



# HIGH PRECISION RAPID FIXTURE



*Repetition accuracy:0.002mm  
Maximum electrode weight:100kg*





### Company Mission

The company mission is to be successful by effectively utilizing the philosophies of high quality, acquire new technology, continuity in development new products through teams' synergy.

### Company Vision

High Quality, High Efficiency, High Value

### Objective

1. Supply quality yet economical product so as to create revenue.
2. Modification based on customer's requirement. No addition costs involved.
3. Effective solution through professional technical support and effective communication.
4. Continue develop new products to cater for new market need.

## Smarter Solution

### \* Advantages of using CGM quick changing tooling systems

- Reduce set-up time from hours to minutes to seconds
- Move from EDM to Milling to grinding WITHOUT resetting the workpiece
- Run your machines 24 hours a day, 7 days a week
- Produce more parts, in less time, at lower costs
- Eliminate machine idle time
- 500% increasing productivity of your existing machines

### \* Difference between CGM quick changing tooling systems and other brands

1. CGM chuck bodies and clamping systems are all made of stainless steel material, surface with harden treatment - HRC55°. 4-pc positioning blocks made of SUS440C with hardness HRC 56° to 58°, surface layer coating with HRC 72° to 74°.

2. Patents of CGM Clamping and Fixturing Systems (with more than 20 patents on CGM quick change systems):

- \* 4-divided piece positioning blocks.
- \* Anti-reserve blocking plate system.
- \* Airtight pull-stud.
- \* Aluminum electrodes holders

3. Precision - Repetitive accuracy within 2  $\mu\text{m}$ , 90° direction change accuracy within 2 $\mu\text{m}$ .

Electrodes holders can be used more than ten-thousand times.

4. Difference between CGM chuck body and other brands

- 1) CGM chuck body is with 4-divided piece positioning blocks, and can be replaced easily with one single piece if worn out or damaged occur. Other brands' chuck body and positioning block is actually one full piece. The whole piece must be replaced if worn out or damaged, very costly.
- 2) Using CGM electrode holders do not hurt the 4 plane central supporters of the CGM blocking plates.
- 3) Round disc type design of CGM anti-reserve blocking system can be effectively locked up. Also with its anti-shaking/anti functions and 8 support points, which make it better locking strength than other brands, max. strength achieves 150 kgs.
- 4) Locking system of other brands are with ball-point type. With out anti-shaking and anti-loosing function system, work pi could fall off by high speed vibration during machining procedure.

### \* Warranty

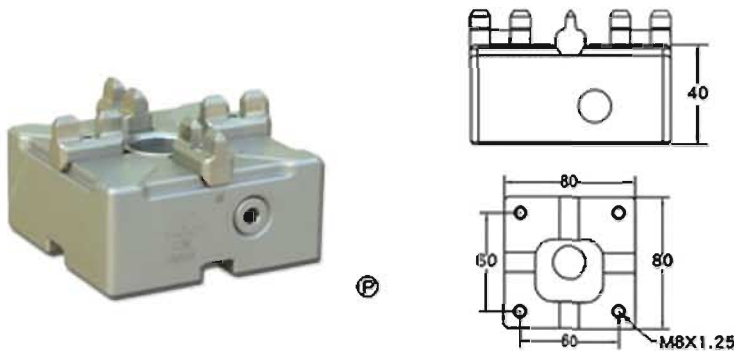
We provide a 12-months warranty for all fixturing system, parts produced by CGM, starting from the invoice date, and assuming correct use and maintenance as specified





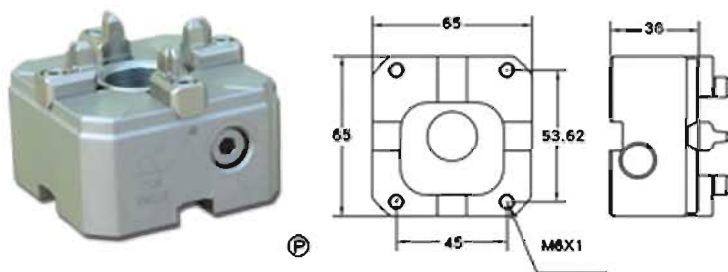
# INDEX

## HM80-E /Manual Chuck



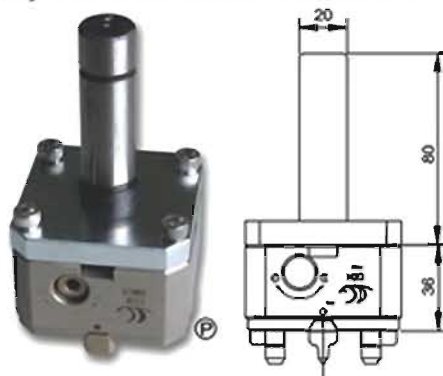
- Size:80x80x36
- Material:SUS420J2
- N.W.:1.55kg
- HRC 52° , surface treated with anti-rust treatment
- For milling, chuck to be manually twisted
- with 4 pcs of 8M screw holes in bottom
- Electrode clamping load of 1000 kg
- Repetitive accuracy within 2  $\mu$  m

## HM65-E /Manual Chuck



- For machining electrodes and workpieces.  
Two ground faces for vertical or horizontal mounting on the machine table.
- Size: 65\*65\*40
  - Material: SUS420J2
  - N.W.:0.9 kg
  - HRC 52° , surface treated with anti-rust treatment
  - Electrode clamping load of 1000 kg
  - Repetitive accuracy within 2  $\mu$  m

## SE65-E /Sample Manual Chuck



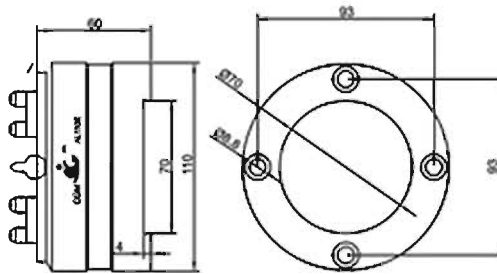
- Size:65\*65\*115
- Material:SUS420J2
- N.W.:1.2kg
- Direct clamp through the EDM spindle with  $\phi$ 20 mm simple clamp holder, For rapid temporary edming uses
- For rapid temporary edming uses
- Without central through coolant hole

## HE65-E Manual Chuck for EDM Spindle



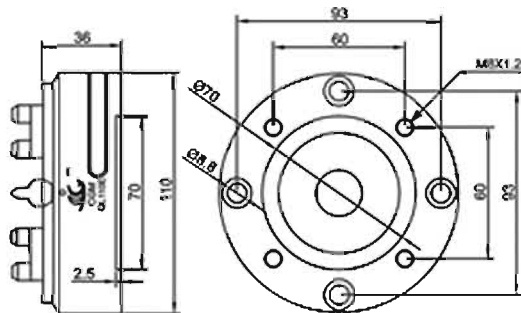
- The chuck with ground back face adapter easy for mounting on the machine spindle, and external flushing connection for internal flushing.
- Repetition accuracy: 0.002 mm
  - Maximum electrode weight: 100kg
  - Weight: 1.5kg

## AL-110E / Auto Chuck for Lathe and Milling Machines



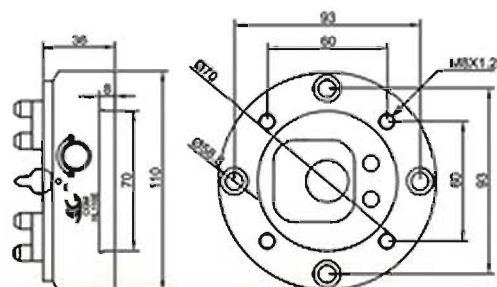
- Material: SUS420J2 HRC52°
- Repetitive accuracy within 2  $\mu$ m
- Unique double locked function with resistance to alien force and central force.
- Maximum speed: 2000rpm
- Spring locked clamping load of 80kg
- Electrode clamping load of 1500kg
- Minimal air supply compressor 6 kg/cm
- Weight: 3.55 kg

## QL-110E / Manual Quick Chuck for Lathe and Milling Machines



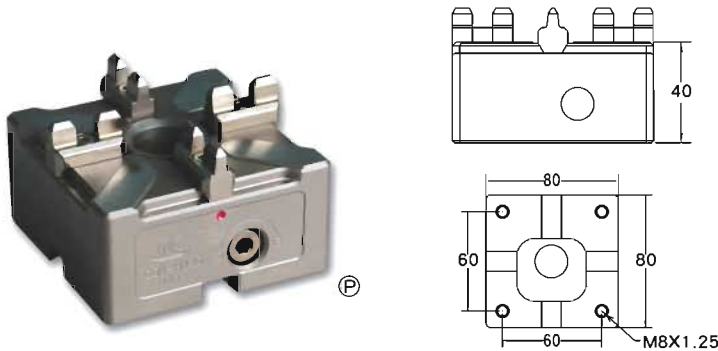
- Material: SUS420J2 HRC 52°
- Repetitive accuracy within 2  $\mu$ m
- Electrode clamping load of 1000kg
- 3-joints locker
- Maximum speed: 1800rpm
- Weight: 2.2 kg

## HL-110E / Manual Quick Chuck for Lathe and Milling Machines



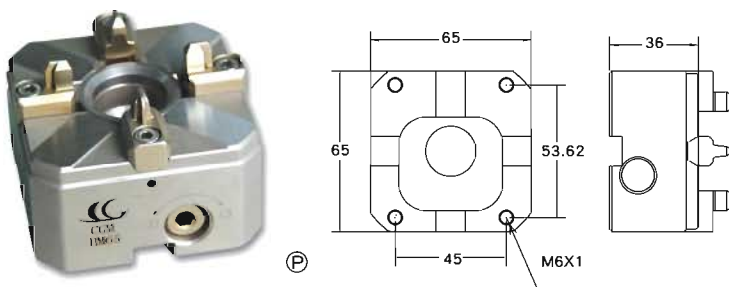
- Material: SUS420J2 HRC 52°
- Repetitive accuracy within 2  $\mu$ m
- Electrode clamping load of 1000kg
- Clamp locker
- Maximum speed: 1800rpm
- Weight: 2.1 kg

## HM80 / Manual Chuck



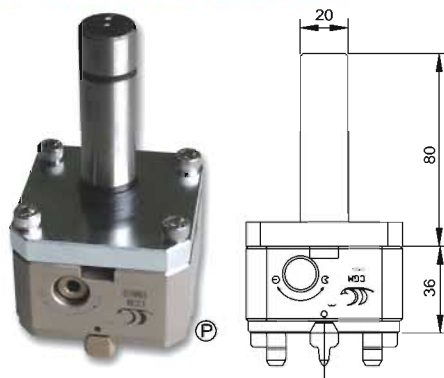
- Size: 80x80x40
- Material: SUS420J2
- N.W.: 1.75kg
- HRC 52° , surface treated with anti-rust treatment
- For milling, chuck to be manually twisted
- with 4 pcs of 8M screw holes in bottom
- Electrode clamping load of 1000 kg
- Repetitive accuracy within 2 μ m

## HM65 / Manual Chuck



- For machining electrodes and workpieces.  
Two ground faces for vertical or horizontal mounting on the machine table.
- Size: 65\*65\*40
  - Material: SUS420J2
  - N.W.: 1 kg
  - HRC 52° , surface treated with anti-rust treatment
  - Electrode clamping load of 1000 kg
  - Repetitive accuracy within 2 μ m

## SE65 / Sample Manual Chuck



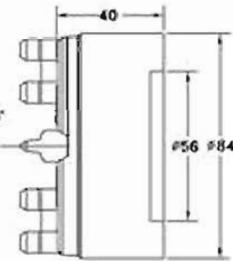
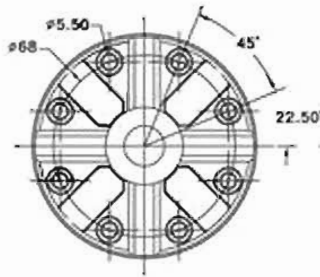
- Size: 65\*65\*115
- Material: SUS420J2
- N.W.: 1.2kg
- Direct clamp through the EDM spindle with  $\phi 20$  mm simple clamp holder, For rapid temporary edming uses
- For rapid temporary edming uses
- Without central through coolant hole

## HE65 Manual Chuck for EDM Spindle



- The chuck with ground back face adapter easy for mounting on the machine spindle, and external flushing connection for internal flushing.
- Repetition accuracy: 0.002 mm
  - Maximum electrode weight: 100kg
  - Weight: 1.5kg

## LM84 / Lathe Manual Chuck



For machining electrodes and workpieces on the lathe.

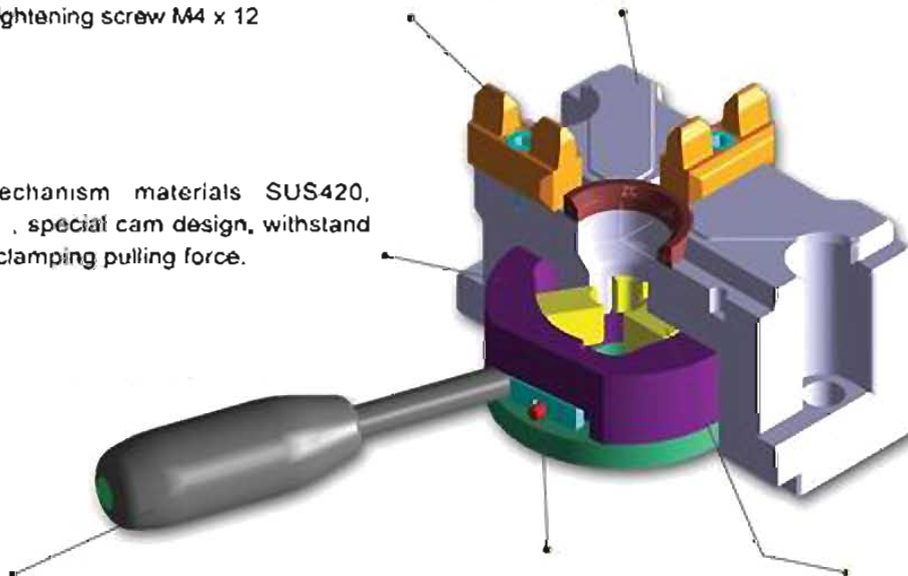
- Repetition accuracy: 0.002 mm
- Maximum spindle speed: 1800rpm
- Maximum electrode weight: 1000kg
- Weight: 1.5kg
- Taper shank not included

## QM98/QE80/QE88 Quick Chuck Diagram

H-24 Positioning blocks, SUS 440, HRC 56° -58°, special surface coated with HRC70° high hardness, resistance to wear and tear, when side impact exceed 600kg, self protection will prevent damage. Parts standardize, ease of installation. Tightening screw M4 x 12

SUS420 with HRC52°, stainless steel materials, improve heat treatment with 3 tempering, and sub-zero treatment, provide it stability, multi-functional design, 6 surface ground, securing by either vice or 4 x M8 screw.

Clamping mechanism materials SUS420, HRC48° -50°, special cam design, withstand up to 5000kg clamping pulling force.



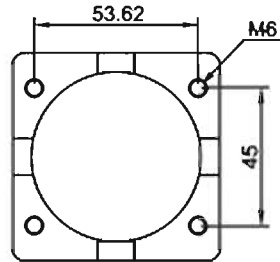
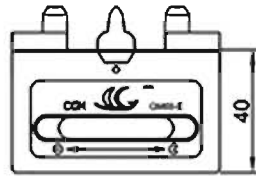
The strong point of lever design, will able when outer impact exceed 65kg, will self protect damages. Please remove the lever after tighten.

Anti-clockwise loss prevention mechanism, when lever removed, auto lock will take place, ensure the holding is secured during heavy machining.

Cam material: SUS 420 with HRC52°, large surface area locking, up to 4000kg holding force. Able withstand heavy machining.

## QM-68E

### Manual Quick Chuck for Milling Machines



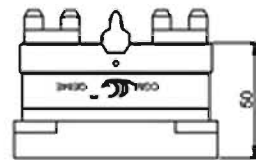
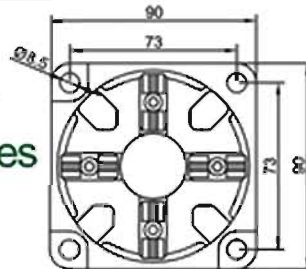
For machining large electrodes and work pieces. Quick clamp design with two ground faces for vertical or horizontal mounting on the machine table.

Four holes on the top for direct mounting.

- Repetition accuracy: 0.002mm
- Maximum electrode weight: 2000kg
- Weight: 1.2kg

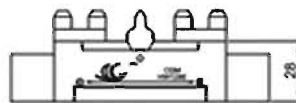
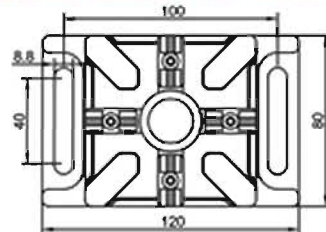
## QE-84E

### Manual Quick Chuck for EDM and milling Machines



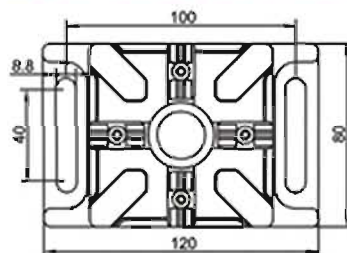
- Material: SUS420J2
- Electrode Clamping load of 1000 kg
- Repetitive accuracy within 2  $\mu$ m
- With central through coolant hole
- Also good for milling
- N.W.: 2.2 kg

## QW-128E / Manual Quick Chuck for Wire Cutting Machines and Milling Machines



- Material: SUS420J2 HRC52°
- Repetitive accuracy within 2  $\mu$ m
- Electrode clamping load of 1000 kg
- 3-joints locker
- Weight: 1.6 kg

## HW-128E / Manual Quick Chuck for Wire Cutting Machines and Milling Machines



- Material: SUS420J2 HRC52°
- Repetitive accuracy within 2  $\mu$ m
- Electrode clamping load of 1000 kg
- Clamp locker
- Weight: 1.6 kg

## Electrodes Magazine

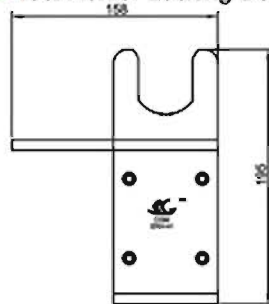


Model NO	EDM70016	EDM50012
Tool Magazine Capacity	16 Tools	12 Tools
Max. Tool Length	200mm	200mm
Max. Tool Diameter	ø100mm(All pockets full) ø130mm / □92X92mm	ø70mm(All pockets full) ø120mm / □64X64mm
Max. Tool Weight	4kg	4kg
Tool Total Weight	64kg	48kg
Tool Chain Divisional Time	0.5sec(60Hz):option	0.5sec(60Hz):option
Air System Holderbat	ø10	ø10
Control Elements	PNP-NO	PNP-NO
Dive Electric	220V/380V/440V	220V/380V/440V

### ER-H41 / Tool Holder



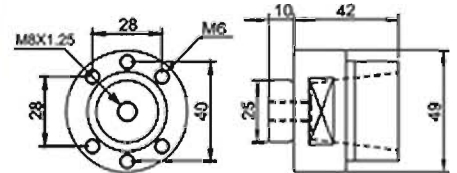
● Tool Holder Locking Device



### CG-ER32 / Jig Chuck



● Material: SUS42012, HRC 50°  
Without Tube folder and Wrench in package while purchasing



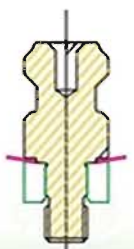
### CG-ER32AL Aluminum Jig Chuck



### CG-ER32CT Steel Jig Chuck

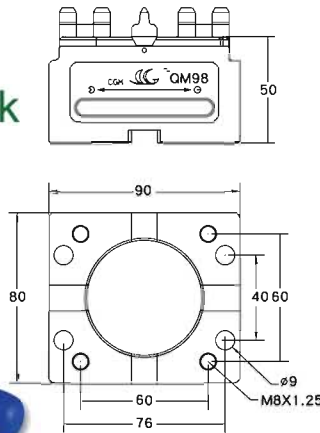
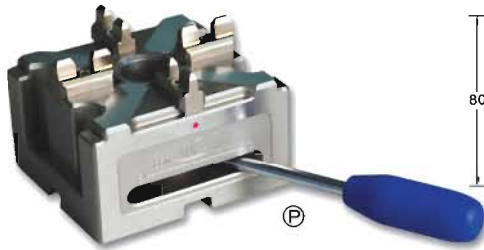


### PE-20W / Drawbar



## QM98R

### Quick Clamp Manual Chuck



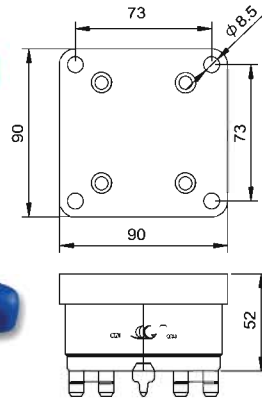
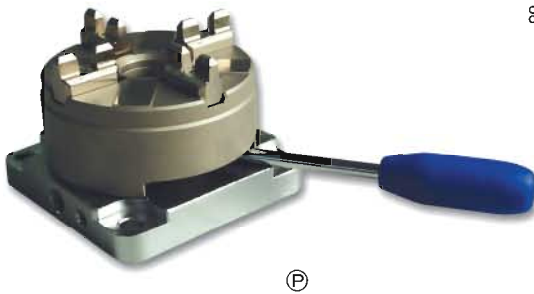
For machining large electrodes and work pieces. Quick clamp design with two ground faces for vertical or horizontal mounting on the machine table.

Four holes on the top for direct mounting.

- Repetition accuracy: 0.002 mm
- Maximum electrode weight: 2000kg
- Weight: 2.2kg

## QE80

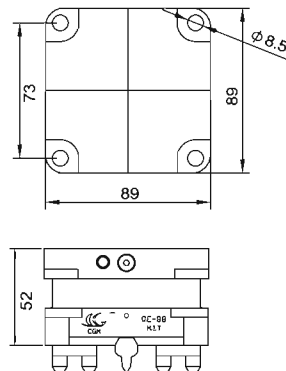
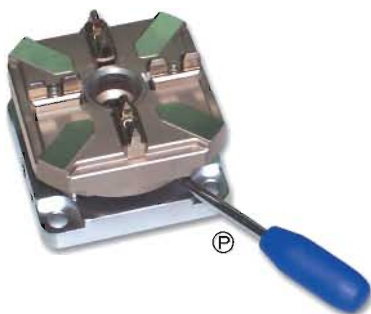
### Manual Quick Chuck for EDM



- Material: SUS420J2
- Electrode clamping load of 1000 kg
- Repetitive accuracy within 2 μm
- With central through coolant hole
- Also good for milling
- N.W.: 2.4kg

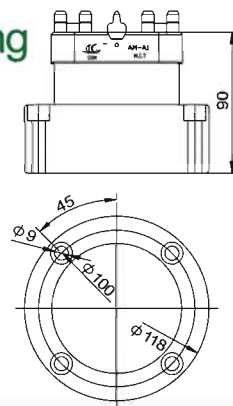
## QE88

### Manual Quick Chuck for EDM



- Material: SUS420J2
- Electrode clamping load of 1000 kg
- Repetitive accuracy within 2 μm
- With central through coolant hole
- Also good for milling
- N.W.: 2.6kg

## AMA1 / Auto Chuck for Milling

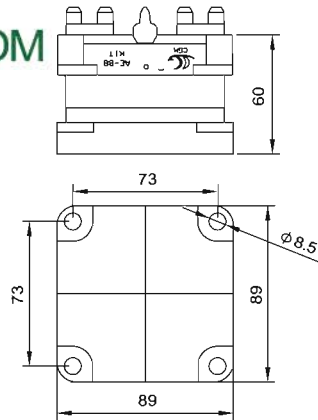


- Material: SUS420J2
- N.W.: 4.9kg
- Chuck automatically locked by air pressure (air compressed)
- for milling, mold & die, parts machining
- Repetitive accuracy within 2 μm
- Spring regular locked clamping load of 200 kg
- Compressor clamping load of 800 kg
- Air supply compressor 6 kg/cm<sup>2</sup>

## AE88 / Auto Chuck for EDM



®



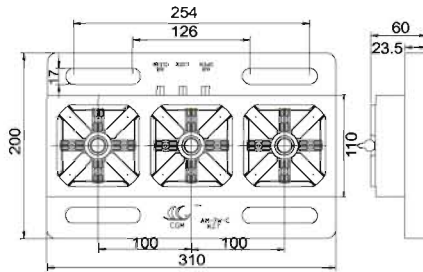
- N.W.:2.7kg
- for mold & die, parts machining
- Repetitive accuracy within 2  $\mu$  m
- Spring regular locked clamping load of 50 kg
- Compressor clamping load of 150 kg
- Air supply compressor 6 kg/cm<sup>2</sup>

## AM-3W-C / 3-Joint Auto Chuck with central through coolant hole

### AM-3W / 3-Joint Auto Chuck w/o central through coolant hole

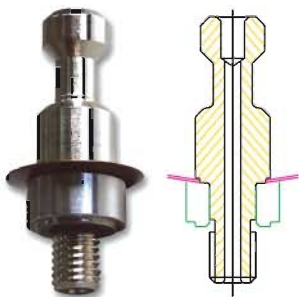


®



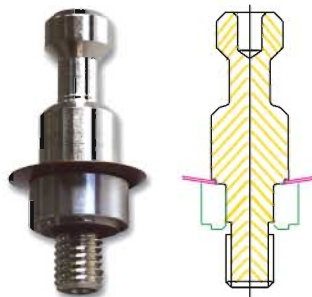
- Material: SKD-11
- N.W.:17.5kg
- Repetitive accuracy within 2  $\mu$  m
- Spring regular locked clamping load of 80 kg
- Air supply compressor 6 kg/cm<sup>2</sup>
- **AM-3W-C** • for mold & die, parts machining

## PW16 / Drawbar



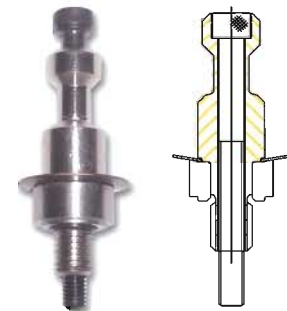
- With central flushing hole.
- Tensile strength: 4,000kg
  - Hardness: HRC52°

## PH16 / Drawbar



- Without central flushing hole.  
High tensile strength suitable for heavy machining work.
- Tensile strength: 4,500kg
  - Hardness: HRC52°

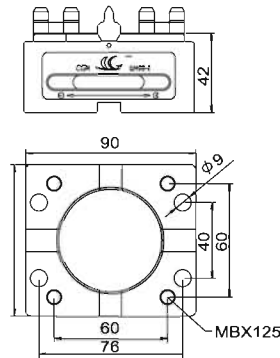
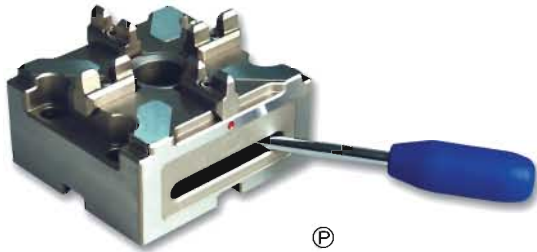
## PW-16S / Drawbar



- For S Type S54-1 using only
- NOTE:Do not apply to any products other than S Type S54-1, the drawbar could break

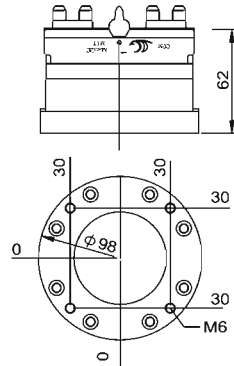
## E-TYPE / E-TYPE Chuck

### QM98E / Manual Quick Chuck



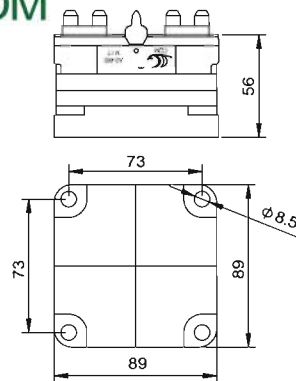
- Same advantages as QM98
- Lower design perfect for CNC engraving and milling machine
- N.W.:1.9kg

### AE-88-EC / Auto Chuck for EDM



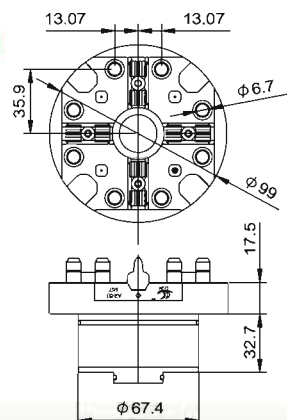
- For changing electrode automatically
- With central through coolant hole
- Repetitive accuracy within 2  $\mu$  m
- Spring pulling, clamping load of 70 kg
- Compressor clamping load of 300 kg
- Air supply compressor 6 kg/cm<sup>2</sup>
- N.W.:3.0kg

### AE-88-E / Auto Chuck for EDM



- With central through coolant hole
- Repetitive accuracy within 2  $\mu$  m
- Spring pulling, clamping load of 100 kg
- Compressor clamping load of 300 kg
- Air supply compressor 6 kg/cm<sup>2</sup>
- N.W.:3.0kg

### AR-03 / Chuck for C-Spindle



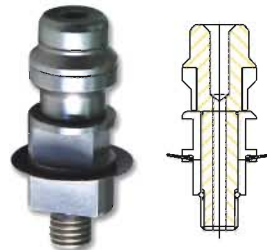
- With central through coolant hole
- Repetitive accuracy within 2  $\mu$  m
- Spring pulling, clamping load of 60 kg
- Compressor clamping load of 180 kg
- Air supply compressor 6 kg/cm<sup>2</sup>
- N.W.:1.7kg

## PE-20AS / Drawbar



- For S Type S54-1 using only
- NOTE: Do not apply to any products other than S Type S54-1

## PE20A / Drawbar



- For changing electrode automatically
- For E Type Chuck
- Pulling force resistance of 4000 kg

## PE-20M / Drawbar



- Manual drawbar
- NOTE: Leaf spring does not acclivitous while use

## ST-164 Precision Calibrating Block



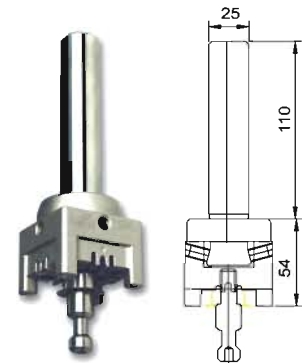
- X-Y plane centering alignment and checking of parallelism and planeness
- Size: 100x60x40

## ST-165 Standard Calibrating Block



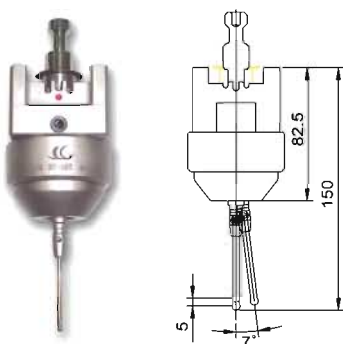
- For aligning and centring. Checking surface use SUS420J2 HRC52° material mounting on the aluminum pallet.
- Weight: 0.5kg

## ST-166 Calibrating Cylinder



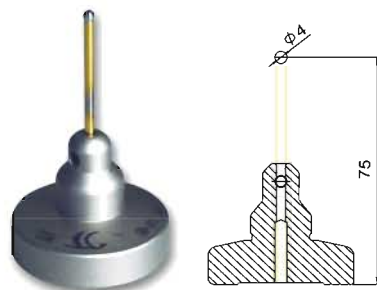
- X-Y checking of parallelism and planeness for lathe

## ST-167 Mobile Edge Finder for EDM

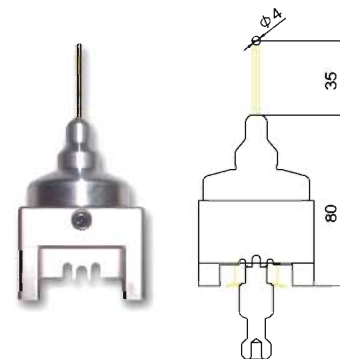


- Dimension & X-Y checking of parallelism and planeness for EDM

## SB101 Datum Ball Coordinate



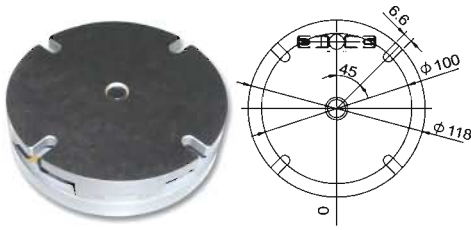
## SB102 Regular Edge Finder for EDM



- Dimension & X-Y checking of parallelism and planeness for EDM

## M106

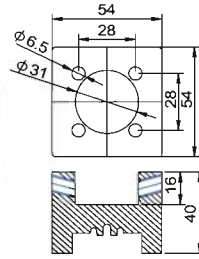
### Rotating Plate for EDM



- X-Y checking of parallelism and planeness for EDM

## CT-40

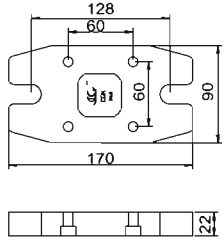
### Stainless Electrode Holder



- Material: SUS420
- N.W.: 0.6kg

## B98

### Fixing Plate for QM98 / HM98 QM98、HM80



- N. W. : 2kg

## HE75

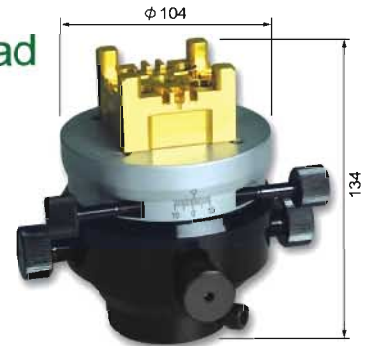
### Calibrating Head



- Calibrating electrode holder for EDM
- N.W.: 2kg

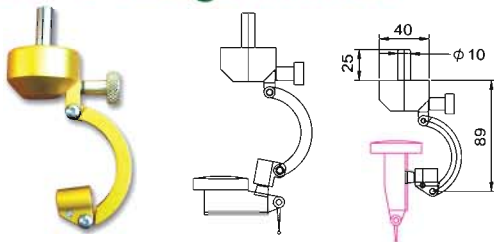
## HE100

### Calibrating Head



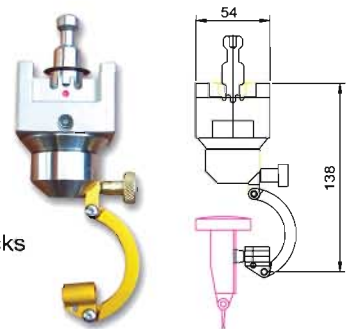
- N.W.: 5kg

## STC-1 /Edge Finder



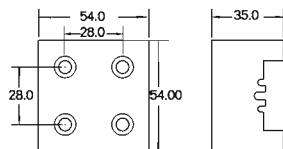
- For centering alignment and checking of parallelism and planeness on spindle
- w/o measuring log

## STC-2 /Edge Finder



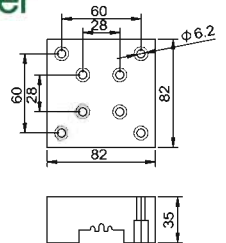
- For any types of CGM chucks
- 360 degree checking of parallelism and planeness
- w/o measuring log

## 54T35 /Electrode Holder



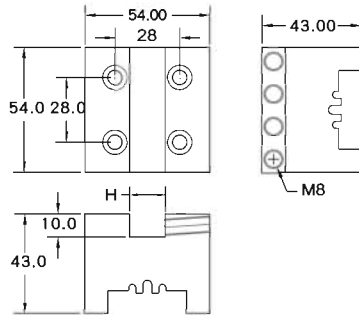
- Holder for mounting flat electrodes up to 100x100 mm.
- Weight: 198g

## 82T35 /Electrode Holder



- Holder for mounting flat electrodes up to 200x200 mm.
- Weight: 490g

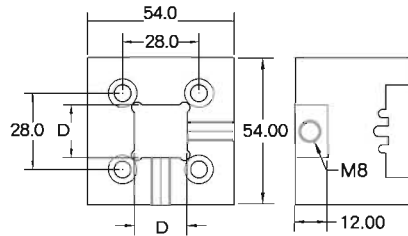
## 54H15/54H20/54H25/54H30/54H32 Electrode Holder



TYPE NO.	H	Weight
54H15	15.40	205
54H20	20.40	200
54H25	25.80	195
54H30	30.40	191
54H32	32.40	190

Holder for square and round electrodes, max. 19 mm. Ground back face can direct mounting flat electrodes up to 100 × 100 mm.

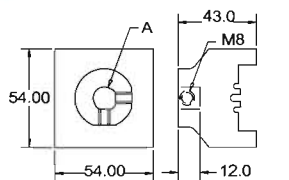
## 54D19/54D22/54D25/54D29/54D32 Electrode Holder



TYPE NO.	D	Weight
54D19	15.40	224
54D22	20.40	217
54D25	25.80	212
54D29	30.40	205
54D32	32.10	202

- Square electrode holder
- Bottom fixing- Flat type holder

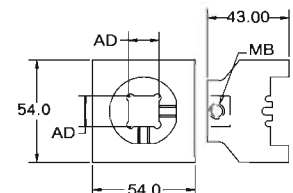
## 54A10/54A8 Electrode Holder



TYPE NO.	A	Weight
54A10	φ 10	173g
54A12	φ 8	172g

- Side fixing O-type electrode holder

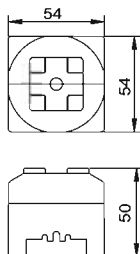
## 54AD13/54AD16 Electrode Holder



TYPE NO.	AD	Weight
54AD13	12.7	170g
54AD16	16.10	178g

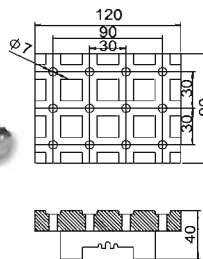
- Side fixing O-type and square type electrode holder

## S54-1 Mini Electrode-Chuck



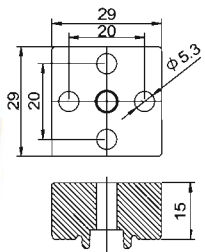
- Material: SUS420
- N.W.: 0.7 kgs
- Transferring on all types of CGM chucks

## S129-12 Mini Multi-Electrode-Chucks



- Material: SUS420
- N.W.: 2.6 kgs
- For any types of CGM chucks, can be several electrodes or optionally locate
- Fixed with big type of electrode 250x150mm
- Do not apply to HM65/QE-80 Chucks

## S29T15 Mini Electrode-Chuck



- Material: Aluminum
- Maximum electrode size 50x50

Warranty: One Year

Note: CGM parts are not compatible with other brands' chucks, improperly modification or using on CGM product, warranty not provided.

CGM tooling system product are with patents, pirating will be pursuit to the fullest extent of the law.



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