeth Ground after hardening.
Total Pitch Error: $F_p / 1000 \leq 0.036 \text{ mm}$

型號 Code	周節 CP	齒數 No. of Teeth	L	L1	模數 Module	B	A0	A1	D	I	A	ØD	Ød1	E	F _{ta} kN	KG
MSTGH-CP05010-1-DIN6	5	206	1030	1000	1.5915	14.5	24.5	22.91	15	100	11.5	11	7	7	6.49	2.2
MSTGH-CP05010-2-DIN6	5	206	1030	1000	1.5915	19.5	29.5	27.91	15	100	14.0	15	9	9	8.73	3.8
MSTGH-CP07512-1-DIN6	7.5	164	1230	1200	2.3873	24.7	33.0	30.61	15	100	14.5	15	9	9	16.51	6.3
MSTGH-CP10012-1-DIN6	10	123	1230	1200	3.1831	34.6	46.6	43.42	15	100	18.0	18	11	11	30.65	12.5

MSTGH-CP-L-DIN6



系列 MSTGH-CP-L-DIN6 齒研平軌齒條
品質等級 DIN6

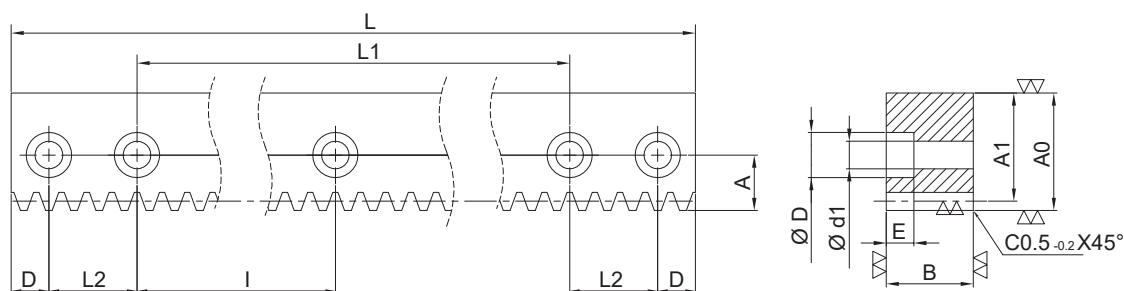
材料 SCM440
硬度 HRC 53~58°
硬化處理後四面研磨與齒研
總齒距誤差 : $F_p / 1000 \leq 0.036 \text{ mm}$

Series MSTGH-CP-L-DIN6 Ground Guideway Racks
Quality Grade DIN6

Material SCM440
Hardness: HRC 53~58°
4 Sides Ground and Teeth Ground after hardening.
Total Pitch Error: $F_p / 1000 \leq 0.036 \text{ mm}$

型號 Code	周節 CP	齒數 No. of Teeth	L	L1	L2	模數 Module	B	A0	A1	D	I	A	ØD	Ød1	E	F _{ta} kN	KG
MSTGH-CP050-1200-1-DIN6	5	240	1200	1100	35	1.5915	14.5	24.5	22.91	15	100	11.5	11	7	7	6.51	2.6
MSTGH-CP050-1200-2-DIN6	5	240	1200	1100	35	1.5915	19.5	29.5	27.91	15	100	14.0	15	9	9	8.75	4.6
MSTGH-CP075-1200-1-DIN6	7.5	160	1200	1100	35	2.3873	24.7	33.0	30.61	15	100	14.5	15	9	9	16.51	7.6
MSTGH-CP100-1200-1-DIN6	10	120	1200	1100	35	3.1831	34.6	46.6	43.42	15	100	18.0	18	11	11	30.64	15.0

CSTM-CP-L-DIN8



單位 / Dimension : mm

系列 CSTM-CP-L-DIN8 精铣平軌齒條
品質等級 DIN8

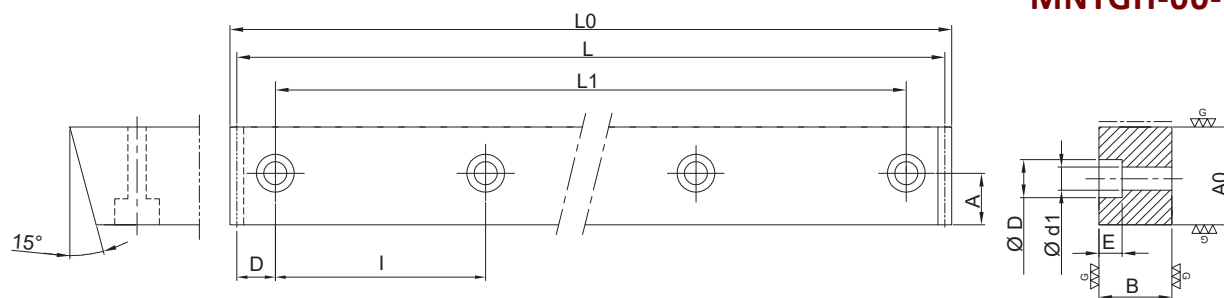
材料 S45C
硬度 HRC 10~12°
總齒距誤差 : $F_p / 1000 \leq 0.060$ mm

Series CSTM-CP-L-DIN8 Milled Guideway Racks
Quality Grade DIN8

Material S45C
Hardness: HRC 10~12°
Total Pitch Error: $F_p / 1000 \leq 0.060$ mm

型號 Code	周節 CP	齒數 No. of Teeth	L	L1	L2	模數 Module	B	A0	A1	D	I	A	ØD	Ød1	E	F _{ta} kN	KG
CSTM-CP050-1200-1-DIN8	5	240	1200	1100	35	1.5915	14.5	24.5	22.91	15	100	11.5	11	7	7	3.29	2.6
CSTM-CP050-1200-2-DIN8	5	240	1200	1100	35	1.5915	19.5	29.5	27.91	15	100	14.0	15	9	9	4.42	4.6
CSTM-CP075-1200-1-DIN8	7.5	160	1200	1100	35	2.3873	24.7	33.0	30.61	15	100	14.5	15	9	9	8.34	7.6
CSTM-CP100-1200-1-DIN8	10	120	1200	1100	35	3.1831	34.6	46.6	43.42	15	100	18.0	18	11	11	15.48	15.0

MNTGH-00-DIN6



單位 / Dimension : mm

系列 MNTGH-00-DIN6 研磨平面導軌
品質等級 DIN6

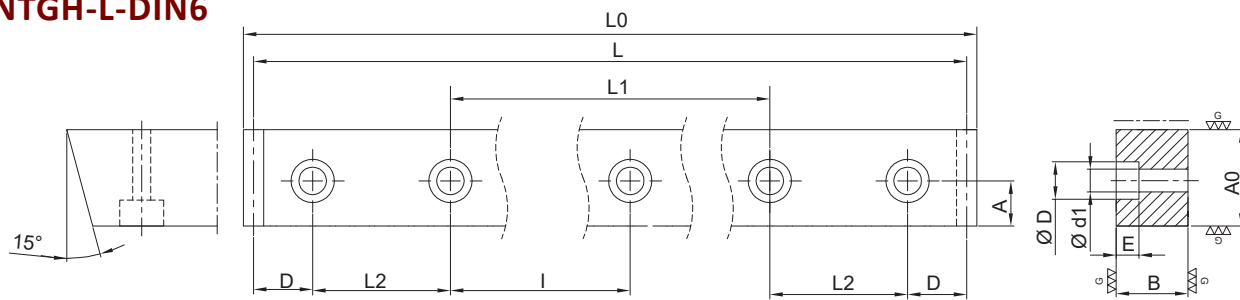
材料 SCM440
硬度 HRC 53~58°
硬化處理後四面研磨

Series MNTGH-00-DIN6 Ground Guideway
Quality Grade DIN6

Material SCM440
Hardness: HRC 53~58°
4 Sides Ground after hardening.

型號 Code	L0	L	L1	B	A0	D	I	A	ØD	Ød1	E	KG
MNTGH-001-DIN6	1033.89	1030	1000	14.5	24.5	15	100	11.5	11	7	7	2.5
MNTGH-002-DIN6	1035.23	1030	1000	19.5	29.5	15	100	14.0	15	9	9	4.0
MNTGH-003-DIN6	1236.62	1230	1200	24.7	33.0	15	100	14.5	15	9	9	6.8
MNTGH-004-DIN6	1239.27	1230	1200	34.6	46.6	15	100	18.0	18	11	11	13.4

MNTGH-L-DIN6



單位 / Dimension : mm

系列 MNTGH-L-DIN6 研磨平面導軌
品質等級 DIN6

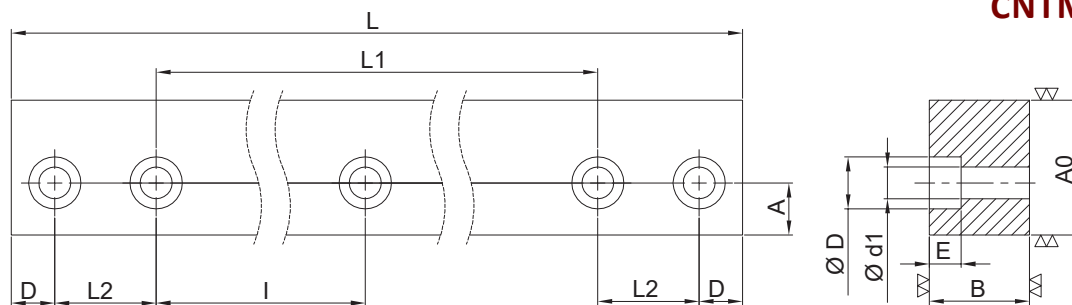
材料 SCM440
硬度 HRC 53~58°
硬化處理後四面研磨

Series MNTGH-L-DIN6 Ground Guideway
Quality Grade DIN6

Material SCM440
Hardness: HRC 53~58°
4 Sides Ground after hardening.

型號 Code	L0	L	L1	L2	B	A0	D	I	A	ØD	Ød1	E	KG
MNTGH-1200-1-DIN6	1203.89	1200	1100	35	14.5	24.5	15	100	11.5	11	7	7	3.0
MNTGH-1200-2-DIN6	1205.23	1200	1100	35	19.5	29.5	15	100	14.0	15	9	9	4.8
MNTGH-1200-3-DIN6	1206.62	1200	1100	35	24.7	33.0	15	100	14.5	15	9	9	8.2
MNTGH-1200-4-DIN6	1209.27	1200	1100	35	34.6	46.6	15	100	18.0	18	11	11	16.1

CNTM-L-DIN8



單位 / Dimension : mm

系列 CNTM-L-DIN8 精铣平面導軌
品質等級 DIN8

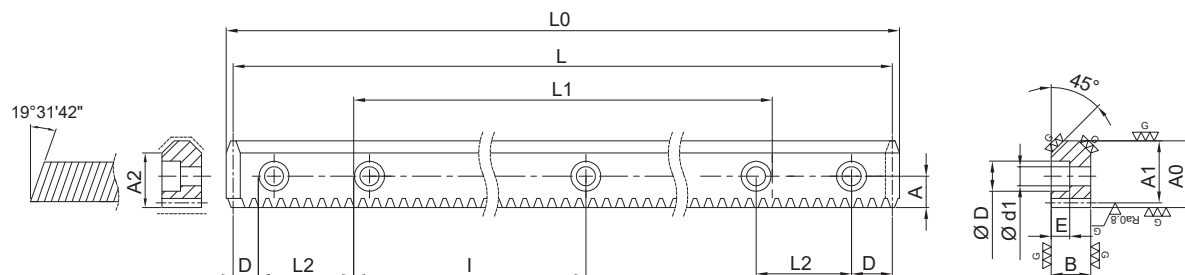
材料 S45C
硬度 HRC 10~12°

Series CNTM-L-DIN8 Milled Guideway
Quality Grade DIN8

Material S45C
Hardness: HRC 10~12°

型號 Code	L	L1	L2	B	A0	D	I	A	ØD	Ød1	E	KG
CNTM-1200-1-DIN8	1200	1100	35	14.5	24.5	15	100	11.5	11	7	7	3.0
CNTM-1200-2-DIN8	1200	1100	35	19.5	29.5	15	100	14.0	15	9	9	4.8
CNTM-1200-3-DIN8	1200	1100	35	24.7	33.0	15	100	14.5	15	9	9	8.2
CNTM-1200-4-DIN8	1200	1100	35	34.6	46.6	15	100	18.0	18	11	11	16.1

MHVGH-L-DIN6



單位 / Dimension : mm

系列 MHVGH-L-DIN6 斜齒 V 型齒研導軌齒條
品質等級 DIN6

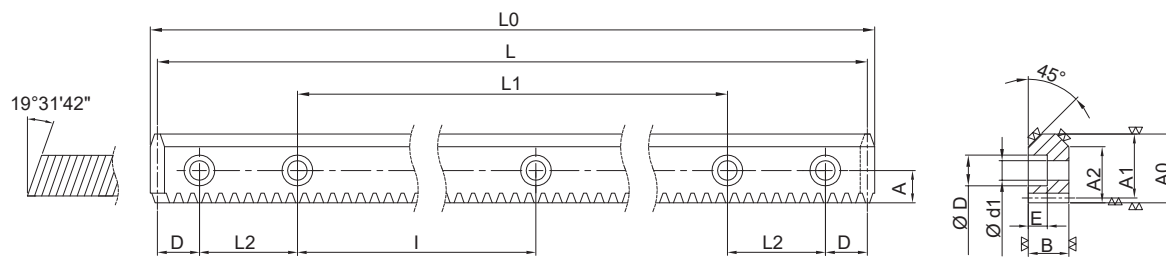
材料 SCM440
右旋角 19°31'42"
硬度 HRC 53~58°
硬化處理後六面研磨與齒研
總齒距誤差 : $F_p / 1000 \leq 0.036 \text{ mm}$

Series MHVGH-L-DIN6 Helical V Type Ground Guideway Racks
Quality Grade DIN6

Material SCM440
Right Hand Angle 19°31'42"
Hardness: HRC 53~58°
6 Sides Ground and Teeth Ground after hardening.
Total Pitch Error: $F_p / 1000 \leq 0.036 \text{ mm}$

型號 Code	模數 Module	齒數 No. of Teeth	L0	L	L1	L2	B	A0	A1	D	I	A	øD	ød1	E	A2	F _{ta} kN	KG
MHVGH-015-1200-1-DIN6	1.5	240	1205.14	1200	1100	35	14.5	24.5	22.91	15	100	11.5	11	7	7	20.0	7.37	2.6
MHVGH-015-1200-2-DIN6	1.5	240	1206.92	1200	1100	35	19.5	29.5	27.91	15	100	14.0	15	9	9	23.5	9.91	3.2
MHVGH-025-1200-1-DIN6	2.5	144	1208.76	1200	1100	35	24.7	33.0	30.50	15	100	14.5	15	9	9	25.2	20.73	5.8
MHVGH-030-1200-1-DIN6	3	120	1212.27	1200	1100	35	34.6	46.6	43.60	15	100	18.0	18	11	11	36.7	34.70	11.4

CHVM-L-DIN8



單位 / Dimension : mm

系列 CHVM-L-DIN8 斜齒 V 型精銑導軌齒條
品質等級 DIN8

材料 S45C
右旋角 19°31'42"
硬度 HRC 10~12°
總齒距誤差 : $F_p / 1000 \leq 0.060$ mm

Series CHVM-L-DIN8 Helical V Type Milled Guideway Racks
Quality Grade DIN8

Material S45C
Right Hand Angle 19°31'42"
Hardness HRC: 10~12°
Total Pitch Error: $F_p / 1000 \leq 0.060$ mm

型號 Code	模數 Module	齒數 No. of Teeth	L0	L	L1	L2	B	A0	A1	D	I	A	ØD	Ød1	E	A2	F _{ta} kN	KG
CHVM-015-1200-1-DIN8	1.5	240	1205.14	1200	1100	35	14.5	24.5	22.91	15	100	11.5	11	7	7	20.0	3.72	2.6
CHVM-015-1200-2-DIN8	1.5	240	1206.92	1200	1100	35	19.5	29.5	27.91	15	100	14.0	15	9	9	23.5	5.01	3.2
CHVM-025-1200-1-DIN8	2.5	144	1208.76	1200	1100	35	24.7	33.0	30.50	15	100	14.5	15	9	9	25.2	10.47	5.8
CHVM-030-1200-1-DIN8	3	120	1212.27	1200	1100	35	34.6	46.6	43.60	15	100	18.0	18	11	11	36.7	17.53	11.4



SINCE 1980



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