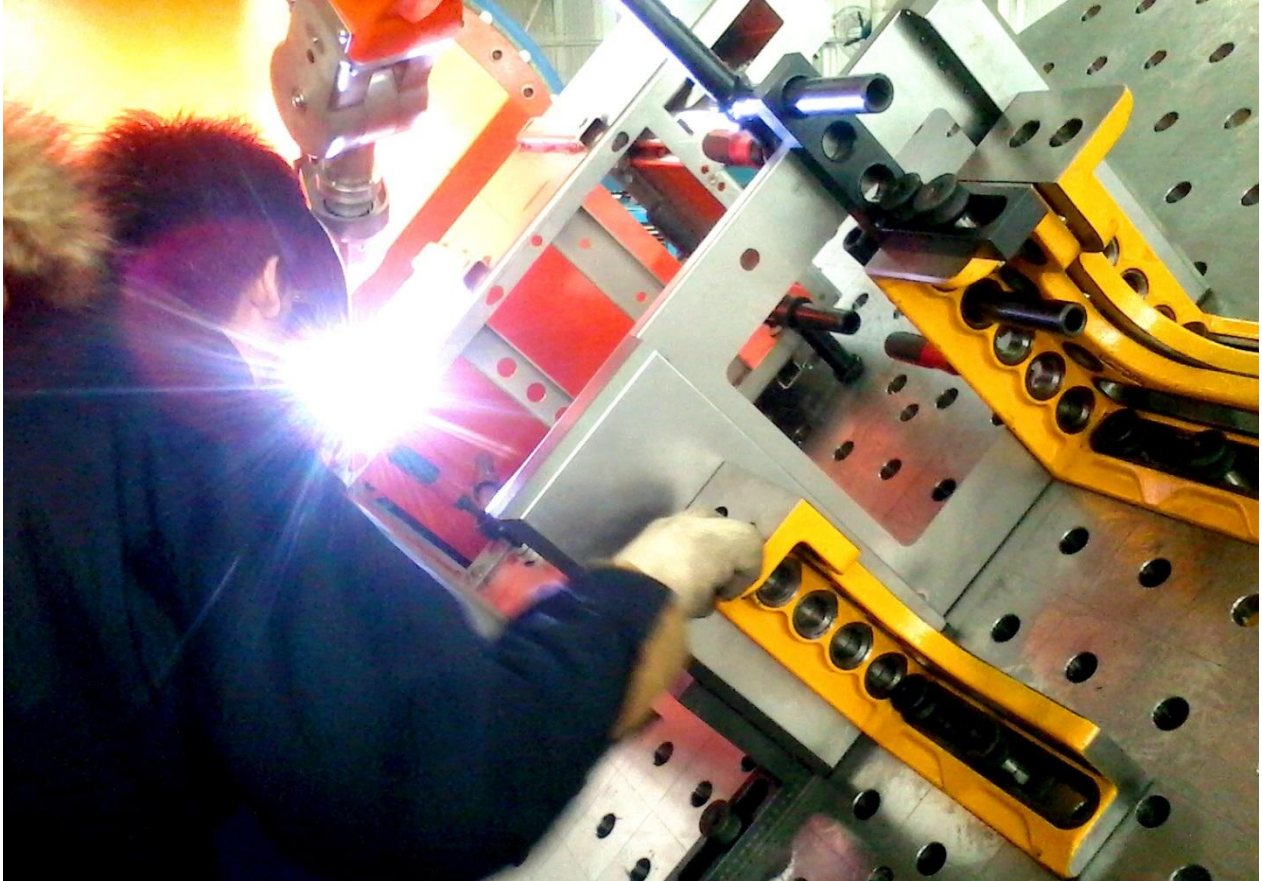


# 3D Welding Fixture



English Version 2023

**Shanghai Strong Tool Manufacturing Co., Ltd.**

# About us

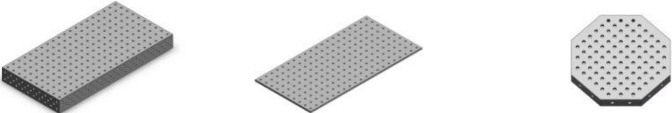
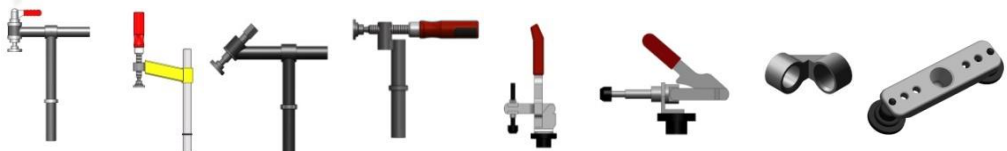
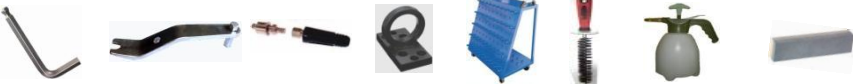
Shanghai Strong Tool Manufacturing Co., Ltd. specializes in designing, manufacturing 3D universal welding fixtures, welding ancillary products and to undertake welding product R&D and processing.

We have professionals in technology R&D of cold and thermal processing, production and management,. Our company owns advanced CNC gantry machining center and other processing equipment.

We offer our customers a good pre-sales and after-sales service. Our company has a welding fixtures demo and training center to provide users a professional and technical training. All of our staff will dedicate customer service and continue to strengthen communication and cooperation with all parties. Provide users with the most complete welding products and technical services.



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# Make your work easier

Through the modular idea, you can set up complex and precise fixtures in short time.

It is economical for both R&D and production runs.

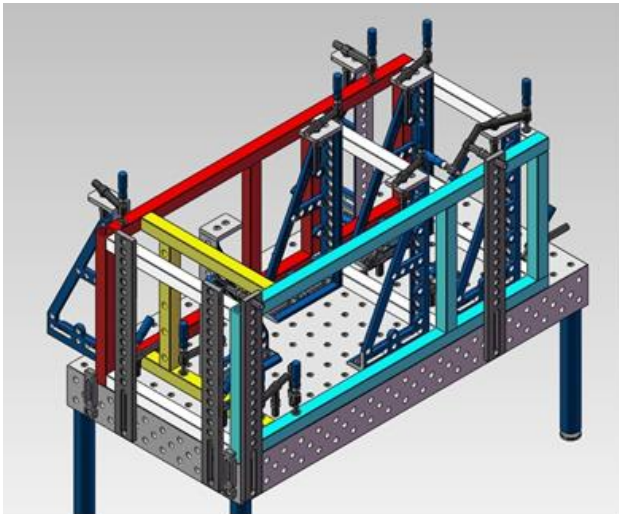
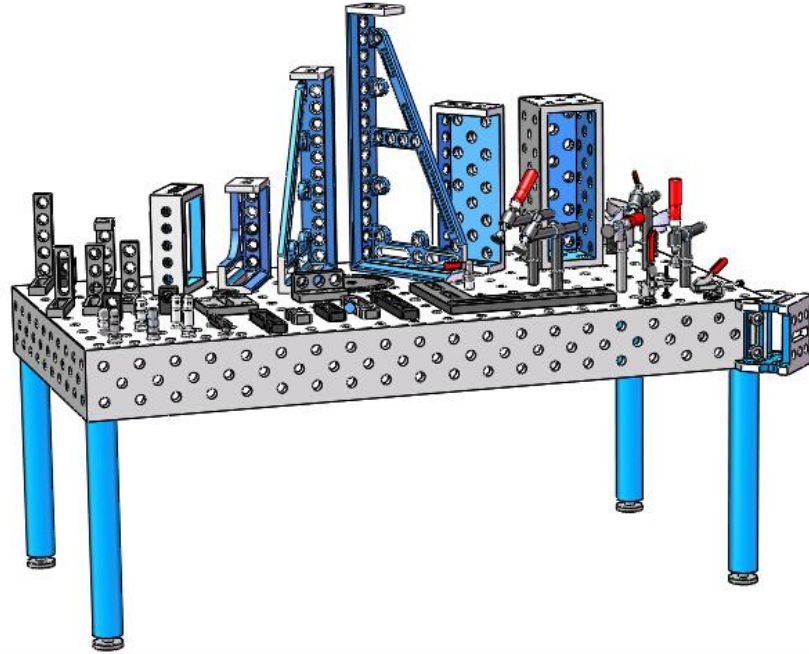
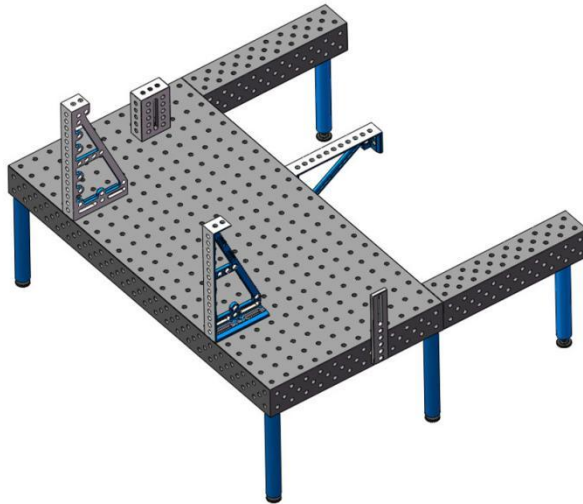
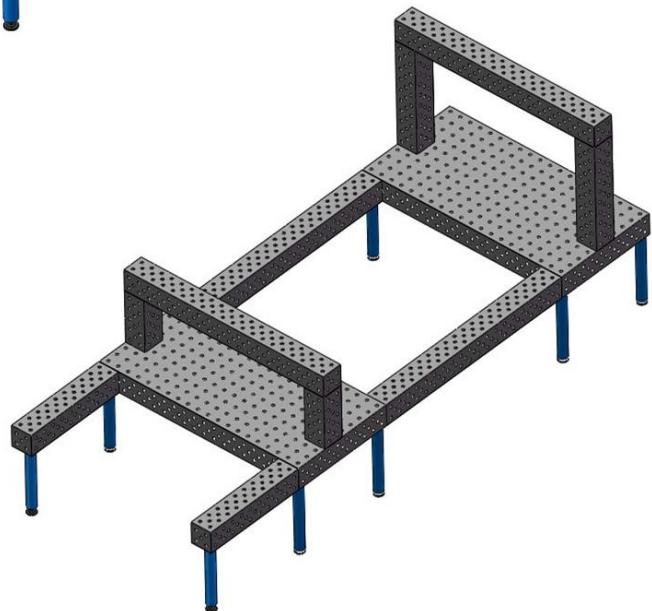


Table is a basic part of the fixture. It is a structure in the form of grid bores. According to diameter of bores, it is offered in two sizes 28 and 16 series. Table has five surfaces to be extended in five directions. There are variety of specifications. The smallest size is  $1000 \times 500\text{mm}$ , the largest for the  $4000 \times 2000\text{mm}$ .



*Table and table can be connected  
Together for large workpiece.*



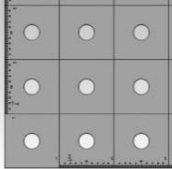
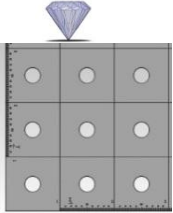
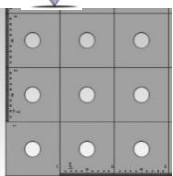
*Table can be extended by some  
modules*



**28**

**Table**

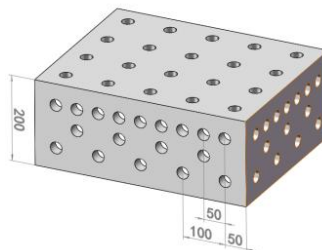
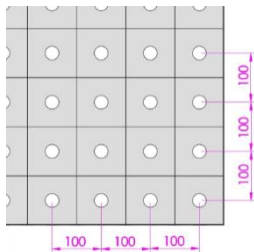
**3 Dimension Table (General Line)**

| Picture                                                                                                                 | Part No.     | Size(mm)      | Description                                                                       | N.W.<br>(kg) |
|-------------------------------------------------------------------------------------------------------------------------|--------------|---------------|-----------------------------------------------------------------------------------|--------------|
| <b>Dimension Type</b><br>              | 28-01010-100 | 1000x1000x200 | D type 3D Steel Work Table, with 4 side mm scale                                  | 310          |
|                                                                                                                         | 28-01212-100 | 1200x1200x200 |                                                                                   | 448          |
|                                                                                                                         | 28-01510-100 | 1500x1000x200 |                                                                                   | 485          |
|                                                                                                                         | 28-01515-100 | 1500x1500x200 |                                                                                   | 673          |
|                                                                                                                         | 28-02010-100 | 2000x1000x200 |                                                                                   | 592          |
|                                                                                                                         | 28-02412-100 | 2400x1200x200 |                                                                                   | 867          |
|                                                                                                                         | 28-03015-100 | 3000x1500x200 |                                                                                   | 1258         |
|                                                                                                                         | 28-04020-100 | 4000x2000x200 |                                                                                   | 2400         |
| <b>Hardened and Dimension Type</b><br> | 28-01010-120 | 1000x1000x200 | HD type 3D Steel Work Table, hardened surface, with 4 side mm scale               | 310          |
|                                                                                                                         | 28-01212-120 | 1200x1200x200 |                                                                                   | 448          |
|                                                                                                                         | 28-01510-120 | 1500x1000x200 |                                                                                   | 485          |
|                                                                                                                         | 28-01515-120 | 1500x1500x200 |                                                                                   | 673          |
|                                                                                                                         | 28-02010-120 | 2000x1000x200 |                                                                                   | 592          |
|                                                                                                                         | 28-02412-120 | 2400x1200x200 |                                                                                   | 867          |
|                                                                                                                         | 28-03015-120 | 3000x1500x200 |                                                                                   | 1258         |
|                                                                                                                         | 28-04020-120 | 4000x2000x200 |                                                                                   | 2400         |
| <b>Super-hard Type</b><br>           | 28-01010-130 | 1000x1000x200 | Super-hard type 3D Steel Work Table, hardened surface HRC60, with 4 side mm scale | 310          |
|                                                                                                                         | 28-01212-130 | 1200x1200x200 |                                                                                   | 448          |
|                                                                                                                         | 28-01510-130 | 1500x1000x200 |                                                                                   | 485          |
|                                                                                                                         | 28-01515-130 | 1500x1500x200 |                                                                                   | 673          |
|                                                                                                                         | 28-02010-130 | 2000x1000x200 |                                                                                   | 592          |
|                                                                                                                         | 28-02412-130 | 2400x1200x200 |                                                                                   | 867          |
|                                                                                                                         | 28-03015-130 | 3000x1500x200 |                                                                                   | 1258         |
|                                                                                                                         | 28-04020-130 | 4000x2000x200 |                                                                                   | 2400         |

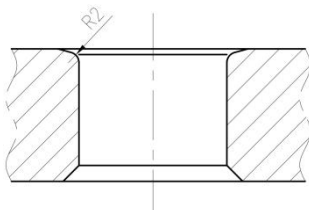
Other special specifications can be ordered.

Standard grid hole 100x100mm.

Side description



System holes  
with protective filleted corner



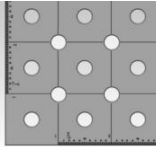
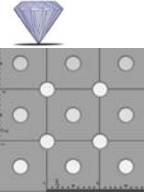
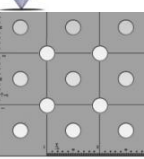
Super-hard  
Special material and process to achieve  
Comprehensive hardness HRC60



**28**

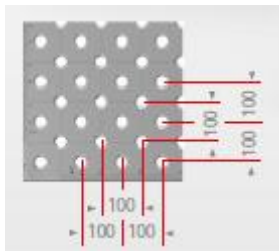
**Table**

**3 Dimension Table (Profit Line)**

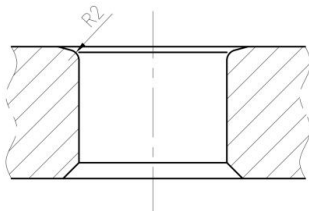
| Picture                                                                                                                 | Part No.      | Size(mm)      | Description                                                                       | N.W.<br>(kg) |
|-------------------------------------------------------------------------------------------------------------------------|---------------|---------------|-----------------------------------------------------------------------------------|--------------|
| <b>Dimension Type</b><br>              | P28-01010-100 | 1000x1000x200 | D type 3D Steel Work Table, with 4 side mm scale                                  | 295          |
|                                                                                                                         | P28-01212-100 | 1200x1200x200 |                                                                                   | 390          |
|                                                                                                                         | P28-01510-100 | 1500x1000x200 |                                                                                   | 410          |
|                                                                                                                         | P28-01515-100 | 1500x1500x200 |                                                                                   | 580          |
|                                                                                                                         | P28-02010-100 | 2000x1000x200 |                                                                                   | 560          |
|                                                                                                                         | P28-02412-100 | 2400x1200x200 |                                                                                   | 820          |
|                                                                                                                         | P28-03015-100 | 3000x1500x200 |                                                                                   | 1200         |
|                                                                                                                         | P28-04020-100 | 4000x2000x200 |                                                                                   | 2200         |
| <b>Hardened and Dimension Type</b><br> | P28-01010-120 | 1000x1000x200 | HD type 3D Steel Work Table, hardened surface, with 4 side mm scale               | 295          |
|                                                                                                                         | P28-01212-120 | 1200x1200x200 |                                                                                   | 390          |
|                                                                                                                         | P28-01510-120 | 1500x1000x200 |                                                                                   | 410          |
|                                                                                                                         | P28-01515-120 | 1500x1500x200 |                                                                                   | 580          |
|                                                                                                                         | P28-02010-120 | 2000x1000x200 |                                                                                   | 560          |
|                                                                                                                         | P28-02412-120 | 2400x1200x200 |                                                                                   | 820          |
|                                                                                                                         | P28-03015-120 | 3000x1500x200 |                                                                                   | 1200         |
|                                                                                                                         | P28-04020-120 | 4000x2000x200 |                                                                                   | 2200         |
| <b>Super-hard Type</b><br>           | P28-01010-130 | 1000x1000x200 | Super-hard type 3D Steel Work Table, hardened surface HRC60, with 4 side mm scale | 295          |
|                                                                                                                         | P28-01212-130 | 1200x1200x200 |                                                                                   | 390          |
|                                                                                                                         | P28-01510-130 | 1500x1000x200 |                                                                                   | 410          |
|                                                                                                                         | P28-01515-130 | 1500x1500x200 |                                                                                   | 580          |
|                                                                                                                         | P28-02010-130 | 2000x1000x200 |                                                                                   | 560          |
|                                                                                                                         | P28-02412-130 | 2400x1200x200 |                                                                                   | 820          |
|                                                                                                                         | P28-03015-130 | 3000x1500x200 |                                                                                   | 1200         |
|                                                                                                                         | P28-04020-130 | 4000x2000x200 |                                                                                   | 2200         |

Other special specifications can be ordered.

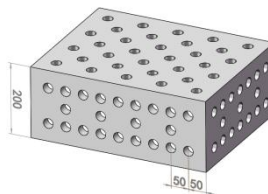
Diagonal grid hole 100x100mm.



System holes  
with protective filleted corner



Side description



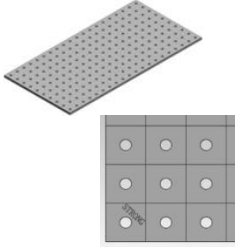
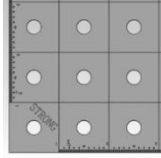
Super-hard  
Special material and process to achieve  
Comprehensive hardness HRC60



# 28

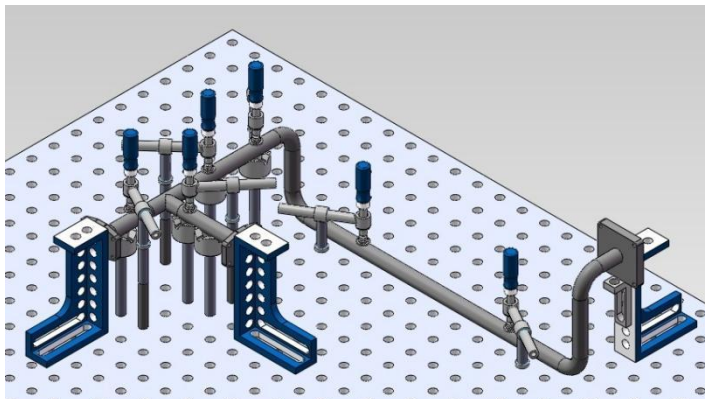
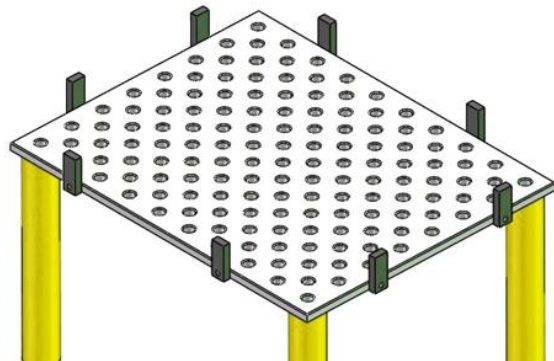
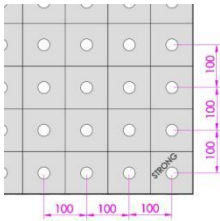
## Table

### 2 Dimension Table

| Picture                                                                                                    | Part No.     | Size(mm)     | Description                                 | N.W.<br>(kg) |
|------------------------------------------------------------------------------------------------------------|--------------|--------------|---------------------------------------------|--------------|
| <b>Basic Type</b><br>     | 28-11010-000 | 1000x1000x25 | 2D Steel Work Table<br>with locating pieces | 186          |
|                                                                                                            | 28-11212-000 | 1200x1200x25 |                                             | 276          |
|                                                                                                            | 28-11515-000 | 1500x1500x25 |                                             | 420          |
|                                                                                                            | 28-12010-000 | 2000x1000x25 |                                             | 386          |
|                                                                                                            | 28-12412-000 | 2400x1200x25 |                                             | 566          |
| <b>Dimension Type</b><br> | 28-11010-100 | 1000x1000x25 | 2D Steel Work Table<br>with locating pieces | 186          |
|                                                                                                            | 28-11212-100 | 1200x1200x25 |                                             | 276          |
|                                                                                                            | 28-11515-100 | 1500x1500x25 |                                             | 420          |
|                                                                                                            | 28-12010-100 | 2000x1000x25 |                                             | 386          |
|                                                                                                            | 28-12412-100 | 2400x1200x25 |                                             | 566          |

Other special specifications can be ordered.

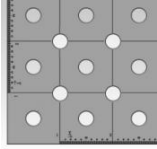
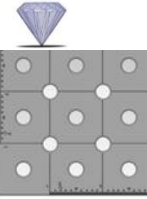
Standard grid hole 100x100mm.



22

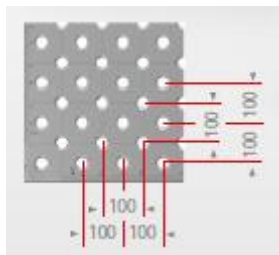
## Table

### 3 Dimension Table

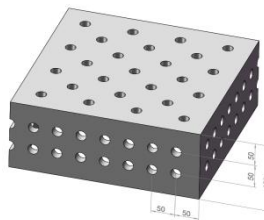
| Picture                                                                                                          | Part No.      | Size(mm)      | Description                                                         | N.W.<br>(kg) |
|------------------------------------------------------------------------------------------------------------------|---------------|---------------|---------------------------------------------------------------------|--------------|
| Dimension Type<br>              | P22-01010-100 | 1000x1000x150 | D type 3D Steel Work Table, with 4 side mm scale                    | 210          |
|                                                                                                                  | P22-02010-100 | 2000x1000x150 |                                                                     | 375          |
|                                                                                                                  | P22-02412-100 | 2400x1200x150 |                                                                     | 535          |
|                                                                                                                  | P22-03015-100 | 3000x1500x150 |                                                                     | 785          |
| Hardened and Dimension Type<br> | P22-01010-120 | 1000x1000x150 | HD type 3D Steel Work Table, hardened surface, with 4 side mm scale | 210          |
|                                                                                                                  | P22-02010-120 | 2000x1000x150 |                                                                     | 375          |
|                                                                                                                  | P22-02412-120 | 2400x1200x150 |                                                                     | 535          |
|                                                                                                                  | P22-03015-120 | 3000x1500x150 |                                                                     | 785          |

Other special specifications can be ordered.

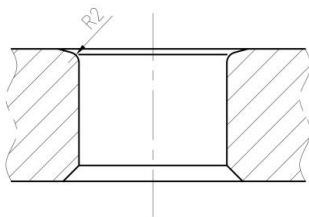
Diagonal grid hole 100x100mm.



Side description



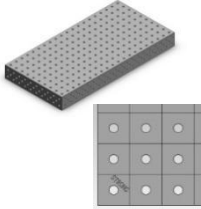
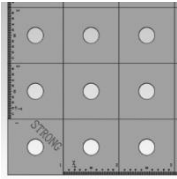
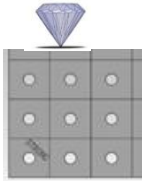
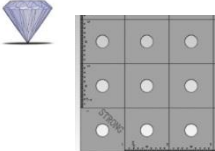
System holes  
with protective filleted corner



# 16

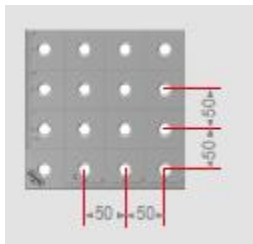
## Table

### 3 Dimension Table

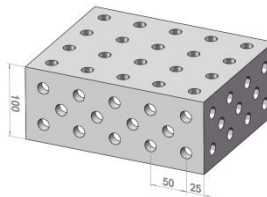
| Picture                                                                                                                   | Part No.     | Size(mm)      | Description                                                                          | N.W.<br>(kg) |
|---------------------------------------------------------------------------------------------------------------------------|--------------|---------------|--------------------------------------------------------------------------------------|--------------|
| <b>Basic Type</b><br>                    | 16-01005-000 | 1000x500x100  | B type (Basic) 3D Steel Work Table, without scale                                    | 76           |
|                                                                                                                           | 16-01010-000 | 1000x1000x100 |                                                                                      | 144          |
|                                                                                                                           | 16-01212-000 | 1200x1200x100 |                                                                                      | 174          |
|                                                                                                                           | 16-01510-000 | 1500x1000x100 |                                                                                      | 188          |
|                                                                                                                           | 16-01515-000 | 1500x1500x100 |                                                                                      | 326          |
|                                                                                                                           | 16-02010-000 | 2000x1000x100 |                                                                                      | 252          |
|                                                                                                                           | 16-02412-000 | 2400x1200x100 |                                                                                      | 354          |
| <b>Dimension Type</b><br>                | 16-01005-100 | 1000x500x100  | D Type (Dimensioning) 3D Steel Work Table with 4 side mm scale                       | 76           |
|                                                                                                                           | 16-01010-100 | 1000x1000x100 |                                                                                      | 144          |
|                                                                                                                           | 16-01212-100 | 1200x1200x100 |                                                                                      | 174          |
|                                                                                                                           | 16-01510-100 | 1500x1000x100 |                                                                                      | 188          |
|                                                                                                                           | 16-01515-100 | 1500x1500x100 |                                                                                      | 326          |
|                                                                                                                           | 16-02010-100 | 2000x1000x100 |                                                                                      | 252          |
|                                                                                                                           | 16-02412-100 | 2400x1200x100 |                                                                                      | 354          |
| <b>Hardened Type</b><br>                | 16-01005-020 | 1000x500x100  | H TYPE (HARDENING) 3D Steel hardened Work Table                                      | 76           |
|                                                                                                                           | 16-01010-020 | 1000x1000x100 |                                                                                      | 144          |
|                                                                                                                           | 16-01212-020 | 1200x1200x100 |                                                                                      | 174          |
|                                                                                                                           | 16-01510-020 | 1500x1000x100 |                                                                                      | 188          |
|                                                                                                                           | 16-01515-020 | 1500x1500x100 |                                                                                      | 326          |
|                                                                                                                           | 16-02010-020 | 2000x1000x100 |                                                                                      | 252          |
|                                                                                                                           | 16-02412-020 | 2400x1200x100 |                                                                                      | 354          |
| <b>Hardened and Dimension Type</b><br> | 16-01005-120 | 1000x500x100  | HD TYPE (HARDENING & DIMENSIONING) 3D Steel hardened Work Table with 4 side mm scale | 76           |
|                                                                                                                           | 16-01010-120 | 1000x1000x100 |                                                                                      | 144          |
|                                                                                                                           | 16-01212-120 | 1200x1200x100 |                                                                                      | 174          |
|                                                                                                                           | 16-01510-120 | 1500x1000x100 |                                                                                      | 188          |
|                                                                                                                           | 16-01515-120 | 1500x1500x100 |                                                                                      | 326          |
|                                                                                                                           | 16-02010-120 | 2000x1000x100 |                                                                                      | 252          |
|                                                                                                                           | 16-02412-120 | 2400x1200x100 |                                                                                      | 354          |

Other special specifications can be ordered.

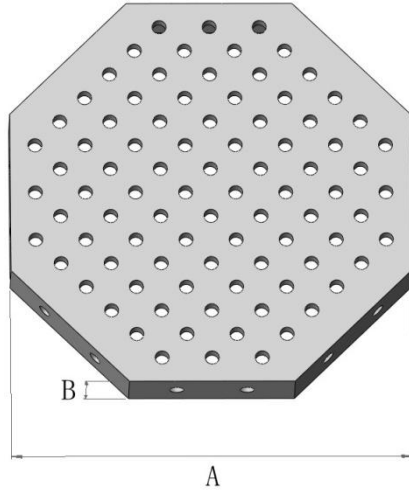
Standard grid hole 50x50mm.



Side description

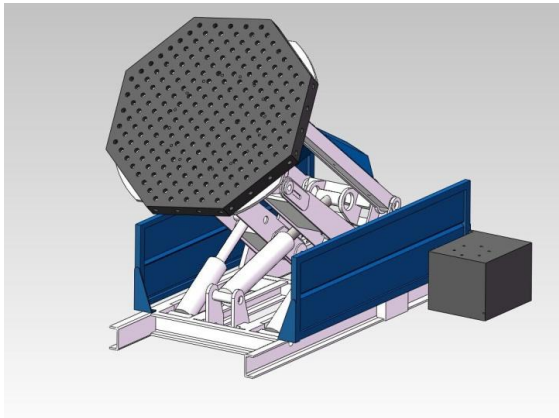


## Octagonal Platform



### Description

- Mainly used on a positioner of a robot cell.
- 9 sides for clamp, the fixturing are the same as the 3D table.
- More dimensions on request
- Connection size of the positioner is need before order.



| Description                         | A × B       | Weight | Item no.     |
|-------------------------------------|-------------|--------|--------------|
| Octagonal Platform Diagonal SW 600  | SW 600×100  | 100    | 28-10600-000 |
| Octagonal Platform Diagonal SW 800  | SW 800×100  | 160    | 28-10800-000 |
| Octagonal Platform Diagonal SW 1000 | SW 1000×100 | 240    | 28-11000-000 |
| Octagonal Platform Diagonal SW 1200 | SW 1200×100 | 360    | 28-11200-000 |
| Octagonal Platform Diagonal SW 600  | SW 600×100  | 70     | 22-10600-000 |
| Octagonal Platform Diagonal SW 800  | SW 800×100  | 110    | 22-10800-000 |
| Octagonal Platform Diagonal SW 1000 | SW 1000×100 | 160    | 22-10600-000 |
| Octagonal Platform Diagonal SW 600  | SW 600×100  | 50     | 16-10600-000 |
| Octagonal Platform Diagonal SW 800  | SW 800×100  | 80     | 16-10800-000 |
| Octagonal Platform Diagonal SW 1000 | SW 1000×100 | 120    | 16-11000-000 |
| Octagonal Platform Diagonal SW 1200 | SW 1200×100 | 180    | 16-11200-000 |

28

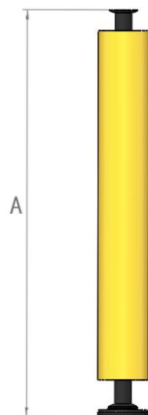
22

16

## Table Support

### Table Legs

#### Table Legs



#### Description

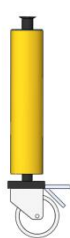
- All types of feet can be adjusted height  $\pm 30\text{mm}$ .
- Standard leg or anchored leg load is greater than 5 tons.
- Telescoping legs load is greater than 3 tons.
- Wheel leg max. load is 500 kg.
- More dimensions on request
- Optional: Blue



Standard



Telescoping



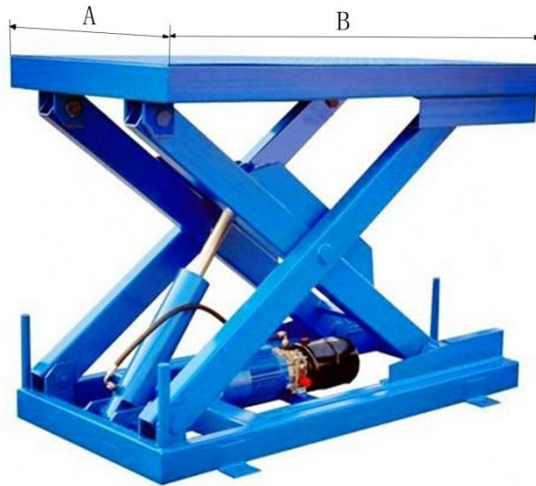
Wheel



Anchored

| Description                    | A                   | Weight | Item no.          |
|--------------------------------|---------------------|--------|-------------------|
| Standard Leg                   | $650 \pm 30$        | 8.44   | 28-20010-001      |
| Telescoping Leg                | $(550-900) \pm 30$  | 10.5   | 28-20010-002      |
| Wheel Leg with (without) Brake | $650 \pm 30$        | 11.40  | 28-20010-003(013) |
| Anchored Leg                   | $650 \pm 30$        | 10.0   | 28-20010-004      |
| Standard Leg                   | $700 \pm 30$        | 9.0    | 22-20010-001      |
| Telescoping Leg                | $(600-950) \pm 30$  | 11.0   | 22-20010-002      |
| Wheel Leg with (without) Brake | $700 \pm 30$        | 11.90  | 22-20010-003(013) |
| Anchored Leg                   | $700 \pm 30$        | 10.5   | 22-20010-004      |
| Standard Leg                   | $750 \pm 30$        | 9.44   | 16-20010-001      |
| Telescoping Leg                | $(650-1000) \pm 30$ | 11.5   | 26-20010-002      |
| Wheel Leg with (without) Brake | $750 \pm 30$        | 12.20  | 16-20010-023(033) |
| Anchored Leg                   | $750 \pm 30$        | 911.0  | 16-20010-004      |

## Hydraulic Lift



### Description

- Match with the table, lift to any comfortable working position.
- Max. load: 2, 3, 4.5 tons;  
Or according to the need of the use configuration.
- Equipped with high performance of hydraulic pump station and electric control system.

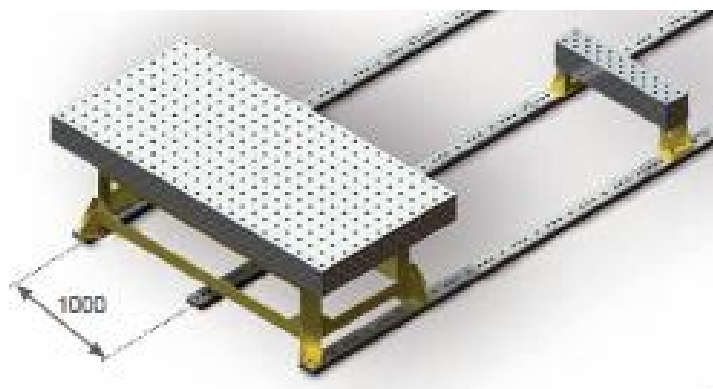
| Description                                                        | A x B     | Weight | Item no.     |
|--------------------------------------------------------------------|-----------|--------|--------------|
| Hydraulic lift load 2000 kg, height from 320 – 1220mm              | 1300x1000 | 600    | HL-00020-000 |
| Hydraulic lift load 3000 kg, height from 350 – 1550mm              | 1800x1800 | 800    | HL-00030-000 |
| Hydraulic lift load 3000 kg, height from 350 – 1550mm with Castors | 1800x1800 | 800    | HL-00030-001 |
| Hydraulic lift payload 4500 kg, height from 580 – 2080mm           | 2500x1500 | 1500   | HL-00045-000 |

**28**

## Table Support

## Frame Support

| Picture                                                                           | Part No.     | Size          | N.W.<br>(kg) | Max.load<br>(kg) |
|-----------------------------------------------------------------------------------|--------------|---------------|--------------|------------------|
|  | 28-24010-000 | 1000x1000x600 |              | 6000             |
|                                                                                   | 28-24012-000 | 1200x1200x600 |              | 6000             |
|                                                                                   | 28-24015-000 | 1500x1000x600 |              | 6000             |
|                                                                                   | 28-24015-001 | 1500x1500x600 |              | 6000             |
|                                                                                   | 28-24020-000 | 2000x1000x600 |              | 6000             |
|                                                                                   | 28-24024-000 | 2400x1200x600 |              | 6000             |
|                                                                                   | 28-24030-000 | 3000x1500x600 |              | 10000            |
|                                                                                   | 28-24040-000 | 4000x2000x600 |              | 10000            |
|  | 28-20100-000 | M27x140       |              |                  |



# 28

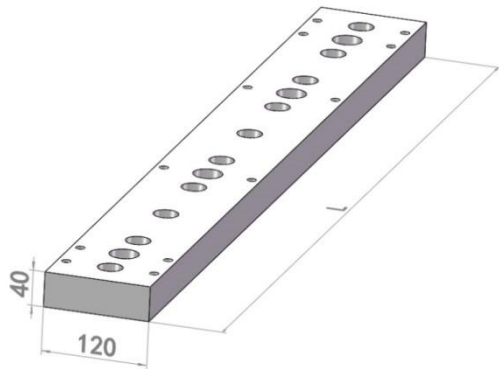
## Rail

### Basic Rail

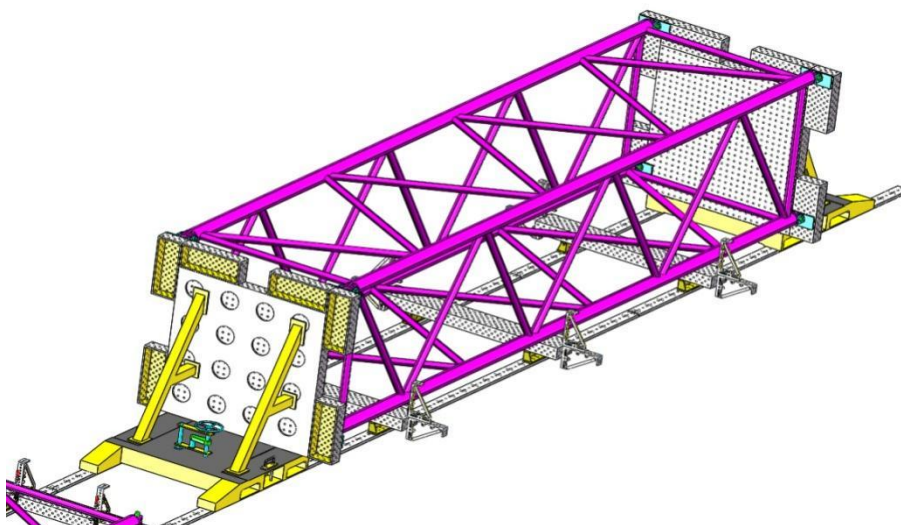
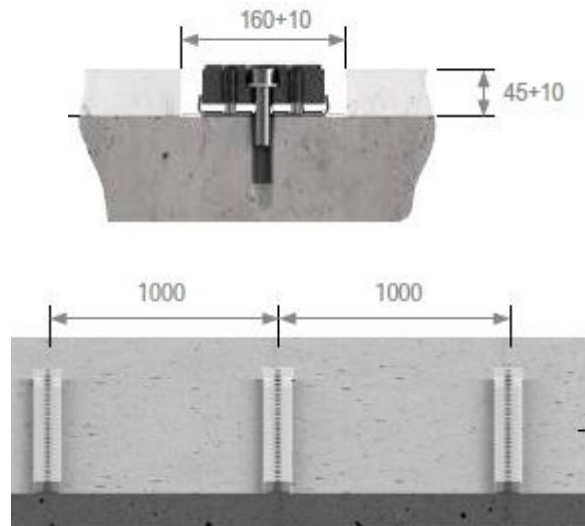
| Picture                                                                           | Part No.     | Size(mm)    | N.W.<br>(kg) |
|-----------------------------------------------------------------------------------|--------------|-------------|--------------|
|  | 28-23010-000 | 1000x120x40 | 42           |
|                                                                                   | 28-23020-000 | 2000x120x40 | 84           |
|                                                                                   | 28-23030-000 | 3000x120x40 | 126          |
|                                                                                   | 28-23040-000 | 4000x120x40 | 168          |

Heavy type and special specifications can be ordered.

### Cross section size



### Rail installation

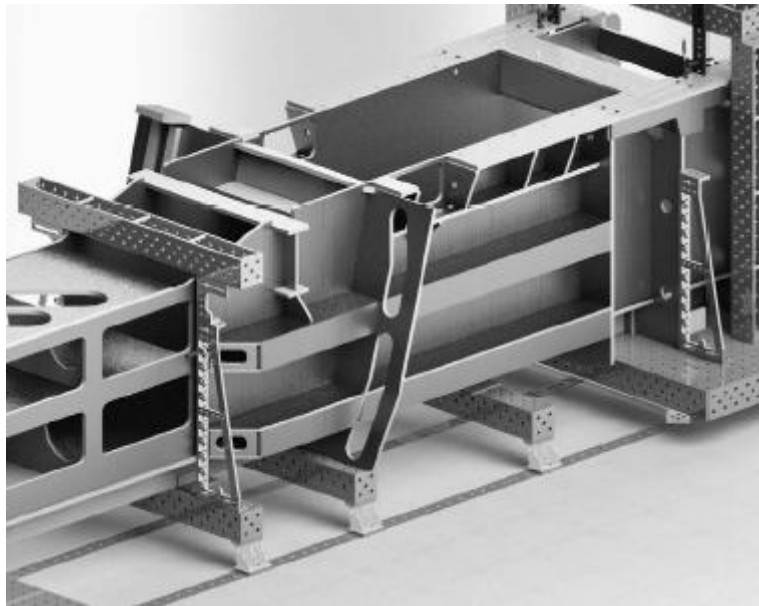
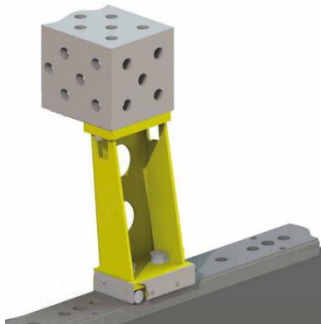


# 28

## Rail

### Spacer Foot

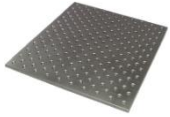
| Picture                                                                                            | Part No.     | Size(mm)<br>Width x height | Max. load<br>kg | N.W.<br>(kg) |
|----------------------------------------------------------------------------------------------------|--------------|----------------------------|-----------------|--------------|
| Spacer foot<br>   | 00-22020-000 | 200x200                    | 3500            | 14           |
|                                                                                                    | 00-22040-000 | 200x400                    | 3500            | 20           |
|                                                                                                    | 00-24020-000 | 400x200                    | 5000            | 22           |
|                                                                                                    | 00-24040-000 | 400x400                    | 5000            | 34           |
| Shifting foot<br> | 00-22020-001 | 200x200                    | 3500            | 18           |
|                                                                                                    | 00-22040-001 | 200x400                    | 3500            | 24           |
|                                                                                                    | 00-24020-001 | 400x200                    | 5000            | 34           |
|                                                                                                    | 00-24040-001 | 400x400                    | 5000            | 42           |

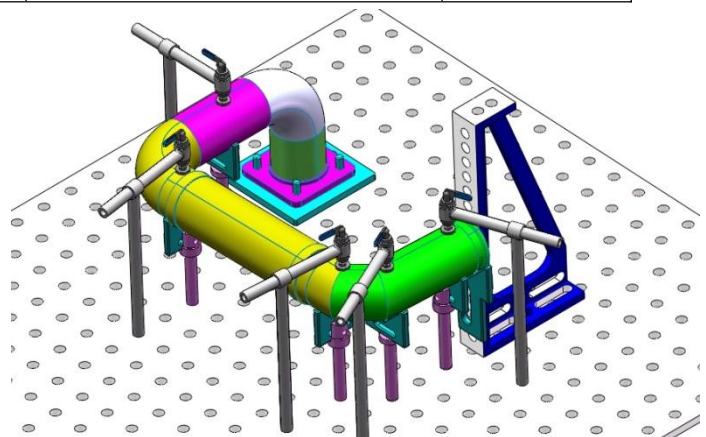
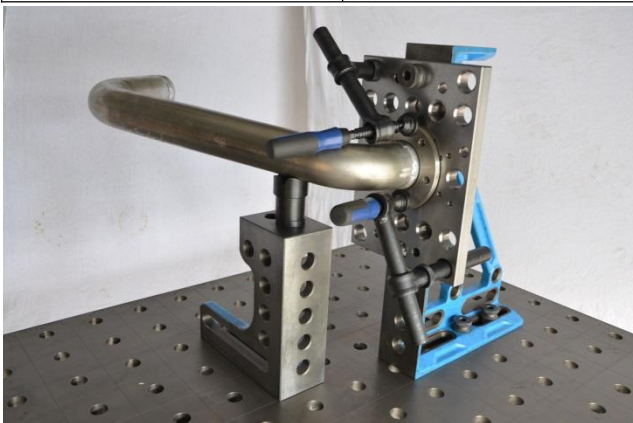


# 28

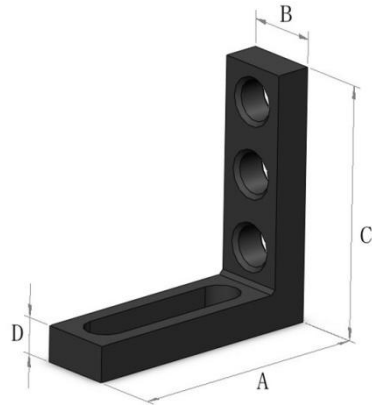
## Mounting Plate

### Clamping and adapter plate

| Picture                                                                            | Part No.     | Description                                                                                                                                                                                                                                                        | N.W.<br>(kg) |
|------------------------------------------------------------------------------------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
|   | 28-11080-000 | 1000x800x25mm<br>further dimensions on request                                                                                                                                                                                                                     | 140          |
|   | 28-13525-000 | DIN2633 DN15-DN200<br>DIN2632 DN200<br>Size: 350 x 250 x 25mm<br>locking bolt:<br>2 x Ø 13.8 mm; 2 x Ø 17.8 mm<br>2 x Ø 21.8 mm; 2 x Ø 25.8 mm                                                                                                                     | 12           |
|  | 28-15535-000 | DIN2632 DN200-DN400<br>DIN2633 DN15-DN400<br>DIN2634 DN200-DN400<br>DIN2635 DN50-DN400<br>Size: 550 x 350 x 25mm,<br>locking bolt:<br>2 x Ø 13.8 mm ;2 x Ø 17.8 mm<br>2 x Ø 21.8 mm ;2 x Ø 25,8 mm<br>2 x Ø 29.8 mm ;2 x Ø 32.8 mm<br>2 x Ø 35.8 mm ;2 x Ø 38.8 mm | 30           |



## 2 Sided Locating Angle



Scale



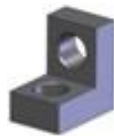
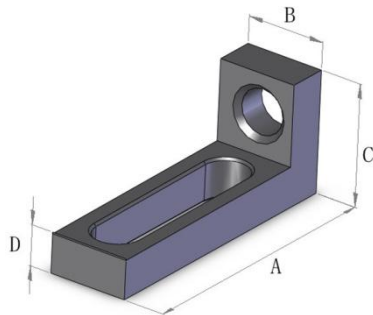
### Description

- Commonly used angle.
- 2 sided locating and clamping.
- Many located options by combining the bores and slot.
- Can be a height adjustable surface by clamping the oblong slot.
- Black oxide finish.
- Precision scales on request.
- Surface hardening treatment.



| Description                      | A×B×C×D       | Weight | Item no.     |
|----------------------------------|---------------|--------|--------------|
| 2 Sided Angle L175 Bores / Slot  | 175×50×175×25 | 2.02   | 28-30175-000 |
| 2 Sided Angle L175 Slot / Slot   | 175×50×175×25 | 1.74   | 28-30175-001 |
| 2 Sided Angle L175 Bores / Bores | 175×50×175×25 | 2.34   | 28-30175-002 |
| 2 Sided Angle L175 Bores / Slot  | 175×50×175×18 | 1.7    | 22-30175-000 |
| 2 Sided Angle L175 Slot / Slot   | 175×50×175×18 | 1.5    | 22-30175-001 |
| 2 Sided Angle L175 Bores / Bores | 175×50×175×18 | 1.8    | 22-30175-002 |
| 2 Sided Angle L90 Bores / Slot   | 90×25×90×12   | 0.24   | 16-30090-000 |
| 2 Sided Angle L90Slot / Slot     | 90×25×90×12   | 0.20   | 16-30090-001 |
| 2 Sided Angle L90 Bores / Bores  | 90×25×90×12   | 0.28   | 16-30090-002 |

## 2 Sided Locating Angle Small



### Description

- Commonly used angle.
- 2 sided locating and clamping.
- Many located ways by combining the bores and slot.
- Can be a height adjustable surface by clamping the oblong slot.
- Black oxide finish.
- Precision scales on request.
- Surface hardening treatment,



| Description                     | A×B×C×D         | Weight | Item no.     |
|---------------------------------|-----------------|--------|--------------|
| 2 Sided Angle L75 Bore / Bore   | 75×75×50×25     | 0.98   | 28-30075-000 |
| 2 Sided Angle L175 Bore / Slot  | 175×50×75×25    | 1.40   | 28-30175-003 |
| 2 Sided Angle L75 Bore / Bore   | 75×75×50×18     | 0.98   | 22-30075-000 |
| 2 Sided Angle L175 Bore / Slot  | 175×50×75×18    | 1.40   | 22-30175-003 |
| 2 Sided Angle L37.5 Bore / Bore | 37.5×37.5×25×12 | 0.12   | 16-30037-000 |
| 2 Sided Angle L90 Bore / Slot   | 90×25×37.5×12   | 0.16   | 16-30090-003 |

28

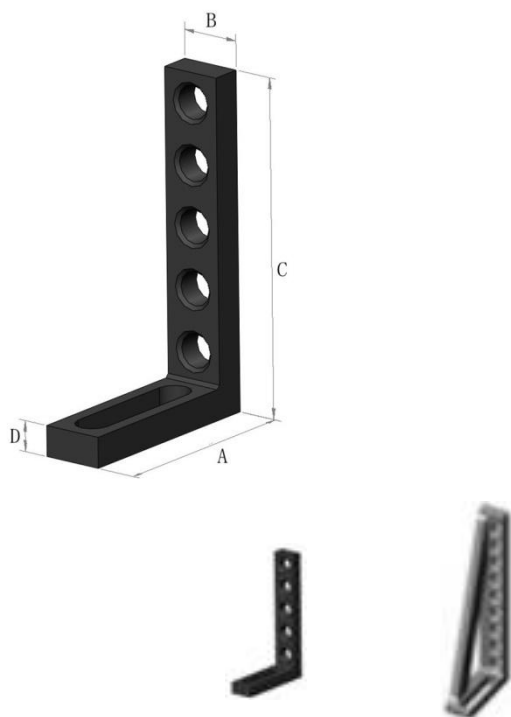
22

16

Angle

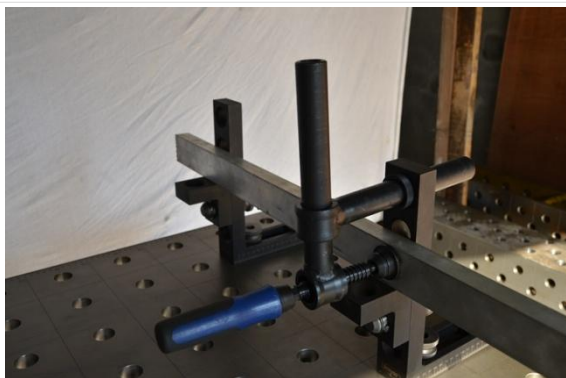
Two Work Sides

## 2 Sided Locating Angle



### Description

- Commonly used angle.
- 2 sided locating and clamping.
- Many located ways by combining the bores and slot.
- Can be a height adjustable surface by clamping the oblong slot
- Can be a table extension for light workpiece.
- For high workpiece.
- Black oxide finish.
- Precision scales on request.
- Surface hardening treatment.



| Description                     | A×B×C×D       | Weight | Item no.     |
|---------------------------------|---------------|--------|--------------|
| 2 Sided Angle L275 Bores / Slot | 175×50×275×25 | 2.74   | 28-30275-000 |
| 2 Sided Angle L500 Bores / Slot | 200×75×500×25 | 9.70   | 28-30500-004 |
| 2 Sided Angle L140 Bores / Slot | 90×25×140×12  | 0.32   | 16-30140-003 |
| 2 Sided Angle L300 Bores / Slot | 150×50×300×12 | 2.13   | 16-30300-004 |
| 2 Sided Angle L500 Bores / Slot | 150×50×500×12 | 3.00   | 16-30500-004 |

### 3 Sided Locating Angle



#### Description

- 3 sided locating and clamping.
- Many located ways by combining the bores and slot.
- Can be a height adjustable surface by clamping the oblong slot.
- Can be a table extension for light workpiece.
- For high workpiece.
- Black oxide finish.
- Precision scales on request.
- Surface hardening treatment.



| Description                        | A×B×C×D×E         | Weight | Item no.     |
|------------------------------------|-------------------|--------|--------------|
| 3 Sided Angle L200, Top one bore.  | 175×50×200×25×75  | 2.70   | 28-30200-001 |
| 3 Sided Angle L200, Top two bores. | 175×50×200×25×125 | 2.90   | 28-30200-002 |
| 3 Sided Angle L300, Top two bores. | 225×50×300×25×125 | 3.80   | 28-30300-002 |
| 3 Sided Angle L200, Top one bore.  | 225×50×200×18×125 | 2.8    | 22-30200-001 |
| 3 Sided Angle L300, Top two bores. | 175×50×300×18×125 | 3      | 22-30300-002 |
| 3 Sided Angle L150, Top one bore.  | 90×25×150×25×35   | 0.65   | 16-30150-001 |

## 4 Sided Locating Angle



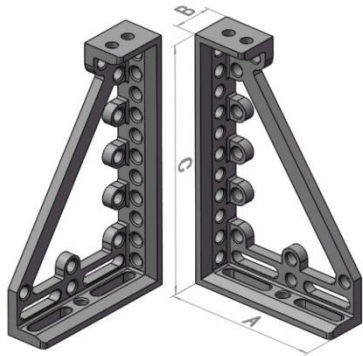
### Description

- Multiduty angle.
- 4 support surfaces for locating and clamping.
- Multiple adjustment by combining the bores and slot.
- Can be a stop and table extension for heavy workpiece.
- Precision scales on request.
- Ordering in pairs is recommended.
- Material: QT400;  
Tensile Strength: 400MPa.

| Description                        | A x B x C   | Weight | Item no.     |
|------------------------------------|-------------|--------|--------------|
| 4 Sided Locating Angle L300, Right | 275×100×300 | 11.10  | 28-30300-000 |
| 4 Sided Locating Angle L300, Left  | 275×100×300 | 11.10  | 28-30300-001 |
| 4 Sided Locating Angle L600, Right | 375×100×600 | 21.00  | 28-30600-000 |
| 4 Sided Locating Angle L600, Left  | 375×100×600 | 21.00  | 28-30600-001 |
| 4 Sided Locating Angle L800, Right | 375×100×800 | 28.00  | 28-30800-000 |
| 4 Sided Locating Angle L800, Left  | 375×100×800 | 28.00  | 28-30800-001 |

## 4 Sided Locating Angle

### Aluminum Alloy



### Description

- Material: High strength aluminum alloy.
- 60% less weight.
- 1mm precision scale.
- Multiduty angle.
- 4 support surfaces for locating and clamping.
- Multiple adjustment by combining the bores and slot.
- Ordering in pairs is recommended.
- Surface oxidation treatment.

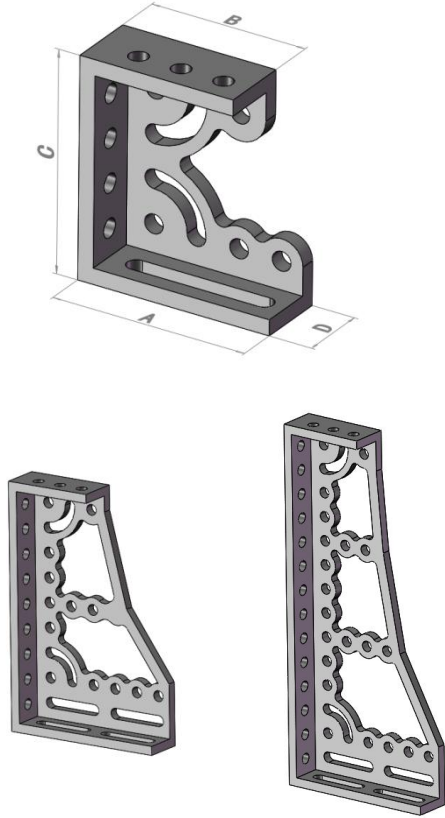
| Description                  | A x B x C    | Weight | Item no.     |
|------------------------------|--------------|--------|--------------|
| Aluminium Angle L300, Right  | 275×100×300  |        | 28-30300-002 |
| Aluminium Angle L300, Left   | 275×100×300  |        | 28-30300-003 |
| Aluminium Angle L600, Right  | 375×100×600  | 7.80   | 28-30600-002 |
| Aluminium Angle L600, Left   | 375×100×600  | 7.80   | 28-30600-003 |
| Aluminium Angle L800, Right  | 375×100×800  |        | 28-30800-002 |
| Aluminium Angle L800, Left   | 375×100×800  |        | 28-30800-003 |
| Aluminium Angle L1200, Right | 375×100×1200 |        | 28-31200-000 |
| Aluminium Angle L1200, Left  | 375×100×1200 |        | 28-31200-001 |

22

## Angle

### Four Work Sides

#### 4 Sided Locating Angle

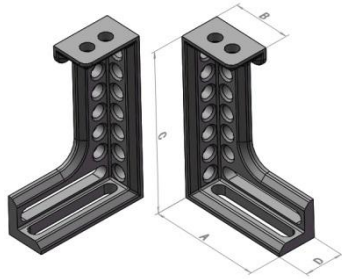


#### Description

- Material: High strength aluminum alloy. 60% less weight.
- 4 support surfaces for locating and clamping.
- Multiple adjustment by combining the bores and slot.
- Can be a stop and table extension for heavy workpiece.
- Precision scales on request.
- Ordering in pairs is recommended.

| Description                        | A x B x C       | Weight | Item no.     |
|------------------------------------|-----------------|--------|--------------|
| 4 Sided Locating Angle L250, Right | 225 × 180 × 250 | 3.5    | 22-30250-000 |
| 4 Sided Locating Angle L250, Left  | 225 × 180 × 250 | 3.5    | 22-30250-001 |
| 4 Sided Locating Angle L500, Right | 325 × 180 × 500 | 6.5    | 22-30500-000 |
| 4 Sided Locating Angle L600, Left  | 325 × 180 × 500 | 6.5    | 22-30500-001 |
| 4 Sided Locating Angle L750, Right | 325 × 180 × 750 | 8.5    | 22-30500-000 |
| 4 Sided Locating Angle L750, Left  | 325 × 180 × 750 | 8.5    | 22-30500-001 |

4 Sided Locating Angle



16-30200-000/01

16-30400-000/001



16-30600-000/001

**Description**

- Multiduty angle.
- 4 support surfaces for locating and clamping.
- Multiple adjustment by combining the bores and slot.
- Can be a stop and table extension for heavy workpiece.
- Precision scales on request.
- Ordering in pairs is recommended.

| Description                        | A x B x C        | Weight | Item no.     |
|------------------------------------|------------------|--------|--------------|
| 4 Sided Locating Angle L200, Right | 137.5 × 50 × 200 | 1.70   | 16-30200-000 |
| 4 Sided Locating Angle L200, Left  | 137.5 × 50 × 200 | 1.70   | 16-30200-001 |
| 4 Sided Locating Angle L400, Right | 187.5 × 50 × 400 | 3.58   | 16-30400-000 |
| 4 Sided Locating Angle L400, Left  | 187.5 × 50 × 400 | 3.58   | 16-30400-001 |
| 4 Sided Locating Angle L600, Right | 187.5 × 50 × 600 | 5.20   | 16-30600-000 |
| 4 Sided Locating Angle L600, Left  | 187.5 × 50 × 600 | 5.20   | 16-30600-001 |

28

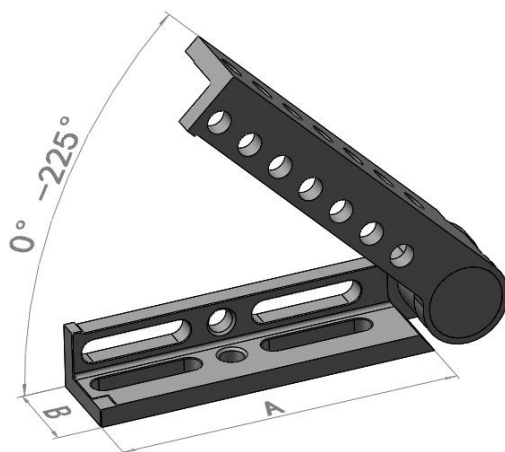
22

16

Angle

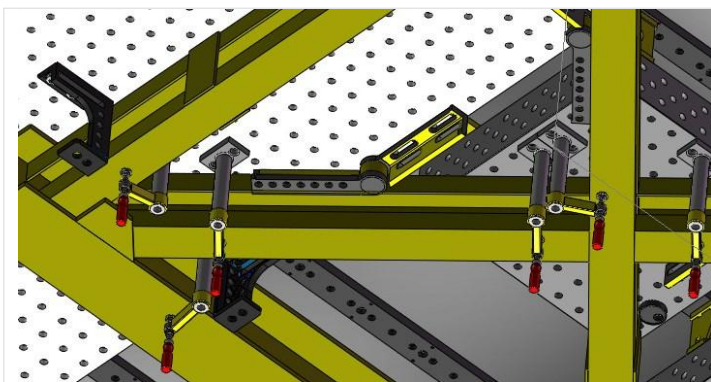
Adjustable Angle Ruler

## Adjustable Angle Ruler

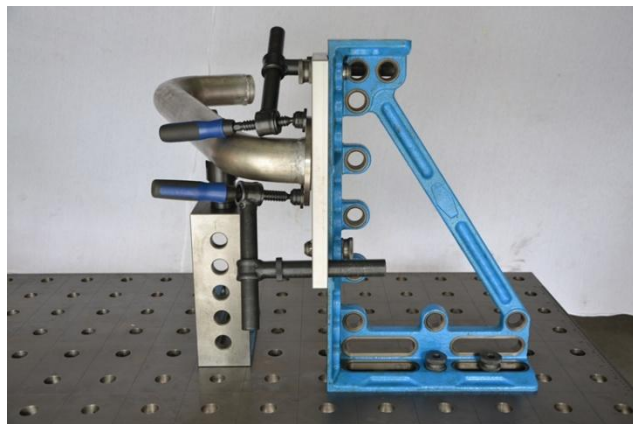
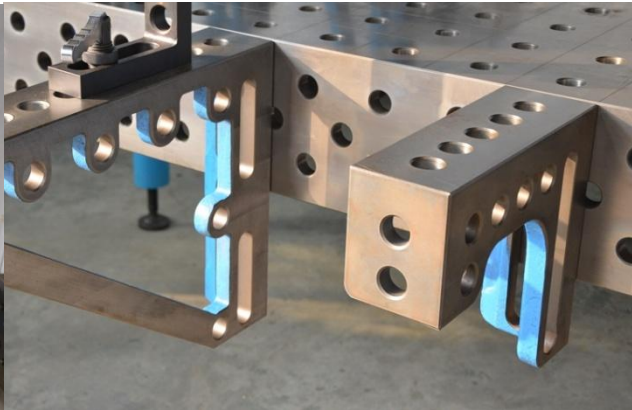
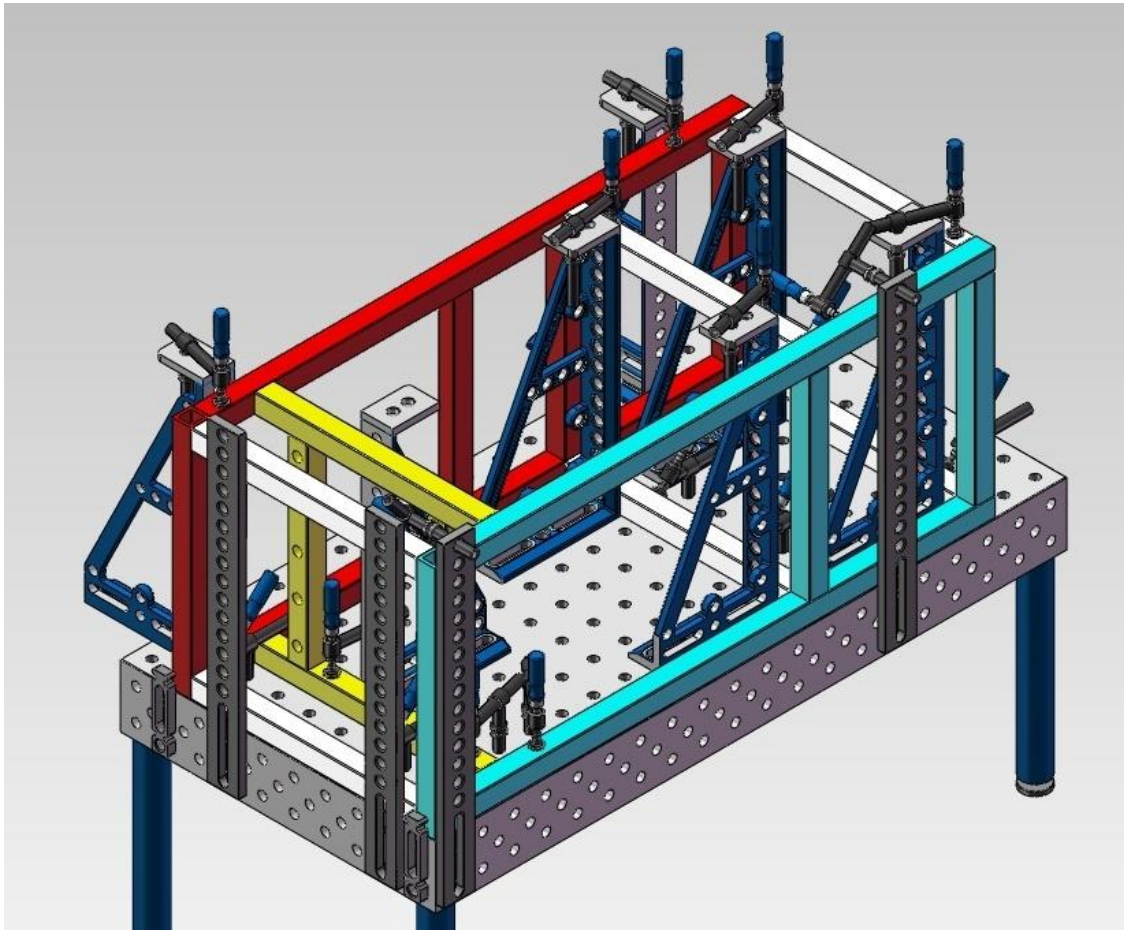


### Description

- Adjust from 0 – 225° .
- The hydraulic locking mechanism (28) and compression spring locking mechanism (16).
- Holding force to 1000Nm (28) and 150Nm (16).
- Precision scale.
- Black oxide finish or surface hardening treatment.



| Description                  | A×B×C       | Weight | Item no.     |
|------------------------------|-------------|--------|--------------|
| Adjustable Angle Ruler Right | 425×100×100 | 23     | 28-30425-001 |
| Adjustable Angle Ruler Left  | 425×100×100 | 23     | 28-30425-002 |
| Adjustable Angle Ruler Right | 425×100×100 | 22     | 22-30425-001 |
| Adjustable Angle Ruler Left  | 425×100×100 | 22     | 22-30425-002 |
| Adjustable Angle Ruler Right | 225×50×50   | 7      | 16-30225-001 |
| Adjustable Angle Ruler Left  | 225×50×50   | 7      | 16-30225-002 |



28

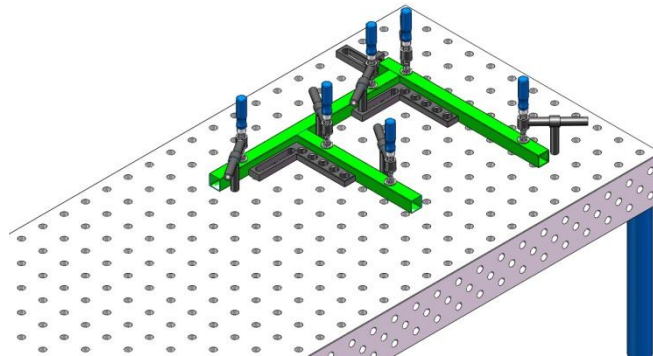
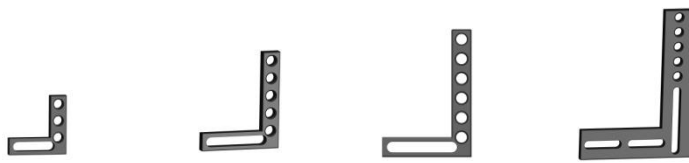
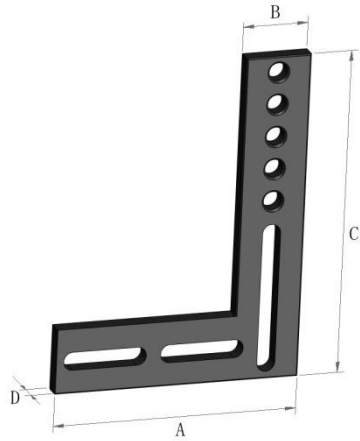
22

16

Angle

Flat Angle

## Flat Angle



### Description

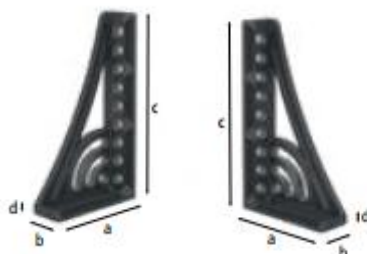
- Locating at 90° angles by interior and exterior.
- Multiple options by combining the bores and slots.

| Description    | A×B×C          | Weight | Item no.     |
|----------------|----------------|--------|--------------|
| Flat Angle 175 | 175×50×175×25  | 1.85   | 28-35175-000 |
| Flat Angle 275 | 225×50×275×25  | 3.00   | 28-35275-000 |
| Flat Angle 325 | 225×50×325×25  | 3.50   | 28-35325-000 |
| Flat Angle 500 | 375×100×500×25 | 11.84  | 28-35500-000 |
| Flat Angle 500 | 375×100×500×18 | 11     | 22-35500-000 |
| Flat Angle 250 | 187.5×250×12   | 1.46   | 16-35250-000 |

## Siegmund Type



S28-30300-024/025



S28-30500-026/027

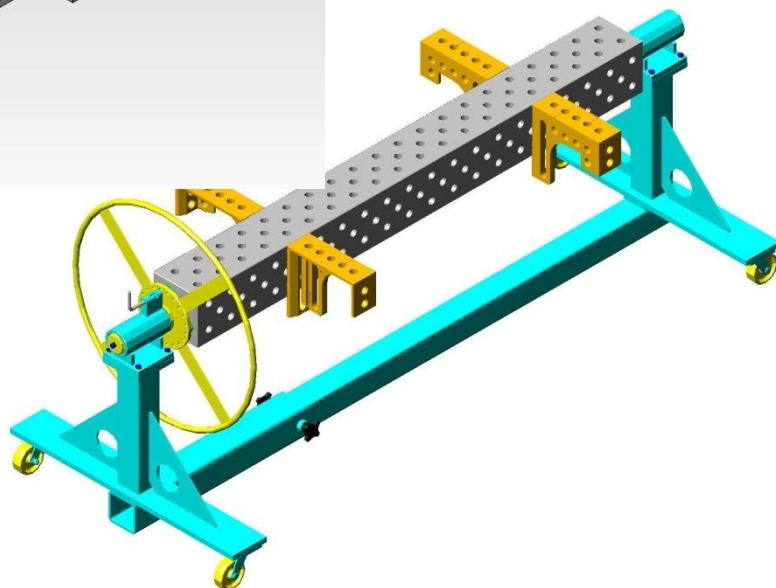
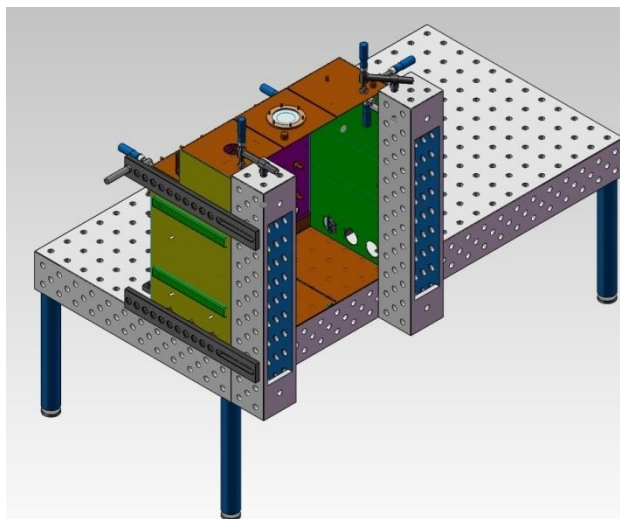
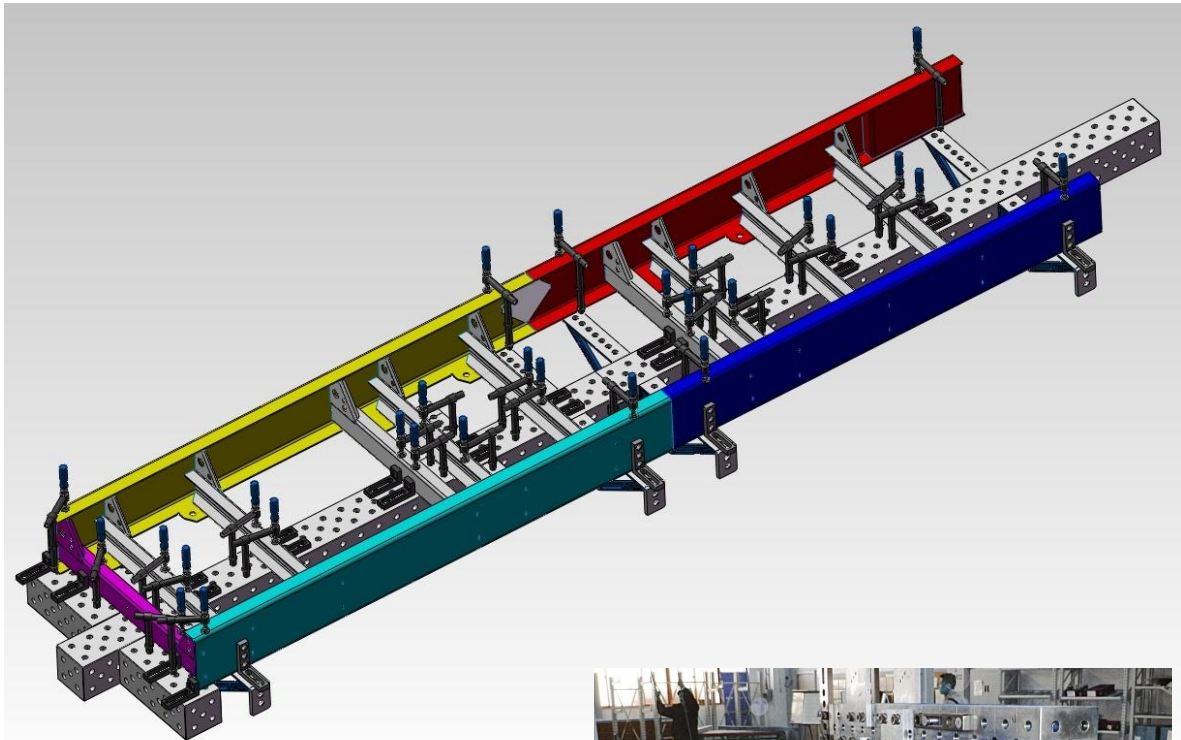


S28-30500-024/025

### Description

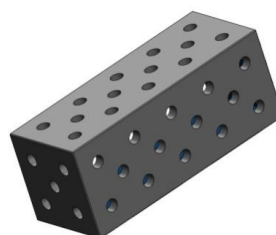
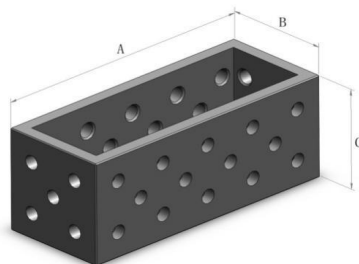
- 3 support surfaces for locating and clamping.
- Multiple adjustment by combining the bores and slot.
- Can be a stop and table extension for heavy workpiece.
- Ordering in pairs is recommended.

| Description                                             | A x B x C      | Weight | Item no.      |
|---------------------------------------------------------|----------------|--------|---------------|
| 3 Sided Squar 300G left, nitrided                       | 200 × 300 × 75 |        | S28-30300-024 |
| 3 Sided Squar 300G right, nitrided                      | 200 × 300 × 75 |        | S28-30300-025 |
| 3 Sided Squar 500G left, with rotation angle, nitrided  | 275 × 500 × 95 |        | S28-30300-026 |
| 3 Sided Squar 500G right, with rotation angle, nitrided | 275 × 500 × 95 |        | S28-30500-027 |
| 3 Sided Squar 750G left, nitrided                       | 275 × 750 × 85 |        | S28-30750-024 |
| 3 Sided Squar 750G right, nitrided                      | 275 × 750 × 85 |        | S28-30750-025 |



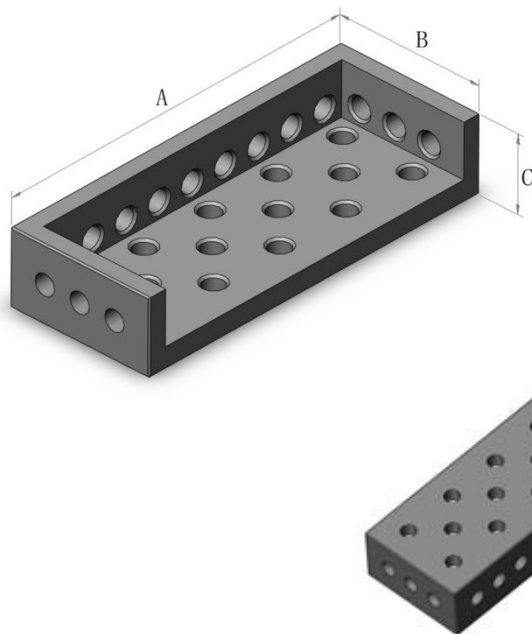
## U-shape Block

- 5 sides support surfaces.
- Can be used for table extension. When as a cantilever frame, from 1000mm length need one table leg for support. When between two tables, from 2000mm length need one table leg for support.
- Can be used as height extension. Connect with several tables or other components.
- Optional: surface hardening treatment.



| Description            | A×B×C        | Weight | Item no.     |
|------------------------|--------------|--------|--------------|
| U-shape Block 500×200  | 500×200×200  | 55     | 28-40050-000 |
| U-shape Block 1000×200 | 1000×200×200 | 102    | 28-40100-000 |
| U-shape Block 1200×200 | 1200×200×200 | 120    | 28-40120-000 |
| U-shape Block 1500×200 | 1500×200×200 | 180    | 28-40150-000 |
| U-shape Block 2000×200 | 2000×200×200 | 200    | 28-40200-000 |
| U-shape Block 2400×200 | 2400×200×200 | 240    | 28-40240-000 |
| U-shape Block 3000×200 | 3000×200×200 | 285    | 28-40300-000 |
| U-shape Block 4000×200 | 4000×200×200 | 374    | 28-40400-000 |
| U-shape Block 500×400  | 500×400×200  | 81     | 28-40050-001 |
| U-shape Block 1000×400 | 1000×400×200 | 149    | 28-40100-001 |
| U-shape Block 1200×400 | 1200×400×200 | 174    | 28-40120-001 |
| U-shape Block 1500×400 | 1500×400×200 | 219    | 28-40150-001 |
| U-shape Block 2000×400 | 2000×400×200 | 281    | 28-40200-001 |
| U-shape Block 2400×400 | 2400×400×200 | 329    | 28-40240-001 |
| U-shape Block 3000×400 | 3000×400×200 | 410    | 28-40300-001 |
| U-shape Block 4000×400 | 4000×400×200 | 534    | 28-40400-001 |
| U-shape Block 500×150  | 500×150×150  | 30     | 22-40050-000 |
| U-shape Block 1000×150 | 1000×150×150 | 55     | 22-40100-000 |
| U-shape Block 500×100  | 500×100×100  | 19     | 16-40050-000 |
| U-shape Block 1000×100 | 1000×100×100 | 38     | 16-40100-000 |
| U-shape Block 1500×100 | 1500×100×100 | 57     | 16-40150-000 |
| U-shape Block 2000×100 | 2000×100×100 | 93     | 16-40200-000 |

## L-shape Block



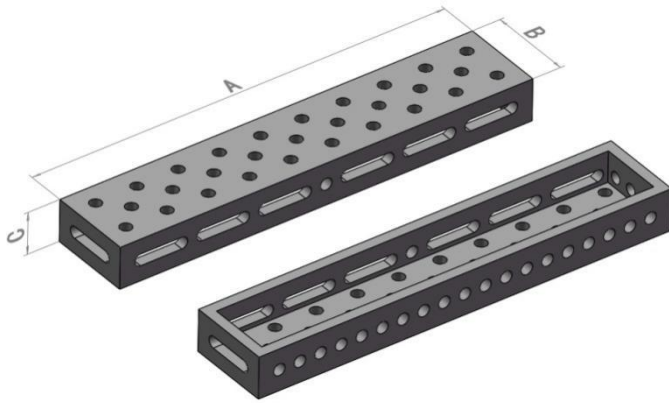
### Description

- 4 sides support surfaces.
- Connect tables and other component by many ways.
- Can be used as table extension and height extension.
- Optional: surface hardening treatment.



| Description            | A×B×C        | Weight | Item no.     |
|------------------------|--------------|--------|--------------|
| L-shape Block 500×200  | 500×200×100  | 26     | 28-41050-001 |
| L-shape Block 1000×200 | 1000×200×100 | 52     | 28-41100-001 |
| L-shape Block 1200×200 | 1200×200×100 | 63     | 28-41120-001 |
| L-shape Block 1500×200 | 1500×200×100 | 79     | 28-41150-001 |
| L-shape Block 2000×200 | 2000×200×100 | 106    | 28-41200-001 |

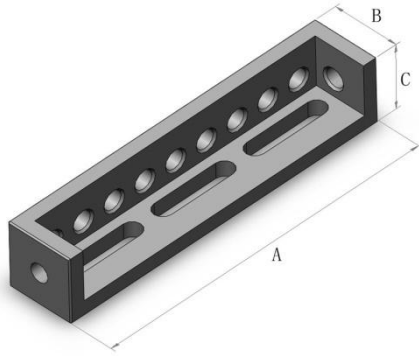
## C-shape Block



### Description

- 4 sides support surfaces.
- Connect tables and other component by many ways.
- Can be used as table extension and height extension.
- Optional: surface hardening treatment.

| Description              | A×B×C          | Weight | Item no.     |
|--------------------------|----------------|--------|--------------|
| C-shape Block 500×200 R  | 500×200×100 R  | 32     | 28-42050-000 |
| C-shape Block 500×200 L  | 500×200×100 L  | 32     | 28-42050-001 |
| C-shape Block 1000×200 R | 1000×200×100 R | 62     | 28-42100-000 |
| C-shape Block 1000×200 L | 1000×200×100 L | 62     | 28-42100-001 |

**28****Block****Connection Angle****Connection Angle****Description**

- 4 sides support surfaces.
- Connect angles and tables.
- Can be table extension.
- Suitable for small space use.
- Optional: surface hardening treatment.

**Description****A×B×C****Weight****Item no.**

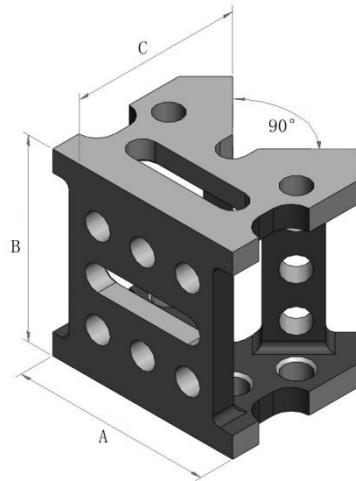
Connection Angle

500×100×100

15

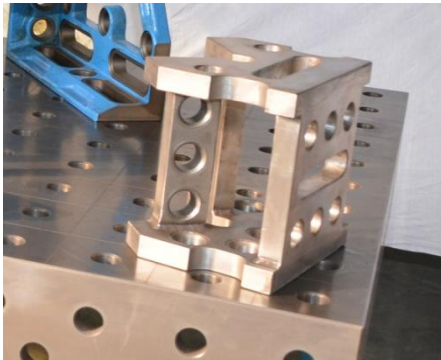
28-43050-000

## Corner Module



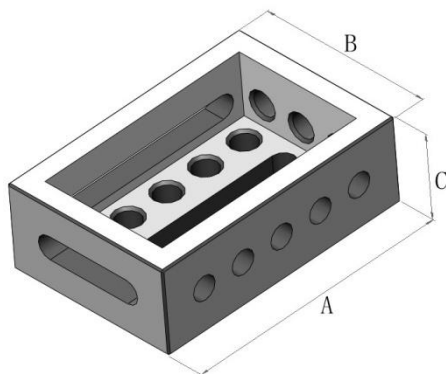
### Description

- Multiduty block. 90° opening.
- Positioning Right Angle type workpiece.
- Extensions on the corner of tables.
- Locating large circular pipes.
- Optional: surface hardening treatment.



| Description     | A×B×C         | Weight | Item no.     |
|-----------------|---------------|--------|--------------|
| Corner Module R | 200×200×175 R | 14     | 28-92020-000 |
| Corner Module L | 200×200×175 L | 14     | 28-92020-001 |

## Support Module



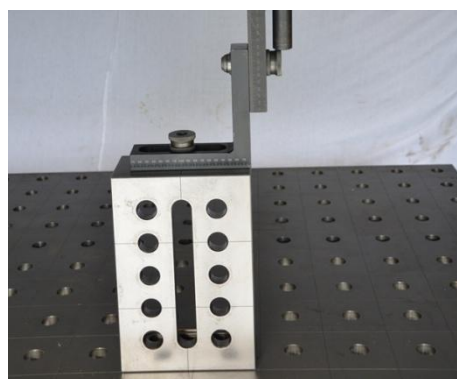
28-93020-001



28-93020-005  
22-93020-005

### Description

- Multiduty block.
- Height direction supporting and positioning.
- Table and other modules extension.
- Optional: surface hardening treatment.



| Description      | A×B×C       | Weight | Item no.     |
|------------------|-------------|--------|--------------|
| Support Module R | 300×200×100 | 15.00  | 28-93020-000 |
| Support Module L | 300×200×100 | 15.00  | 28-93020-001 |
| Support Frame    | 300×200×75  | 3.10   | 28-93020-005 |
| Support Frame    | 300×200×75  | 2.5    | 22-93020-005 |
| Support Module   | 150×100×50  | 1.98   | 16-91510-001 |

28

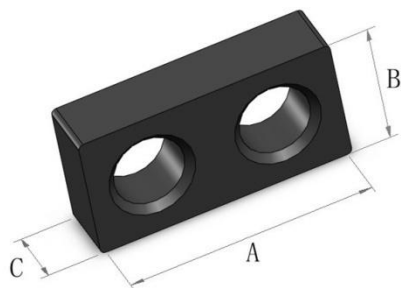
22

16

Stop

Universal Stop

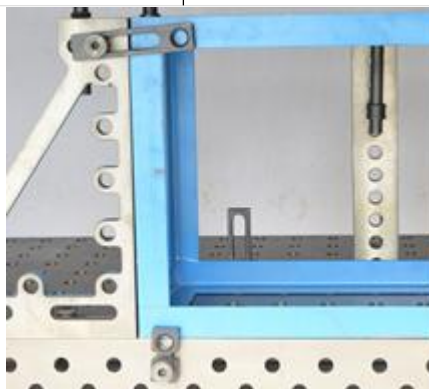
## Small Stop



With slot

### Description

- Commonly used stop.
- Suitable for small space use.
- Black oxide finish.
- Optional: surface hardening treatment.



### Description

$A \times B \times C$

Weight

Item no.

Small Stop 100

$100 \times 50 \times 25$

0.65

28-50010-000

Small Stop 100 with slot

$100 \times 50 \times 25$

0.65

28-50010-002

Small Stop 100 with slot

$100 \times 50 \times 18$

0.55

22-50010-002

Small Stop 55

$55 \times 25 \times 12$

0.08

16-50055-000

28

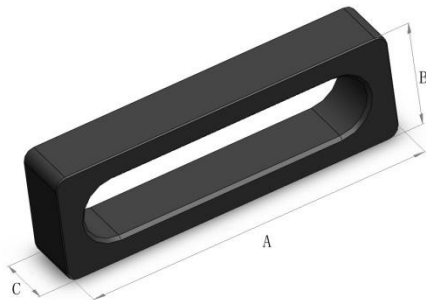
22

16

Stop

Universal Stop

## Slot Stop



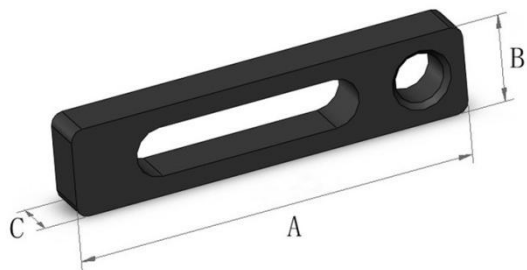
### Description

- Commonly used stop
- 100mm length oblong slot for adjustment
- Black oxide finish
- Precision scales on request
- Surface hardening treatment.



| Description   | A×B×C     | Weight | Item no.     |
|---------------|-----------|--------|--------------|
| Slot Stop 150 | 150×50×25 | 0.90   | 28-50150-000 |
| Slot Stop 150 | 150×50×18 | 0.7    | 22-50150-000 |
| Slot Stop 150 | 150×25×12 | 0.18   | 16-50150-000 |

## Standard Stop

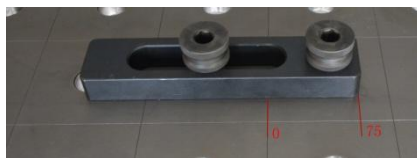


with slot



### Description

- Commonly used stop.
- Many located options by combining the bores and slot.
- 100mm length oblong slot for adjustment
- Standard stops form multiples of 25 mm dimension chain.
- Black oxide finish.
- Precision scales on request.
- Surface hardening treatment.



| Description                 | A × B × C     | Weight | Item no.     |
|-----------------------------|---------------|--------|--------------|
| Standard Stop 225           | 225 × 50 × 25 | 1.32   | 28-50022-000 |
| Standard Stop 225 with slot | 225 × 50 × 25 | 1.32   | 28-50022-004 |
| Standard Stop 300           | 300 × 50 × 25 | 1.80   | 28-50030-000 |
| Standard Stop 300 with slot | 300 × 50 × 25 | 1.80   | 28-50030-002 |
| Standard Stop 500           | 500 × 50 × 25 | 3.22   | 28-50050-000 |
| Standard Stop 500 with slot | 500 × 50 × 25 | 3.22   | 28-50050-002 |
| Standard Stop 225           | 225 × 50 × 18 | 1.0    | 22-50022-000 |
| Standard Stop 300           | 300 × 50 × 18 | 1.5    | 22-50030-000 |
| Standard Stop 500           | 500 × 50 × 18 | 3.2    | 22-50050-000 |
| Standard Stop 115           | 115 × 25 × 12 | 0.14   | 16-50011-000 |
| Standard Stop 150           | 150 × 25 × 12 | 0.25   | 16-50015-000 |

28

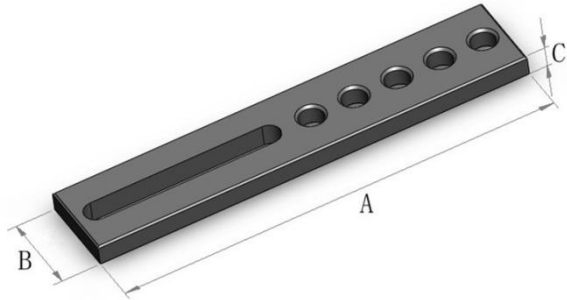
22

16

Stop

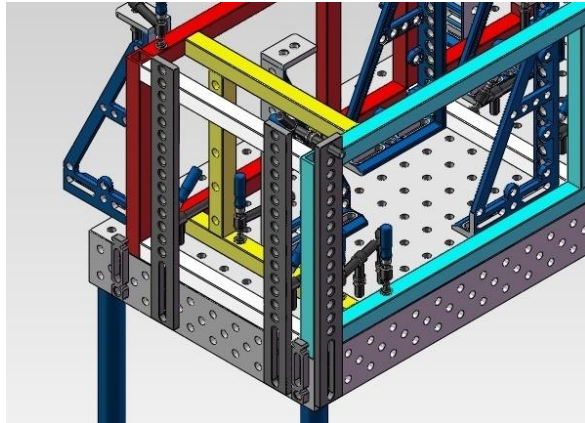
Plate Stop

## Plate Stop



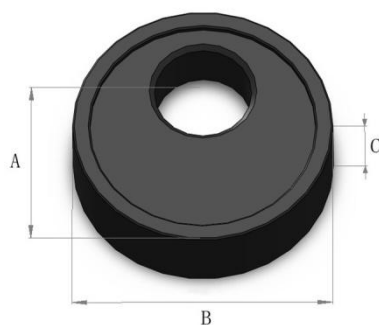
### Description

- Commonly used as a side stop.
- 200mm long slot allows for infinite adjustment.
- Black oxide finish.



| Description     | A×B×C       | Weight | Item no.     |
|-----------------|-------------|--------|--------------|
| Plate stop 500  | 500×100×25  | 7.00   | 28-50050-001 |
| Plate stop 800  | 800×100×25  | 14.00  | 28-50080-001 |
| Plate stop 1000 | 1000×100×25 | 16.48  | 28-50100-001 |
| Plate stop 500  | 500×100×18  | 6.00   | 22-50050-001 |
| Plate stop 250  | 250×50×12   | 0.90   | 16-50025-001 |
| Plate stop 400  | 400×50×12   | 1.48   | 16-50040-001 |

## Eccentric Stop



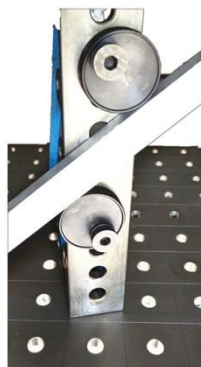
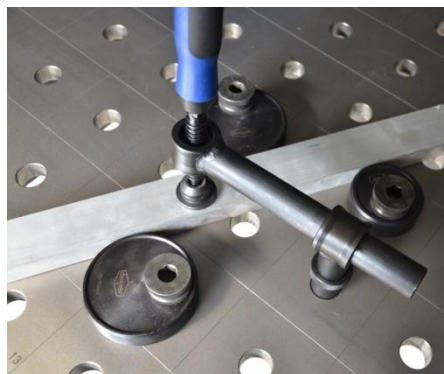
28-52075-000



28-52100-000



28-52075-001



### Description

- Use as stop or a support for irregular distance adjustment.
- Connect with standard bolt, infinitely adjusted by rotating.
- Suitable for small space use.
- Black oxide finish.

| Description                        | A×B×C     | Weight | Item no.     |
|------------------------------------|-----------|--------|--------------|
| Centric stop Φ75                   | 50×75×25  | 0.70   | 28-52075-000 |
| Eccentric stop Φ100                | 75×100×25 | 1.30   | 28-52100-000 |
| Eccentric stop Φ75 with M10 thread | 50×75×25  | 0.68   | 28-52075-001 |
| Centric stop Φ75                   | 50×75×18  | 0.6    | 22-52075-000 |
| Eccentric stop Φ45                 | 45×12     | 0.13   | 16-52045-000 |
| Eccentric stop Φ75                 | 75×12     | 0.39   | 16-52075-000 |
| Eccentric stop Φ75 with M10 thread | 75×12     | 0.38   | 16-52075-001 |

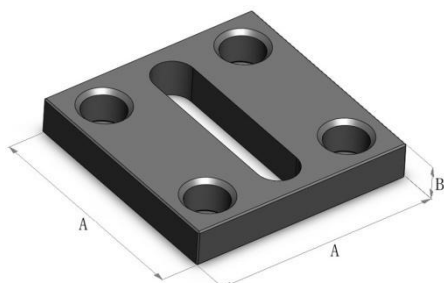
28

Stop

16

Adapter Plate

## Adapter Plate



### Description

- When location dimension less than 100mm or table system bores can not be reached.
- Connect 3D table system bores with components.
- Black oxide finish.

| Description    | A × B    | Weight | Item no.     |
|----------------|----------|--------|--------------|
| Adapater plate | 150 × 25 | 3.18   | 28-51515-000 |
| Adapater plate | 75 × 12  | 0.36   | 16-57575-000 |

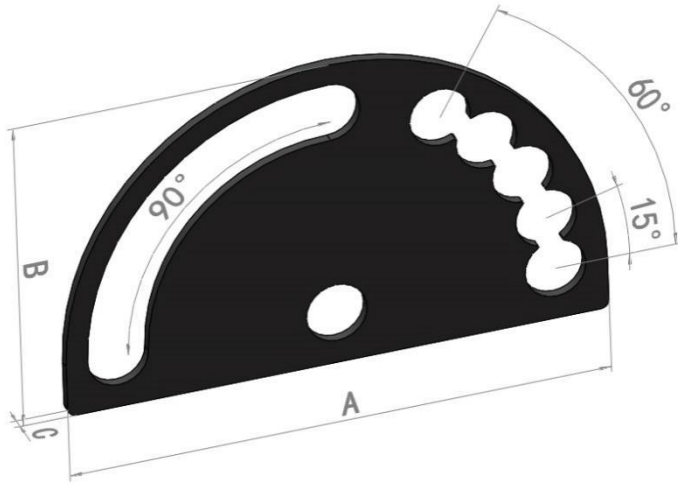
28

Stop

16

Angle Plate

## Angle Plate



### Description

- Easy to locate angle on table.
- Quick locating at 15°, 30°, 45°, 60°
- Slot can be adjusted from 0° to 90°.
- Black oxide finish.



### Description

$\Phi A \times B \times C$

Weight

Item no.

Angle Plate

$\Phi 250 \times 150 \times 5$

0.88

28-52515-003

Angle Plate

16-51587-003

## Angle Block



28-52020-004



28-52020-005

### Description

- Multifunctional stop.
- Every 15° quick locating.
- Slot can be adjusted from 0° to 90°.
- Black oxide finish.



### Description

### A×B×C

### Weight

### Item no.

Angle Block, Right

200x200x75

7.30

28-52020-004

Angle Block, Left

200x200x75

7.30

28-52020-005

Angle Block, Right

200x200x75

7.

22-52020-004

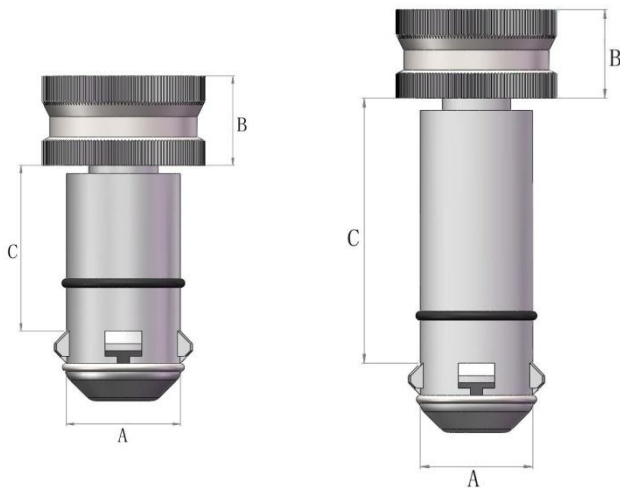
Angle Block, Left

200x200x75

7.

22-52020-005

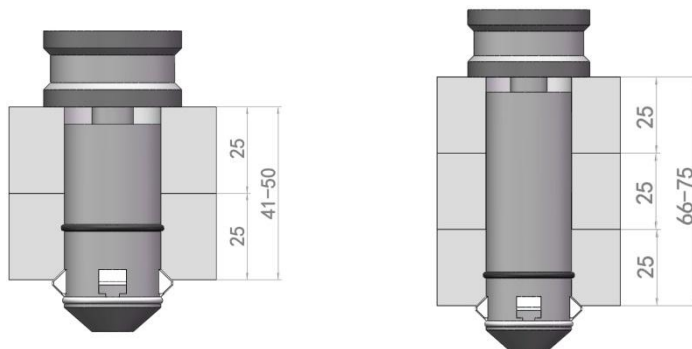
## STQ Bolt



Locking force approx. 2 tons  
Shearing force approx. 15 tons  
Tightening torque: 60 Nm

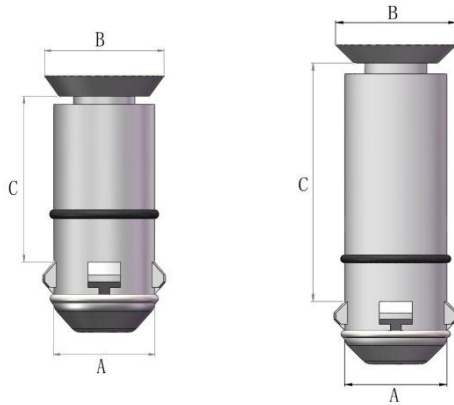
### Description

- New type of advanced design.
- 4 Cones design makes space contact.
- Have guide groove to make a lock and unlock more freely.
- Take away hoop and 4 cones out for easy cleaning.
- No damage to the reverse of system bores.
- Using by one hand.
- Connect table with table, stop, angle, adapter plates, transport rings, etc.
- Clamp by hex wrench SW14.
- Surface HRC50.



| Description    | $\Phi A \times B$     | Weight | Item no.     |
|----------------|-----------------------|--------|--------------|
| STQ Bolt short | $(28-0.01) \times 20$ | 0.60   | 28-60041-001 |
| STQ Bolt long  | $(28-0.01) \times 20$ | 0.80   | 28-60041-002 |

STQ Countersunk Bolt



**Description**

- Countersunk bolt head.
- Only use in bores, not for slots
- 4 Cones design makes space contact with the reverse of system bores.
- Have guide groove to make a lock and unlock more freely.
- Take away hoop and 4 cones out for easy cleaning.
- Connect table with table, stop, angle, adapter plates, transport rings, etc. no interference.
- Clamp by hex wrench SW8.
- Surface HRC50.



**Description**

$\Phi A \times \Phi B$

**Weight**

**Item no.**

STQ Countersunk Bolt short

$(28-0.01) \times 31.6$

0.24

28-60042-001

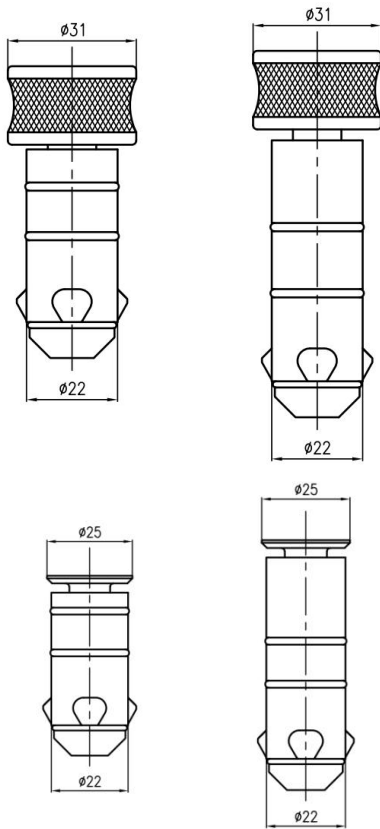
STQ Countersunk Bolt long

$(28-0.01) \times 31.6$

0.36

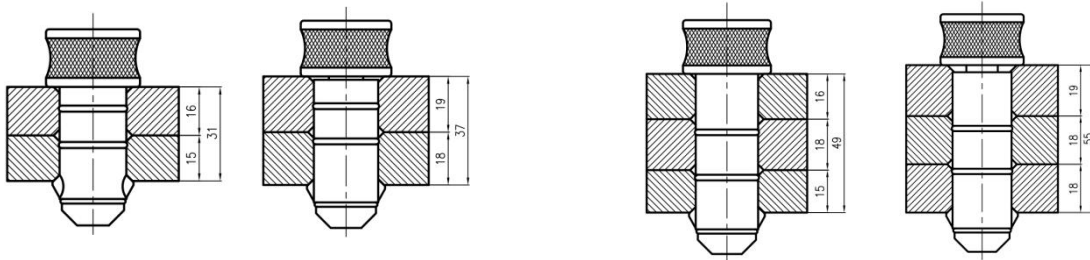
28-60042-002

**STQ Bolt**



**Description**

- 3 Cones design makes space contact.
- Strong clamping force.
- Take away hoop and 3 cones out for easy cleaning.
- No damage to the reverse of system bores.
- Using by one hand.
- Connect table with table, stop, angle, adapter plates, transport rings, etc.
- Clamp by hex wrench SW10.
- Surface HRC50.



| Description                | $\Phi A \times B$ | Weight | Item no.     |
|----------------------------|-------------------|--------|--------------|
| STQ Bolt short             | 22×31             |        | 22-60041-001 |
| STQ Bolt long              | 22×31             |        | 22-60041-002 |
| STQ Countersunk Bolt short | 22×25             |        | 22-60042-001 |
| STQ Countersunk Bolt long  | 22×25             |        | 22-60042-002 |

**28**

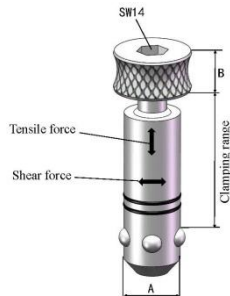
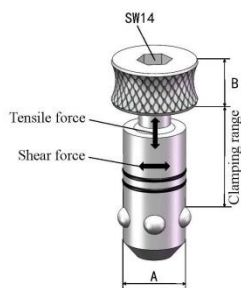
**Bolt**

**16**

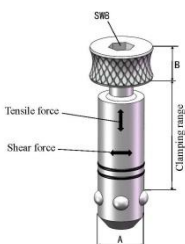
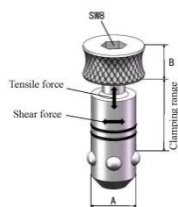
**Ball Bolt**

## Ball Bolt

### 28 Bolt



### 16 Bolt



### Description

- The five or four ball lock.
- Using by one hand.
- Connect table with table, stop, angle, adapter plates, transport rings, etc.
- Surface HRC50.

**28**

Locking force approx.2 tons  
Shearing force approx.15 tons  
Tightening torque: 60 Nm

**16**

Locking force approx.1 tons  
Shearing force approx.5 tons  
Tightening torque: 2 Nm

| Description     | $\Phi A \times B$     | Weight | Item no.     |
|-----------------|-----------------------|--------|--------------|
| Ball Bolt short | $(28-0.01) \times 20$ | 0.60   | 28-60051-001 |
| Ball Bolt long  | $(28-0.01) \times 20$ | 0.80   | 28-60051-002 |
| Ball Bolt short | $(16-0.01) \times 12$ | 0.08   | 16-60041-001 |
| Ball Bolt long  | $(16-0.01) \times 12$ | 0.10   | 16-60041-002 |

28

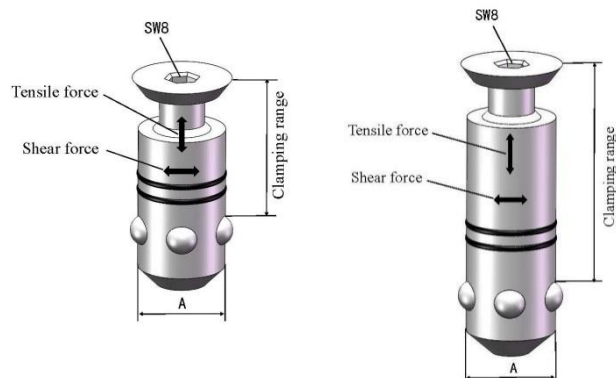
**Bolt**

16

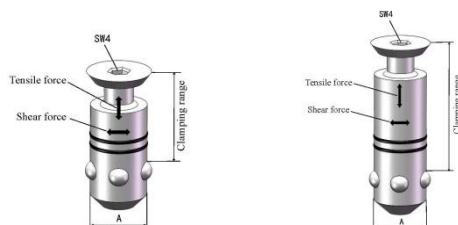
**Ball Countersunk Bolt**

## Ball Countersunk Bolt

### 28 Bolt



### 16 Bolt



### Description

- Countersunk bolt head.
- The five or four ball lock.
- Using by one hand.
- Connect table with table, stop, angle, adapter plates, transport rings, etc.
- Surface HRC50.



| Description                 | $\Phi A \times \Phi B$  | Weight | Item no.     |
|-----------------------------|-------------------------|--------|--------------|
| Ball Countersunk Bolt short | $(28-0.01) \times 31.6$ | 0.24   | 28-60042-001 |
| Ball Countersunk Bolt long  | $(28-0.01) \times 31.6$ | 0.36   | 28-60042-002 |
| Ball Countersunk Bolt short | $(16-0.01) \times 18.6$ | 0.04   | 16-60042-001 |
| Ball Countersunk Bolt long  | $(16-0.01) \times 18.6$ | 0.06   | 16-60042-002 |

28

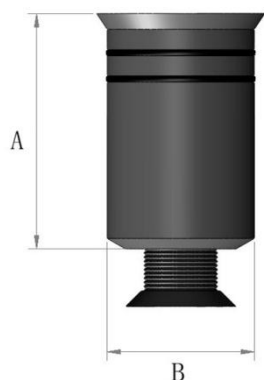
22

16

**Bolt**

**Connection Bolt**

## Connection Bolt



### Description

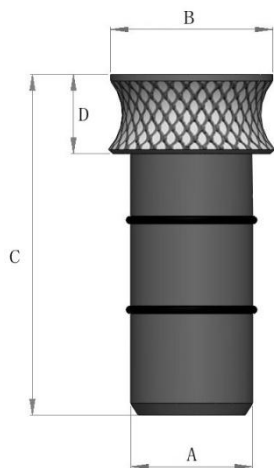
- Be used for long term connection.
- Both ends have countersunk bolt heads locked.
- Use for system bores.
- Clamp by hex wrench SW10 (SW6)..



| Description           | A × ΦB     | Weight | Item no.     |
|-----------------------|------------|--------|--------------|
| Connection Bolt short | 35.5 × 28  | 0.18   | 28-60003-000 |
| Connection Bolt long  | 45 × 28    | 0.26   | 28-60003-002 |
| Connection Bolt short | 28.75 × 22 | 0.18   | 22-60003-000 |
| Connection Bolt long  | 48 × 22    | 0.26   | 22-60003-002 |
| Connection Bolt short | 17 × 16    | 0.04   | 16-60003-000 |
| Connection Bolt long  | 25 × 16    | 0.05   | 16-60003-002 |

|    |    |    |                         |
|----|----|----|-------------------------|
| 28 | 22 | 16 | <b>Bolt</b>             |
|    |    |    | <b>Positioning Bolt</b> |

## Positioning Bolt



### Description

- Positioning without locking.
- Usually use with STQ bolt together.
- Economical substitute for a 2<sup>nd</sup> Clamping bolt.

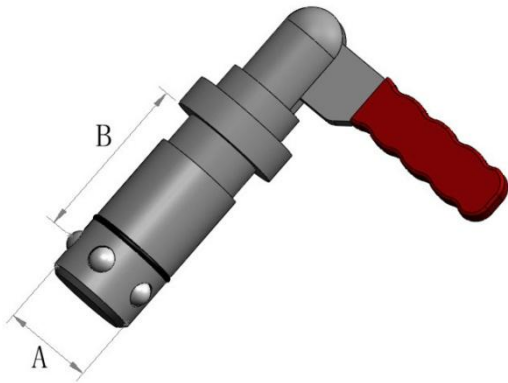
| Description      | $\Phi A \times \Phi B \times C \times D$ | Weight | Item no.     |
|------------------|------------------------------------------|--------|--------------|
| Positioning bolt | 28×40×74×25                              | 0.28   | 28-60009-000 |
| Positioning bolt | 22×31×52×19                              | 0.2    | 22-60009-000 |
| Positioning bolt | 16×25×37×25                              | 0.08   | 16-60009-000 |

28

**Bolt**

**Quick Clamping Bolt**

Quick Clamping Bolt



**Description**

- 360° rotating.
- More quickly and flexible clamping workpiece.
- Positioning firmly.
- High locking and shearing force.
- Using by one hand.
- Plastic coated or chrome plated handle.



**Description**

$\Phi A \times B$

**Weight**

**Item no.**

Quick Clamping Bolt

$(28-0.01) \times (31-50)$

0.62

28-60007-000

28

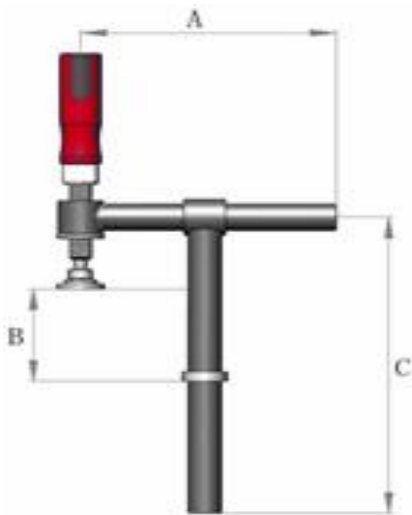
22

16

**Clamp**

**Clamp 180°**

## Screw Clamp 180°



### Description

- Rubber and plastic handle feeling comfortable, non-skid.
- Oval handle makes more powerful.
- Clamp by hex wrench makes much tighter.
- Each part can be used separately and recombined to other kinds of clamps.
- Handle is replaceable.
- Replace with a variety of clamping pad.
- Clamp horizontal and vertical distances are adjustable.

| Description            | A × B span × C      | Weight | Item no.     |
|------------------------|---------------------|--------|--------------|
| Screw Clamp 180° / 220 | 220 × max.140 × 220 | 2.00   | 28-85022-000 |
| Screw Clamp 180° / 350 | 220 × max.270 × 350 | 2.38   | 28-85035-000 |
| Screw Clamp 180° / 500 | 220 × max.420 × 500 | 2.81   | 28-85050-000 |
| Screw Clamp 180° / 220 | 175 × max.180 × 220 | 1.2    | 22-85022-000 |
| Screw Clamp 180° / 50  | 50 × max.90 × 130   | 0.52   | 16-85013-000 |

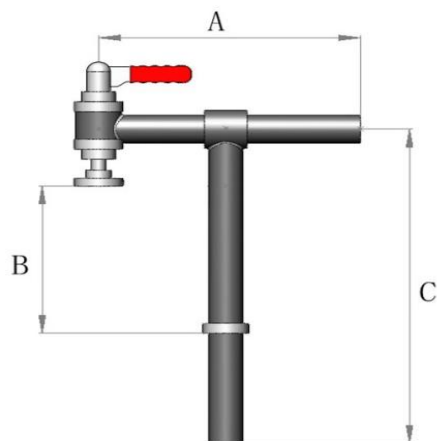
28

Clamp

16

Clamp 180°

## Quick Clamp 180°



### Description

- Faster clamping.
- Higher clamping force less effort.
- 360° rotating.
- Each part can be used separately and recombined to other kinds of clamps.
- Handle is replaceable.
- Replace with a variety of clamping pad.
- Clamp horizontal and vertical distances are adjustable.
- Plastic coated or chrome plated handle.

| Description            | A × B span × C      | Weight | Item no.     |
|------------------------|---------------------|--------|--------------|
| Quick Clamp 180° / 220 | 220 × max.140 × 220 | 2.23   | 28-85022-001 |
| Quick Clamp 180° / 350 | 220 × max.270 × 350 | 2.60   | 28-85035-001 |
| Quick Clamp 180° / 500 | 220 × max.420 × 500 | 3.03   | 28-85050-001 |
| Quick Clamp 180° / 220 | 175 × max.180 × 220 | 1.5    | 28-85022-001 |
| Quick Clamp 180° / 130 | 130 × max.90 × 130  | 0.58   | 16-85013-001 |

28

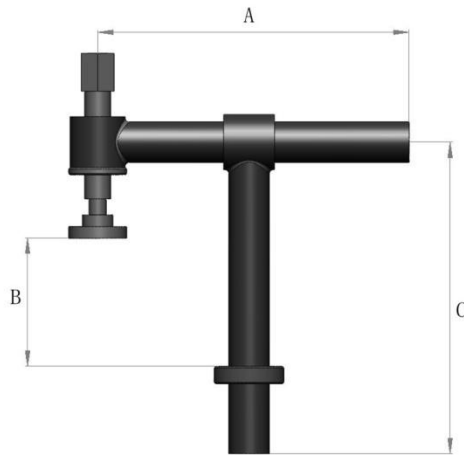
22

16

**Clamp**

**Clamp 180°**

## Hex head Clamp 180°

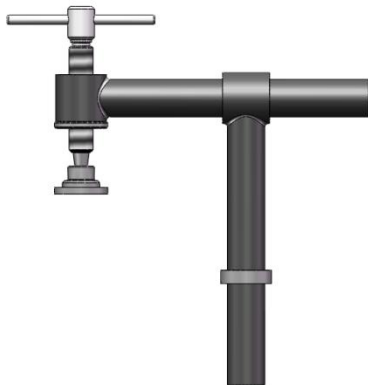


### Description

- Highest clamp force.
- Each part can be used separately and recombined to other kinds of clamps.
- Handle is replaceable.
- Replace with a variety of clamping pad.
- Clamp horizontal and vertical distances are adjustable.

| Description               | A × B span × C      | Weight | Item no.     |
|---------------------------|---------------------|--------|--------------|
| Hex head Clamp 180° / 220 | 220 × max.140 × 220 | 1.79   | 28-85022-002 |
| Hex head Clamp 180° / 350 | 220 × max.270 × 350 | 2.16   | 28-85035-002 |
| Hex head Clamp 180° / 500 | 220 × max.420 × 500 | 2.59   | 28-85050-002 |
| Quick Clamp 180° / 220    | 175 × max.180 × 220 | 1.5    | 28-85022-001 |
| Hex head Clamp 180° / 130 | 130 × max.90 × 130  | 0.50   | 16-85013-002 |

## T-Bar Srew Clamp 180°

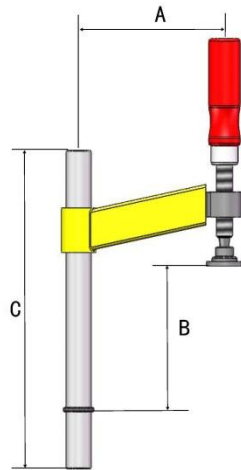


### Description

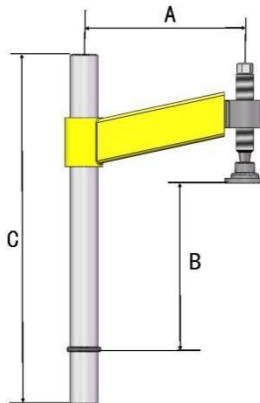
- High clamp force.
- Each part can be used separately and recombined to other kinds of clamps.
- Handle is replaceable.
- Replace with a variety of clamping pad.
- Clamp horizontal and vertical distances are adjustable.

| Description               | A×B span×C      | Weight | Item no.     |
|---------------------------|-----------------|--------|--------------|
| T-Bar Srew Clamp 180°/220 | 220×max.140×220 | 1.79   | 22-85022-003 |
| T-Bar Srew Clamp 180°/350 | 220×max.270×350 | 2.16   | 22-85035-003 |
| T-Bar Srew Clamp 180°/500 | 220×max.420×500 | 2.59   | 22-85050-003 |

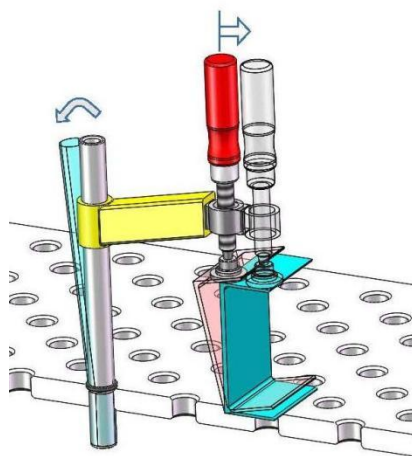
## Compensation clamp



With spindle



With hex head



### Description

- No displacement when the clamping
- Fast and higher clamp force.
- Adjustable clamping height.
- Handle is replaceable.
- Replace with a variety of clamping pad.

| Description                               | A × C     | Weight kg | Item no.     |
|-------------------------------------------|-----------|-----------|--------------|
| Compensation clamp with spindle 150/ 350  | 150 × 350 | 2.8       | 28-85115-000 |
| Compensation clamp with spindle 200/ 350  | 200 × 350 | 3         | 28-85120-000 |
| Compensation clamp with hex head 150/ 350 | 150 × 350 | 3         | 28-85115-002 |
| Compensation clamp with hex head 200/ 350 | 200 × 350 | 3.5       | 28-85120-002 |

28

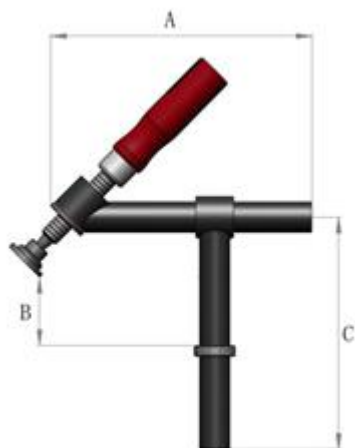
22

16

**Clamp**

**Clamp 45°**

## Screw Clamp 45°



### Description

- Rubber and plastic handle feeling comfortable, non-skid.
- Oval handle makes more powerful.
- Clamp by hex wrench makes much tighter.
- Each part can be used separately and recombined to other kinds of clamps.
- Handle is replaceable.
- Replace with a variety of clamping pad.
- Clamp horizontal and vertical distances are adjustable.

| Description                       | A × B span × C      | Weight | Item no.     |
|-----------------------------------|---------------------|--------|--------------|
| Screw Clamp 45° with Handle / 220 | 220 × max.140 × 220 | 2.02   | 28-89022-000 |
| Screw Clamp 45° with Handle / 350 | 220 × max.270 × 350 | 2.4    | 28-89035-000 |
| Screw Clamp 45° with Handle / 500 | 220 × max.420 × 500 | 2.83   | 28-89050-000 |
| Screw Clamp 45° with Handle / 220 | 175 × max.180 × 220 | 1.2    | 22-89022-000 |
| Screw Clamp 45° with Handle / 130 | 130 × max.90 × 130  | 0.50   | 16-89013-000 |

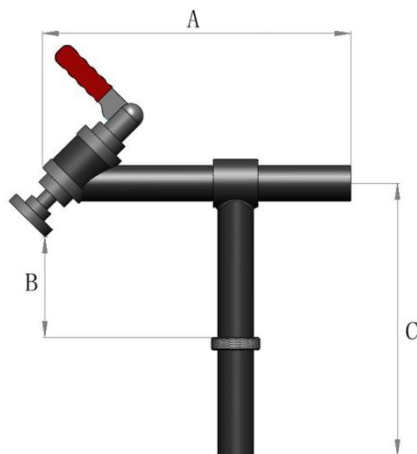
28

Clamp

16

Clamp 45°

## Quick Clamp 45°



### Description

- Faster clamping.
- Higher clamping force less effort.
- 360° rotating.
- Each part can be used separately and recombined to other kinds of clamps.
- Handle is replaceable.
- Replace with a variety of clamping pad.
- Clamp horizontal and vertical distance are adjustable.
- Plastic coated or chrome plated handle.

| Description                       | A × B span × C       | Weight | Item no.     |
|-----------------------------------|----------------------|--------|--------------|
| Quick Clamp 45° / 220             | 220 × max. 140 × 220 | 2.24   | 28-89022-001 |
| Quick Clamp 45° / 350             | 220 × max. 270 × 350 | 2.62   | 28-89035-001 |
| Quick Clamp 45° / 500             | 220 × max. 420 × 500 | 3.05   | 28-89050-001 |
| Screw Clamp 45° with Handle / 220 | 175 × max. 180 × 220 | 1.2    | 22-89022-001 |
| Quick Clamp 45° / 130             | 230 × max. 130 × 130 | 0.58   | 16-89013-001 |

28

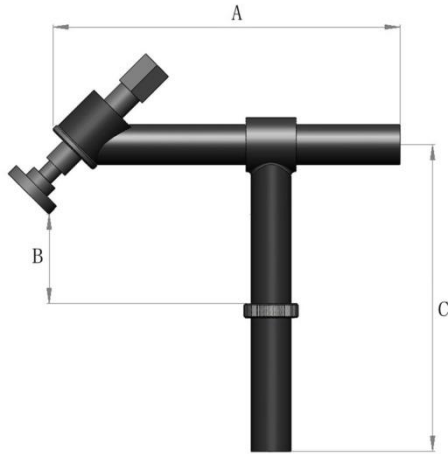
22

16

Clamp

Clamp 45°

## Hex head Clamp 45°



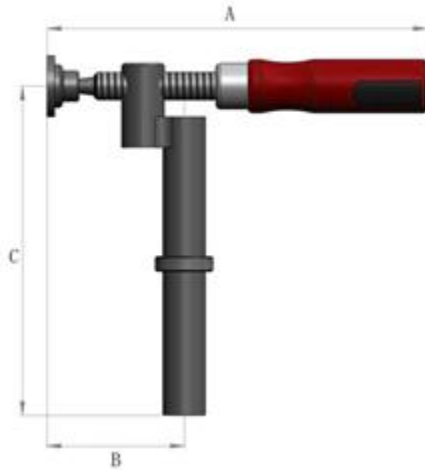
### Description

- Highest clamp force.
- Each part can be used separately and recombined to other kinds of clamps.
- Handle is replaceable.
- Replace with a variety of clamping pad.
- Clamp horizontal and vertical distance are adjustable.

| Description                       | A × B span × C       | Weight | Item no.     |
|-----------------------------------|----------------------|--------|--------------|
| Hex head Clamp 45° / 220          | 220 × max. 140 × 220 | 1.8    | 28-89022-002 |
| Hex head Clamp 45° / 350          | 220 × max. 270 × 350 | 2.18   | 28-89035-002 |
| Hex head Clamp 45° / 500          | 220 × max. 420 × 500 | 2.61   | 28-89050-002 |
| Screw Clamp 45° with Handle / 220 | 175 × max. 180 × 220 | 1.2    | 22-89022-001 |
| Hex head Clamp 45° / 130          | 180 × max. 130 × 130 | 0.46   | 16-89013-002 |

|    |    |    |           |
|----|----|----|-----------|
| 28 | 22 | 16 | Clamp     |
|    |    |    | Clamp 90° |

## Screw Clamp 90°

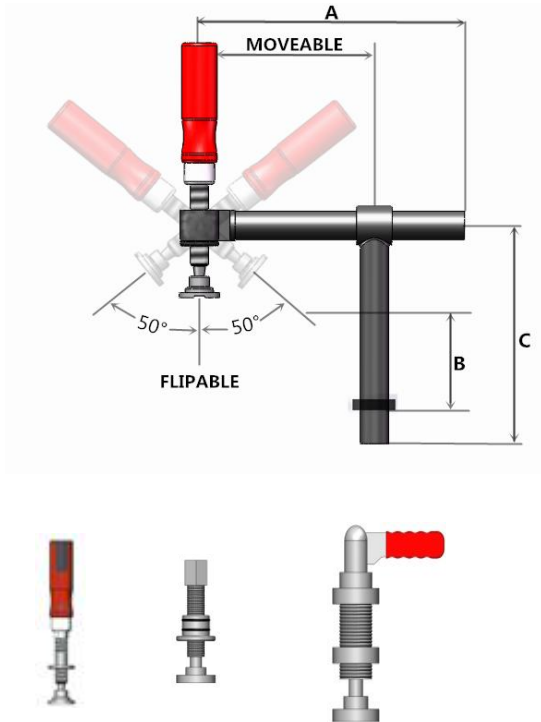


### Description

- Rubber and plastic handle, feeling comfortable, non-skid.
- Oval handle, can make more powerful.
- Clamp by hex wrench makes much tighter.
- Height adjustment with stop ring.
- The clamping distance compensation 70mm.
- Handle is replaceable.
- Replace A variety of clamping pad.

| Description                       | A × B span × C      | Weight | Item no.     |
|-----------------------------------|---------------------|--------|--------------|
| Screw Clamp 90° with Handle / 220 | 250 × max.100 × 220 | 1.26   | 28-88022-000 |
| Screw Clamp 90° with Handle / 350 | 250 × max.100 × 350 | 1.69   | 28-88035-000 |
| Screw Clamp 90° with Handle / 500 | 250 × max.100 × 500 | 2.12   | 28-88050-000 |
| Screw Clamp 90° with Handle / 220 | 200 × max.100 × 220 | 1.2    | 22-88022-000 |
| Screw Clamp 90° with Handle / 150 | 150 × — × 170       | 0.30   | 16-88013-000 |

## Versatile Screw Clamp

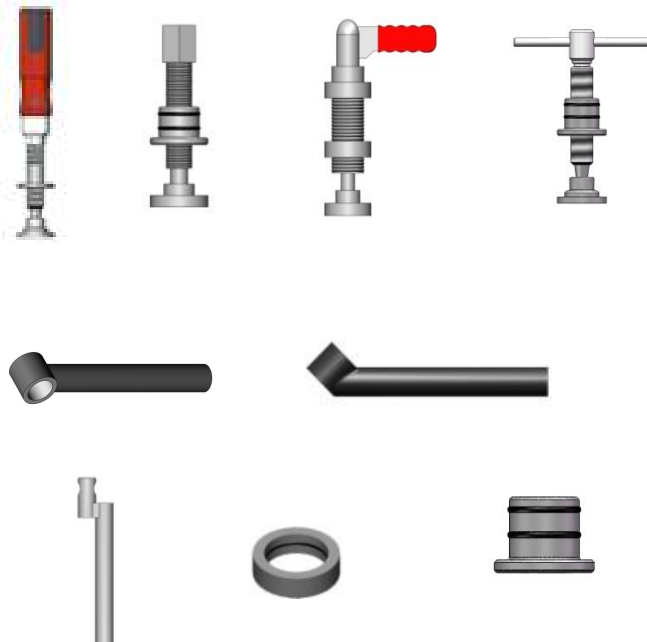


### Description

- Cover the function of 45° ,90° and 180° screw clamp.
- Adjust  $\pm 50^\circ$  and 360° rotating.
- Vertical Tube 220mm

| Description                             | A×B×C           | Weight | Item no.     |
|-----------------------------------------|-----------------|--------|--------------|
| Versatile screw clamp with screw handle | 240×max.180×220 | 2.2    | 28-83022-033 |
| Versatile screw clamp with hex head     | 240×max.100×220 | 2.0    | 28-83022-034 |
| Versatile screw clamp with quick head   | 240×max.100×220 | 2.0    | 28-83022-035 |
| Versatile screw clamp with screw handle | 175×max.180×220 | 2.0    | 22-83022-000 |
| Versatile screw clamp with hex head     | 175×max.180×220 | 2.0    | 22-83022-001 |
| Versatile screw clamp with quick head   | 175×max.100×220 | 2.0    | 22-83022-002 |

## Clamp Accessory



### Description

- Rubber and plastic handle, feeling comfortable, non-skid.
- Oval handle, can make more powerful.
- Clamp by hex wrench makes much tighter.
- Height adjustment with stop ring.
- The clamping distance compensation 70mm.
- Handle is replaceable.
- Replace A variety of clamping pad.

| Description    | Specification | Weight | Item no.     |
|----------------|---------------|--------|--------------|
| Screw Handle   | H=250         | 0.6    | 28-87020-000 |
| Quick handle   | 220           | 0.82   | 28-87020-001 |
| Hexagon screw  | H=135         | 0.38   | 28-87020-002 |
| T- Bar Srew    |               |        | 28-87020-003 |
| Pipe 220       | Φ28 x 220     | 0.685  | 28-85022-100 |
| Pipe 350       | Φ28 x 350     | 1.06   | 28-85035-100 |
| Pipe 500       | Φ28 x 500     | 1.49   | 28-85050-100 |
| Pipe 45°       | 220           | 0.7    | 28-85022-200 |
| Pipe 90°       | 220           | 0.62   | 28-85022-300 |
| Pipe 90°       | 350           | 1.05   | 28-85035-300 |
| Pipe 90°       | 500           | 1.48   | 28-85050-300 |
| Stop Ring      | 28            | 0.035  | 28-87003-000 |
| Pipe Sleeve 28 | Φ18 x 30      |        | 28-87002-000 |

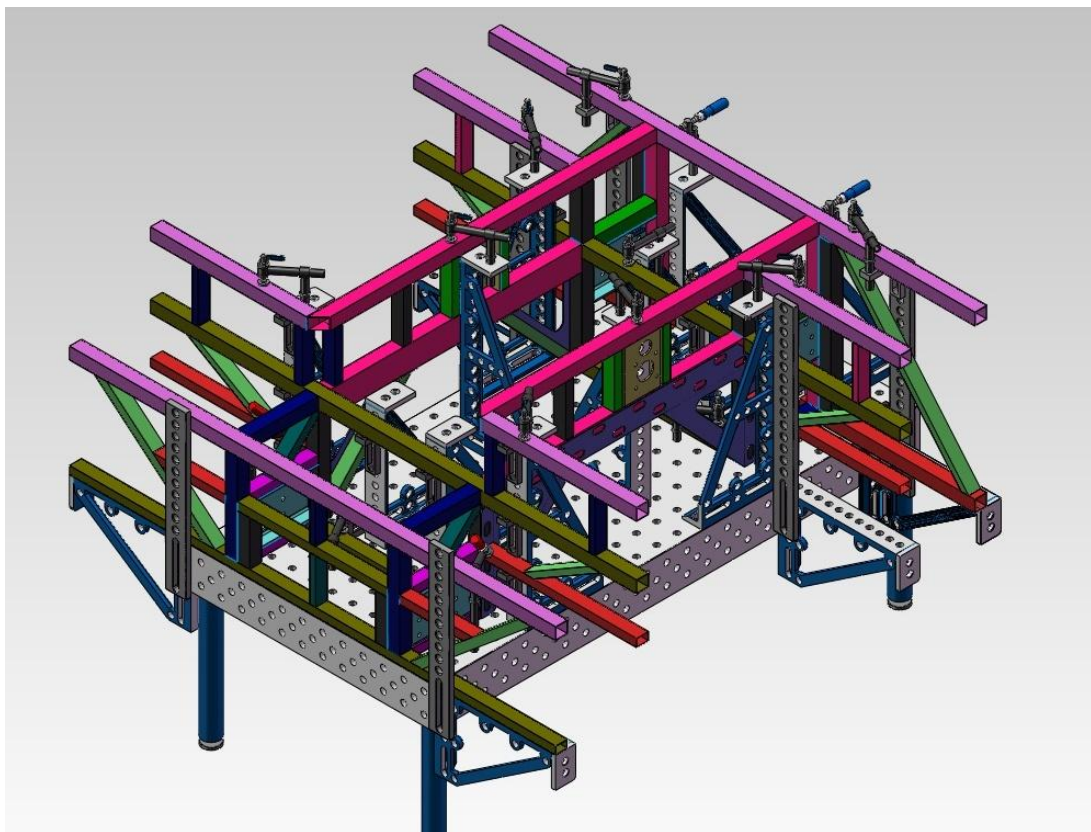
## Clamp Accessory



### Description

- Rubber and plastic handle, feeling comfortable, non-skid.
- Oval handle, can make more powerful.
- Clamp by hex wrench makes much tighter.
- Height adjustment with stop ring.
- The clamping distance compensation 70mm.
- Handle is replaceable.
- Replace A variety of clamping pad.

| Description                       | Specification | Weight | Item no.     |
|-----------------------------------|---------------|--------|--------------|
| Screw Handle                      | H=200         | 0.5    | 22-87020-000 |
| Hexagon screw                     | H=110         | 0.38   | 22-87020-001 |
| Quick handle                      | ~150          | 0.5    | 22-87020-002 |
| Pipe 220                          | Φ22 x 220     | 0.6    | 22-85022-100 |
| Pipe 45°                          | 220           | 0.6    | 22-85022-200 |
| Pipe 90°                          | 220           | 0.6    | 22-85022-300 |
| Stop ring                         | 22            | 0.03   | 22-87003-000 |
| Screw Clamp 90° with Handle / 150 | 150×—×170     | 0.30   | 16-88013-000 |
| Screw Handle                      | H=140         | 0.14   | 16-87020-000 |
| Pipe 90°                          |               |        |              |
| Stop ring                         | Φ 16×6mm      | 0.006  | 16-87003-000 |



28

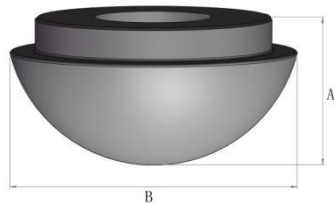
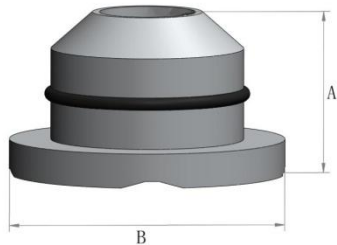
22

16

## Clamp

### Clamping Pad

#### General Clamping Pad



#### Description

- General pads clamp the common parts, inclined plane, small diameter pipe, etc.
- Ball head pads used in point contacts clamping.
- Ball connect with screw clamp.
- Easy to take down from clamps.
- By rotating for all the surface contact.
- Can insert into any system hole as a locating piece.
- Various materials for choice.
- Cross-shaped grooves for round or rectangular tubes to clamp.

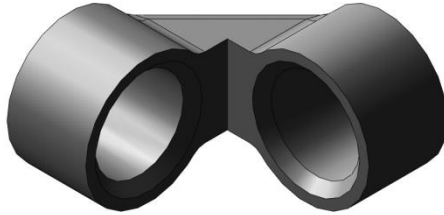
| Description                             | A × ΦB | Weight | Item no.     |
|-----------------------------------------|--------|--------|--------------|
| General Clamping Pad, Steel-doubleside  | 22x40  | 0.10   | 28-87011-010 |
| General Clamping Pad, Stainless Steel   | 22x40  | 0.1    | 28-87011-011 |
| General Clamping Pad, Polyamide         | 22x40  | 0.02   | 28-87011-012 |
| General Clamping Pad, Aluminium         | 22x40  | 0.10   | 28-87011-019 |
| Ball head Clamping Pad, Steel           | 21x35  | 0.09   | 28-87011-003 |
| Ball head Clamping Pad, Stainless steel | 21x35  | 0.09   | 28-87011-004 |
| Ball head Clamping Pad, Polyamide       | 21x35  | 0.014  | 28-87011-005 |
| Ball head Clamping Pad, Aluminium       | 21x35  | 0.07   | 28-87011-020 |
| General Clamping Pad, Steel-doubleside  | 13x22  | 0.019  | 16-87011-010 |
| General Clamping Pad, Stainless Steel   | 13x22  | 0.019  | 16-87011-011 |
| General Clamping Pad, Polyamide         | 13x22  | 0.004  | 16-87011-012 |
| General Clamping Pad, Aluminium         | 13x22  | 0.019  | 16-87011-019 |
| Ball head Clamping Pad, Steel           | 14x20  | 0.018  | 16-87011-003 |
| Ball head Clamping Pad, Stainless steel | 14x20  | 0.018  | 16-87011-004 |
| Ball head Clamping Pad, Polyamide       | 14x20  | 0.004  | 16-87011-005 |
| Ball head Clamping Pad, Aluminium       | 14x20  | 0.018  | 16-87011-020 |

**28**

## Clamp

### Clamp sleeve

Clamp sleeve 45° /90°



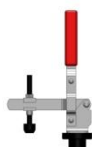
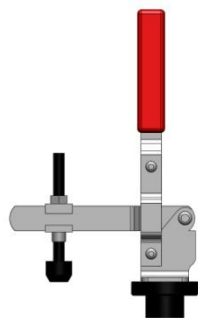
#### Description

- Used as clamping position transformation of 45 ° or 90 °.
- Can be directly assembled clamp handle.
- The flexibility to bind with bolt, installed in any system bores.

| Description      | Weight | Item no.     |
|------------------|--------|--------------|
| Clamp sleeve 90° | 0.28   | 28-87034-000 |
| Clamp sleeve 45° | 0.26   | 28-87035-000 |

|    |    |    |              |
|----|----|----|--------------|
| 28 | 22 | 16 | Clamp        |
|    |    |    | Toggle Clamp |

## Toggle Clamp with Round Pad



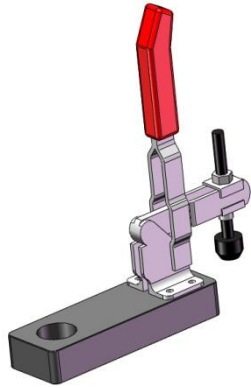
### Description

- Round pad with vertical toggle clamp or horizontal toggle clamp.
- Suitable for fast clamping the light workpiece.
- Use for batch production.

|  |  |  |
|--|--|--|
|  |  |  |
|--|--|--|

| Description             | A × ΦB  | Weight | Item no.     |
|-------------------------|---------|--------|--------------|
| Vertical toggle clamp   | 27 × 50 | 0.74   | 28-86001-000 |
| Horizontal toggle clamp | 27 × 50 | 0.74   | 28-86002-000 |
| Vertical toggle clamp   | 27 × 50 | 0.74   | 22-86001-000 |
| Horizontal toggle clamp | 27 × 50 | 0.74   | 22-86002-000 |
| Vertical toggle clamp   | 15 × 38 | 0.22   | 16-86001-001 |
| Horizontal toggle clamp | 15 × 38 | 0.22   | 16-86001-002 |

## Toggle Clamp with Stop Piece

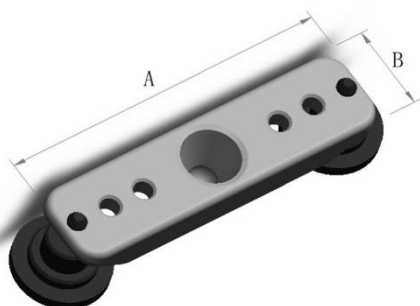


### Description

- Flexible clamping position.
- Suitable for fast clamping the light workpiece.
- Use for batch production.
- Option different type of toggle clamps.

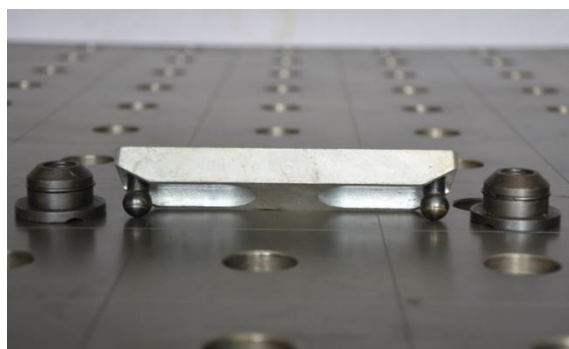
| Description             | A × ΦB  | Weight | Item no.     |
|-------------------------|---------|--------|--------------|
| Vertical toggle clamp   | 27 × 50 | 0.98   | 28-86001-001 |
| Horizontal toggle clamp | 27 × 50 | 1.08   | 28-86002-001 |

## 2P – Clamping Bridge



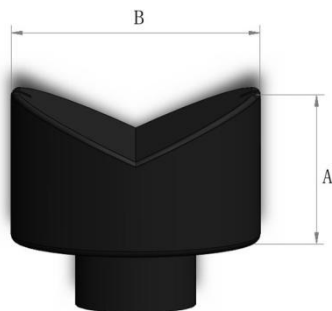
### Description

- At the same time clamping two points.
- Clamping the different level of two points between 50 mm. The clamping points distance is adjustable.
- Can be used with any screw clamp.
- Galvanized surface.



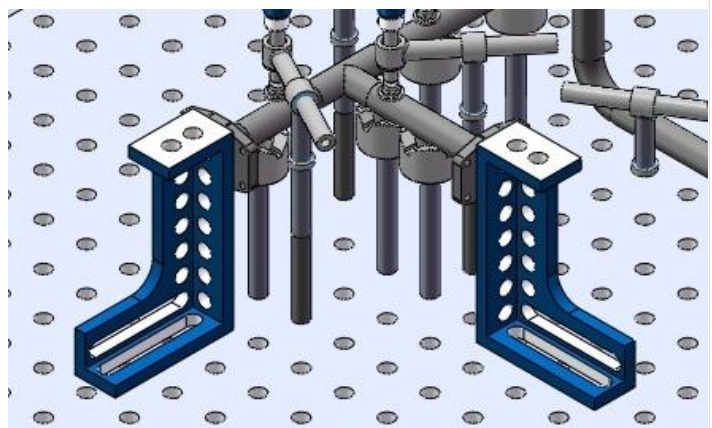
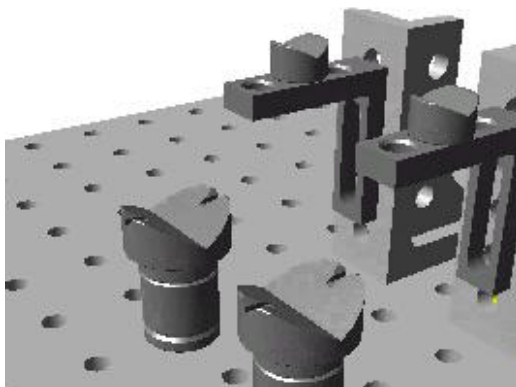
| Description          | A × ΦB         | Weight | Item no.     |
|----------------------|----------------|--------|--------------|
| 2P – Clamping Bridge | 130/97/65 × 35 | 0.62   | 28-87018-000 |

V-Block Ø 58 /130°



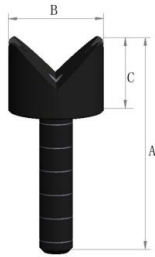
**Description**

- Apply to pipe and round workpiece.
- The diameter of workpiece can be up to 70mm.
- Fit any system bore with countersunk screw.

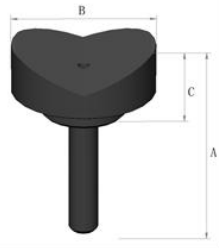


| Description                              | A × ΦB  | Weight | Item no.     |
|------------------------------------------|---------|--------|--------------|
| V-Block Ø 58 /130°, Steel                | 35 × 58 | 0.68   | 28-90058-000 |
| V-Block Ø 58 /130°, Polyamide            | 35 × 58 | 0.14   | 28-90058-001 |
| V-Block Ø 58 /130°, Stainless steel      | 35 × 58 | 0.70   | 28-90058-002 |
| V-Block Ø 58 /130°, Steel                | 35 × 58 | 0.68   | 22-90058-000 |
| V-Block Ø 58 /130°, Polyamide            | 35 × 58 | 0.14   | 22-90058-001 |
| V-Block Ø 58 /130°, Stainless steel      | 35 × 58 | 0.70   | 22-90058-002 |
| V-Block Ø 50, 120°/90° , Steel           | 35 × 50 | 0.36   | 16-90050-000 |
| V-Block Ø 50, 120°/90° , Polyamide       | 35 × 50 | 0.38   | 16-90050-001 |
| V-Block Ø 50, 120°/90° , Stainless steel | 35 × 50 | 0.06   | 16-90050-002 |

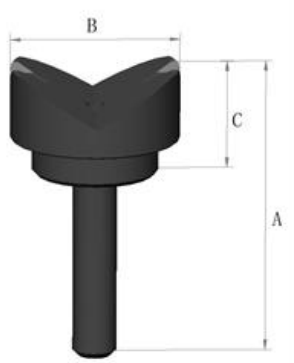
## Cross V-Block with Shaft



V-Block Ø 80 / 90°



V-Block Ø 110 / 120°



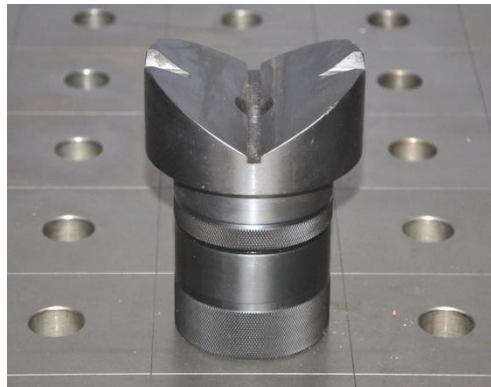
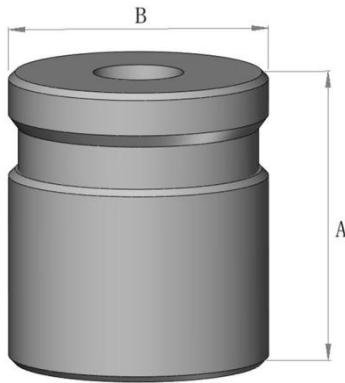
V-Block Ø 140 / 140°

### Description

- Apply to round and rectangular pipes.
- The diameter of workpiece can be up to 100mm, 180mm, 400mm.
- Fit any system bore.

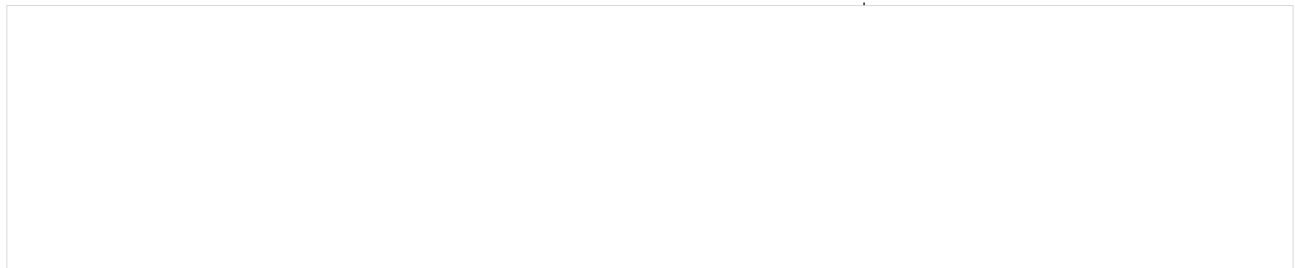
| Description                                            | A × ΦB × C     | Weight | Item no.     |
|--------------------------------------------------------|----------------|--------|--------------|
| Cross V-Block Ø 80 / 90° with shaft, Steel             | 45 × 80 × 60   | 2.16   | 28-90080-000 |
| Cross V-Block Ø 80 / 90° with shaft, Polyamide         | 45 × 80 × 60   | 0.88   | 28-90080-001 |
| Cross V-Block Ø 80 / 90° with shaft, Stainless steel   | 45 × 80 × 60   | 2.18   | 28-90080-002 |
| Cross V-Block Ø 110 / 120° with shaft, Steel           | 190 × 110 × 70 | 3.70   | 28-90110-000 |
| Cross V-Block Ø 110 / 120° with shaft, Polyamide       | 190 × 110 × 70 | 1.10   | 28-90110-001 |
| Cross V-Block Ø 110 / 120° with shaft, Stainless steel | 190 × 110 × 70 | 3.82   | 28-90110-002 |
| Cross V-Block Ø 140 / 140° with shaft, Steel           | 190 × 140 × 70 | 5.22   | 28-90140-000 |
| Cross V-Block Ø 140 / 140° with shaft, Polyamide       | 190 × 140 × 70 | 1.32   | 28-90140-001 |
| Cross V-Block Ø 140 / 140° with shaft, Stainless steel | 190 × 140 × 70 | 5.30   | 28-90140-002 |
| Cross V-Block Ø 80 / 90° with shaft, Steel             | 180 × 80 × 60  | 1.94   | 22-90080-000 |
| Cross V-Block Ø 110 / 120° with shaft, Steel           | 190 × 110 × 70 | 3.33   | 22-90110-000 |
| Cross V-Block Ø 80, 120° / 90°, Steel                  | 50 × 80        | 1.46   | 16-90080-000 |
| Cross V-Block Ø 80, 120° / 90°, Polyamide              | 50 × 80        | 1.46   | 16-90080-001 |
| Cross V-Block Ø 80, 120° / 90°, Stainless steel        | 50 × 80        | 0.22   | 16-90080-002 |

## Height adjustment set



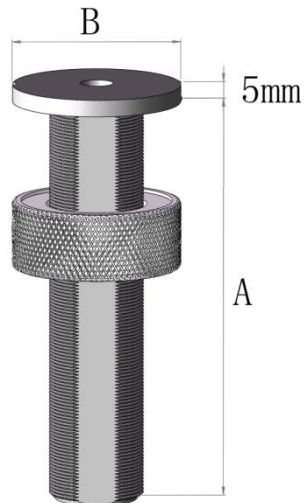
### Description

- Used with v- blocks, adjust the height of positioning location.
- Adjustable height 75-95 – mm.
- At the top of the hole can be directly use STQ bolt lock.



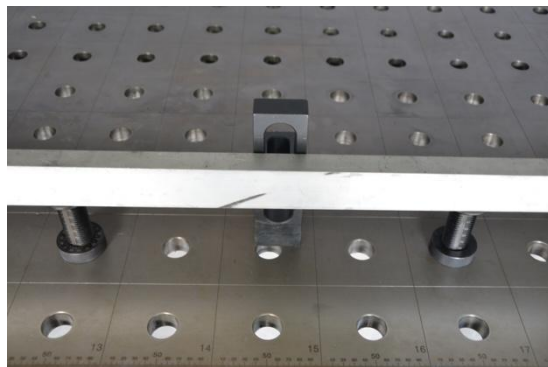
| Description           | A × ΦB       | Weight | Item no.     |
|-----------------------|--------------|--------|--------------|
| Height adjustment set | (75-95) × 80 | 2.34   | 28-90009-000 |
| Height adjustment set | (75-95) × 80 | 2.34   | 22-90009-000 |

## Precision Adjustment Screw



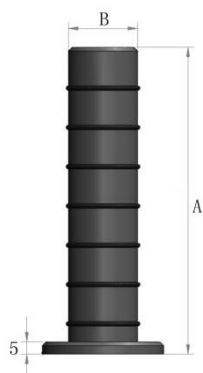
### Description

- Positioning the distance and height of the workpiece.
- The adjusting range 22-105 mm.
- Adjust the distance accuracy to 0.1 mm.
- The maximum load 10 KN.



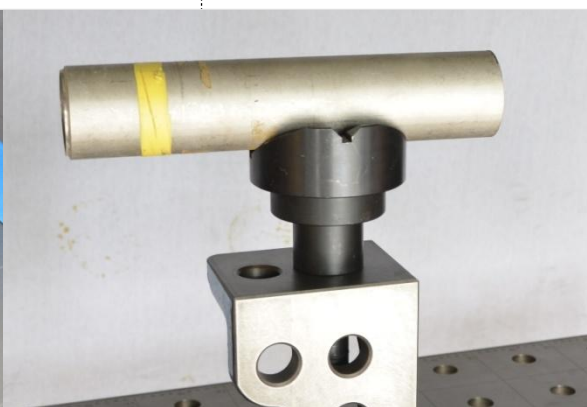
| Description                    | A × B      | Weight | Item no.     |
|--------------------------------|------------|--------|--------------|
| Precision Adjustment Screw Φ50 |            | 0.72   | 28-90005-000 |
| Precision Adjustment Screw Φ45 | 120+5 × 45 | 0.72   | 28-90005-000 |

## Adjustable Spacer Set



### Description

- The thickness of the Spacer: 1、2、2.5、3、4、5、10、20、40、50mm.
- Positioning the distance or height:5-100mm.
- Fits all system bores.
- Can be used with v-block.
- Combine with stop and angle, constitute all of the required sizes to position workpieces.



| Description           | A × ΦB       | Weight | Item no.     |
|-----------------------|--------------|--------|--------------|
| Spacer set 11- pieces | (120+5) × 28 | 1.96   | 28-90001-000 |
| Spacer set 11- pieces | (100+5) × 22 | 1.9    | 22-90001-000 |
| Spacer set 9 - pieces | (55+5) × 16  | 0.22   | 16-90001-000 |

## Wrench, Transport Ring, Ground connector



00-C0008-xxx



28-C0016-001



28-C0015-000



00-C0001-000



00-C0009-000

### Description

- Ball head hex wrench SW14 for STQ Bolt and table legs.
- Ball head hex wrench SW10 for Connection Bolt.
- Ball head hex wrench SW8 for STQ Countersunk Bolt.
- Ball head hex wrench SW5 for Adapter of toggle clamp.
- Torque wrench 70 nm of set torque for bolts SW14 including socket SW14、SW10、SW8、SW6、SW5、SW4.
- Ground connector, use for 28 series and 16 series.
- Transport ring loads 2500kg.

| Description                   | Specification             | Weight kg | Item no.     |
|-------------------------------|---------------------------|-----------|--------------|
| Hexagon wrench Universal Tool | SW 4                      | 0.01      | 00-C0008-004 |
| Hexagon wrench Universal Tool | SW 5                      | 0.06      | 00-C0008-005 |
| Hexagon wrench Universal Tool | SW 6                      | 0.02      | 00-C0008-006 |
| Hexagon wrench Universal Tool | SW 8                      | 0.1       | 00-C0008-008 |
| Hexagon wrench Universal Tool | SW 10                     | 0.17      | 00-C0008-010 |
| Hexagon wrench Universal Tool | SW 14                     | 0.32      | 00-C0008-014 |
| Special wrench 28             | 250 x 40mm                | 0.72      | 28-C0016-001 |
| Special wrench 22             | 250 x 40mm                | 0.72      | 22-C0016-001 |
| Torque wrench Universal Tool  | SW14, SW10, SW8, SW6, SW4 | 0.76      | 00-C0015-000 |
| Transport ring                |                           | 4.72      | 00-C0001-000 |
| Ground connector              |                           | 0.34      | 00-C0009-000 |

Cart, Round Brush, Pump bottle, Anti-spatter spray, Bench stone



- **Description**

- Cart has brake wheels with and aluminum alloy handles.
- Round brush material is stainless steel.

| Description        |                        | Note              | Weight kg | Item no.     |
|--------------------|------------------------|-------------------|-----------|--------------|
| Cart               | width x depth x height | 1000 x 650 x 1100 | 45        | 28-C1001-000 |
| Round brush        |                        | Φ 28              | 0.12      | 28-C0002-000 |
| Pump bottle        | Capacity 1L            |                   | 0.1       | 00-C0004-000 |
| Anti-spatter spray |                        | 5 litre           | 5         | 00-C0006-000 |
| Anti-spatter spray |                        | 20 litre          | 20        | 00-C0006-001 |
| Bench stone        |                        | 200×50×25         | 0.56      | 00-C0007-000 |
| Cart               | width x depth x height | ~800x503x1068     | 59        | 22-C1001-000 |
| Round brush        |                        | Φ 22              | 0.1       | 22-C0002-000 |
| Cart               | width x depth x height | 717 x 527 x 870   | 45        | 16-C1001-000 |
| Round brush        |                        | Φ 16              | 0.1       | 16-C0002-000 |

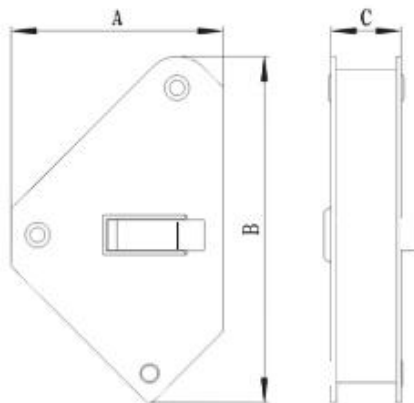
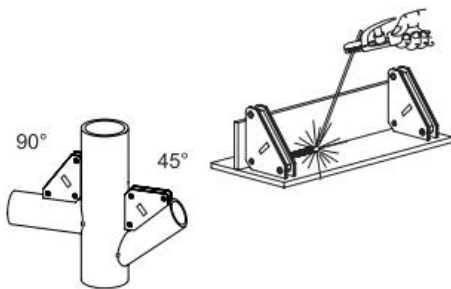
## Magnetic tools

### SINGLE SWITCH WELDING MAGNET



WM1-4590S

WM1-4590L



#### - Description

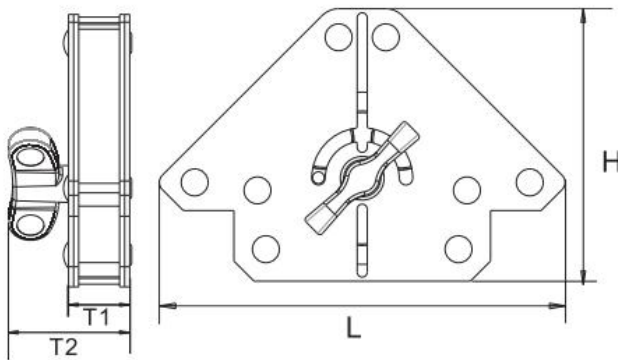
- Suitable to welding fix the inside square corner of various magnetic material.
- A switch controls the magnetic force of the welding magnet.
- Fast and safe set-up.
- Easy to clean. Simply turn off and wipe.



| Model     | Dimension (mm) | Angles  | Net Weight (kg) | Pull Off Force (kg) |
|-----------|----------------|---------|-----------------|---------------------|
| WM1-4590S | 95x111x28      | 45°/90° | 0.6             | 30                  |
| WM1-4590L | 1130x152x35    | 45°/90° | 1.4             | 55                  |

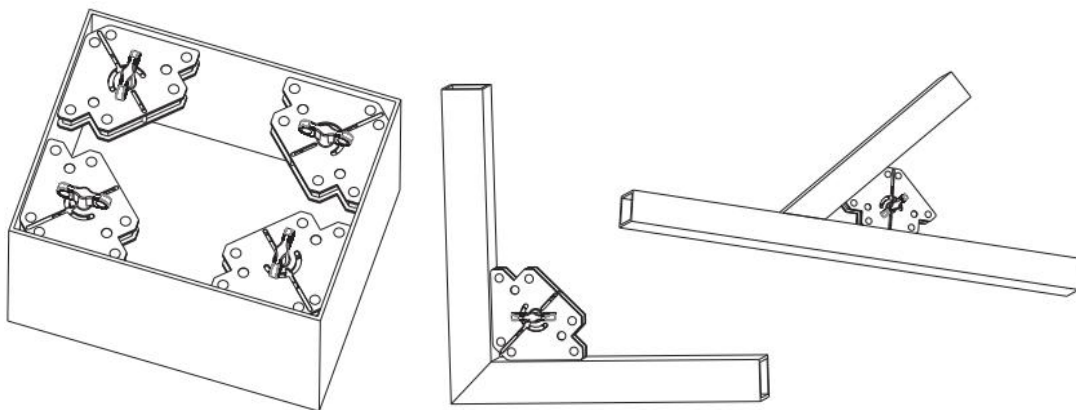
## Magnetic tools

### SWITCH ARROW WELDING MAGNET



#### - Description

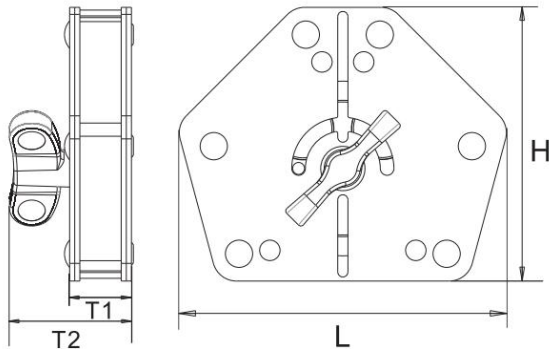
- Can be used for welding, pipe installation, assembly, magnetic pick-up tool etc.
- Strong ferrite magnet encased in durable steel casing and reinforced with rivets.
- Multi-angle design can be used at 45, 90 or 135 degrees.



| Model | Dimension (mm) |     |    |    | Angles       | Net Weight (kg) | Pull Off Force (kg) |
|-------|----------------|-----|----|----|--------------|-----------------|---------------------|
|       | L              | H   | T1 | T2 |              |                 |                     |
| FM3-S | 120            | 81  | 18 | 36 | 45°/90°/135° | 0.43            | 15-20               |
| FM3-M | 160            | 108 | 21 | 39 | 45°/90°/135° | 0.85            | 30-50               |

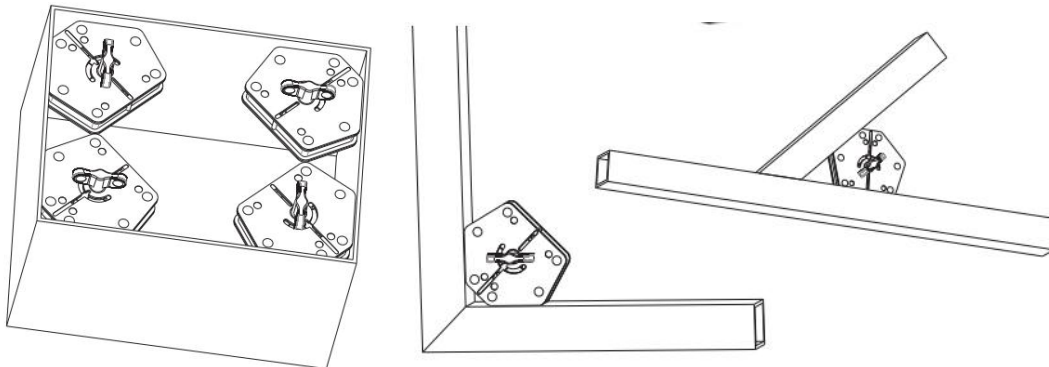
## Magnetic tools

### SWITCH HEXAGON WELDING MAGNET



#### - Description

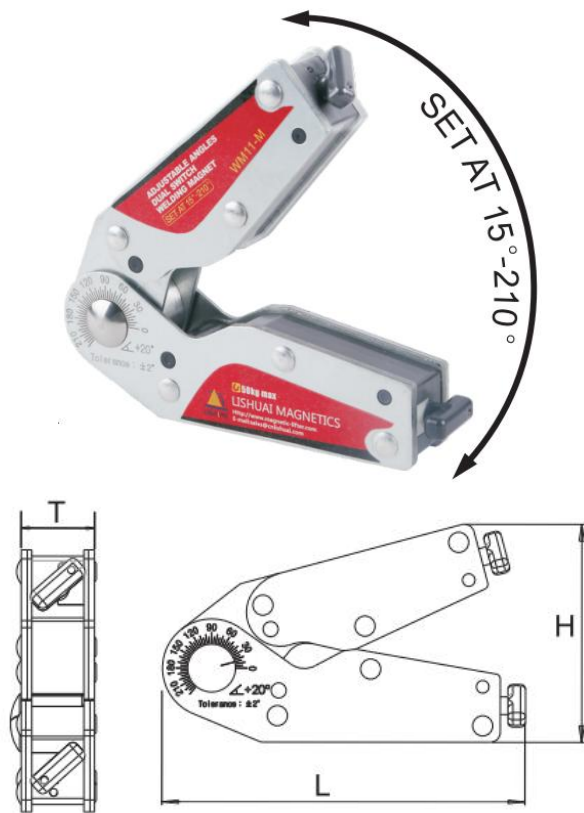
- Can be used for welding, pipe installation, assembly, magnetic pick-up tool etc.
- With On/Off switch, easy and safe to set up.
- Strong ferrite magnet encased in durable steel casing and reinforced with rivets.
- Multi-angle design can be used at 30,45,60,75,90 or 105 degrees.



| Model | Dimension (mm) |     |    |    | Angles                       | Net Weight (kg) | Pull Off Force (kg) |
|-------|----------------|-----|----|----|------------------------------|-----------------|---------------------|
|       | L              | H   | T1 | T2 |                              |                 |                     |
| FM4-S | 96             | 80  | 18 | 36 | 30°/45°/60°/<br>75°/90°/105° | 0.5             | 15-20               |
| FM4-M | 123            | 103 | 21 | 39 |                              | 1.0             | 30-40               |

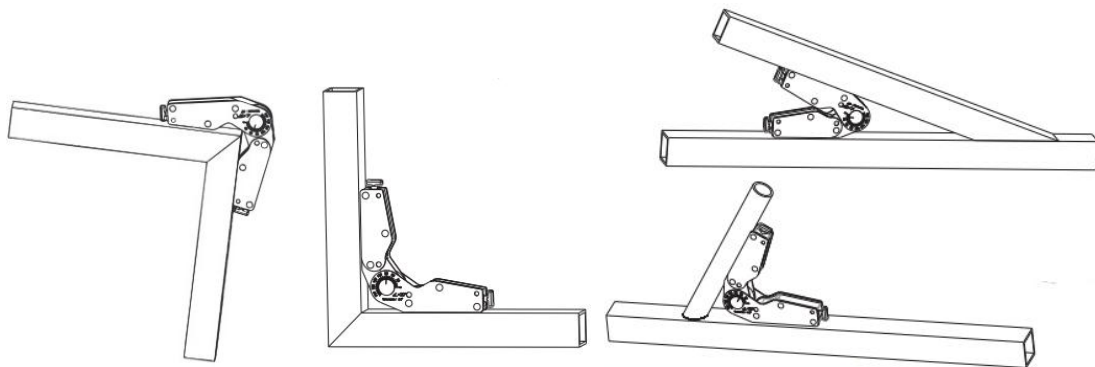
## Magnetic tools

### ADJUSTABLE DIAL SWITCH WELDING MAGNET



#### - Description

- Ideal for ferrous metal holding for welding jobs in hardware processing and construction industry.
- Two On/Off switches for independent operation, easy and safe to set up.
- With clear degree scale, setting up angles at 15° -210° by holding from outside/inside.
- Lock at any angles with the hex wrench.

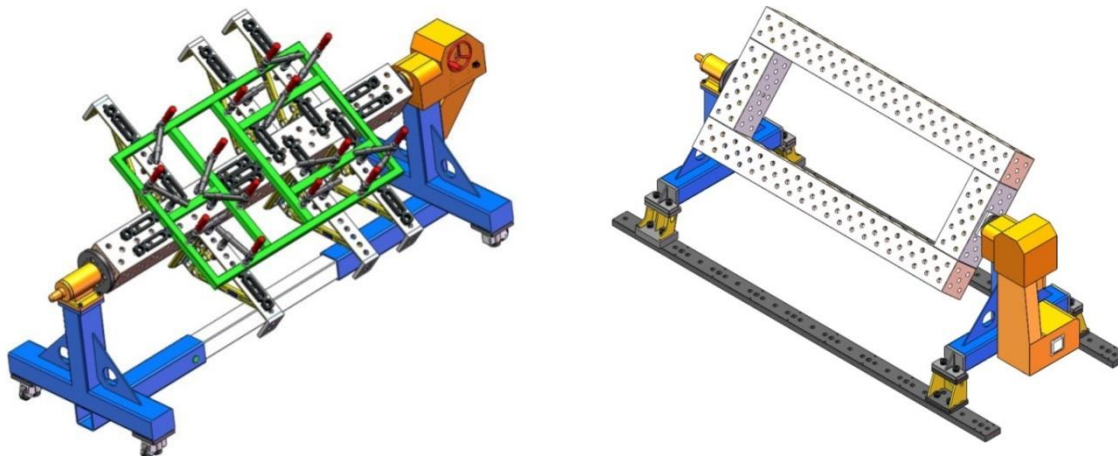


| Model  | Dimension (mm) |     |    | Angles   | Net Weight (kg) | Pull Off Force (kg) |
|--------|----------------|-----|----|----------|-----------------|---------------------|
|        | L              | H   | T  |          |                 |                     |
| WM11-S | 144            | 87  | 24 | 15°-210° | 0.7             | 30                  |
| WM11-M | 168            | 104 | 31 | 15°-210° | 1.2             | 50                  |

## Module Rollover Fixture

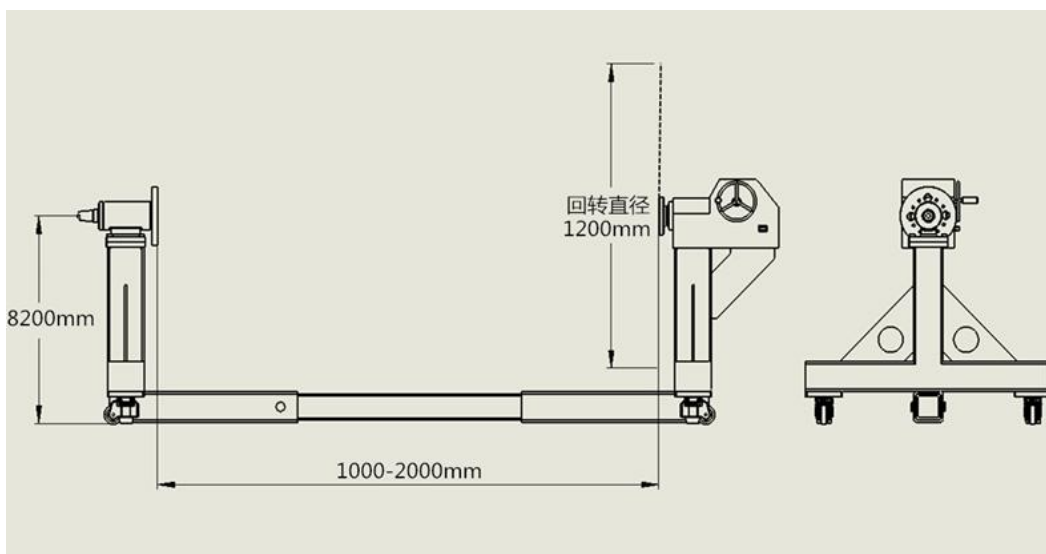
Manual / Electric Rollover

Universal Type Manual / Electric Rollover



### Description

- Flexible fixture, suitable for rotary welding of workpieces.
- Multiple choices, optional combination is suitable for different workpieces.
- Easy to operate, manual and electric power.
- Please consult with the technical department when selecting the model.

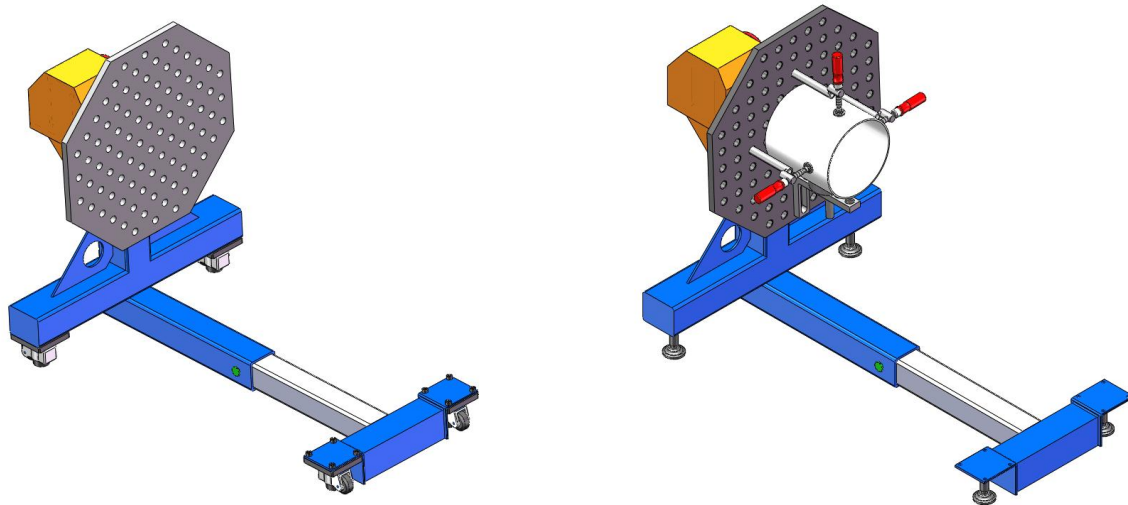


| Model                                         | HZJM-1200      | HZJE-1200      |
|-----------------------------------------------|----------------|----------------|
| Rotation mode                                 | Manual         | Electric       |
| Speed rpm.                                    | 0 – 2          | 0 - 2          |
| Load capacity max. (kg)                       | 2000           | 2000           |
| Overall dimension<br>(length*width*height) mm | 2900*1000*1000 | 2900*1000*1000 |

## Module Rollover Fixture

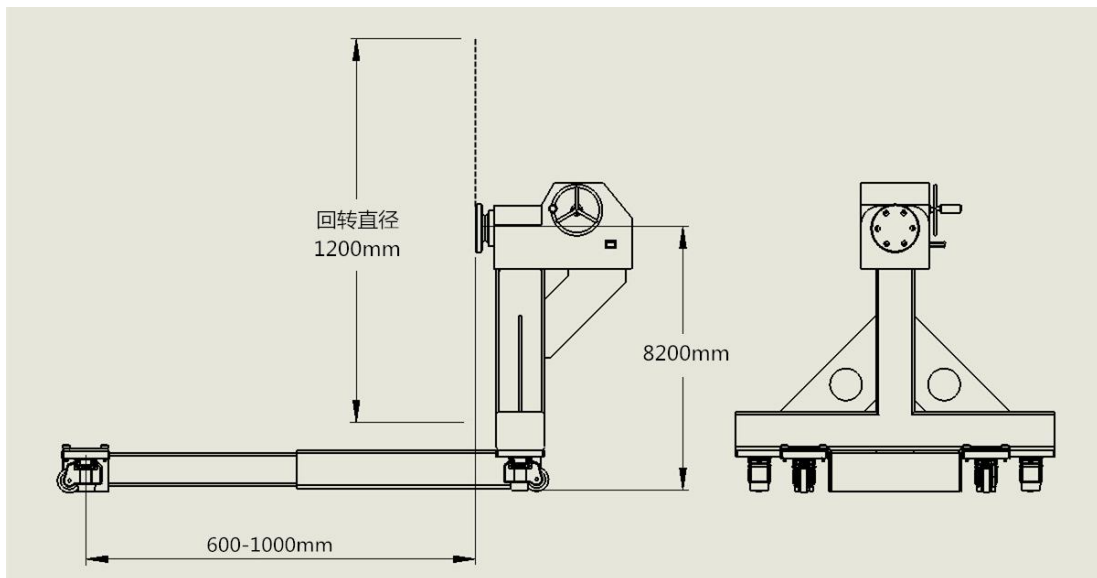
Manual / Electric Rollover

Single Side Manual / Electric Rollover



### Description

- Flexible fixture, suitable for rotary welding of workpieces.
- Multiple choices, optional combination is suitable for different workpieces.
- Easy to operate, manual and electric power.
- Please consult with the technical department when selecting the model.



| Model                                         | HZM-1200       | HZE-1200       |
|-----------------------------------------------|----------------|----------------|
| Rotation mode                                 | Manual         | Electric       |
| Speed rpm.                                    | 0 – 2          | 0 - 2          |
| Load capacity max. (kg)                       | 800            | 800            |
| Overall dimension<br>(length*width*height) mm | 1900*1000*1000 | 1900*1000*1000 |

## Triaxial Manipulator

### M-type Positioner



|                                  | M1500                                 | M3000                                   |
|----------------------------------|---------------------------------------|-----------------------------------------|
| Maximum load kg                  | 1500                                  | 3000                                    |
| Lifting range mm                 | 600                                   | 850                                     |
| Tilting angle                    | -3° - 93°                             | -3° - 93°                               |
| Rotate speed rpm.                | 0 - 2                                 | 0 - 2                                   |
| Rotation torque                  | 180Nm - 1500Nm                        | 250Nm - 2100Nm                          |
| Rotating motor power KW          | 0.5                                   | 2                                       |
| Dimension<br>length*width*height | Max 2180X980X1550<br>Min 2050X980X600 | Max 2380X1820X2050<br>Min 2250X1820X700 |
| Weight                           | 690kg                                 | 890kg                                   |

Our company reserve the right to change. 2022