

簡化加工製程、工作事半功倍  
**SIMPLIFY THE MACHINING PROCESS  
 AND GET THE RESULT  
 WITH HALF THE EFFORT**



#### TAIWAN R&D MANUFACTURE BRAND - CGM CHUCK

保固：CGM 公司生產之產品自交貨開始，在正常使用及保養下均提供一年保固，品質異常請在保固期間內提出。

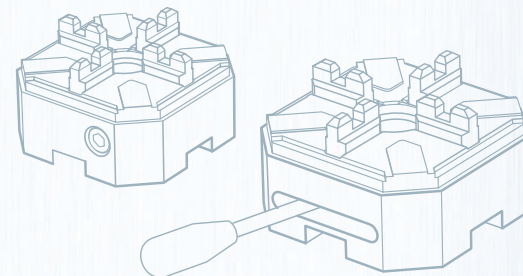
本產品並不支援或相容於其也廠牌的系統，如有不當之修改之使用將無法提供保固與服務。

創新技術：本產品已榮獲多項國內外專利，仿冒必究。以卓越產品為目標及精益求精之精神仍不斷改進研發，我們保留技術修改之權利，若有變更恕不另行通知。

Any improper modification by users will be excluded from the warranty.

#### Innovative technology:

CGM workholding fixtures are with patents, all rights reserved. We reserve the right for spec. modification without notice



# CGM

晟進科技股份有限公司

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# 晟進科技股份有限公司

CHERNG JIN TECHNOLOGY CO., LTD.



## 2μm Repetition Accuracy

國外得獎及發明專利證書

Awards International Competitions & Patent Certificates



## 公司簡介

晟進科技股份有限公司是以工具機高精度夾具運用為主導產品的台商獨資企業。自 2004 年從製造 3C 模具轉型製造工具機高精度夾具為主。我們擁有二十年專業工具機夾治具整合的經歷，擁有堅強的研發與生產能力，並獲得八十項以上之國內外專利認證。

我們生產並研發領先市場趨勢的產品，以工具機高精度夾具為中心的各類放電機、銑床與車床用高精度夾頭（重覆定位精度 2μm），並與世界領導品牌並列。

主要產品包括零點定位夾頭、手動快速夾頭、氣動夾頭、電極庫、電極座、放電機校正頭、精密校正方規、尋邊器及客製化治具盤。我們致力於高精度加工事業的發展，樹立國際的優秀品牌，以高品質、高效率、高價值的產品行銷全世界。

公司通過 ISO9001 品質認證及榮獲第 21 屆臺灣精品獎，2015 年榮獲第 22 屆中小企業創新研究獎。以臺灣卓越的技術和研發，開發優良的產品，並提供完善的服務贏得客戶的信賴與長期合作。秉持「誠信經營、專業用心、設計精準、服務至上」的企業精神，與廣大客戶真誠合作、共同發展！

## 經營理念

誠信經營、專業用心 設計精準、服務至上

## 服務客戶準則

- 提供優質經濟的產品，創造利潤。
- 對於客戶的一切資訊，絕對保密。
- 積極專業的技術支援與溝通，並提供有效解決方案。
- 根據客戶的需求，進行整體規劃，絕無額外成本的支出。
- 與時代俱進，不斷研發新產品，提升產品性能，永續經營與服務。



## 沿革與展望

- 1998年 成立晟進工業社 3C 模具、測試機具、專用機等設計製造。
- 2001年 新增 NC 銑床部門 3D 模具加工、零件加工。
- 2002年 公司更名為晟進科技股份有限公司，及新增機械部門 CNC 機械整修及電控改裝。
- 2003年 購入 AGIE 線切割機、新增線切割部門。
- 2004年 擬定公司發展目標，成立治夾具研發部創新研發，至目前累計兩項發明專利、及 21 項國內外專利。
- 2006年 自創品牌 CGM 夾具，並取得 **CGM** 註冊商標，且參加國家協助傳統業技術開發計劃，成功開發出 QM 手動快速夾具系列產品。
- 2008年 新建廠房三月完成，遷入營運並成立外貿部門，擴展國際業務。
- 2009年 以 LOGO  為 CGM 的夾具品牌標誌，進軍海內外市場，並成功開發出放電機用圓盤式 12T、16T、20T 電極庫及取得二項專利。
- 2010年 研發新型整合性氣動夾頭，並取得國內外四項專利。
- 2011年 進駐知名科技大學育成中心暨產學合作，藉助專業學術團隊，以提升研發與創新的能量。
- 2012年 3月 參加俄羅斯阿基米德國際發明展榮獲一面金牌。  
5月 通過 ISO9001 2008 品質認證。  
購入美國 Brown & Sharpe 三次元量床(美國製作)設備，以確保產品品質。  
6月 參加義大利 Inventeco 國際發明展榮獲二面金牌。  
9月 參加烏克蘭國際發明展榮獲一面金牌一面銀牌。  
10月 參加波蘭華沙國際發明展榮獲一面金牌一面銀牌。  
參加日本東京天才會議暨國際發明展榮獲一面金牌一面銀牌。  
12月 AE-88EC 氣動夾頭榮獲第21屆臺灣精品獎
- 2013年 榮獲經濟部-SBIR 創新研發專案，開發完成附鎖氣壓夾持機構等三項研究並取得專利。
- 2014年 6月 以雙品牌  CGM、CJC 行銷國際。
- 2015年 11月  榮獲第22屆中小企業創新研究獎，開發完成精密加工治具聯結裝置並取得專利。
- 2022年 12月 AD-148RC 榮獲第31屆台灣精品獎。  
榮獲經濟部 SBIR 創新研發專案，  
開發完成“磁著式尋邊器”並取得專利。



## Introduction

CHERING JIN TECHNOLOGY CO. LTD. is a Taiwanese sole proprietor mainly engaging in producing high-precision chucks for Machine Tools. Since 2004, it has shifted the focus on manufacturing 3C moulds to high-precision chucks. With twenty-years professional experience in integration of machine fixtures, strong R&D and production capabilities, we have obtained more than 80 both national and international patents. We have dedicated to producing and developing products leading the market trends, especially the high precision chucks (with 2μm repetition accuracy) for EDM, Milling and Lathe which parallel with leading brands.

Our main products include zero-point chucks, manual quick chucks, pneumatic chucks, automatic electrode changer, electrode holders, EDM adjusting heads, precision measuring calibration, edge finder and customized fixture plates. We devote ourselves to develop global brand and marketing our products worldwide with high quality, efficiency and values.

The strict management cultivates the enterprise spirits of “Uncompromising Integrity, Professional Intentions, Design Precision, Service First”. We expect to establish sincere partnerships and achieve mutual development with our esteemed customers !

## Business Philosophy

Uncompromising Integrity, Professional Intentions, Design Precision, Service First

## Customer Service Principles

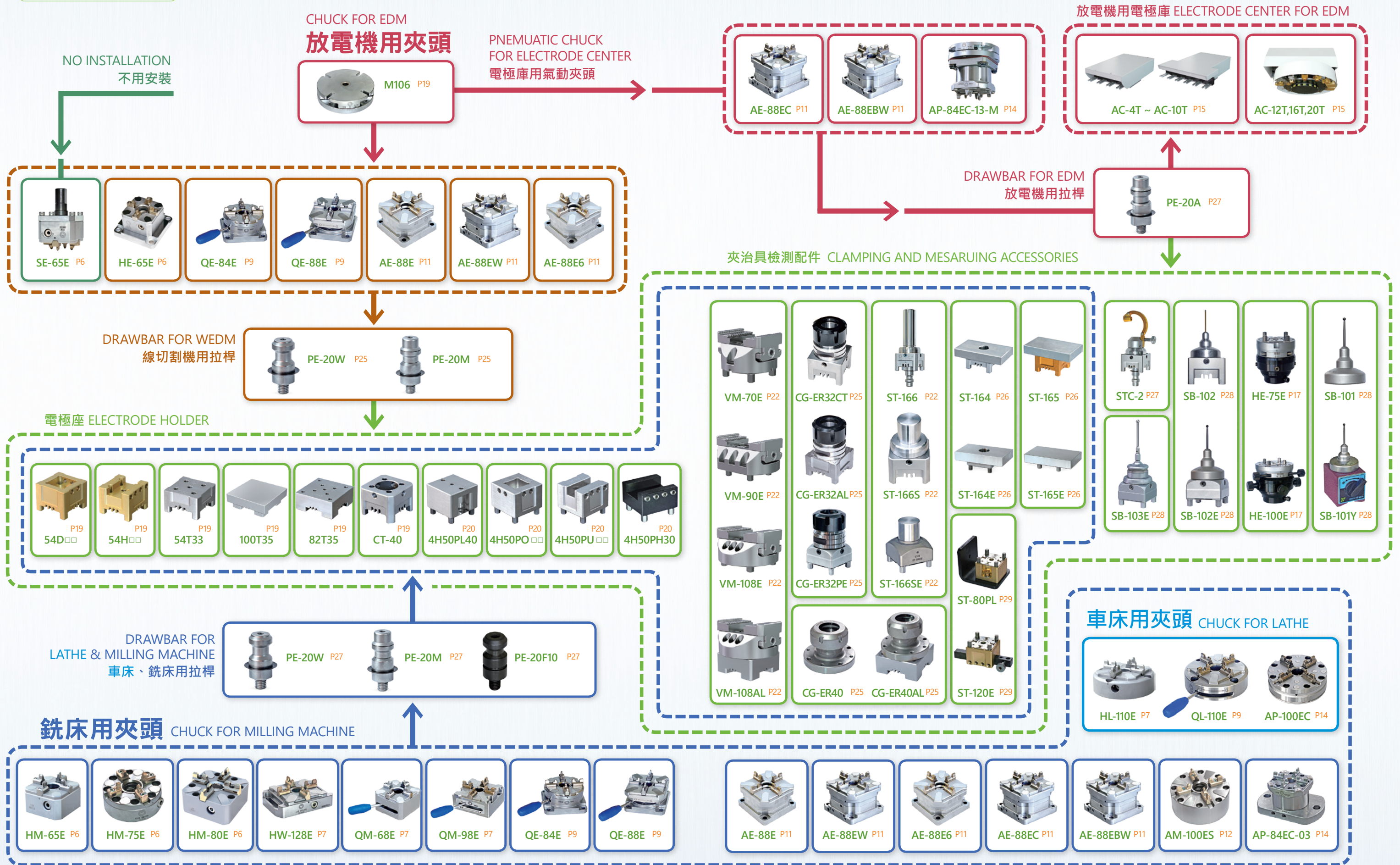
- Offering quality and economical product to customer for making profits.
- Offering integrated plan per customer request w/o extra cost.
- Offering efficient solution by professional technical supporting and communication.
- Ensuring confidentiality of customer information.
- Keeping up with trends, continuing R&D and upgrading products for sustanabe development and services.

## History and Prospects

- 1998 Established Chen Gem Industries which specialized in designing and manufacturing 3D molds, prototype mold and specialty machine.
  - 2001 Established NC machining center department for 3D mold making, and standard component machining.
  - 2002 Re-named as Cherng Jin Technology Co., Ltd and set up Mechanical Department for CNC machine and electrical control modification.
  - 2003 Imported AGIE Wire Cut EDM and set up Wire Cut EDM department.
  - 2004 Set up the R&D department of innovative Chuck. Gained two innovation patents and 21 patents in domestic and abroad.
  - 2006 Established CGM brand and registered **CGM** trade mark. Developed Quick Manual Chuck-QM series.
  - 2008 New plant established in Mar., and set up Overseas Department for international business expansion.
  - 2009 Created brand  logo. Developed the Electrode Center for EDM with Tool Magazine Capacity 12T, 16T as well 20T and gained two patents.
  - 2010 Developed the integrated Pneumatic Chuck and gained four patents.
  - 2011 Teamed up with reputed technology university for enhancing the developing and creative abilities.
  - 2012 **MAR.** Gold Medal Award, Moscow International Salon of Industrial Property “Archimedes”  
**MAY.** ISO9001 2008 certified  
Imported USA Brown & Sharpe CMM Measurement Equipment  
**JUN.** Two Gold Medals 2012 INVENTECO International Invention Show  
**SEP.** Gold Medal and Silver Medal Award, 2012 Ukraine International Invention Show  
**OCT.** Gold Medal and Silver Medal Award, 6th International Warsaw Invention Show “IWIS”  
Gold Medal and Silver Medal Award, World Genius Inventions Exposition in Tokyo, Japan  
**DEC.** Pneumatic Chuck-AE-88EC, 21th Taiwan Excellence Awards
  - 2013 Qualified by The Small Business Innovation Research Program(SBIR), MOEA OF R.O.C. Completion of development and granted patent for Pneumatic Clamping Mechanism with locking structure.
  - 2014 **JUN.** Global marketing by two brands,  CGM and CJC.
  - 2015 **NOV.**  “COUPLING DEVICE OF JIG” was awarded with the 22nd Taiwan SMEs Innovation Award
  - 2022 **DEC.** AD-148RC won the 31st Taiwan Excellence Award.  TAIWAN EXCELLENCE 2023
- Won the SBIR innovative research and development project of the Ministry of Economic Affairs, developed the “Activity type Edge Finde” and obtained a patent.

# H-24 定位塊夾具 系列概圖 PRODUCT DIAGRAM

使用 H-24 定位塊  
With H-24 positioning blocks



# 手動夾頭結構圖解

## Manual Chuck Diagram

### H-24E 可更換式定位塊

突破性的專利設計，讓您所購置的夾頭  
提升為資產設備，而不是消耗品。  
當定位塊損壞時，您可以在極短的時間內  
進行更換，並不影響其生產力。

### H-24E Replaceable Positioning Block

A breakthrough patent design, upgrading  
your chucks to be part of the asset instead  
of consumables.  
If it's damaged, you can replace it in a  
short time without affecting the  
productivity.

### 夾鉗式設計

具有專利的夾鉗式設計，  
結構簡單，經久耐用堅固，  
可承受4000kgs以上的夾持拉力，四個連鎖鎖固面可  
承受劇烈的切削振動而不鬆脫，更不會使拉栓凹陷，  
降低夾持力，材質 SUS420 硬度HRC 48~50度。

### Clamping type mechanism

Patented clamping type design,  
simple and durable structure which can  
sustain the clamping force more than 4000 kgs.  
Four locking surfaces can bear dramatic  
vibration and won't affect the drawbar.  
Material SUS420, 48~50 HRC.

Z 軸靠面損傷時，您可以自己用雷射焊補  
HRC 60度鋼材(SUS440最佳)後研磨修復，  
亦可寄回由本廠為您服務。

When the surface for Z axis is damaged, you may repair by laser  
welding with the steel. (60 HRC, SUS440 best recommended)  
Or, you may send it back to us for a repair.

### 鎖固螺絲

材質採用 SNM 高張力螺絲，硬度 HRC36~38 度，  
表面披覆含鎢鍍層，內韌外硬及耐磨耗。

### 注意

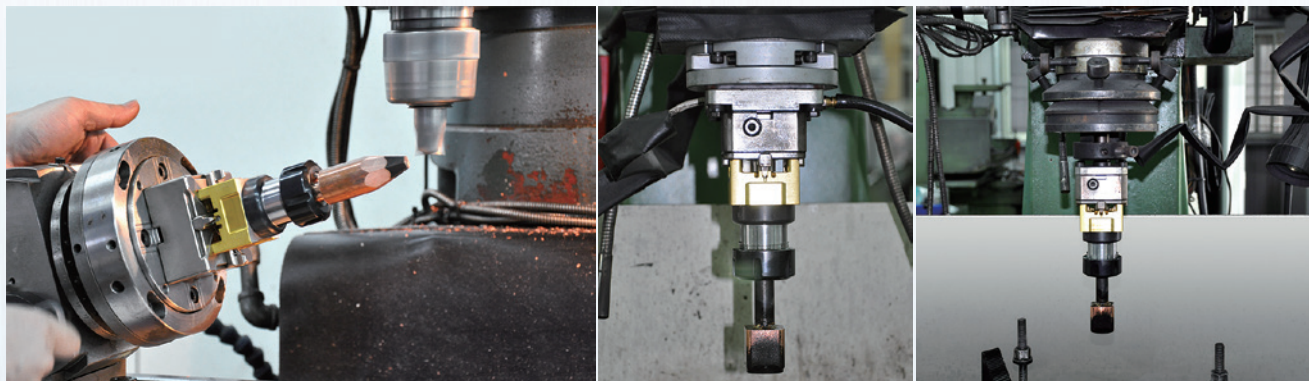
含鎢鍍層在含硫的環境中會失去其特性。

### Locking screws

Material SNM high tension screws, 36~38 HRC.  
The surface coated with tungsten with more mechanical flexibility.

### Attention

The feature of tungsten coated surface can not work  
under sulfur environment.



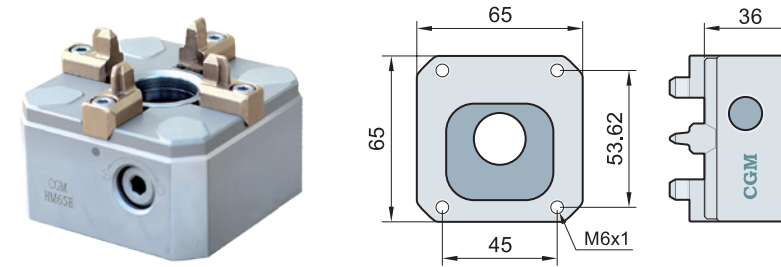
銑床加工  
Milling machining

HE-65 放電機加工  
EDM machining

SE-65 放電機加工  
EDM machining

## HM-65E 手動夾頭 Manual Chuck

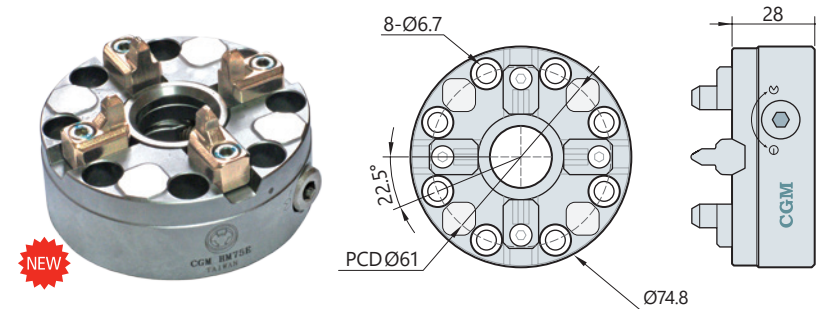
銑床專用 Chuck for Milling Machine



▲ 材質 Material : SUS420J2, 52 HRC 重量 Weight : 0.9 kg

## HM-75E 手動夾頭 Manual Chuck

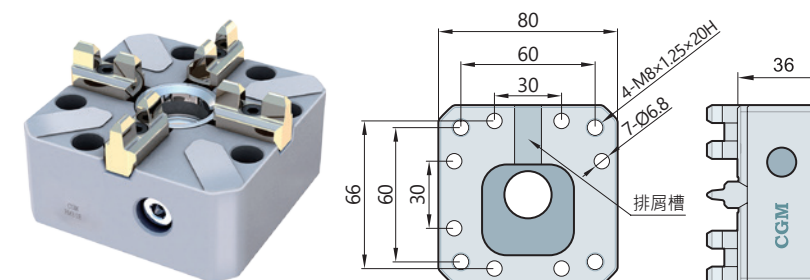
車床、銑床兩用 Chuck for Lathe & Milling Machines



▲ 材質 Material : SUS420J2, 52 HRC 重量 Weight : 0.7 kgs

## HM-80E 手動夾頭 Manual Chuck

銑床專用 Chuck for Milling Machine



▲ 材質 Material : SUS420J2, 52 HRC 重量 Weight : 1.55 kgs

## HE-65E 手動夾頭 Manual Chuck

放電機用 Chuck for EDM Machine



▲ 材質 Material : SUS420J2, 52 HRC 重量 Weight : 1.5 kgs

- 夾鉗式快速鎖緊機構。
- 底部四支 M6 螺絲固定孔。
- 夾持後電極吊重 1000kgs
- 重複定位精度 2μm
- Quick Clamp Mechanism
- With 4pcs 6M screws for bottom mounting holes
- Clamping force : 1000kgs
- Repeat positioning accuracy : 2μm

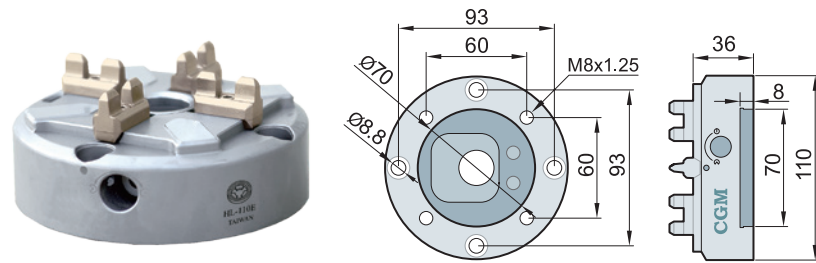
- 夾鉗式快速鎖緊機構。
- 夾持後電極吊重 2000kgs
- 重複定位精度 2μm
- Quick Clamp Mechanism
- Clamping force : 2000kgs
- Repeat positioning accuracy : 2μm

- 夾鉗式快速鎖緊機構。
- 兩面研磨可供鉗夾持及校正平行度。
- 正面螺絲固定孔。
- 底部四支 M8 螺絲固定孔。
- 夾持後電極吊重 1000kgs
- 重複定位精度 2μm
- Quick Clamp Mechanism
- Two ground surfaces are available for milling vise and flatness correction.
- Mounting screws in front side
- With 4pcs 8M screws for bottom mounting holes
- Clamping force : 1000kgs
- Repeat positioning accuracy : 2μm

- 夾鉗式快速鎖緊機構。
- 具有中心沖油功能。
- 最大容許加工電流：120A
- 夾持後電極吊重 1000kgs
- 重複定位精度 2μm
- Quick Clamp Mechanism
- Center oiling function
- Maximum current : 120A
- Clamping force : 1000kgs
- Repeat positioning accuracy : 2μm

## HL-110E 手動夾頭 Manual Chuck

車床、銑床專用 Chuck for Lathe & Milling Machines

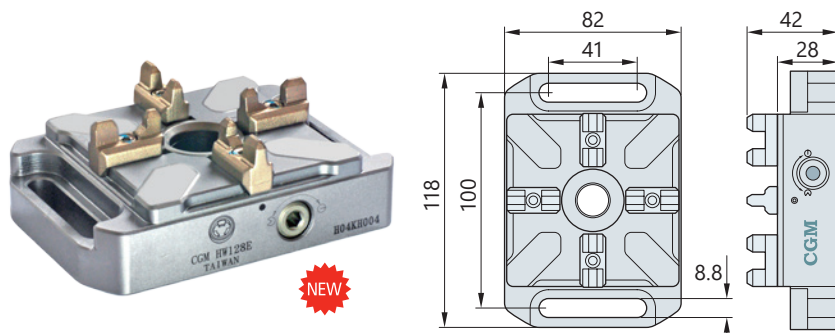


▲ 材質 Material : SUS420J2, 52 HRC 重量 Weight : 2.1 kgs

- 夾鉗式快速鎖緊機構。
- 最高轉速 1800rpm
- 夾持後電極吊重 1000kgs
- 重複定位精度 2μm
- Quick Clamp Mechanism
- Maximum speed : 1800rpm
- Clamping force : 1000kgs
- Repeat positioning accuracy : 2μm

## HW-128E 手動夾頭 Manual Chuck

線切割機、銑床兩用 Chuck for Wire Cut EDM & Milling Machines

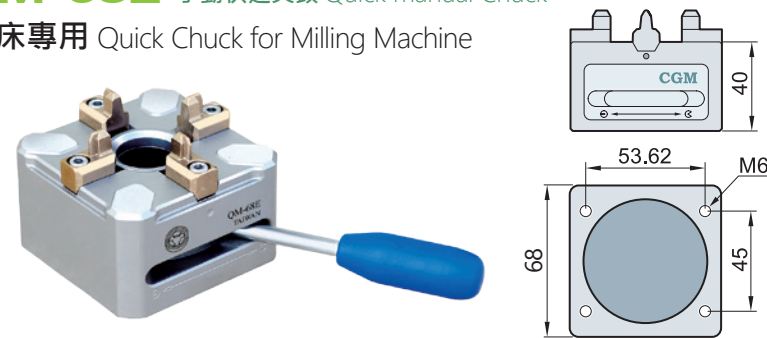


▲ 材質 Material : SUS420J2, 52 HRC 重量 Weight : 1.6 kgs

- 夾鉗式快速鎖緊機構。
- 夾持後電極吊重 1000kgs
- 重複定位精度 2μm
- Quick Clamp Mechanism
- Clamping force : 1000kgs
- Repeat positioning accuracy : 2μm

## QM-68E 手動快速夾頭 Quick manual Chuck

銑床專用 Quick Chuck for Milling Machine

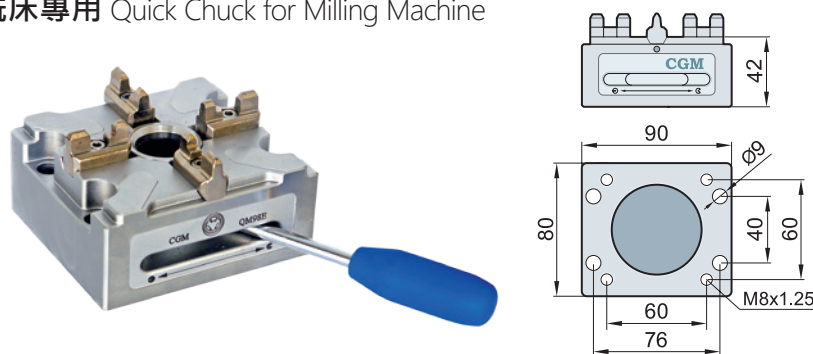


▲ 材質 Material : SUS420J2, 52 HRC 重量 Weight : 1.2 kgs

- 三爪式鎖緊機構
- 夾持後電極吊重 1000kgs
- 不可使用於放電機加工槽中。
- 兩面研磨可用虎鉗正面或側面夾持。
- 重複定位精度 2μm
- 3-jaws type Mechanism
- Clamping force : 1000kgs
- Not suitable for EDM
- Two ground surfaces are available for clamping by milling vise.
- Repeat positioning accuracy : 2μm

## QM-98E 手動快速夾頭 Quick manual Chuck

銑床專用 Quick Chuck for Milling Machine



▲ 材質 Material : SUS420J2, 52 HRC 重量 Weight : 1.9 kgs

- 三爪式鎖緊機構
- 夾持後電極吊重 1000kgs
- 不可使用於放電機加工槽中。
- 六面研磨可用虎鉗正面或側面夾持。
- 重複定位精度 2μm
- 3-jaws type Mechanism
- Clamping force : 1000kgs
- Not suitable for EDM
- Six ground surfaces are available for clamping by milling vise.
- Repeat positioning accuracy : 2μm

## 手動快速夾頭結構圖解

### Quick Manual Chuck Diagram

#### H-24E 定位塊

材質 SUS440 硬度 HRC 56~58 度表面特殊塗層 HRC 70 度以上  
硬度高耐磨耗，表面低磨擦，滑動性優良，側撞力超過 600kgs  
時將自保性損壞。

標準化零件：無方向性、可自行更換備品，固定螺絲 M4 x 12。

#### H-24E Positioning Blocks

Material SUS440, 56~58 HRC.  
After special coating, the surface can reach 70 HRC for better  
wear-resistant. When the side collision exceeds 600 kgs,  
it will be damaged out of self-protection.  
Standard parts are available for replacing easily.  
Fixing screws : M4 x 12.

本體材質 SUS420 硬度 HRC 52 度不銹鋼材質，  
提高實用性，熱處理後三次的回火應力消除  
與深冷處理，常保精度穩定。

#### Main structure

Material SUS420, 52 HRC.  
Keeping stable accuracy by eliminating the  
structure stress of tempering three times after  
heat treatment and sub-zero treatment.

#### 鎖盤

材質 SUS420 硬度 HRC 48~50 度特殊  
的擺線設計鎖固時，快速省力。  
強力結構設計可承受 5000kgs 以上夾持拉力。

#### Locking plate

Material SUS420, 48~50 HRC.  
With special locking design for labor saving.  
The strong structure can withstand  
clamping force more than 5000 kgs.

#### 推桿

適當的強度設計，當外力  
超過 65kgs 時，將自保性損壞。  
鎖緊後請將推桿取出才具有防震鬆脫作用

#### Handle

Design with proper strength.  
It'll be damaged out of self-protection  
when the external force exceeds 65 kgs.  
Please remove the Handle after lock tight  
for anti-vibration.

#### 防鬆止逆轉機構

當推桿取出之後，可自動將鎖盤  
煞住，無論在重切削或劇烈震動  
情況下，均能確保穩固夾持。

#### Anti-loose and Anti-clockwise structure

After removing the handle,  
the lock plate will ensure the stability  
under heavy cutting or dramatic  
vibration.

#### 夾爪

材質 SUS420 硬度 HRC 52 度，  
大面積鎖固，可發揮 4000kgs 以上的  
夾持力，有效抵抗重切削時所產生的  
震動，即使拉桿斷裂仍無損傷。

#### 3-jaws type Blocks

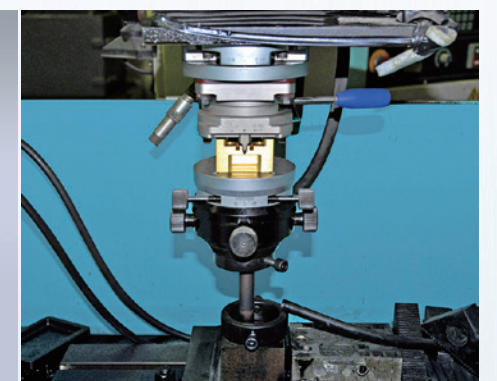
Material SUS420, 52 HRC.  
Large locking area which can withstand 4000 kgs  
clamping force and resist the vibration by heavy  
cutting efficiently. It won't get damaged even the  
handle is broken.



五軸加工  
5 Axis Machining



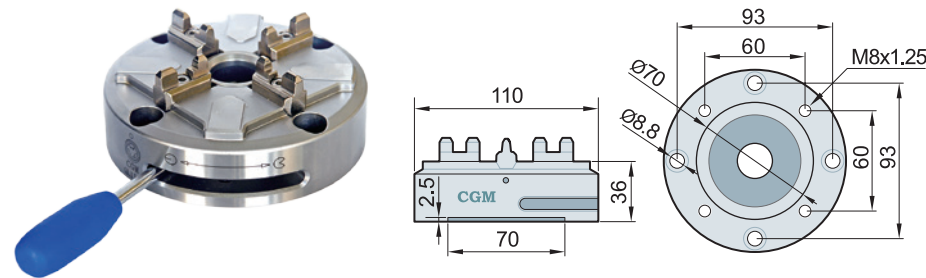
銑床加工  
Milling Machining



放電加工  
EDM machining

## QL-110E 手動快速夾頭 Quick manual Chuck

車床、銑床兩用 Chuck for Lathe & Milling Machines

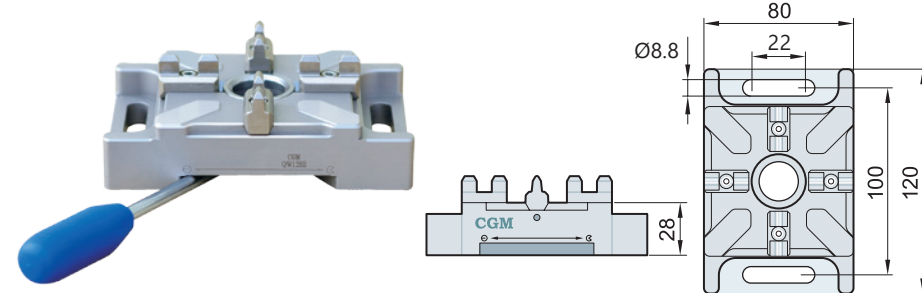


▲ 材質 Material : SUS420J2, 52 HRC 重量 Weight : 2.2 kgs

- 三爪式鎖緊機構。
- 最高轉速 1800rpm
- 夾持後電極吊重 1000kgs
- 重複定位精度 2μm
- 3-jaws type Mechanism
- Maximum speed : 1800rpm
- Clamping force : 1000kgs
- Repeat positioning accuracy : 2μm

## QW-128E 手動快速夾頭 Quick manual Chuck

線切割機、銑床兩用 Chuck for Wire Cut & Milling Machines

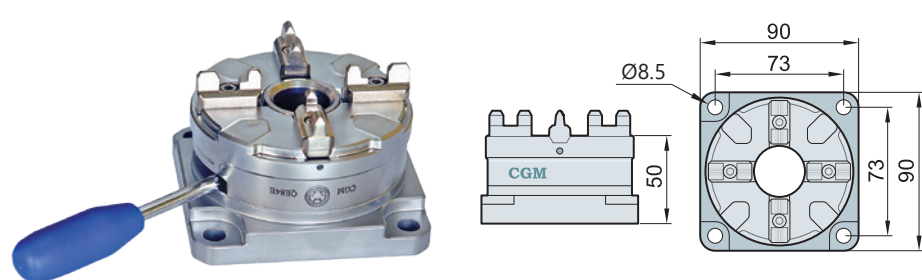


▲ 材質 Material : SUS420J2, 52 HRC 重量 Weight : 1.6 kgs

- 三爪式鎖緊機構。
- 最大容許加工電流 : 120A
- 夾持後電極吊重 1000kgs
- 重複定位精度 2μm
- 3-jaws type Mechanism
- Maximum current : 120A
- Clamping force : 1000kgs
- Repeat positioning accuracy : 2μm

## QE-84E 手動快速夾頭 Quick manual Chuck

放電機、銑床兩用 Chuck for EDM & Milling Machines

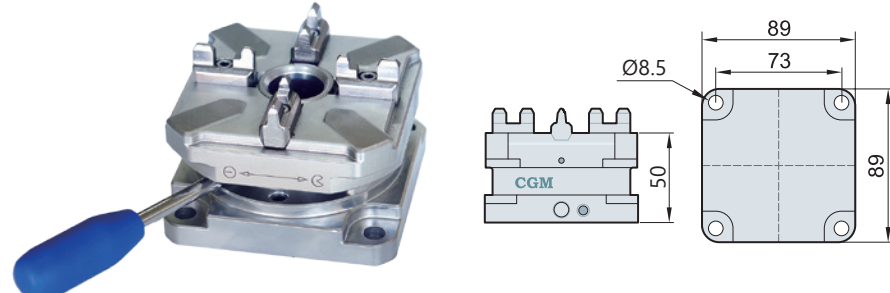


▲ 材質 Material : SUS420J2, 52 HRC 重量 Weight : 2.2 kgs

- 三爪式鎖緊機構。
- 具有中心沖油功能。
- 最大容許加工電流 : 120A
- 夾持後電極吊重 1000kgs
- 重複定位精度 2μm
- 3-jaws type Mechanism
- With Center oiling function
- Maximum current : 120A
- Clamping force : 1000kgs
- Repeat positioning accuracy : 2μm

## QE-88E 手動快速夾頭 Quick manual Chuck

放電機、銑床兩用 Chuck for EDM & Milling Machines

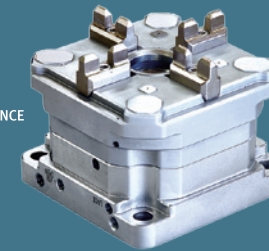


▲ 材質 Material : SUS420J2, 52 HRC 重量 Weight : 2.45 kgs

- 三爪式鎖緊機構。
- 具有中心沖油功能。
- 最大容許加工電流 : 120A
- 夾持後電極吊重 1000kgs
- 重複定位精度 2μm
- 3-jaws type Mechanism
- With Center oiling function
- Maximum current : 120A
- Clamping force : 1000kgs
- Repeat positioning accuracy : 2μm

## 整合性氣動夾頭結構圖解

### Pneumatic Chuck Diagram



- 氣動夾頭全機種均有增壓功能，可高達 280kgs 以上之夾持拉力。
- 連結機構已塗佈特殊潤滑油脂，一次性潤滑，油脂不受水氣而變質。
- All pneumatic chucks are with boost pressure function and can withstand the clamping force up to 280kgs.
- Link mechanism coated with special lubrication which won't be deteriorated by moisture.

### 夾持面

不銹鋼夾持面常保精度，保養容易，並且有清潔吹氣之功能。

### Surface

Stainless steel surface keeps high accuracy, easy to maintain and has clean blowing function.

### 可更換定位塊設計

可依加工需求更換自製定位塊，克服特殊工件的加工。

### Positioning blocks

Positioning blocks are replaceable and custom made are available for various of special workpieces machining.

### 活塞及缸體

全由不銹鋼製成，不會因水氣而使機構生銹卡死。

### Piston & Cylinder

All piston and cylinder are made of stainless steel. It won't get rusted by moisture.

### 密封圈

採用高品質密封圈，正常使用壽命高達五年以上。

### O-ring

High-quality seals, normal life expectancy is up to 5 years.

### 彈簧

採用高品質進口彈簧，壽命120萬次以上。(200次/天=16年)

### Spring

High-quality imported spring. Life expectancy is more than 1.2 million times. 200 times / day = 16 years.

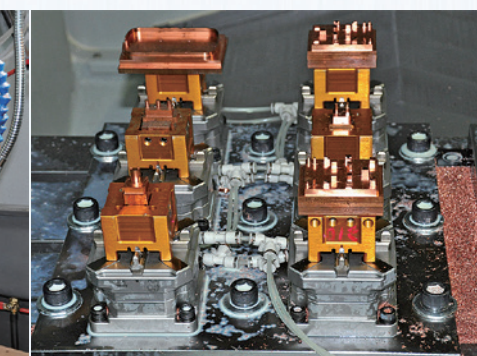
專利活塞式連接機構，可容許較大的連接誤差。

### Connecting structure

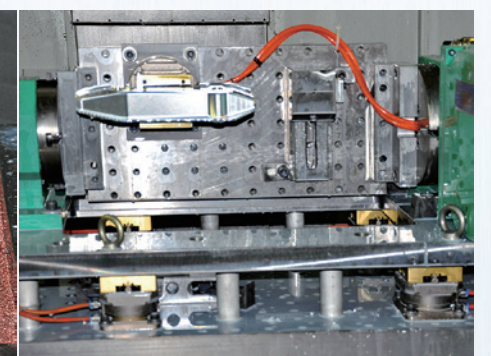
Patented piston connecting structure allows bigger deviation.



放電機加工  
EDM machining



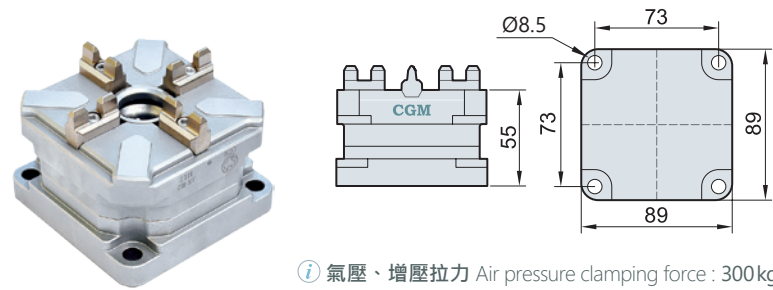
銑床加工  
Milling Machining



零件加工  
Parts machining

## AE-88E 氣動夾頭 Pneumatic Chuck

放電機、銑床兩用 Chuck for EDM & Milling Machines

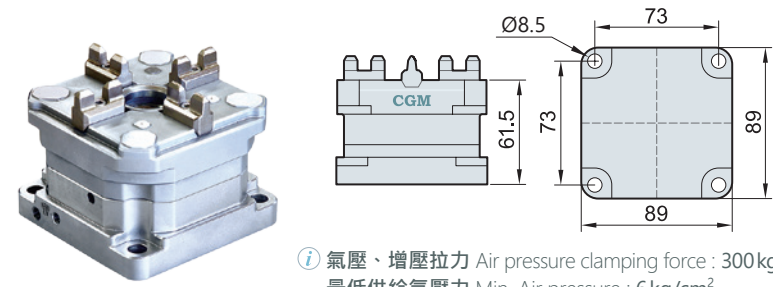


① 氣壓、增壓拉力 Air pressure clamping force: 300kgs  
最低供給氣壓力 Min. Air pressure: 6kg/cm<sup>2</sup>

▲ 材質 Material: SUS420J2, 52 HRC 重量 Weight: 3.0 kgs

## AE-88EW 氣動夾頭 Pneumatic Chuck

放電機、銑床兩用 Chuck for EDM & Milling Machines

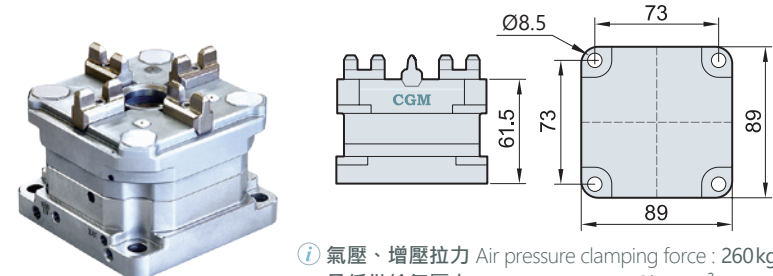


① 氣壓、增壓拉力 Air pressure clamping force: 300kgs  
最低供給氣壓力 Min. Air pressure: 6kg/cm<sup>2</sup>

▲ 材質 Material: SUS420J2, 52 HRC 重量 Weight: 3.0 kgs

## AE-88EBW 氣動夾頭 Pneumatic Chuck

放電機、銑床兩用 Chuck for EDM & Milling Machines

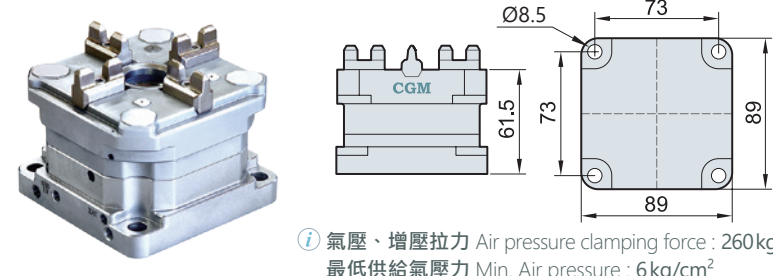


① 氣壓、增壓拉力 Air pressure clamping force: 260kgs  
最低供給氣壓力 Min. Air pressure: 6kg/cm<sup>2</sup>

▲ 材質 Material: SUS420J2, 52 HRC 重量 Weight: 3.0 kgs

## AE-88EC 氣動夾頭 Pneumatic Chuck

放電機、銑床兩用 Chuck for EDM & Milling Machines



① 氣壓、增壓拉力 Air pressure clamping force: 260kgs  
最低供給氣壓力 Min. Air pressure: 6kg/cm<sup>2</sup>

▲ 材質 Material: SUS420J2, 52 HRC 重量 Weight: 3.0 kgs

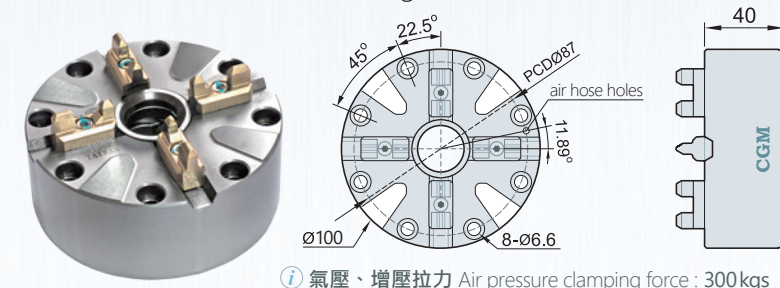
## NEW AE-88E6

- 材質 Material: SUS440, 60 HRC
- 夾持力、彈簧常態拉力: 100kgs
- 最大容許加工電流: 120A
- 無定位面除汗吹氣。
- 無中心沖油功能。
- 重複定位精度 2μm
- Clamping and Std. spring pull force: 100kgs
- Maximum allowable current: 120A
- W/O blowing holes for surface cleaning
- W/O center oiling function
- Repeat positioning accuracy: 2μm

## 銑床用氣動夾頭、固定座

### AM-100ES 氣動夾頭 Pneumatic Chuck

銑床用氣動夾頭 Chuck for Milling Machine



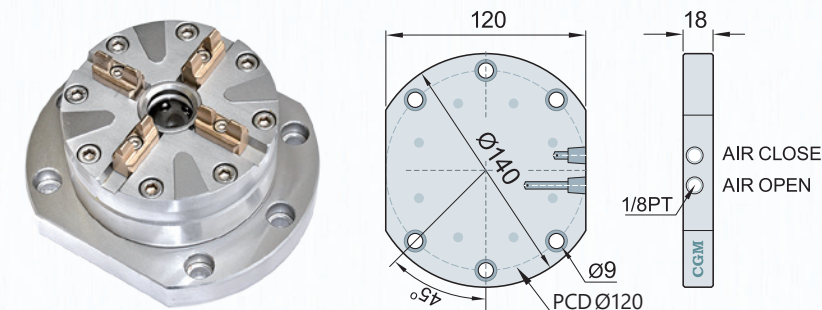
① 氣壓、增壓拉力 Air pressure clamping force: 300kgs  
最低供給氣壓力 Min. Air pressure: 6kg/cm<sup>2</sup>

▲ 材質 Material: SUS420J2, 52 HRC 重量 Weight: 2.0 kgs

- 夾持力、彈簧常態拉力: 100kgs
- 無定位面除汗吹氣與中心出水功能
- 重複定位精度 2μm
- Clamping and Std. spring pull force: 100kgs
- Without blowing holes for surface cleaning and center oiling function.
- Repeat positioning accuracy: 2μm

購買此夾頭須自行加工打開與增壓的夾頭氣孔  
Need to DIY the opening and air pressure holes.

### AM-100ES-03 銑床用氣動夾頭含固定座 Chuck for Milling Machine with fixing plate

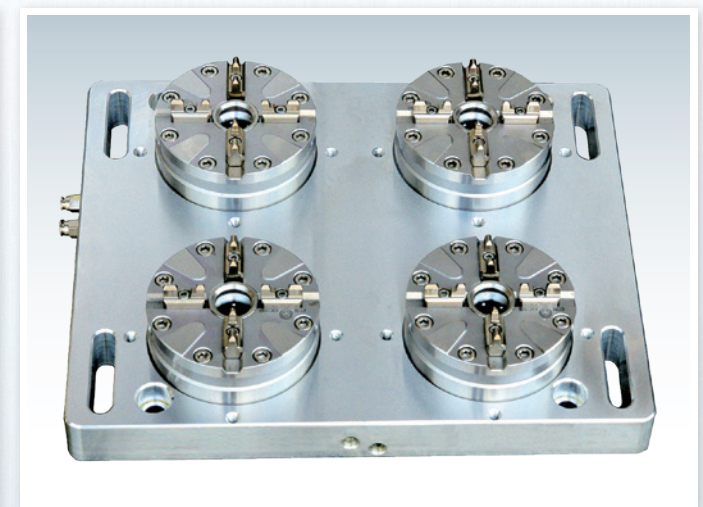
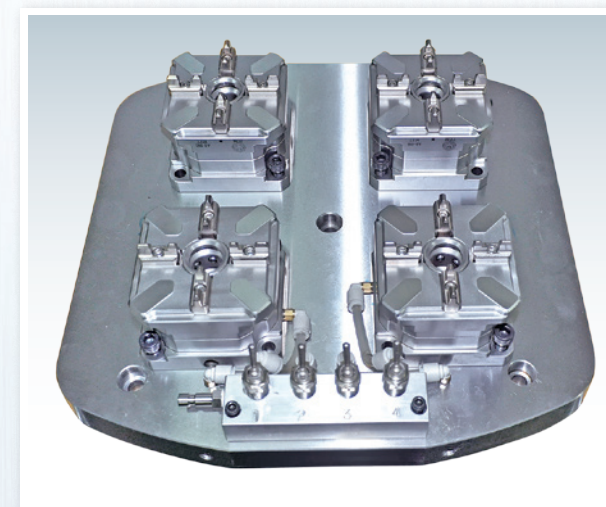


#### 固定座 Fixing Plate

- 材質 Material: SUS420, 52 HRC
- 重量 Weight: 3.99kgs
- ① AM-100ES 專用固定座  
Fixing plate only for AM-100ES

## 客製治具盤 Custom Fixture Pallet

- 提供優質經濟的產品，創造利潤。
- 根據客戶的需求，進行整體規劃，提升產能。
- 積極專業的技術支援與溝通，並提供有效解決方案。
- Offering quality and economical product to customer for making profits.
- For enhancing productivity, the custom fixture and total solutions are available.
- Offering efficient solution by professional technical supporting and communication.



### 自動更換電極用氣動夾頭 Pneumatic Chuck for auto changing electrode holder

- 夾持力、彈簧常態拉力: 100kgs
- 最大容許加工電流: 70A
- 內四孔定位面除汗吹氣功能。
- 具中心沖油功能。
- 重複定位精度 2μm
- Clamping and Std. spring pull force: 100kgs
- Maximum allowable current: 70A
- 4 blowing holes for surface cleaning
- With center oiling function
- Repeat positioning accuracy: 2μm

### 自動更換電極用全功能氣動夾頭 Pneumatic Chuck for auto changing electrode holder

- 夾持力、彈簧常態拉力: 70kgs
- 最大容許加工電流: 120A
- 具八孔定位面除汗吹氣功能。
- 具中心沖油功能。
- 重複定位精度 2μm
- Clamping and Std. spring pull force: 70kgs
- Maximum allowable current: 120A
- 8 blowing holes for surface cleaning
- With center oiling function
- Repeat positioning accuracy: 2μm

## AP-100E

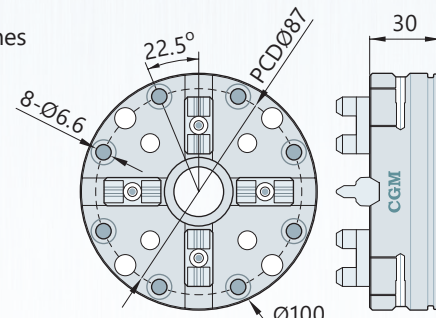
重切型氣動夾頭 Pneumatic Chuck-Heaving Cutting Type

車床、銑床用氣動夾頭

Chucks for Lathe & Milling Machines



重量 Weight: 1.6 kgs

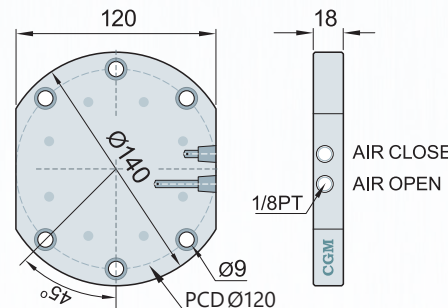
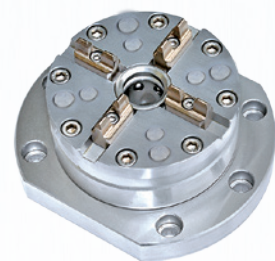


最低供給氣壓力 Min. Air pressure : 6 kg/cm<sup>2</sup>  
材質 Material : SUS420J2, 52 HRC

- 最高轉速 2000rpm
- 彈簧夾持拉力 2500kgs, 極限夾持力 8000kgs  
氣壓增壓拉力 3500kgs, 極限夾持力 12000kgs
- 重複定位精度 2μm
- Max. 2000rpm
- Std. spring pull force 2500kgs, Max. 8000 kgs  
Air pressure clamping force 3500 kgs, Max. 12000 kgs
- Repeat positioning accuracy : 2μm

購買此夾頭須自行加工打開與增壓的夾頭氣孔  
Need to DIY the opening and air pressure holes.

## AP-100E-03



固定座 Fixing Plate

- 材質 Material : SUS420, 52 HRC
- 重量 Weight : 3.4kgs
- AP-100E/AP-100EC 專用固定座  
Fixing plate only for AP-100E/AP-100EC

## AP-100EC

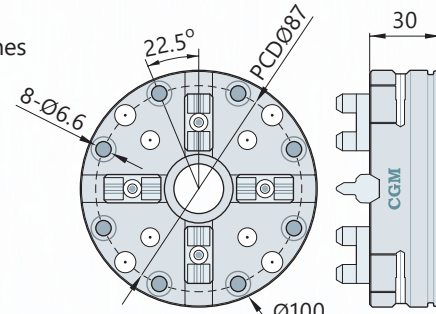
重切型氣動夾頭 Pneumatic Chuck-Heaving Cutting Type

車床、銑床用氣動夾頭

Chucks for Lathe & Milling Machines



重量 Weight: 1.6 kgs

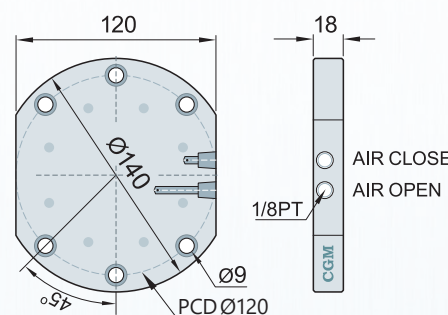
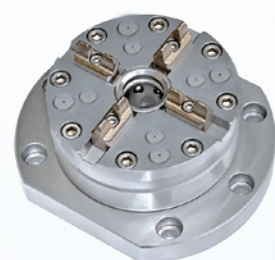


最低供給氣壓力 Min. Air pressure : 6 kg/cm<sup>2</sup>  
材質 Material : SUS420J2, 52 HRC

- 最高轉速 2000rpm
- 夾具定位面除污吹氣功能。  
(需搭配 AP-100-04 才能使用)
- 彈簧夾持拉力 2500kgs, 極限夾持力 8000kgs  
氣壓增壓拉力 3500kgs, 極限夾持力 12000kgs
- 重複定位精度 2μm
- Max. 2000rpm
- 8 Blowing holes for surface cleaning  
(only function with #AM-100-04)
- Std. spring pull force 2500kgs, Max. 8000 kgs  
Air pressure clamping force 3500 kgs, Max. 12000 kgs
- Repeat positioning accuracy : 2μm

購買此夾頭須自行加工打開與增壓的夾頭氣孔  
Need to DIY the opening and air pressure holes.

## AP-100EC-03



固定座 Fixing Plate

- 材質 Material : SUS420, 52 HRC
- 重量 Weight : 3.4kgs
- AP-100E/AP-100EC 專用固定座  
Fixing plate only for AP-100E/AP-100EC

## AP-100EC-0304



## AP-100-04

擋屑環 Chip Cover Ring



高度 Height 20.70mm

## AP-100-05

擋屑環 Chip Cover Ring



高度 Height 40.70mm

- AP-100EC 使用此配件才具有定位面除污吹氣功能  
AP-100EC has blowing function for surface cleaning and only if works with AP-100-04

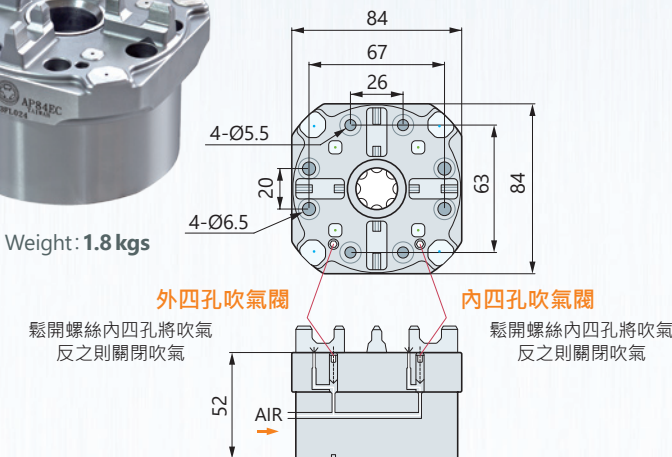
## 重切型氣動夾頭 Pneumatic Chuck-Heaving Cutting Type

## AP-84EC 氣動夾頭

Pneumatic Chuck



重量 Weight: 1.8 kgs



本產品適用 PE-20M 及 PE-20A 拉桿

This product is suitable for PE-20M and PE-20A

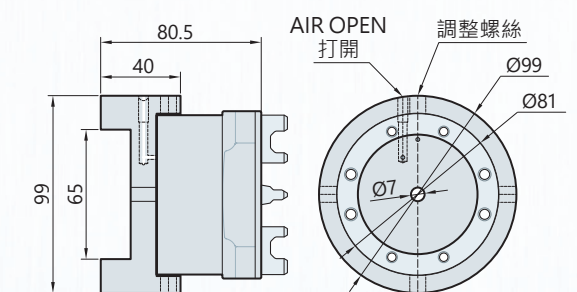
- 具定位面除污吹氣功能。
- 具中心沖油功能。
- 重複定位精度 0.002mm
- 彈簧夾持力 2500kg, 極限夾持力 6000kg
- 氣壓增壓夾持力 3500kg
- 最低供氣壓力 6kg/cm<sup>2</sup>
- 材質: 定位面 SUS440 HRC57度
- With blowing holes for surface cleaning
- With Center oiling function
- Repeat positioning accuracy 2μm
- Std. spring pull force 2500kg, Max. 6000kgs
- Air pressure clamping force 3500kgs
- Min. Air pressure : 6 kg/cm<sup>2</sup>
- Material : Surface SUS440, 57 HRC

## AP-84EC-23 車床用氣動夾頭

Adjusting Ring for Lathe Machine (含調整座)



材質 Material : SUS420 HRC 52°  
重量 Weight: 1.8 kgs



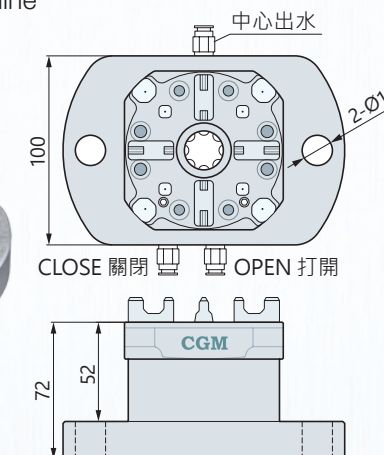
應用於車床及圓筒磨床、調整夾頭同心度

## AP-84EC-03 銑床用氣動夾頭 (含固定座)

Fixing Plate for Milling Machine



重量 Weight: 3.7 kgs

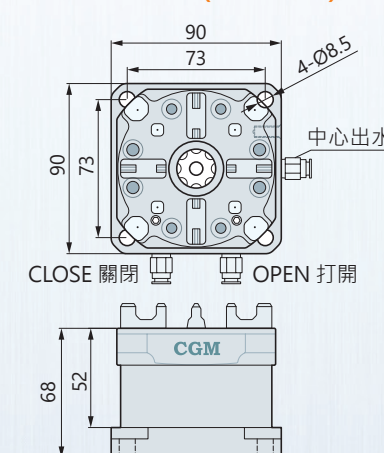


## AP-84EC-13 銑床、放電機用氣動夾頭

Fixing Plate for Milling & EDM Machines (含固定座)



重量 Weight: 2.8 kgs

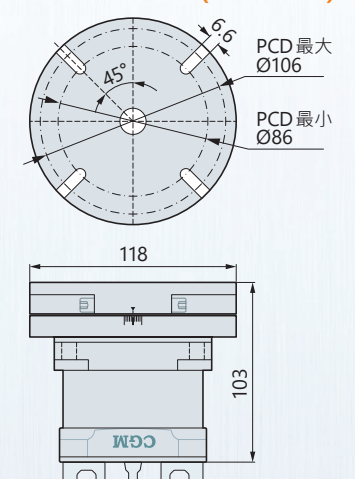


## AP-84EC-13-M 放電機用氣動夾頭

Adjusting for EDM Machine (含調整座)



重量 Weight: 5.2 kgs



應用於放電機、調整夾頭平面度及平行度



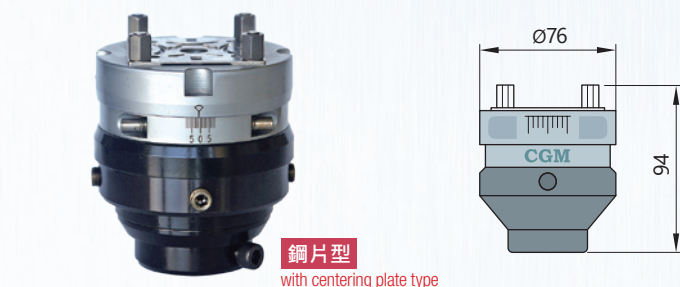
# 放電機用電極校正頭

Electrode Adjusting Head

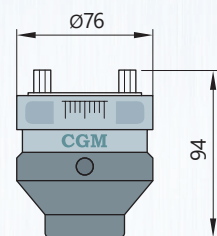
## 電極校正頭應用 APPLICATION

當放電機已安裝本公司夾頭，轉接電極校正頭，可校正未固定於電極座上之電極，可機外預校電極，減少機械停機時間。

For EDM with CGM chuck system, when apply this adjusting head, it can calibrate and pre-calibrate the electrode directly for reducing the machine downtime.

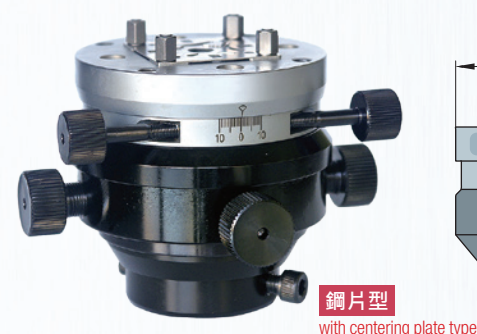


銅片型  
with centering plate type

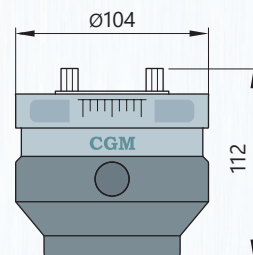


### HE-75E 電極校正頭

- 使用沉頭螺絲調校，迷你電極與輕量化的設計。
- 主要用於電極庫及小型電極。
- 夾持外徑最大 Ø15mm.
- Using countersunk head screws to adjust.
- It's mainly used in electrode center and small electrodes.
- Max. Clamping dia Ø15mm.



銅片型  
with centering plate type



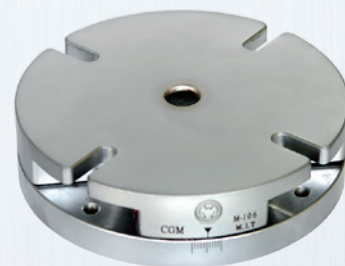
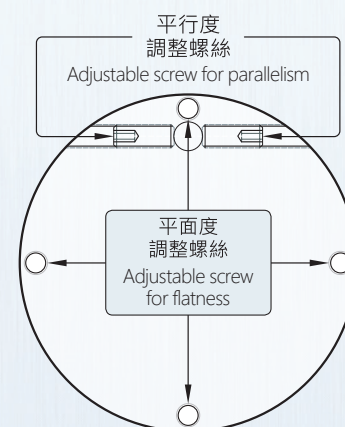
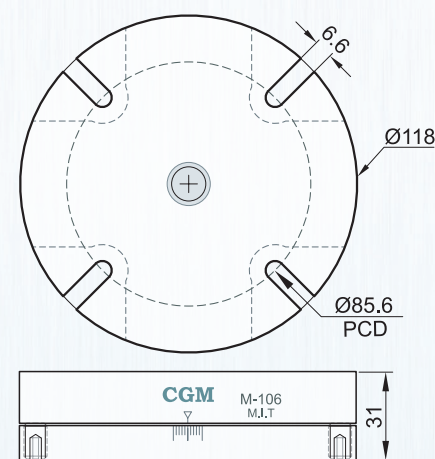
### HE-100E 電極校正頭

- 有較大的調校範圍。
- 適用中大型電極。
- 夾持外徑最大 Ø22mm.
- Offering wider adjustment range
- It's suitable for medium and large electrodes.
- Max. Clamping dia Ø22mm.

## 夾頭安裝步驟說明 Installation instructions

- 鬆下舊有調整頭。
- 安裝 M106 調整頭並鎖緊，若機台孔位不符，請依照 M106 尺寸重新加工固定孔。
- 安裝夾頭並鎖緊(絕緣墊片在 M106 與夾頭中間)。
- 用放電機負極線確認夾頭與機床不可短路。
- 用 ST-164 或 ST-165 校正 X,Y 軸平面度與平行度。

- Loose the old adjustment head.
- Set up M106 adjustment head and fasten tightly. If it doesn't fit, please process the holes according to M106 dimension.
- Set up the chuck and lock tight.  
(The insulation plate should be in between of M106 and the chuck)
- Make sure no short circuit between the chuck and machine by EDM negative terminal.
- Use ST-164 and ST-165 to adjust X and Y axis's flatness and parallelism.



## M106

### 放電機快速安裝盤

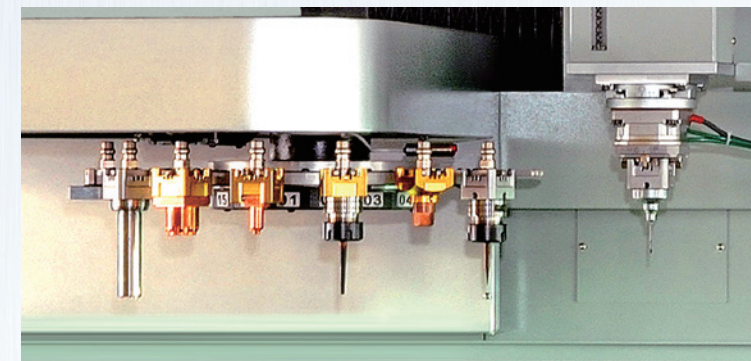
Rotating Adaptor Plate for EDM

- 放電機必須用配件，可快速調整 X,Y 平面度、平行度。
- Mandatory accessory for EDM, which is fixed to head of the machine in order to adjust the flatness and parallelism of X, Y axis.
- 重量 Weight : 2.4kgs

# 放電機用電極庫

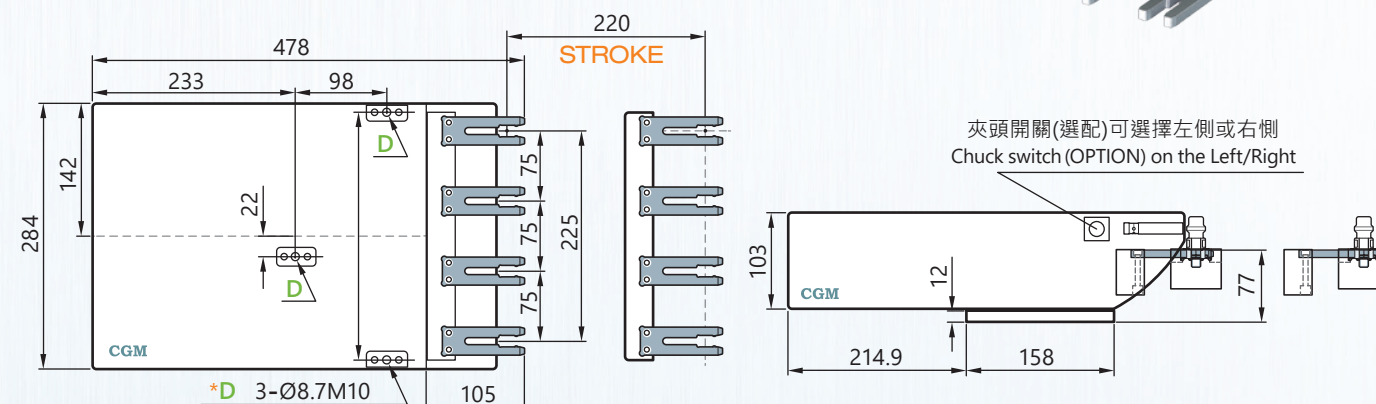
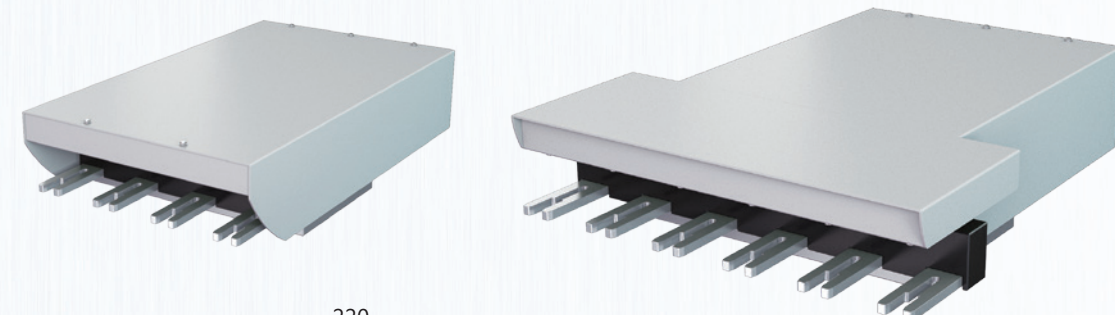
Automatic Electrode Changer for EDM

## 圓盤式



| MODEL NO                                      | AC-12T                                         | AC-16T                                          | AC-20T                                         |
|-----------------------------------------------|------------------------------------------------|-------------------------------------------------|------------------------------------------------|
| 電極容量 Tool Magazine Capacity                   | 12 tools                                       | 16 tools                                        | 20 tools                                       |
| 最大電極直徑<br>Max. Electrode Holder Set Diameter  | Ø70mm (all pockets full)<br>Ø120mm / □ 64x64mm | Ø100mm (all pockets full)<br>Ø130mm / □ 82x82mm | Ø70mm (all pockets full)<br>Ø120mm / □ 64x64mm |
| 單支電極叉最大載重<br>Max. Electrode Holder Set Weight | 4kgs                                           | 4kgs                                            | 4kgs                                           |
| 電極總重量 Tool Total Weight                       | 48kgs                                          | 64kgs                                           | 80kgs                                          |
| 相鄰換電極時間 Tool Chain Divsional Time             | 1 sec (60Hz): option                           | 1 sec (60Hz): option                            | 1 sec (60Hz): option                           |
| 控制方式 Control Elements                         | PNP-NO                                         | PNP-NO                                          | PNP-NO                                         |
| 電壓 Drive Voltage                              | DC24V                                          | DC24V                                           | DC24V                                          |

## 直推式



| MODEL NO                                      | AC-4T                                     | AC-6T                                     | AC-8T                                     | AC-10T                                    |
|-----------------------------------------------|-------------------------------------------|-------------------------------------------|-------------------------------------------|-------------------------------------------|
| 電極容量 Tool Magazine Capacity                   | 4 tools                                   | 6 tools                                   | 8 tools                                   | 10 tools                                  |
| 最大電極長度 Max. Total Length                      | 220mm                                     | 220mm                                     | 220mm                                     | 220mm                                     |
| 最大電極直徑<br>Max. Electrode Holder Set Diameter  | Ø74mm<br>(All pockets full)<br>□ 74x 74mm | Ø79mm<br>(All pockets full)<br>□ 79x 79mm | Ø79mm<br>(All pockets full)<br>□ 79x 79mm | Ø74mm<br>(All pockets full)<br>□ 74x 74mm |
| 單支電極叉最大載重<br>Max. Electrode Holder Set Weight | 5kgs                                      | 4kgs                                      | 4kgs                                      | 3.5kgs                                    |
| 電極總重量 Tool Total Weight                       | 20kgs                                     | 24kgs                                     | 32kgs                                     | 35kgs                                     |
| 控制方式 Control Elements                         | PNP-NO                                    | PNP-NO                                    | PNP-NO                                    | PNP-NO                                    |
| 電壓 Drive Voltage                              | DC24V                                     | DC24V                                     | DC24V                                     | DC24V                                     |

## 鋁製電極座優點 Features of Aluminum Electrode Holder

**具保護性** 當加工程序異常，刀具與工件碰撞時，將自保性損壞，大幅降低或避免精密機械與夾頭的損害。

**高耐用性** 在正常使用下可高達五萬次以上之使用壽命，而且不易損傷夾頭定位面。

**抑震** 可吸收精切削所產生的高頻振動，及減輕重切削時所產生的劇烈振動。

**導電性佳** 在放電加工時，可有較高之效率。

**重量輕** 在深孔放電加工時，可有較高之速率。

**經濟價值** 可快速回收導入成本，規格齊全，可滿足多樣化的加工需求。

**Anti-vibration** High-frequency vibration absorbing and reducing dramatic vibration.

**Good electrical conductivity** Efficient operation during discharge processing.

**Light weight** High efficiency during deep hole EDM.

**Economic value** Comprehensive specification with competitive cost for various machining needs.

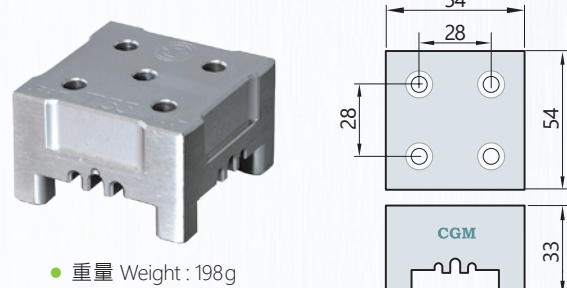
**High durability** It's life expectancy is up to 50,000 times under normal usage and the positioning surface won't be damaged easily.

**Self-protection** During improper operation or the cutter collision, it'll be damaged out of self-protection for protecting the machine spindle and chuck.



### 54T33 電極座 Electrode Holder

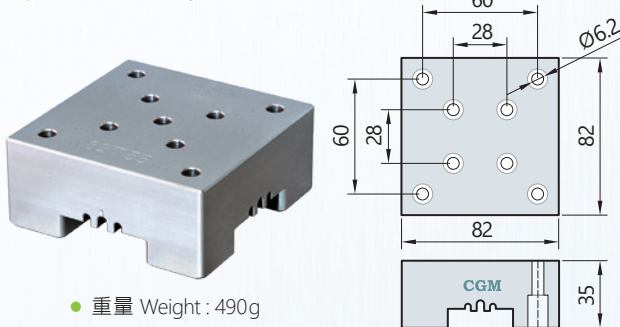
底部固定板狀電極、最大電極尺寸 100x100mm  
Suitable for bottom lock the plate copper electrode  
(Max.100x100mm)



● 重量 Weight : 198g

### 82T35 電極座 Electrode Holder

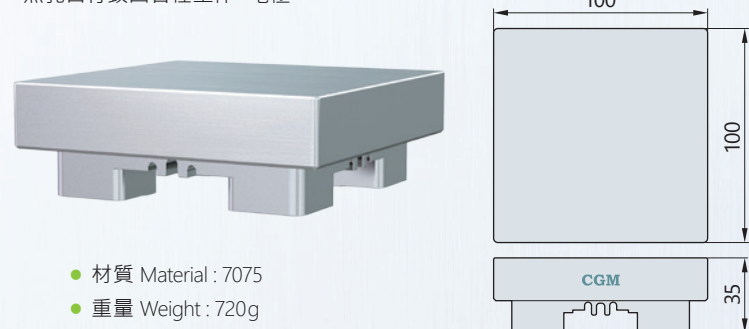
底部固定板狀電極、最大電極尺寸 200x200mm  
Suitable for bottom lock the plate copper electrode  
(Max.200x200mm)



● 重量 Weight : 490g

### 100T35 電極座 Electrode Holder

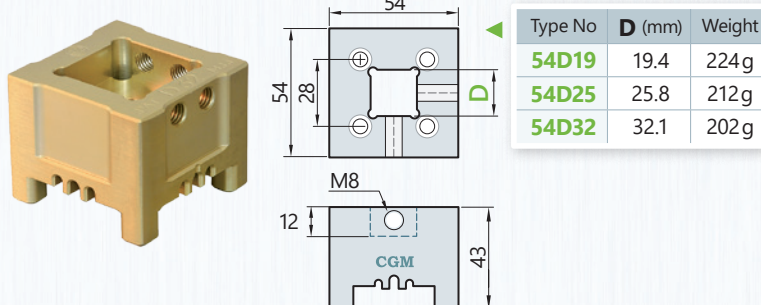
最大電極尺寸 200x200mm (Max.200x200mm)  
無孔自行鎖固各種工件、電極



● 材質 Material : 7075  
● 重量 Weight : 720g

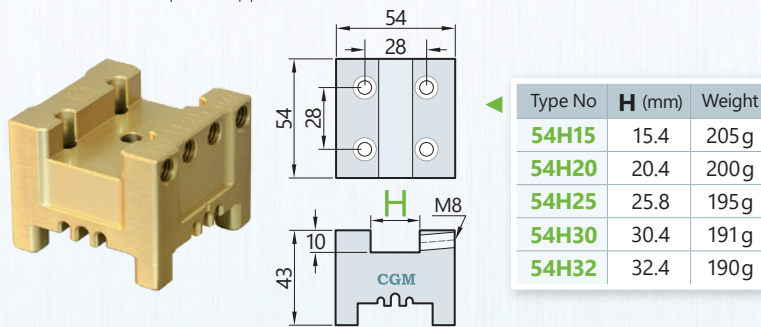
### 54D□□ 電極座 Electrode Holder

方形電極、底部固定板狀電極。  
Suitable for square copper electrode, and bottom lock the plate copper.



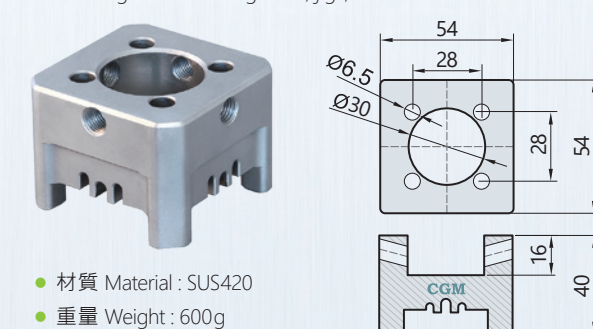
### 54H□□ 電極座 Electrode Holder

側固矩形電極、底部固定板狀電極。  
Suitable for side lock the square copper electrode,  
bottom lock the plate copper electrode.

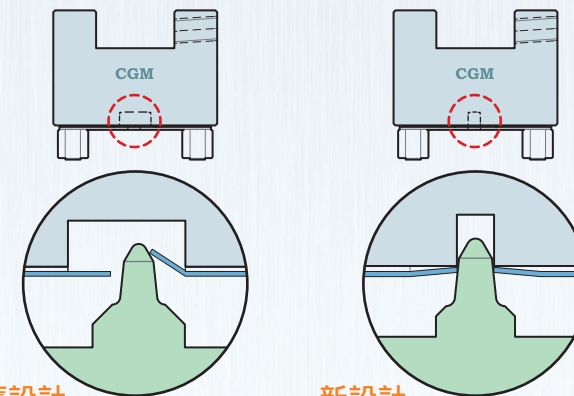


### CT-40 鋼性電極座 Stainless Electrode Holder

自行鎖固各種量具、治具、電極。  
Self-locking for measuring tools, jigs, electrodes.



● 材質 Material : SUS420  
● 重量 Weight : 600g



#### 舊設計

在操作不良或切削力過大時容易損壞

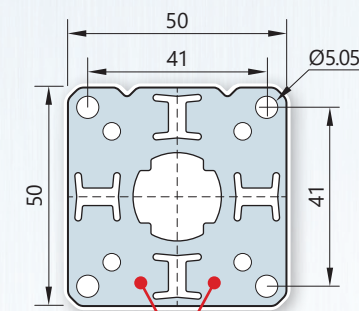
General design gets damaged easily during improper operation or under heavy cutting force.

#### 新設計

有保護鋼片及增加切削力雙重優點

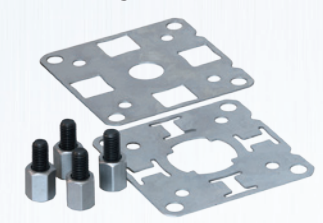
CGM new design can protect the centering plate and increase the cutting force.

## 50 定位片



**對稱形設計能穩定精確定位**  
Symmetrical design stabilizes the accurate positioning.

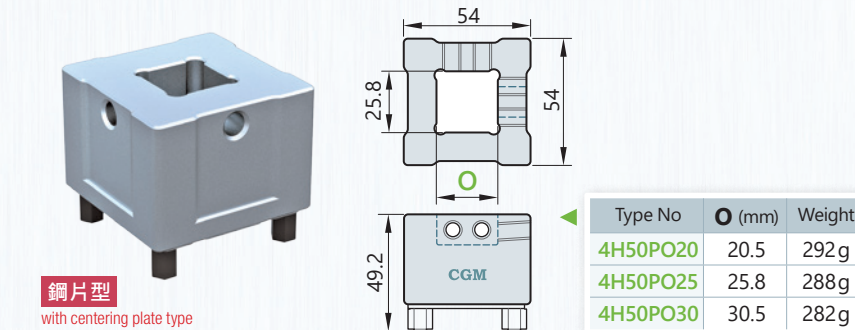
### 4H50 定位片 Centering Plate



- 材質:不鏽鋼 硬度:HV420以上
- 每組含4只定位腳及螺絲
- Material: Stainless Steel, HV420~
- Incl. 4 supporting feet per set

### 4H50PO□□ 鋼片式鋁製電極座

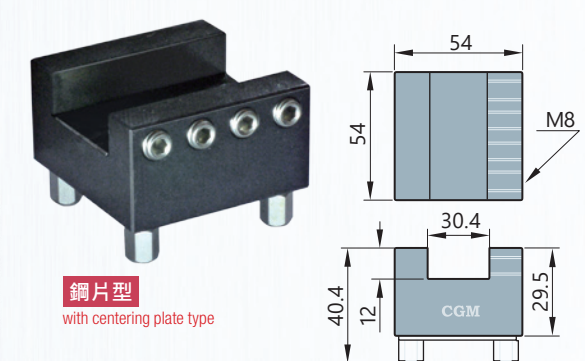
方形電極 Suitable for square copper electrode.



鋼片型  
with centering plate type

### 4H50PH30 鋼片式鐵製電極座

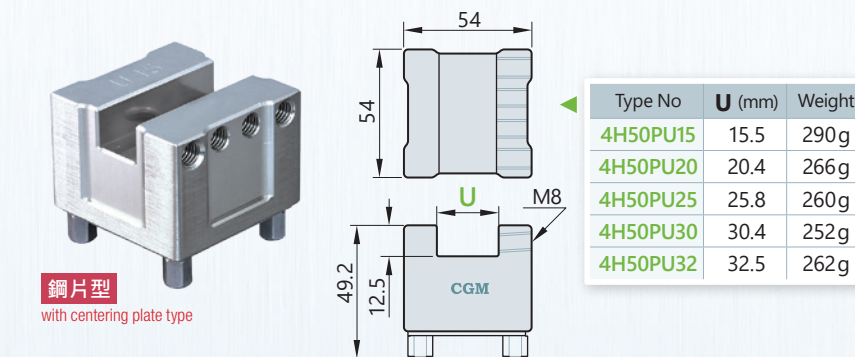
方形電極 Suitable for square iron electrode.



鋼片型  
with centering plate type

### 4H50PU□□ 鋼片式鋁製電極座

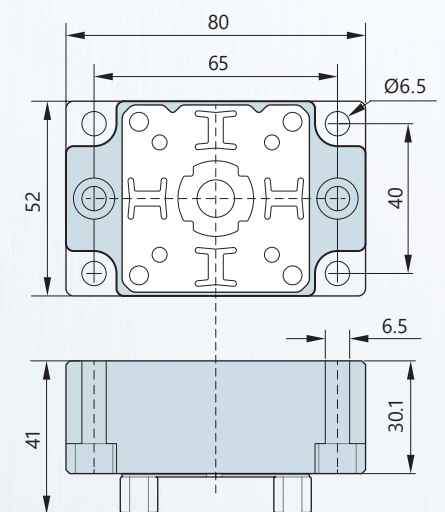
側固矩形電極 Suitable for side lock the square copper electrode.



鋼片型  
with centering plate type

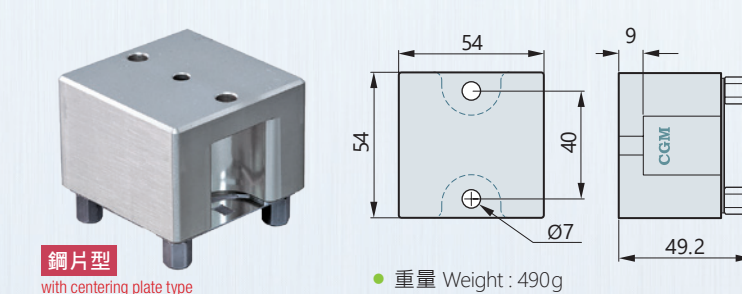
### 4H50PL65 底部固定板狀電極

Centering Plate



### 4H50PL40 鋼片式鋁製電極座

固定座: 材質鋁 6061 Material: ALU. 6061



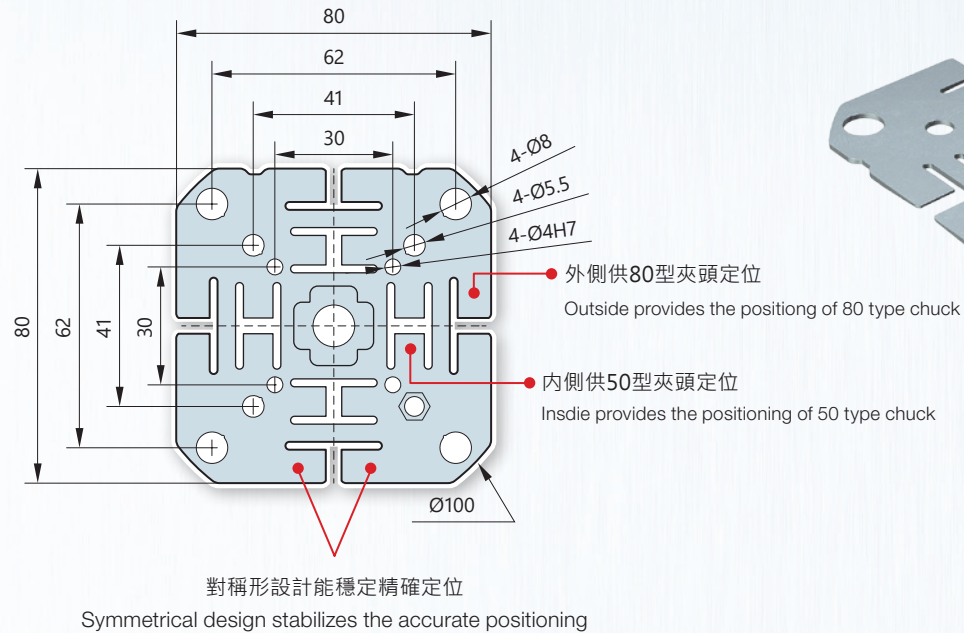
鋼片型  
with centering plate type

● 重量 Weight : 490g

## 80 定位片

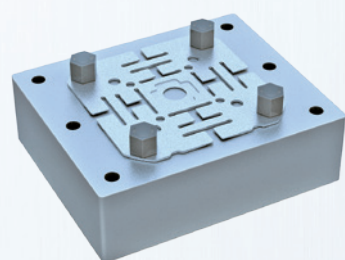
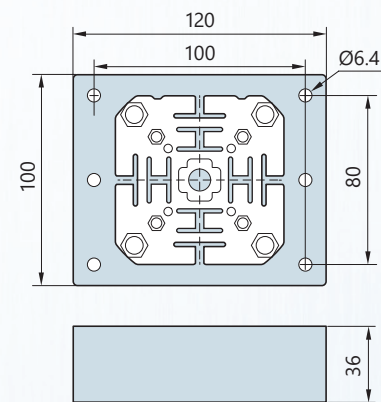
### 8H80P 定位片 Centering Plate

材質:高強度不鏽鋼片、單片式 厚度 1.2mm  
High-strength stainless steel centering plate 2 in 1 design  
Thickness : 1.2mm



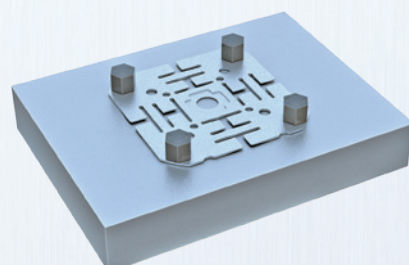
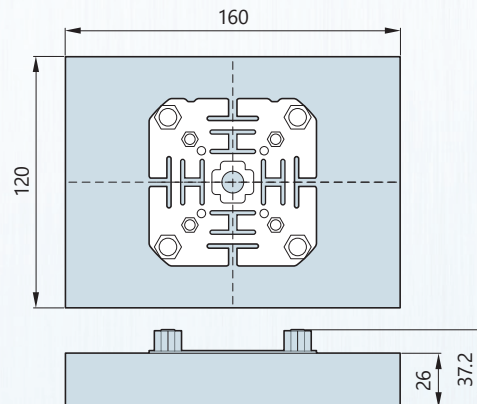
### 8H80PT36A

平面電極座  
Blank Electrode Holder(6 holes)  
材質: 鋁 6061  
Material : ALU. 6061



### 8H80PT26

平面未加工電極座  
Blank Electrode Holder  
材質: ~~預硬鋼材 HRC 52°~~ P-5/HRC28°  
Material : ~~Pre-hardened steel 52°HRC~~



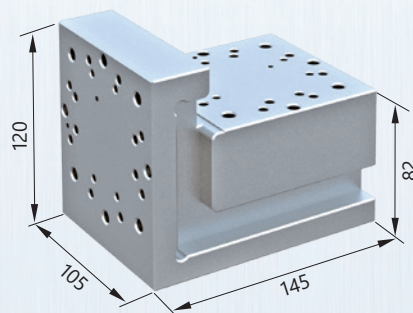
### CG145L

直角座  
Vertical Electrode Holder  
材質: SUS420 HRC 52°  
Material : SUS420 52°HRC

### CG145LS

直角座  
Vertical Electrode Holder  
材質: S45C HRC 50°  
Material : S45C 50°HRC

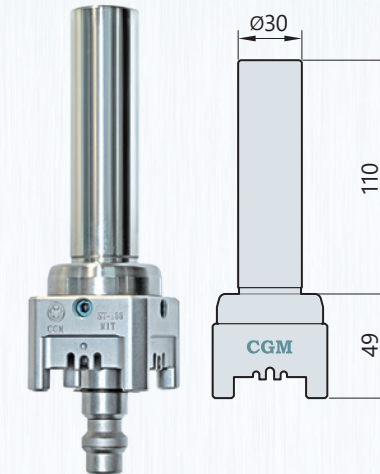
可在水平及垂直面安裝夾頭。  
適用 AM/AP/AE/QE/HL/QL 系列夾頭。  
夾頭固定孔位螺紋可指定製作。  
The chucks can be mounted on the horizontal or vertical surfaces  
Applicable AM/AP/AE/QE/HL/QL series Chuck  
Mounting holes of chuck can be made per request



## 校正圓棒 Calibrating Cylinder

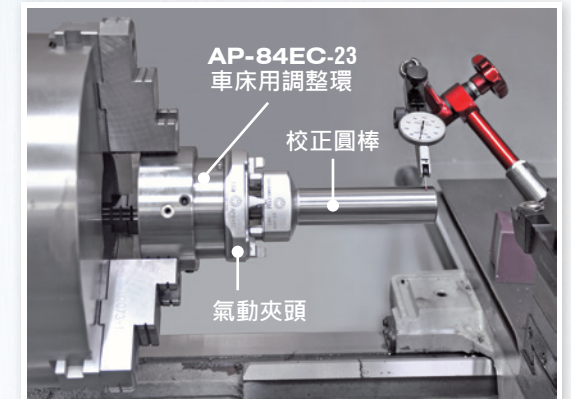
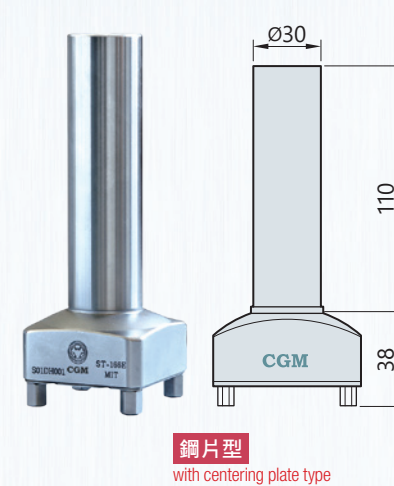
### ST-166

長型圓棒  
Long type Calibrating Cylinder



### ST-166E

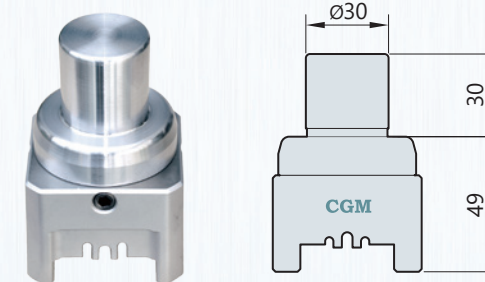
鋼片型長圓棒  
Long type Calibrating Cylinder



- 校正圓棒適用於車床校驗同心度、平行度。
- Apply to Lathe for checking centricity and flatness.

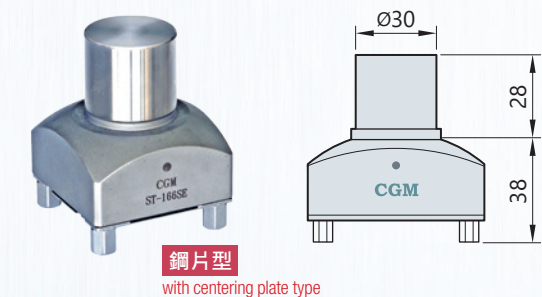
### ST-166S

短型圓棒 Short Calibrating Cylinder



### ST-166SE

鋼片型短圓棒 Short Calibrating Cylinder



### PM500E

夾頭拉力計 Digital Force Gauge

- 最大拉力極限 500 KGS
- Max. clamping force 500 KGS

本產品最大拉力極限500KG，超過可能造成儀器損毀  
適用於檢測夾具拉力、本產品不適用AP138系列夾具  
It may cause the damage to this product if its exceeding the max. clamping force 500KGS. It is suitable for measuring the clamping force. It's not applicable for AP183 series.

重量 Weight : 1.7kg



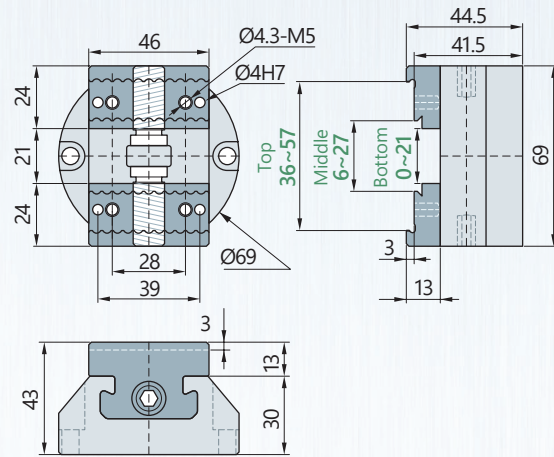
# VM 同心虎鉗 Self-Centering Vise



## VM-70 同心虎鉗 無配件 Self-Centering Vise



- 材質 Material : SUS420J2, 52HRC
- 重量 Weight : 0.9kgs

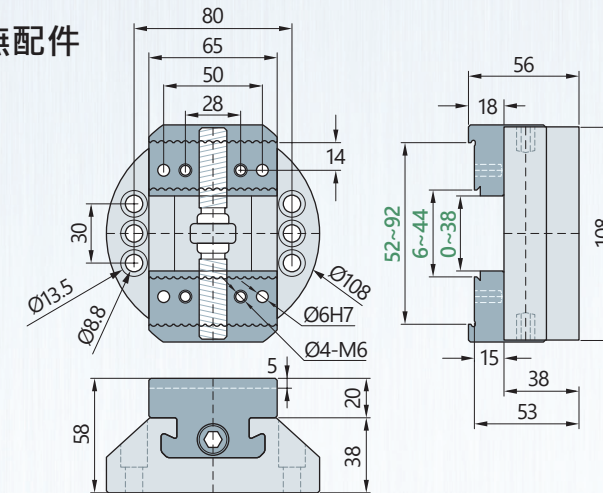


- 重複定位精度 0.01mm
- 夾鉗持範圍 :  
頂層 : 36mm ~ 57mm  
中層 : 6mm ~ 27mm  
底層 : 0mm ~ 21mm
- Repeat positioning accuracy : 0.01mm
- Clamping Range  
Top Layer : 36mm ~ 57mm  
Middle Layer : 6mm ~ 27mm  
Bottom Layer : 0mm ~ 21mm

## VM-108 同心虎鉗 無配件 Self-Centering Vise

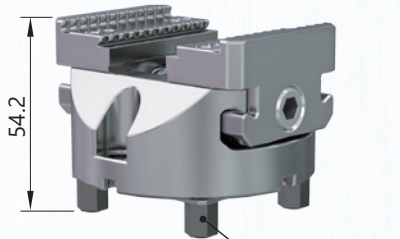


- 材質 Material : SUS420J2, 52HRC
- 重量 Weight : 2.5kgs



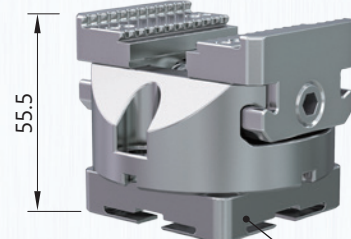
- 重複定位精度 0.01mm
- 夾鉗持範圍 :  
頂層 : 52mm ~ 92mm  
中層 : 6mm ~ 44mm  
底層 : 0mm ~ 38mm
- Repeat positioning accuracy : 0.01mm
- Clamping Range  
Top Layer : 52mm ~ 92mm  
Middle Layer : 6mm ~ 44mm  
Bottom Layer : 0mm ~ 38mm

## VM-70E 鎖附 4H50 定位片 Self-Centering Vise with 4H50 Centering Plate



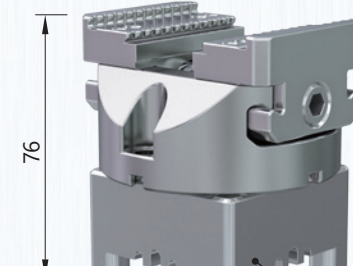
- 重量 Weight : 0.95kgs

## VM-70R 鎖附 4H54RP 定位片 Self-Centering Vise with 4H54RP Centering Plate



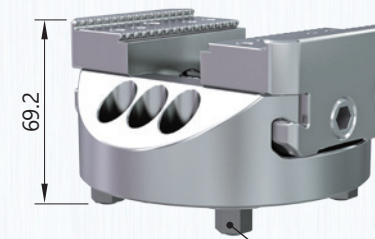
- 重量 Weight : 1.1kgs

## VM-70AL 鎖附 54T33 電極座 Self-Centering Vise with 54T33 Electrode Holder



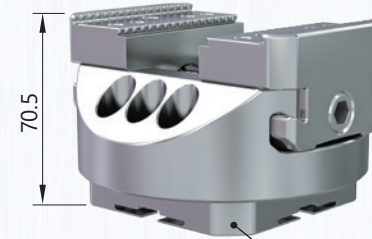
- 重量 Weight : 1.1kgs

## VM-108E 鎖附 8H80P 定位片 Self-Centering Vise with 8H80P Centering Plate



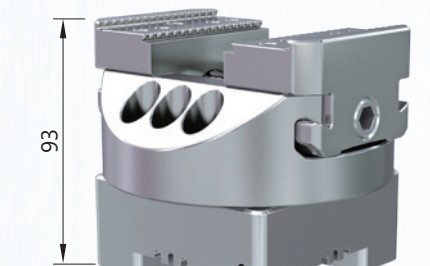
- 重量 Weight : 2.6kgs

## VM-108R 鎖附 8H80RP 定位片 Self-Centering Vise with 8H80RP Centering Plate



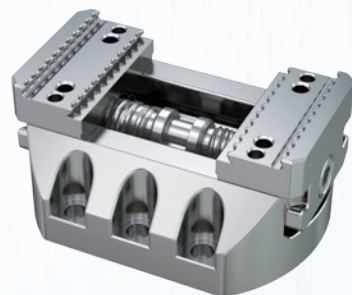
- 重量 Weight : 2.9kgs

## VM-108AL 鎖附 82T35 電極座 Self-Centering Vise with 82T35 Electrode Holder

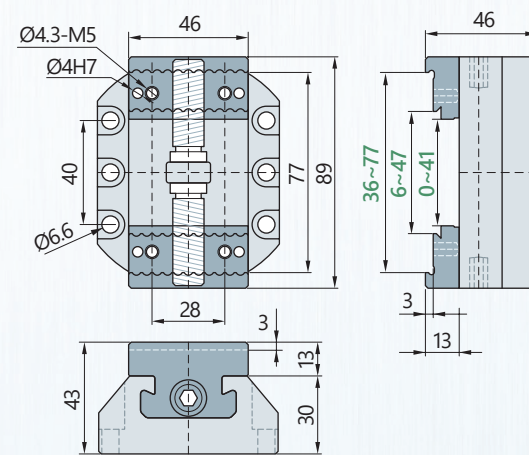


- 重量 Weight : 2.9kgs

## VM-90 同心虎鉗 無配件 Self-Centering Vise

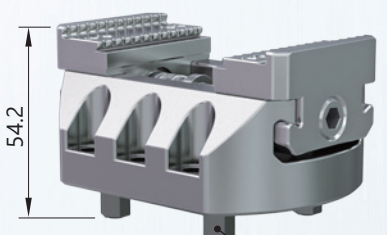


- 材質 Material : SUS420J2, 52HRC
- 重量 Weight : 1.1kgs



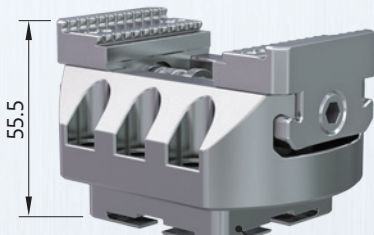
- 重複定位精度 0.01mm
- 夾鉗持範圍 :  
頂層 : 36mm ~ 77mm  
中層 : 6mm ~ 47mm  
底層 : 0mm ~ 21mm
- Repeat positioning accuracy : 0.01mm
- Clamping Range  
Top Layer : 36mm ~ 77mm  
Middle Layer : 6mm ~ 47mm  
Bottom Layer : 0mm ~ 21mm

## VM-90E 鎖附 4H50 定位片 Self-Centering Vise with 4H50 Centering Plate



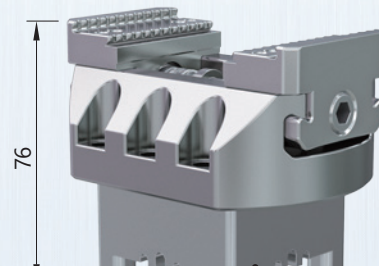
- 重量 Weight : 1.1kgs

## VM-90R 鎖附 4H54RP 定位片 Self-Centering Vise with 4H54RP Centering Plate



- 重量 Weight : 1.1kgs

## VM-90AL 鎖附 54T33 電極座 Self-Centering Vise with 54T33 Electrode Holder

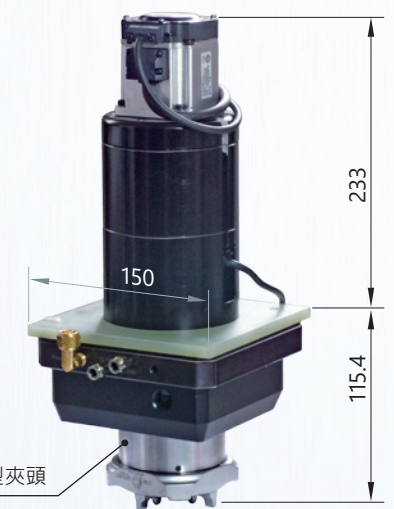


- 重量 Weight : 1.3kgs

## 放電機 C 軸 C-Axis for EDM

- 馬達 Panasonic 200W A6
- 分度精度  $\pm 0.006$  ( $N \pm 0.003$ )
- 電力傳導 碳刷 10 只
- 軸承型式 交叉滾柱轉盤軸承
- 最大放電電流 100A 不旋轉 ; 60A 旋轉
- 中心沖油最大壓力 15 bar
- 供氣壓力 6~10 bar

- Motor Panasonic 200W A6
- Index accuracy  $\pm 0.006$  ( $N \pm 0.003$ )
- Electrical conduction with carbon brush x 10pcs
- Bearing Type, Cross-Roller Slewing Bearing
- Max. discharge machining current, 100A(Static); 60A (Dynamic)
- Max. Centric Flushing Pressure 15 bar
- Air Pressure required 6~10 bar



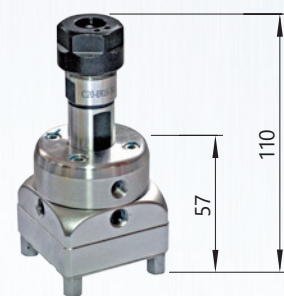
### 放電機 C 軸規格表 C-Axis for EDM Specification

| 型號 Type                                | CA2100E/N         | CA2050E/N | CA2100R/N | CA2050R/N |
|----------------------------------------|-------------------|-----------|-----------|-----------|
| 減數機齒比<br>Gear Ratio of Reducer         | 100 : 1           | 50 : 1    | 100 : 1   | 50 : 1    |
| 夾頭轉數 Chuck Revolutions<br>RPM          | 30                | 60        | 30        | 60        |
| 最大電級重量<br>Max Electric grade<br>Weight | 不旋轉 do not rotate | 35 Kg     | 35 Kg     | 35 Kg     |
|                                        | 旋轉 rotate         | 25 Kg     | 15 Kg     | 15 Kg     |
| 最大扭力 Maximum torque                    | 20 Nm             | 12 Nm     | 16 Nm     | 12 Nm     |
| 夾頭型號 Chuck Mode                        | AP-84EC           | AP-84EC   | AP-84RC   | AP-84RC   |

## 治具夾頭 Jig Chuck

### CG-ER16PE

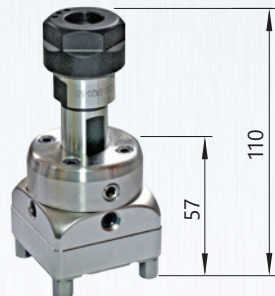
鋼座治具夾頭 Steel Jig Chuck



鋼片型 with centering plate type

### CG-ER20PE

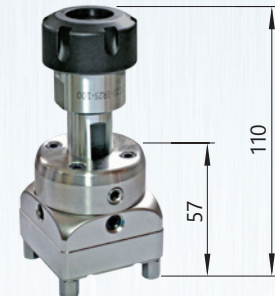
鋼座治具夾頭 Steel Jig Chuck



鋼片型 with centering plate type

### CG-ER25PE

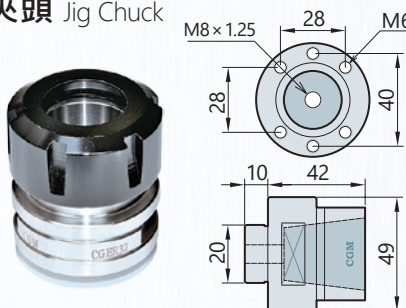
鋼座治具夾頭 Steel Jig Chuck



鋼片型 with centering plate type

### CG-ER32

治具夾頭 Jig Chuck

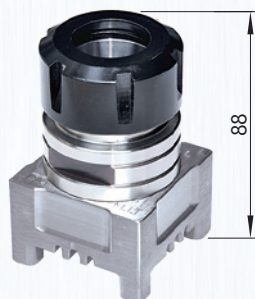


材質 Material: SUS420J2, 50 HRC

① 治具夾頭之筒夾及板手為選購配件  
Collet and Wrench are optional.

### CG-ER32AL

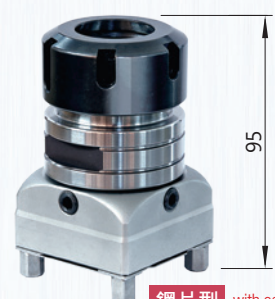
鋁座治具夾頭 Aluminum Jig Chuck



底座材質 Material: ALUMINUM

### CG-ER32PE

鋼座治具夾頭 Steel Jig Chuck



底座材質 Material: SUS303, 50 HRC

### CG-ER32CT

鋼座治具夾頭 Steel Jig Chuck



底座材質 Material: SUS420J2, 50 HRC

### CG-ER40

治具夾頭 Jig Chuck



材質 Material: SUS420J2, 50 HRC

① 治具夾頭之筒夾及板手為選購配件  
Collet and Wrench are optional.

### CG-ER40AL

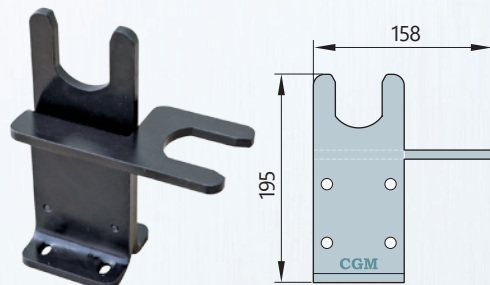
鋁座治具夾頭 Aluminum Jig Chuck



底座材質 Material: ALUMINUM

### ER-H41 夾頭鎖刀座

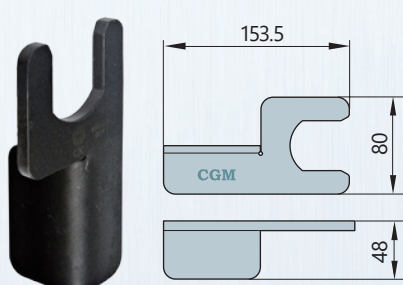
Jig Chuck Tool Holder



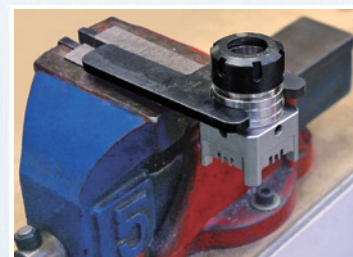
● 適用於 CG-ER32 治具夾頭使用螺絲固定。  
● Suitable for CG-ER32 and fixing by Screws.

### ER-H41S 簡易型夾頭鎖刀座

Simple Type - Jig Chuck Tool Holder



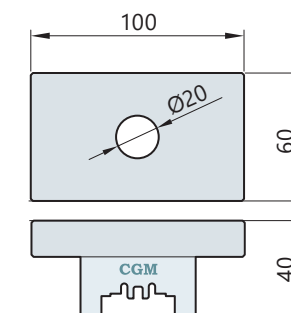
● 適用於 CG-ER32 治具夾頭使用虎鉗固定。  
● Suitable for CG-ER32 and fixing by Vise.



## 校正方規 Correction Measurement

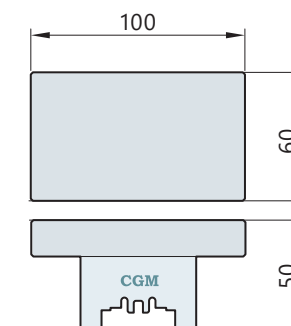


### ST-164 精密型校正方規 Precision Correction Measurement



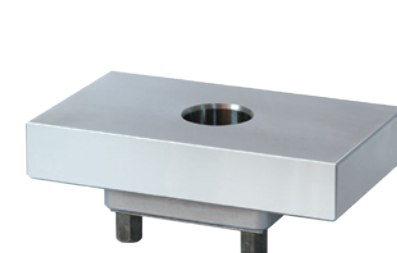
- 五軸 CNC 銑床必備量規。
- 用以校正中心 Ø20 孔校測夾具中心度。
- 用以檢查校正 X, Y 平面度。
- 一體成型材質 SUS420 HRC52 度。
- 5 axis CNC milling machine measurement
- Dia. 20 for centricity correction
- Check the flatness of X, Y axis
- All in one material SUS420, 52 HRC
- 重量 Weight: 1.05kgs

### ST-165 經濟型校正方規 Standard Correction Measurement

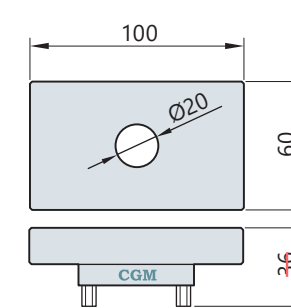


- 用以檢查校正 X, Y 平面度。
- 側邊四面研磨可尋邊中心，及校正平行度。
- 接合座材質鋁，不附拉栓。
- 檢測面材質 SUS420 HRC52 度。
- Check the flatness of X, Y axis
- 4 ground surfaces for centering and flatness correction
- Electrode holder in Aluminum, W/O drawbar
- Checking surface material in SUS420, 52 HRC
- 重量 Weight: 0.5kg

### ST-164E 精密型校正方規 Precision Correction Measurement



鋼片型 with centering plate type

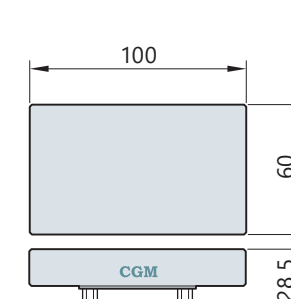


- 五軸 CNC 銑床必備量規。
- 用以校正中心 Ø20 孔校測夾具中心度。
- 用以檢查校正 X, Y 平面度。
- 不附拉栓。
- 一體成型材質 SUS420 HRC52 度。
- 5 axis CNC milling machine measurement
- Dia. 20 for centricity correction
- Check the flatness of X, Y axis
- W/O drawbar
- All in one material SUS420, 52 HRC
- 重量 Weight: 1.0kgs

### ST-165E 經濟型校正方規 Standard Correction Measurement



鋼片型 with centering plate type



- 用以檢查校正 X, Y 平面度。
- 側邊四面研磨可尋邊中心，及校正平行度。
- 不附拉栓。
- 檢測面材質 SUS420 HRC52 度。
- Check the flatness of X, Y axis
- 4 ground surfaces for centering and flatness correction
- Electrode holder in Aluminum, W/O drawbar
- Checking surface material in SUS420, 52 HRC
- 重量 Weight: 0.8kg

# CGM 拉桿 Drawbar

- 由合金鋼製成，抗拉強度 2500 kgs 以上。
- 使用西德盤型彈簧，使用壽命 10 萬次以上。
- 專利的盤型彈簧設計，具有防塵和分離電極座功能。
- 使用時，注意盤型彈簧勿偏斜。
- Made of alloy steel with tensile strength more than 2500 kgs
- Using Germany spring and life expectancy is more than 100,000 times
- Patented disc-type spring design, with dustproof and electrode block separation function.
- Do not tilt the disc-type spring during usage.



## PE-20A 放電機用拉桿 Drawbar for EDM

- 具中心出油功能及具有定位槽。
- 主要用於裝置有自動更換電極的放電機或機械。使用時注意定位槽方向，須裝入電極座才有定位功能
- With center oiling function and positioning slot.
- Make sure the direction of positioning slot and it'll work only when operates with electrode holder.



## PE-20M 車床、銑床兩用拉桿 Drawbar for Lathe & Milling Machines

- 手動拉桿。
- 具中心出油功能。在手動方式之操作下，適用於 CGM 各型夾頭。重量 Weight : 100g
- 拉桿長度較長，使用在線切割夾頭時，會突出底部。
- Manual drawbar
- With center oiling function. Under manual operation, all CGM chucks are applicable.
- Attention : When apply to wire cut EDM, the drawbar will be over length.



## PE-20W 線切割機用拉桿 Drawbar for Wire cut EDM

- 無中心出油功能。
- 線切割用拉桿。
- 拉桿長度較短，主要使用於線切割之夾頭，也適用於 CGM 各型夾頭。
- W/O center oiling function
- Drawbar for wire cut EDM
- Drawbar with shorter length and workable for all CGM chucks

NEW



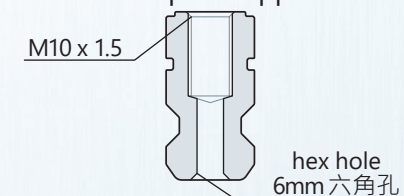
## PE-20WS 全不鏽鋼拉桿 All stainless steel Drawbar

- 無中心出油功能。
- 線切割用拉桿。
- 拉桿長度較短，主要使用於線切割之夾頭，也適用於 CGM 各型夾頭。
- W/O center oiling function
- Drawbar for wire cut EDM
- Drawbar with shorter length and workable for all CGM chucks



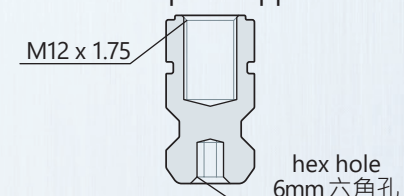
## PE20F10 治具板專用拉桿

Drawbar for pallet application



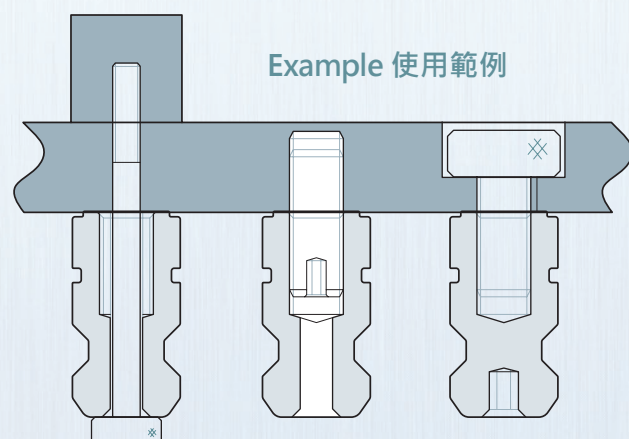
## PE20F12 治具板專用拉桿

Drawbar for pallet application



① 治具板專用(鋁製及鋼性電極座不適用)  
Not apply aluminum and steel electrode holder

Example 使用範例

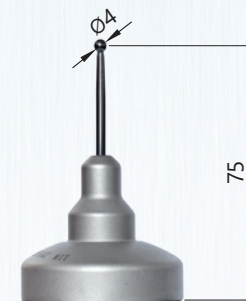


# 尋邊器 Edge Finder

- 置放於放電機槽內工件旁，輔助檢測電極尺寸與位置。
- 適用於放電機量測尺寸與座標。
- Locate next to EDM tank for assisting the dimension and coordinate measuring.
- Apply to EDM for dimension and coordinate measuring.

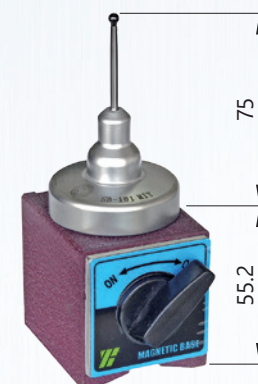
## SB-101 基準球座標

Standard Ball Coordinate



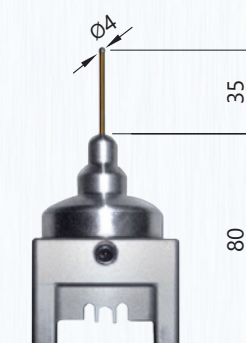
## SB-101Y 帶磁性座基準球座標

Magnetic Ball Coordinate



## SB-102 固定式尋邊器

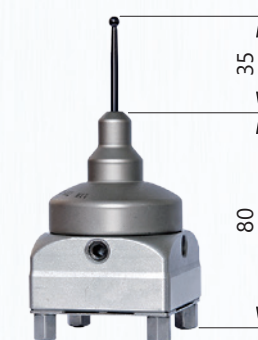
Fix Edge Finder for EDM



## SB-102E 固定式尋邊器

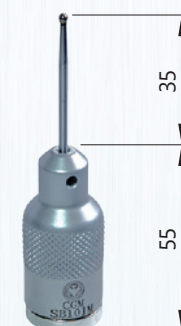
Fix Edge Finder for EDM

with centering plate type 鋼片型

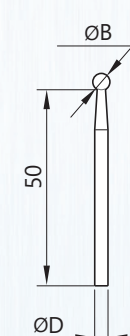


## SB-105 活動帶磁性座基準球座標

Activity standard Ball Coordinate

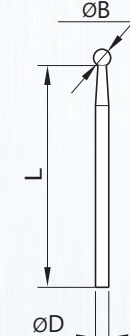


# 探針 Probe



| Type No | ØD  | ØB  |
|---------|-----|-----|
| SB50304 | 3mm | 4mm |
| SB50305 | 3mm | 5mm |
| SB50404 | 4mm | 4mm |
| SB50405 | 4mm | 5mm |
| SB50406 | 4mm | 6mm |

- 表面鍍層：高鉛鈦
- Surface coated : AlTiN
- 材質 Material : SUJ2, 60 HRC



| Type No  | ØD  | ØB  | L    |
|----------|-----|-----|------|
| WSB50401 | 4mm | 1mm | 50mm |
| WSB50402 | 4mm | 2mm | 50mm |
| WSB70303 | 3mm | 3mm | 70mm |
| WSB70304 | 3mm | 4mm | 70mm |
| WSB80404 | 4mm | 4mm | 80mm |
| WSB80405 | 4mm | 5mm | 80mm |

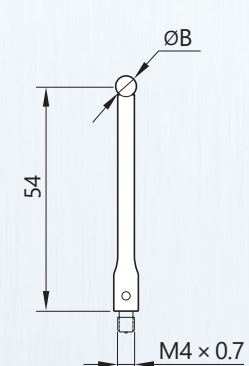
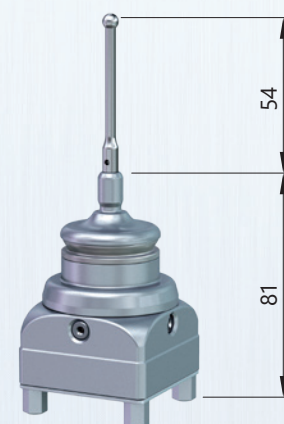
- 鎢鋼球探針
- Probe with Tungsten Carbide Ball Tip
- 柄材質 HSS
- HSS Shank

## SB-103E 磁著式尋邊器

Activity type Edge Finder

於量測中遭遇非預期撞擊時，測頭會順勢掉落保護機具，增加容錯率。

When encountering unexpected collision during measuring, the probe set will fall down automatically in order to protect the machine tool and increase the fault tolerance rate.

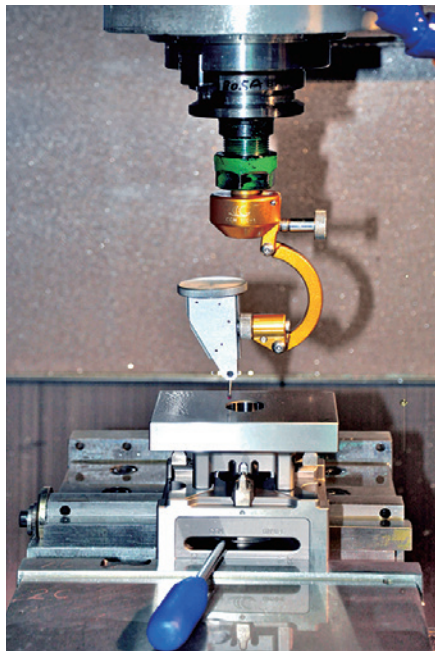


| Type No             | ØB  |
|---------------------|-----|
| <del>WSB60404</del> | 4mm |
| WSB60405            | 5mm |
| WSB60406            | 6mm |

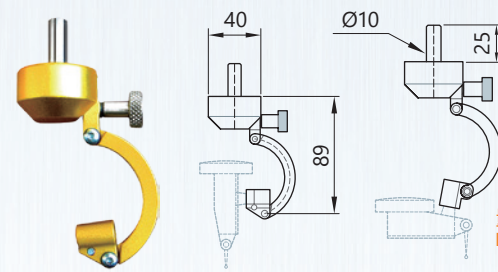
- 鎢鋼球探針
- Probe with Tungsten Carbide Ball Tip

with centering plate type 鋼片型

## 弓型尋邊器 Edge Finder



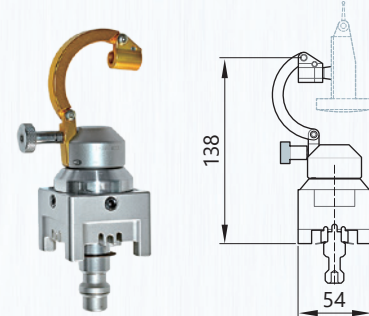
### STC-1 弓型尋邊器 Edge Finder



量表為選購配件  
Dial indicator is optional.

裝置於主軸上校正工件平行度、平面度、量測孔座標。  
Install on spindle for calibrating the flatness and parallelism of workpiece, as well as coordinating the measuring.

### STC-2 旋轉弓型尋邊器 Rotary Edge Finder

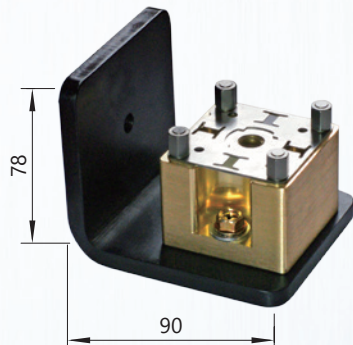


量表為選購配件  
Dial indicator is optional.

裝置於CGM各式夾頭可360度旋轉量測孔座標。  
Suitable for all CGM chucks and with 360 degree coordinate measuring.

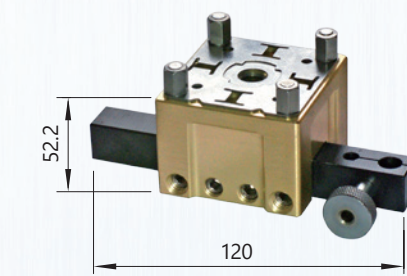
### ST-80PL 量表直角鋼片座 Fixing Plate

適用於放電機量表座磁附著



### ST-120E 放電機量表座 EDM Fixing Plate

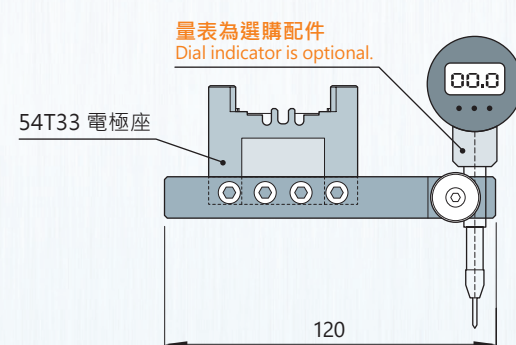
適用於放電機量測深度



鋼片型 with centering plate type

### ST-120AL 放電機量表座 EDM Fixing Plate

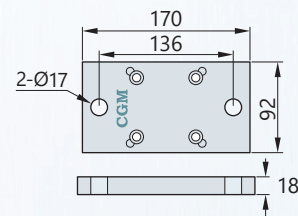
適用於放電機量測深度



量表為選購配件  
Dial indicator is optional.

54T33 電極座

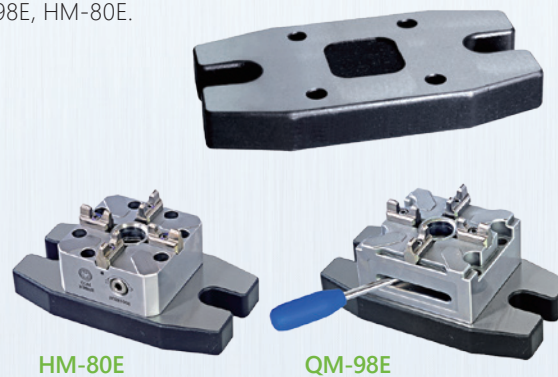
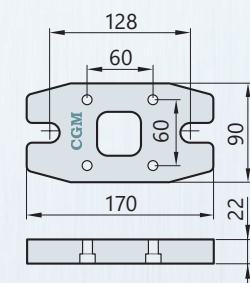
### B84 夾頭固定座 Fixing Plate



- 適用夾頭 Applicable Chucks  
HE-65E/QE-84E/QE-88E/AE-88E  
AE88EW/AE88EBW/AE88EC  
QM-98E/HM80E。
- 重量 Weight : 1.9kgs

### B98 夾頭固定座 Fixing Plate

- 適用於HM-80E、QM-98E銑床專用夾頭。
- Fixing Plate for QM-98E, HM-80E.
- 重量 Weight : 2.0kgs



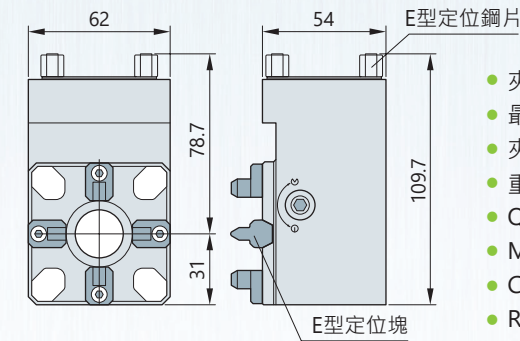
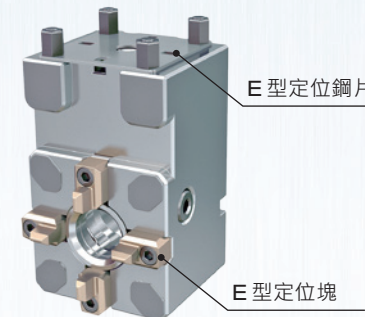
HM-80E

QM-98E

## 直角轉換夾頭系列 Vertical Conversion Chuck



### HE-80EL 直角夾頭 E 型轉 E 型 Vertical Conversion

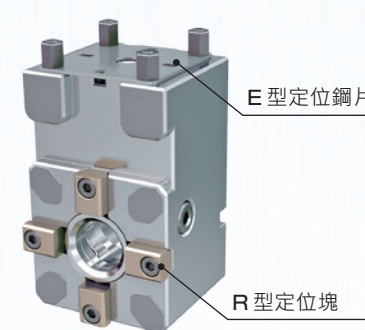


- 材質 Material : SUS420J2, 52HRC
- 重量 Weight : 1.8kgs

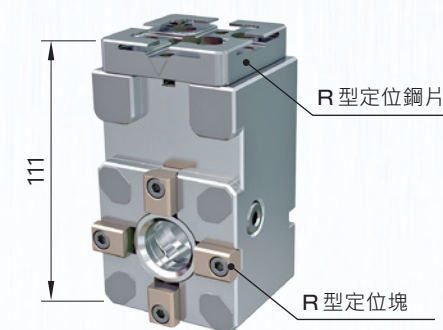
- 夾鉗式快速鎖緊機構。
- 最大容許加工電流：120A
- 夾持後電極吊重 15kg。
- 重複定位精度 2μm
- Quick Clamp Mechanism
- Maximum current : 120A
- Clamping force : 15kgs
- Repeat positioning accuracy : 2μm

無中心出水功能  
Without center oiling function.

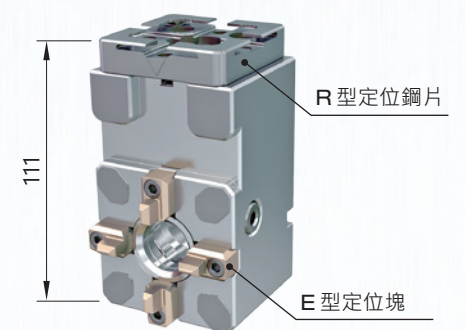
### HE-80RL 直角夾頭 E 型轉 R 型 Vertical Conversion



### HR-80RL 直角夾頭 R 型轉 R 型 Vertical Conversion

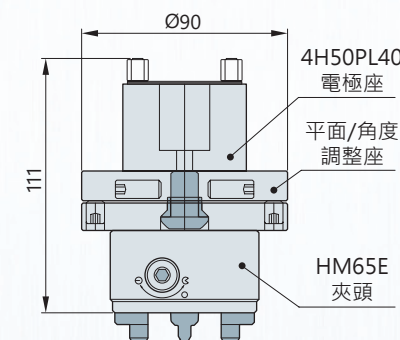


### HR-80EL 直角夾頭 R 型轉 E 型 Vertical Conversion



## 延長轉換夾頭系列 Extend Conversion Chuck

### CM-90EE 轉換延長 E 型轉 E 型 Extend Conversion



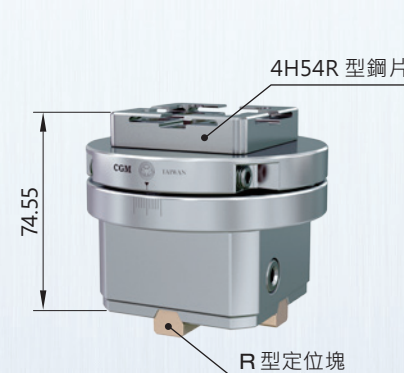
具有中心沖油功能  
With center oiling function

- 夾鉗式快速鎖緊機構。
- 最大容許加工電流：120A
- 夾持後電極吊重 15kg。
- 重複定位精度 2μm
- 只能校正電極平行度與平面度。
- 無法校正電極與機台夾頭同心度。
- Quick-Clamping Mechanism
- Max. current : 120A
- Electrode holder : 15kgs
- Repeat positioning accuracy : 2μm
- It's workable for calibrating the parallelism and flatness of electrode holder.
- Unable to calibrate the concentricity of the electrode holder and chuck with machine.

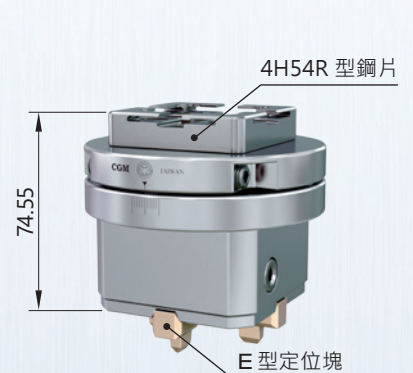
### CM-90ER 轉換延長 E 型轉 R 型 Extend Conversion



### CM-90RR 轉換延長 R 型轉 R 型 Extend Conversion



### CM-90RE 轉換延長 R 型轉 E 型 Extend Conversion

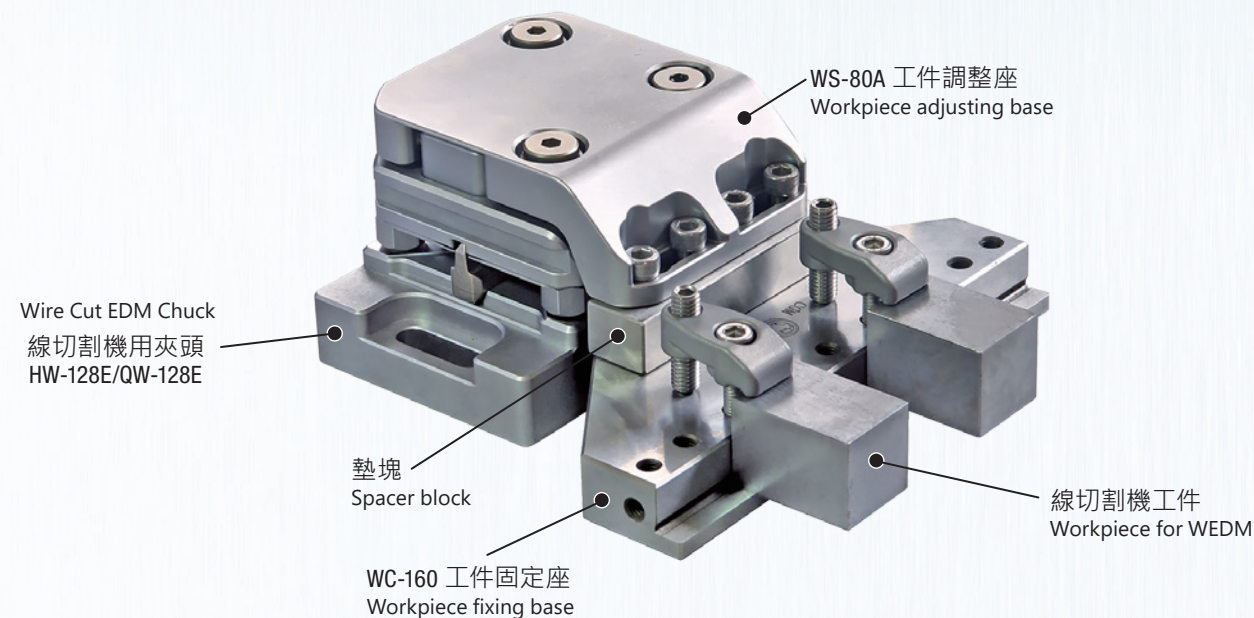


# 線切割機用配件 Accessories for Wire Cut EDM

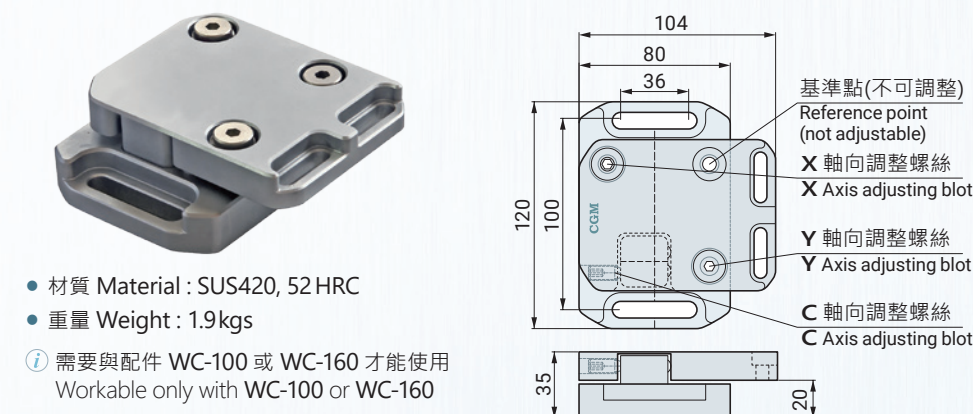
## CGM 薄型系列夾頭 CGM Thin-Series Chuck

全球唯一無須再轉換拉桿、工件座即可運用於線切割、銑床、磨床、打孔機等各式機台上，進行多工序連結自動化加工。  
Global sole thin chuck which can combine with workpiece adjusting base for applying to WEDM, Milling, Grinding and Drilling machines. It can carry out multi-process manufacturing for connecting automatic processing easier.

### 工件調整座使用例 Workpiece Adjustment Example

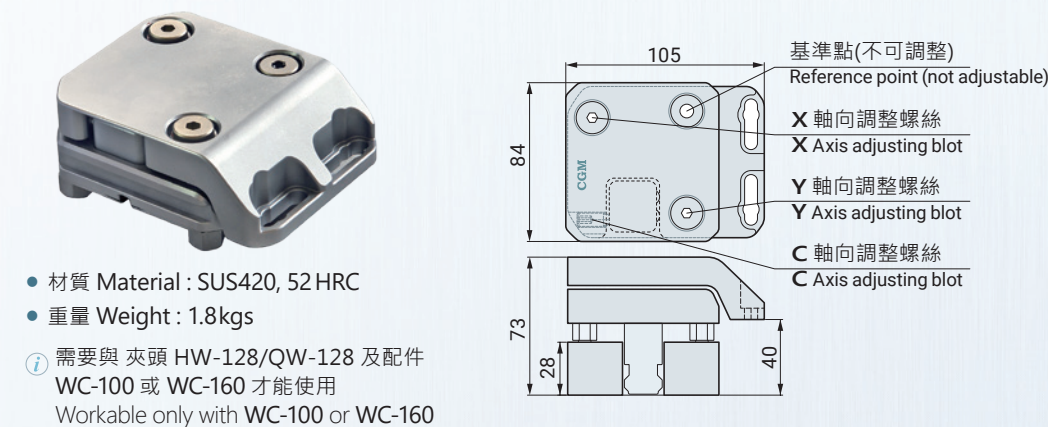


## WS-80 工件調整座 Workpiece Adjusting Plate



- 調整範圍  
X 軸俯仰  $\pm 1.5^\circ$   
Y 軸俯仰  $\pm 1.5^\circ$   
C 軸俯仰  $\pm 1.5^\circ$
- Adjusting range  
X Axis Pitch Angle  $\pm 1.5^\circ$   
Y Axis Pitch Angle  $\pm 1.5^\circ$   
C Axis Pitch Angle  $\pm 1.5^\circ$

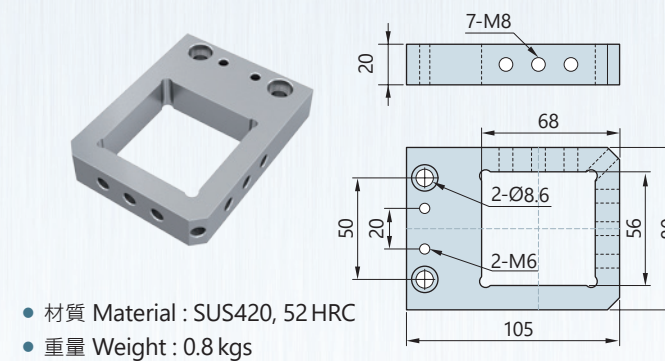
## WS-80A 機外工件調整座 Workpiece Adjusting Plate



- 調整範圍  
X 軸俯仰  $\pm 1.5^\circ$   
Y 軸俯仰  $\pm 1.5^\circ$   
C 軸俯仰  $\pm 1.5^\circ$
- Adjusting range  
X Axis Pitch Angle  $\pm 1.5^\circ$   
Y Axis Pitch Angle  $\pm 1.5^\circ$   
C Axis Pitch Angle  $\pm 1.5^\circ$

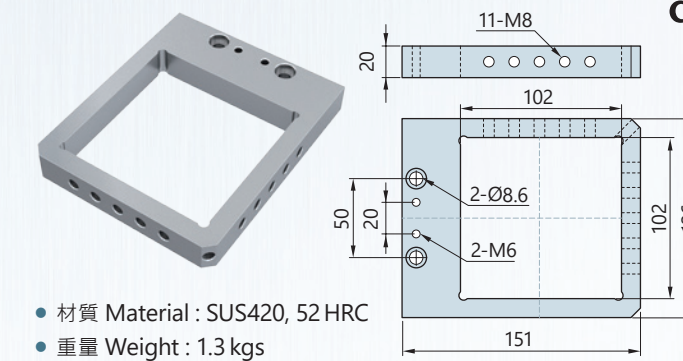
## WC-56 方孔固定座

Workpiece fixing plate



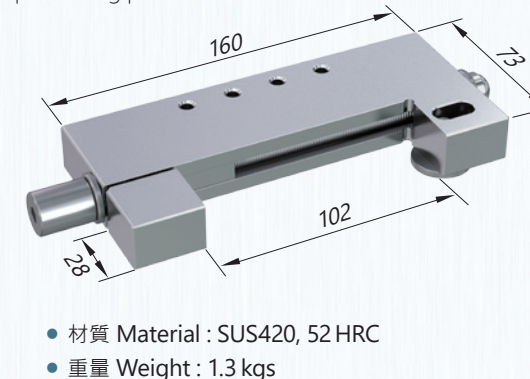
## WC-102 方孔固定座

Workpiece fixing plate



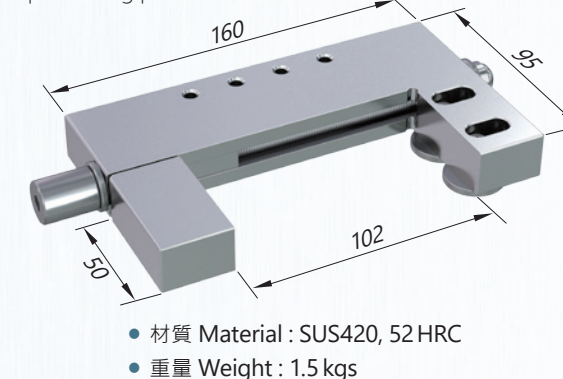
## WCH-125 夾具概圖

Workpiece fixing plate

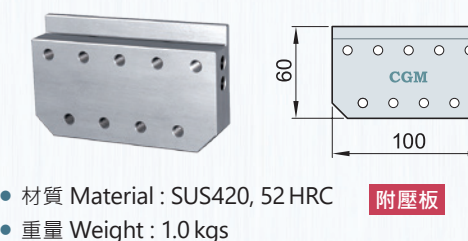


## WCH-150 夾具概圖

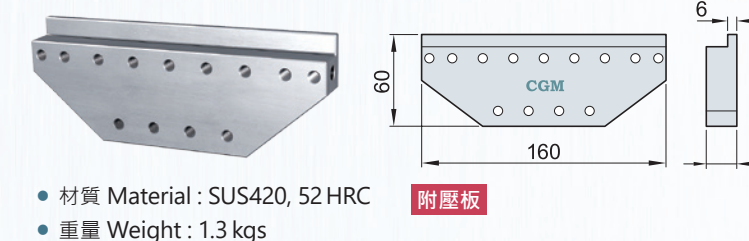
Workpiece fixing plate



## WC-100 工件固定座 Workpiece fixing plate



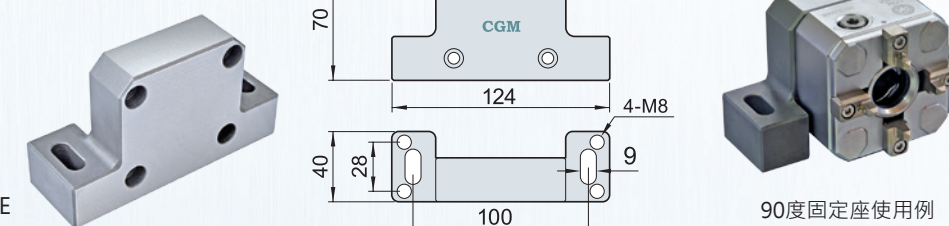
## WC-160 工件固定座 Workpiece fixing plate



## WB-124 90度固定座 90° Fixing Plate

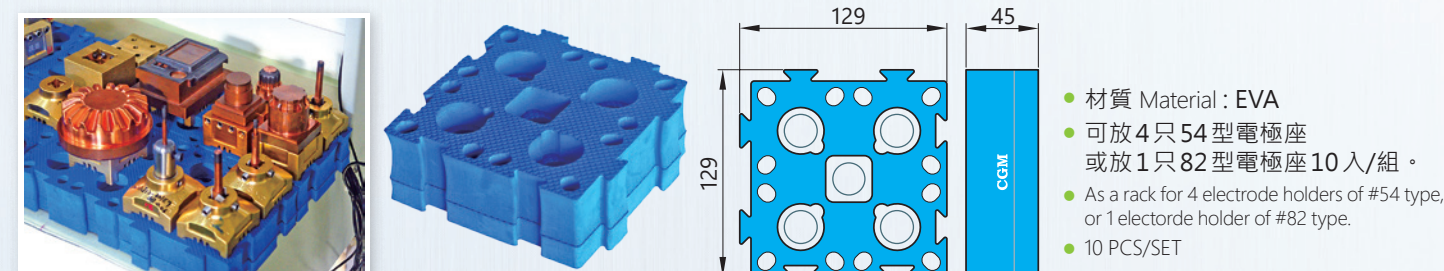
- 材質 Material : SUS420, 52 HRC
- 重量 Weight : 1.3kgs

① QM-68E/HM65E 專用配件  
Accessory only for QM-68E/HM65E



## EH-129 電極保護墊

Electrode Holder Stand



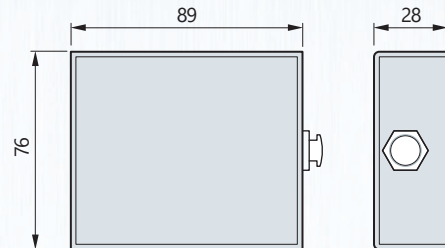
## BMSV-01PB

### 按壓式機械閥盒組 Button Switch Box

- 氣壓用五口二位機械閥。
- 配管尺寸 PT1/8
- 5/2 Way Mechanical Valve
- Port Size: 1/8"



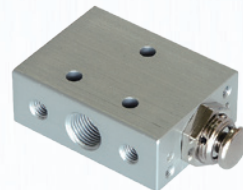
最大耐壓 Proof Pressure: 10 kgf/cm<sup>2</sup>



## BMSV-01P

### 按壓式機械閥 Button Switch

- 氣壓用五口二位機械閥。
- 配管尺寸 PT1/8
- 5/2 Way Mechanical Valve
- Port Size: 1/8"



最大耐壓 Proof Pressure: 10 kgf/cm<sup>2</sup>

## BMSV-01VB

### 開關式閥盒組 Toggle Switch Box

- 氣壓用五口二位機械閥。
- 配管尺寸 PT1/8
- 5/2 Way Mechanical Valve
- Port Size: 1/8"



最大耐壓 Proof Pressure: 10 kgf/cm<sup>2</sup>

## PH000312

### 開關式機械閥 Toggle Switch

- 氣壓用五口二位機械閥。
- 配管尺寸 PT1/8
- 5/2 Way Mechanical Valve
- Port Size: 1/8"



最大耐壓 Proof Pressure: 10 kgf/cm<sup>2</sup>

## PH001949

### 開關式機械閥 Toggle Switch

- 氣壓用五口二位機械閥。
- 配管尺寸 PT1/8
- 5/2 Way Mechanical Valve
- Port Size: 1/8"



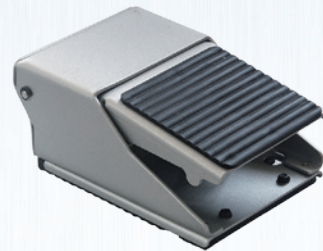
最大耐壓 Proof Pressure: 10 kgf/cm<sup>2</sup>

 PU管及快速接頭為選購配件 PU Tube & Quick Connector (Optional)

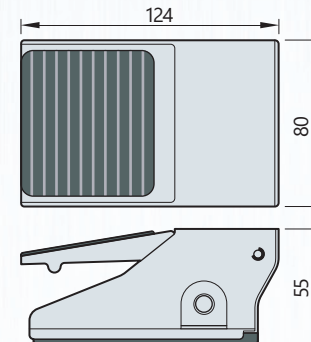
## FSV8632-02SF

### 腳踏閥 Foot Switch

- 氣壓用五口二位機械閥。
- 配管尺寸 PT1/4
- 彈簧回拉、附保護蓋
- 5/2 Way Mechanical Valve
- Port Size: 1/4"
- Spring return operation, with foot guard.



最大耐壓 Proof Pressure: 10 kgf/cm<sup>2</sup>



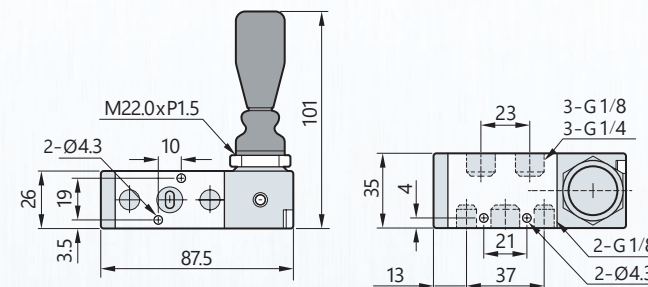
## TSV8652-01M

### 手動閥 Hand Control Valve

- 氣壓用五口二位機械閥。
- 配管尺寸 PT1/8
- 5/2 Way Mechanical Valve
- Port Size: 1/8"



最大耐壓 Proof Pressure: 10 kgf/cm<sup>2</sup>



## UFR/L-02

### 二點式三點組合 Filter Regulator + Lubricator

- 最大流量 2080 liter/min (ANR)
- 配管尺寸 PT1/4
- 最大耐壓 9.9 kgf/cm<sup>2</sup>
- 環境溫度 -10°C ~ 60°C



## 國外得獎及發明專利證書

### Awards International Competitions & Patent Certificates



## 品質管制 Quality Control

- 美國原裝 Brown & Sharpe 三次元量床(美國製作)設備。
- Imported USA Brown & Sharpe CMM Measurement Equipment.

