



**PERFECT**

**PERFECT TECHNOLOGY CO.,LTD**

**2017**



**[www.perfect-cnc.com](http://www.perfect-cnc.com)**

# BT Test Bar



Test arbor is used to measure the runout of machine spindle.  
Taper Contant > 85%

| Order no  | D  | L   | Roundness | Concentricity | Package weight |
|-----------|----|-----|-----------|---------------|----------------|
| 55HG-BT30 | 30 | 250 | < 0.003   | <0.005        | 3.5            |
| 55HG-BT40 | 40 | 300 |           |               | 4.7            |
| 55HG-BT50 | 40 | 300 |           |               | 6.5            |

# BT Clamping Force Gauge



| Model     | (Measuring range)        | Package weight |
|-----------|--------------------------|----------------|
| XXR-BT-30 | 0~150 kg/cm <sup>2</sup> | 4.2kg          |
| XXR-BT-40 | 0~150 kg/cm <sup>2</sup> | 4.3kg          |
| XXR-BT-50 | 0~350 kg/cm <sup>2</sup> | 6.7kg          |



a: Determine whether the internal preload is in a normal state before using  
Inspection methods:

1. Pointer is not at zero, and there is left pre-pressure
2. Manually check the pressure gauge and the body will turn

Not rotating means there is left pre-pressure. Otherwise, if it's rotating, that means there is no pre-pressure.

b: Clamping Force Gauge restore the preload method

1. Remove the B plug.
  2. Loosen the A lever and loosen it again.
  3. Push the A lever inwards (so that the oil level is reduced).
  4. Then R68 hydraulic oil from the B hole to fill, after the first plug into the plug.
  5. Then tighten the A lever, then C gauge pointer will move up.
- When the A-rod fully tightened when the pressure is the most appropriate indication should be between 10kg ~ 30kg.  
If more than 30kg, then the B plug will be unobtainable internal oil micro-oiled to adjust the internal pressure until the pressure the index showed in the range of 10kg ~ 30kg.

c: Clamping Force Gauge reading method

The inner area of the tension motor 10.00675, so when the tension gauge pointer on the pressure data multiplied by 10, the correct tension, Newtons = 98 kg relative to the Newton units shown in the Electronic Rallymeter.  
The unit of pressure shown in this product is 1 kg = 10 kg tension

d: Clamping Force Gauge of the rod to replace the way

1. Clamp the surface of the pressure gauge
2. Turn the A lever (B plug can not move)
3. Replace the new lever and lock
4. Once again check the preload, preload normal can continue to use





# SK High Speed Holder



単位 (mm)

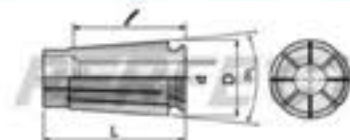
Material : JIS SNCM220  
Hardness : HRC 56°C ~ 58 °C  
cementite hardness> 0.8mm  
SK tooling systems are suitable  
for high speed and high precision  
cutting.

Special nut design provides better  
cutting condition and reducing  
cutting vibration.  
Wrench must be ordered  
separately.

Please specify nut type when ordering  
Type + N = Opening nut  
Type + B = bearing nut

| TYPE           | Rdngø d | L   | L1  | Weight(kg) | Dynamic balance |
|----------------|---------|-----|-----|------------|-----------------|
| BT30*SK10-60L  | 3~10    | 60  | 40  | 0.70       | 30000RPM        |
| BT30*SK10-90L  | 3~10    | 90  | 70  | 0.80       | 30000RPM        |
| BT30*SK13-60L  | 3~13    | 60  | 40  | 1.10       | 30000RPM        |
| BT30*SK13-90L  | 3~13    | 90  | 70  | 1.10       | 30000RPM        |
| BT30*SK16-60L  | 3~16    | 60  | 40  | 0.70       | 30000RPM        |
| BT30*SK16-90L  | 3~16    | 90  | 70  | 0.90       | 30000RPM        |
| BT30*SK16-150L | 3~16    | 150 | 130 | 1.30       | 30000RPM        |
| TYPE           | Rdngø d | L   | L1  | Weight(kg) | Dynamic balance |
| BT40*SK10-60L  | 3~10    | 60  | 35  | 1.20       | 25000RPM        |
| BT40*SK10-90L  | 3~10    | 90  | 65  | 1.30       | 25000RPM        |
| BT40*SK10-120L | 3~10    | 120 | 95  | 1.50       | 25000RPM        |
| BT40*SK10-150L | 3~10    | 150 | 125 | 1.60       | 25000RPM        |
| BT40*SK13-60L  | 3~13    | 60  | 35  | 1.20       | 25000RPM        |
| BT40*SK13-90L  | 3~13    | 90  | 65  | 1.30       | 25000RPM        |
| BT40*SK13-120L | 3~13    | 120 | 95  | 1.60       | 25000RPM        |
| BT40*SK13-150L | 3~13    | 150 | 125 | 1.80       | 25000RPM        |
| BT40*SK16-60L  | 3~16    | 60  | 35  | 1.30       | 25000RPM        |
| BT40*SK16-90L  | 3~16    | 90  | 65  | 1.50       | 25000RPM        |
| BT40*SK16-120L | 3~16    | 120 | 95  | 1.90       | 25000RPM        |
| BT40*SK16-150L | 3~16    | 150 | 125 | 2.10       | 25000RPM        |
| BT40*SK20-60L  | 6~20    | 60  | 35  | 1.30       | 25000RPM        |
| BT40*SK20-90L  | 6~20    | 90  | 65  | 1.80       | 25000RPM        |
| BT40*SK20-120L | 6~20    | 120 | 95  | 2.40       | 25000RPM        |
| BT40*SK20-150L | 6~20    | 150 | 125 | 2.60       | 25000RPM        |
| BT40*SK25-80L  | 6~25    | 80  | 55  | 1.60       | 25000RPM        |
| BT40*SK25-120L | 6~25    | 120 | 95  | 2.20       | 25000RPM        |
| TYPE           | Rdngø d | L   | L1  | Weight(kg) | Dynamic balance |
| BT50*SK10-100L | 3~10    | 100 | 65  | 4.00       | 15000RPM        |
| BT50*SK10-135L | 3~10    | 135 | 100 | 4.15       | 15000RPM        |
| BT50*SK10-150L | 3~10    | 150 | 115 | 4.20       | 15000RPM        |
| BT50*SK10-165L | 3~10    | 165 | 130 | 4.40       | 15000RPM        |
| BT50*SK16-100L | 3~16    | 100 | 65  | 4.20       | 15000RPM        |
| BT50*SK16-135L | 3~16    | 135 | 100 | 4.55       | 15000RPM        |
| BT50*SK16-150L | 3~16    | 150 | 115 | 5.00       | 15000RPM        |
| BT50*SK16-165L | 3~16    | 165 | 130 | 5.10       | 15000RPM        |
| BT50*SK20-100L | 6~20    | 100 | 65  | 4.50       | 15000RPM        |
| BT50*SK20-135L | 6~20    | 135 | 100 | 5.00       | 15000RPM        |
| BT50*SK20-150L | 6~20    | 150 | 115 | 5.50       | 15000RPM        |
| BT50*SK25-100L | 6~25    | 100 | 65  | 4.50       | 15000RPM        |
| BT50*SK25-135L | 6~25    | 135 | 100 | 5.10       | 15000RPM        |
| BT50*SK25-150L | 6~25    | 150 | 115 | 5.30       | 15000RPM        |

# SK High Speed Collet



Unit (mm)

Collet chuck Runout (A: ≤ 8 μ) (AA: ≤ 3 μ) ~If you need AA level, please inform us clearly~

| TYPE  | Rdngø d |      |      |      |      |      |      |      |      |      | D    | L    | Weight(kg) |
|-------|---------|------|------|------|------|------|------|------|------|------|------|------|------------|
| SK-10 | 3.0     | 1/8  | 3.5  | 4.0  | 4.5  | 5.0  | 5.5  | 6.0  | 6.5  |      | 16.0 | 30.0 | 0.02       |
|       | 7.0     | 7.5  | 8.0  | 8.5  | 9.0  | 9.5  | 10.0 |      |      |      |      |      |            |
| SK-13 | 3.0     | 3.5  | 4.0  | 4.5  | 5.0  | 5.5  | 6.0  | 6.5  | 7.0  | 7.5  | 20.0 | 39.0 | 0.04       |
|       | 8.0     | 8.5  | 9.0  | 9.5  | 10.0 | 10.5 | 11.0 | 12.0 | 13.0 |      |      |      |            |
| SK-16 | 3.0     | 3.5  | 4.0  | 4.5  | 5.0  | 5.5  | 6.0  | 6.5  | 7.0  | 7.5  | 24.5 | 45.0 | 0.08       |
|       | 8.0     | 8.5  | 9.0  | 9.5  | 10.0 | 10.5 | 11.0 | 11.5 | 12.0 | 12.5 |      |      |            |
|       | 13.0    | 14.0 | 15.0 | 16.0 |      |      |      |      |      |      |      |      |            |
| SK-20 | 6.0     | 8.0  | 10.0 | 12.0 | 14.0 | 16.0 | 18.0 | 20.0 |      |      | 29.3 | 50.5 | 0.14       |
| SK-25 | 6.0     | 8.0  | 10.0 | 12.0 | 14.0 | 16.0 | 18.0 | 20.0 | 25.0 |      | 35.0 | 57.0 | 0.24       |

## SK High Speed Nut

| TYPE     | Outside diameter/D | Inner teeth/G              | Weight(kg) |
|----------|--------------------|----------------------------|------------|
| NUT-SK10 | 29.0               | BT30 M22x1.25P<br>M22x1.5P | 0.05       |
| NUT-SK13 | 37.0               | M28x1.5P                   | 0.07       |
| NUT-SK16 | 40.0               | M32x1.5P                   | 0.11       |
| NUT-SK20 | 50.0               | M40x1.5P                   | 0.18       |
| NUT-SK25 | 56.0               | M45x1.5P                   | 0.21       |

## SK High Speed Bearing Nut

| TYPE      | Outside diameter/D | Inner teeth/G              | Weight(kg) |
|-----------|--------------------|----------------------------|------------|
| BNUT-SK10 | 30.0               | BT30 M22x1.25P<br>M22x1.5P | 0.05       |
| BNUT-SK13 | 35.0               | M28x1.5P                   | 0.07       |
| BNUT-SK16 | 40.0               | M32x1.5P                   | 0.11       |
| BNUT-SK20 | 50.0               | M40x1.5P                   | 0.18       |

## SK High Speed Wrench

| TYPE     | Weight(kg) |
|----------|------------|
| WRE-SK10 | 0.14       |
| WRE-SK13 | 0.18       |
| WRE-SK16 | 0.28       |
| WRE-SK20 | 0.29       |
| WRE-SK25 | 0.26       |



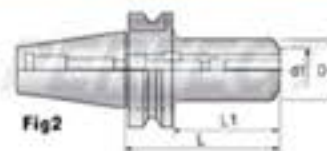
## SK High Speed Bearing Wrench

| TYPE     | Weight(kg) |
|----------|------------|
| WRE-SK10 | 0.22       |
| WRE-SK13 | 0.25       |
| WRE-SK16 | 0.32       |
| WRE-SK20 | 0.44       |



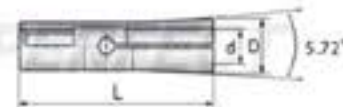


## SDC High Speed Holder



| Order no        | Clamping Range(d) | L   | L1  | D  | kg   | Dynamic balance |
|-----------------|-------------------|-----|-----|----|------|-----------------|
| BT30-SDC6-60L   | 3-6               | 60  | 40  | 14 | 0.50 | 30000RPM        |
| BT30-SDC6-90L   | 3-6               | 90  | 70  | 14 | 0.60 | 30000RPM        |
| BT30-SDC8-60L   | 3-8               | 60  | 40  | 22 | 0.50 | 30000RPM        |
| BT30-SDC8-90L   | 3-8               | 90  | 70  | 22 | 0.60 | 30000RPM        |
| BT30-SDC12-70L  | 3-12              | 70  | 50  | 35 | 0.62 | 30000RPM        |
| BT30-SDC12-90L  | 3-12              | 90  | 70  | 35 | 0.85 | 30000RPM        |
| BT40-SDC6-90L   | 3-6               | 90  | 65  | 14 | 1.20 | 25000RPM        |
| BT40-SDC6-90XL  | 3-6               | 90  | 65  | 14 | 1.20 | 25000RPM        |
| BT40-SDC6-120L  | 3-6               | 120 | 95  | 14 | 1.30 | 25000RPM        |
| BT40-SDC6-150L  | 3-6               | 150 | 125 | 14 | 1.50 | 25000RPM        |
| BT40-SDC8-90L   | 3-6               | 90  | 65  | 22 | 1.20 | 25000RPM        |
| BT40-SDC8-120L  | 3-6               | 120 | 95  | 22 | 1.30 | 25000RPM        |
| BT40-SDC8-150L  | 3-6               | 150 | 125 | 22 | 1.50 | 25000RPM        |
| BT40-SDC12-70L  | 3-6               | 70  | 45  | 35 | 1.20 | 25000RPM        |
| BT40-SDC12-90L  | 3-6               | 90  | 65  | 35 | 1.30 | 25000RPM        |
| BT40-SDC12-150L | 3-6               | 150 | 125 | 35 | 1.90 | 25000RPM        |
| BT50-SDC6-110L  | 3-6               | 110 | 75  | 14 | 3.70 | 15000RPM        |
| BT50-SDC8-110L  | 3-8               | 110 | 75  | 22 | 4.00 | 15000RPM        |
| BT50-SDC8-150L  | 3-8               | 150 | 115 | 22 | 4.20 | 15000RPM        |
| BT50-SDC12-110L | 3-12              | 110 | 75  | 35 | 4.10 | 15000RPM        |
| BT50-SDC12-150L | 3-12              | 150 | 115 | 35 | 4.40 | 15000RPM        |

## SDC High Speed Collet



Collet chuck Runout  $\leq 5 \mu$

| MODEL NO | d                                         | L  | D   | G        | kg   | Use hex wrench |
|----------|-------------------------------------------|----|-----|----------|------|----------------|
| SDC6     | 3, 3.5, 4, 4.5, 5, 5.5, 6                 | 36 | 9.8 | M5*0.8P  | 0.01 | M4             |
| SDC6X    | 3, 4, 5, 6                                | 60 | 9.8 | M5*0.9P  | 0.02 | M4             |
| SDC8     | 3, 3.5, 4, 4.5, 5, 5.5, 6, 6.5, 8         | 45 | 15  | M6*1.0P  | 0.02 | M5             |
| SDC12    | 3, 3.5, 4, 4.5, 5, 5.5, 6, 6.5, 8, 10, 12 | 60 | 22  | M10*1.5P | 0.07 | M8             |



## UC High Speed Holder

| Order no       | Clamping Range(d) | L   | L1 | D  | kg   | Dynamic balance |
|----------------|-------------------|-----|----|----|------|-----------------|
| BT40-UC10-90L  | 3-10              | 90  | 65 | 24 | 1.00 | 25000RPM        |
| BT40-UC10-120L | 3-10              | 120 | 95 | 24 | 1.50 | 25000RPM        |

## UC High Speed Collet

Collet chuck Runout  $\leq 5 \mu$

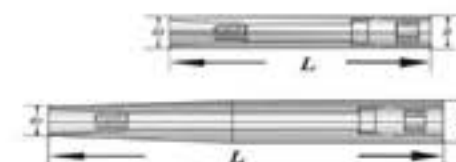


| Order no | d          | L    | D  | G       | kg   | Use hex wrench |
|----------|------------|------|----|---------|------|----------------|
| UC10-    | 3 4 6 8 10 | 56.5 | 15 | M6*1.0P | 0.07 | M5             |

## SDC Extension adaptor



Material: JIS SNCM220  
Hardness: HRC 56° C ~ 58° C  
cementite hardness > 0.8mm



| Order no      | L   | L1 | D  | D1   | kg   |
|---------------|-----|----|----|------|------|
| C12-SDC6-120L | 120 | 35 | 12 | 12.9 | 0.10 |
| C12-SDC6-150L | 150 | 35 | 12 | 12.9 | 0.12 |
| C16-SDC6-150L | 150 | 30 | 16 | 13.0 | 0.21 |
| C16-SDC6-200L | 200 | 30 | 16 | 13.0 | 0.29 |

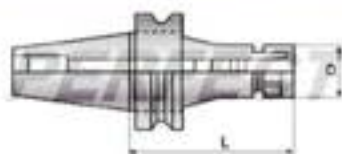
## SDC6 Extension rod 8PCS Group Box



| Order no        | SDC6 Collet | Ended Spanner | Use hex wrench | Weight(kg) |
|-----------------|-------------|---------------|----------------|------------|
| C12-SDC6-120-8P | 3mm         | 10mm 1pcs     | 4mm 1pcs       | 0.65       |
| C12-SDC6-150-8P | 4mm         | 14mm 1pcs     |                | 0.68       |
| C16-SDC6-150-8P | 5mm         |               |                | 0.75       |
| C16-SDC6-200-8P | 6mm         |               |                | 0.82       |



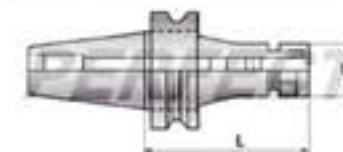
## ER Spring Collet Chuck



| Order no       | Clamping Range(d) | L   | D  | Weight(kg) |
|----------------|-------------------|-----|----|------------|
| BT30-ER16-60L  | 3~10              | 60  | 28 | 0.60       |
| BT30-ER16-100L | 3~10              | 100 | 28 | 0.75       |
| BT30-ER20-60L  | 3~13              | 60  | 34 | 0.60       |
| BT30-ER20-100L | 3~13              | 100 | 34 | 0.75       |
| BT30-ER25-60L  | 3~16              | 60  | 42 | 0.70       |
| BT30-ER32-60L  | 3~16              | 60  | 50 | 0.75       |
| BT30-ER32-70L  | 3~16              | 70  | 50 | 0.80       |
| BT30-ER32-100L | 3~16              | 100 | 50 | 0.95       |

| Order no       | Clamping Range(d) | L   | D  | Weight(kg) |
|----------------|-------------------|-----|----|------------|
| BT40-ER11-70L  | 3~7               | 70  | 19 | 1.20       |
| BT40-ER11-100L | 3~7               | 100 | 19 | 1.25       |
| BT40-ER16-70L  | 3~10              | 70  | 28 | 1.20       |
| BT40-ER16-100L | 3~10              | 100 | 28 | 1.40       |
| BT40-ER16-125L | 3~10              | 125 | 28 | 1.50       |
| BT40-ER16-150L | 3~10              | 150 | 28 | 1.60       |
| BT40-ER16-200L | 3~10              | 200 | 28 | 1.90       |
| BT40-ER20-70L  | 3~13              | 70  | 34 | 1.30       |
| BT40-ER20-100L | 3~13              | 100 | 34 | 1.50       |
| BT40-ER20-125L | 3~13              | 125 | 34 | 1.65       |
| BT40-ER20-150L | 3~13              | 150 | 34 | 1.80       |
| BT40-ER20-200L | 3~13              | 200 | 34 | 1.95       |
| BT40-ER25-70L  | 3~16              | 70  | 42 | 1.50       |
| BT40-ER25-100L | 3~16              | 100 | 42 | 1.70       |
| BT40-ER25-150L | 3~16              | 150 | 42 | 2.10       |
| BT40-ER32-70L  | 3~20              | 70  | 50 | 1.40       |
| BT40-ER32-100L | 3~20              | 100 | 50 | 1.80       |
| BT40-ER32-150L | 3~20              | 150 | 50 | 2.60       |
| BT40-ER40-80L  | 3~26              | 80  | 63 | 1.70       |
| BT40-ER40-100L | 3~26              | 100 | 63 | 2.20       |
| BT40-ER40-120L | 3~26              | 120 | 63 | 2.30       |
| BT40-ER40-150L | 3~26              | 150 | 63 | 2.45       |

## ER Spring Collet Chuck



| Order no       | Clamping Range(d) | L   | D  | Weight(kg) |
|----------------|-------------------|-----|----|------------|
| BT50-ER16-100L | 3~10              | 100 | 28 | 4.10       |
| BT50-ER16-150L | 3~10              | 150 | 28 | 4.30       |
| BT50-ER16-200L | 3~10              | 200 | 28 | 4.60       |
| BT50-ER20-100L | 3~13              | 100 | 34 | 4.20       |
| BT50-ER20-150L | 3~13              | 150 | 34 | 4.50       |
| BT50-ER20-200L | 3~13              | 200 | 34 | 4.80       |
| BT50-ER25-100L | 3~16              | 100 | 42 | 4.20       |
| BT50-ER25-150L | 3~16              | 150 | 42 | 4.80       |
| BT50-ER25-200L | 3~16              | 200 | 42 | 5.30       |
| BT50-ER32-100L | 3~20              | 100 | 50 | 4.40       |
| BT50-ER32-150L | 3~20              | 150 | 50 | 5.20       |
| BT50-ER32-200L | 3~20              | 200 | 50 | 5.90       |
| BT50-ER40-100L | 3~26              | 100 | 63 | 4.70       |
| BT50-ER40-150L | 3~26              | 150 | 63 | 5.90       |
| BT50-ER40-200L | 3~26              | 200 | 63 | 7.10       |

ER collet chuck with the flexibility that can clamp drill,reamers,end mills and tape Wrench must be ordered separately.

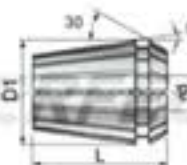
## ERM Spring Collet Chuck



| Order no         | Clamping Range(d) | L     | D  | Weight(kg) |
|------------------|-------------------|-------|----|------------|
| BT30-ER11 M-100L | 3~7               | 100.0 | 16 | 0.60       |
| BT30-ER16 M-100L | 3~10              | 100.0 | 22 | 0.70       |
| BT30-ER20 M-100L | 3~13              | 100.0 | 28 | 0.80       |
| BT30-ER20 M-100L | 3~13              | 100.0 | 34 | 0.75       |
| BT40-ER11 M-70L  | 3~7               | 70.0  | 16 | 1.15       |
| BT40-ER11 M-100L | 3~7               | 100.0 | 16 | 1.20       |
| BT40-ER16 M-100L | 3~10              | 100.0 | 22 | 1.25       |
| BT40-ER20 M-100L | 3~13              | 100.0 | 28 | 1.30       |
| BT40-ER16 M-125L | 3~10              | 125.0 | 28 | 1.50       |



# ER Collet



Collet chuck Runout  
(A:  $\leq 0.015 \mu$ ) (AA:  $\leq 0.005 \mu$ )

| Order no | Rdnge d                                                                          | D    | L  | Weight(kg) |
|----------|----------------------------------------------------------------------------------|------|----|------------|
| ER11-    | 2 2.5 3 3.5 4 4.5 5 5.5 6 6.5 7                                                  | 11.5 | 18 | 0.01       |
| ER16-    | 2 2.5 3 3.5 4 4.5 5 5.5 6 6.5 7<br>7.5 8 8.5 9 9.5 10                            | 17   | 27 | 0.03       |
| ER20-    | 2 2.5 3 3.5 4 4.5 5 5.5 6 6.5 7<br>7.5 8 8.5 9 9.5 10 10.5 11 11.5<br>12 12.5 13 | 21   | 31 | 0.04       |
| ER25-    | 2 3 4 5 6 7 8 9 10 11 12 13<br>14 15 16                                          | 26   | 35 | 0.07       |
| ER32-    | 3 4 5 6 7 8 9 10 11 12 13 14<br>15 16 17 18 19 20                                | 33   | 40 | 0.15       |
| ER40-    | 3 4 5 6 7 8 9 10 11 12 13 14<br>15 16 17 18 19 20 21 22 23 24<br>25 26           | 41   | 46 | 0.27       |
| ER50-    | 12 14 16 18 20 22 24 26 28 30<br>32 34                                           | 52   | 60 | 0.45       |

## ER Collet set of pieces

Containing aluminum box

| Order no  | Rdnge d                                           | Weight(kg) |
|-----------|---------------------------------------------------|------------|
| ER11-7PC  | 2 3 4 5 6 7                                       | 0.5        |
| ER16-10PC | 2 3 4 5 6 7 8 9 10                                | 0.7        |
| ER20-13PC | 2 3 4 5 6 7 8 9 10 11 12 13                       | 0.8        |
| ER25-16PC | 2 3 4 5 6 7 8 9 10 11 12 13<br>14 15 16           | 1.6        |
| ER32-19PC | 3 4 5 6 7 8 9 10 11 12 13<br>14 15 16 17 18 19 20 | 3.4        |



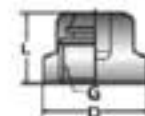
## ER Collet set of pieces

Paper box



| Order no | Rdnge d                                                                | Weight(kg) |
|----------|------------------------------------------------------------------------|------------|
| ER11-6P  | 2 3 4 5 6 7                                                            | 0.1        |
| ER16-9P  | 2 3 4 5 6 7 8 9 10                                                     | 0.3        |
| ER20-12P | 2 3 4 5 6 7 8 9 10 11 12 13                                            | 0.5        |
| ER25-15P | 2 3 4 5 6 7 8 9 10 11 12 13<br>14 15 16                                | 1.2        |
| ER32-18P | 3 4 5 6 7 8 9 10 11 12 13<br>14 15 16 17 18 19 20                      | 3.0        |
| ER40-23P | 3 4 5 6 7 8 9 10 11 12 13<br>14 15 16 17 18 19 20 21 22<br>23 24 25 26 | 6.4        |
| ER50-12P | 12 14 16 18 20 22 24 26 28<br>30 32 34                                 | 5.6        |

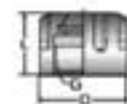
# ER Nut & ER Wrench



A Type



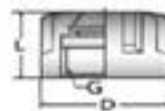
| Order no | ER Nut | D    | L    | G         | Weight(kg) | Order no | ER Wrench | C    | L     | Weight(kg) |
|----------|--------|------|------|-----------|------------|----------|-----------|------|-------|------------|
| AN-ER11  | ER11-A | 19.0 | 13.0 | M14x0.75P | 0.01       | AW-ER11  | ER11-A    | 17.0 | 140.0 | 0.08       |
| AN-ER16  | ER16-A | 28.0 | 17.5 | M22x1.5P  | 0.04       | AW-ER16  | ER16-A    | 25.0 | 142.0 | 0.12       |
| AN-ER20  | ER20-A | 34.0 | 19.0 | M25x1.5p  | 0.07       | AW-ER20  | ER20-A    | 30.0 | 162.0 | 0.17       |



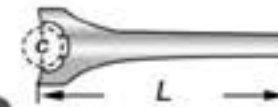
M Type



| Order no | ER Nut | D    | L    | G         | Weight(kg) | Order no | ER Wrench | C    | L    | Weight(kg) |
|----------|--------|------|------|-----------|------------|----------|-----------|------|------|------------|
| MN-ER11  | ER11-M | 16.0 | 12.0 | M13x0.75P | 0.01       | MW-ER11  | ER11-M    | 16.0 | 12.0 | 0.03       |
| MN-ER16  | ER16-M | 22.0 | 18.0 | M19x1.0P  | 0.02       | MW-ER16  | ER16-M    | 22.0 | 18.0 | 0.05       |
| MN-ER20  | ER20-M | 28.0 | 19.0 | M24x1.0P  | 0.03       | MW-ER20  | ER20-M    | 28.0 | 19.0 | 0.07       |



UM Type



| Order no | ER Nut   | D    | L    | G        | Weight(kg) | Order no | ER Wrench | C     | L     | Weight(kg) |
|----------|----------|------|------|----------|------------|----------|-----------|-------|-------|------------|
| UM-ER25  | ER25<UM> | 42.0 | 20.0 | M32x1.5P | 0.11       | UMW-ER25 | ER25<UM>  | 65.0  | 206.0 | 0.22       |
| UM-ER32  | ER32<UM> | 50.0 | 22.5 | M40x1.5P | 0.15       | UMW-ER32 | ER32<UM>  | 75.0  | 253.0 | 0.30       |
| UM-ER40  | ER40<UM> | 63.0 | 29.0 | M50x1.5P | 0.3        | UMW-ER40 | ER40<UM>  | 90.0  | 289.0 | 0.36       |
| UM-ER50  | ER50<UM> | 78.0 | 35.0 | M64x2.0P | 0.85       | UMW-ER50 | ER50<UM>  | 110.0 | 350.0 | 0.70       |

## BT Lock knife seat



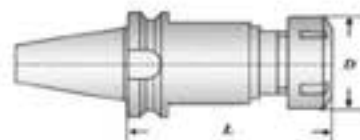
| Order no | Weight(kg) |
|----------|------------|
| N2Y-BT30 | 4.0kg      |
| N2Y-BT40 | 5.0kg      |
| N2Y-BT50 | 9.0kg      |

Material: cast iron + aluminum



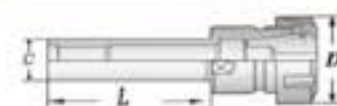
## TER Compression Tap Holder

TER tap holder uses the ER spring collet and easy to get.  
The nut could not be over tightening to avoid damaging the body and nut.  
Wrench must be ordered separately.



| Order no   | D  | L   | Tapping Range | Weight(kg) |
|------------|----|-----|---------------|------------|
| BT30-TER16 | 28 | 77  | M3-M10        | 0.70       |
| BT30-TER20 | 34 | 86  | M3-M12        | 0.80       |
| BT40-TER16 | 28 | 77  | M3-M10        | 1.20       |
| BT40-TER20 | 34 | 86  | M3-M12        | 1.30       |
| BT40-TER25 | 42 | 90  | M4-M16        | 1.60       |
| BT40-TER32 | 50 | 94  | M4-M22        | 1.70       |
| BT40-TER40 | 63 | 98  | M6-M30        | 2.60       |
| BT50-TER16 | 28 | 80  | M3-M10        | 3.90       |
| BT50-TER20 | 34 | 99  | M3-M12        | 4.00       |
| BT50-TER25 | 42 | 97  | M4-M16        | 4.20       |
| BT50-TER32 | 50 | 95  | M4-M22        | 4.30       |
| BT50-TER40 | 63 | 117 | M6-M30        | 4.90       |

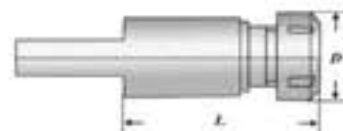
## ER Extension rod



| Order no      | D  | Weight(kg) |
|---------------|----|------------|
| C12-ER11-140L | 19 | 0.20       |
| C16-ER11-100L | 19 | 0.20       |
| C16-ER11-140L | 19 | 0.30       |
| C16-ER16-100L | 28 | 0.35       |
| C16-ER16-140L | 28 | 0.40       |
| C20-ER16-100L | 28 | 0.35       |
| C20-ER16-140L | 28 | 0.45       |
| C20-ER20-100L | 34 | 0.45       |
| C20-ER20-150L | 34 | 0.50       |
| C20-ER25-100L | 42 | 0.55       |
| C20-ER25-150L | 42 | 0.60       |

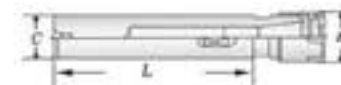
| Order no      | D  | Weight(kg) |
|---------------|----|------------|
| C25-ER16-100L | 28 | 0.40       |
| C25-ER16-150L | 28 | 0.70       |
| C25-ER20-100L | 34 | 0.50       |
| C25-ER20-150L | 34 | 0.75       |
| C25-ER25-100L | 42 | 0.55       |
| C25-ER25-150L | 42 | 0.80       |
| C32-ER25-100L | 42 | 0.70       |
| C32-ER32-100L | 50 | 1.10       |
| C32-ER40-100L | 63 | 1.30       |
| C40-ER32-100L | 50 | 1.30       |
| C40-ER40-100L | 63 | 1.60       |

## TER Compression Tap Holder



| Order no  | D  | L  | Tapping Range | Weight(kg) |
|-----------|----|----|---------------|------------|
| C20-TER16 | 28 | 75 | M3-M10        | 0.40       |
| C20-TER20 | 34 | 80 | M3-M12        | 0.50       |
| C20-TER25 | 42 | 80 | M3-M16        | 0.80       |
| C25-TER16 | 28 | 75 | M3-M10        | 0.50       |
| C25-TER20 | 34 | 80 | M3-M12        | 0.60       |
| C25-TER25 | 42 | 80 | M4-M16        | 0.90       |
| C25-TER32 | 50 | 80 | M4-M22        | 1.10       |
| C32-TER16 | 28 | 75 | M3-M10        | 0.70       |
| C32-TER20 | 34 | 80 | M3-M12        | 0.80       |
| C32-TER25 | 42 | 80 | M4-M16        | 1.00       |
| C32-TER32 | 50 | 80 | M4-M22        | 1.20       |

## ERM Extension rod



| Order no       | D  | Weight(kg) |
|----------------|----|------------|
| C10*ER11M-140L | 16 | 0.20       |
| C16*ER11M-100L | 16 | 0.20       |
| C16*ER11M-140L | 16 | 0.10       |
| C16*ER11M-200L | 16 | 0.30       |
| C16*ER16M-100L | 16 | 0.20       |
| C16*ER16M-150L | 16 | 0.30       |

| Order no       | D  | Weight(kg) |
|----------------|----|------------|
| C20*ER16M-100L | 16 | 0.30       |
| C20*ER16M-150L | 16 | 0.40       |
| C20*ER20M-100L | 22 | 3.50       |
| C20*ER20M-150L | 22 | 0.40       |
| C25*ER20M-100L | 22 | 0.30       |
| C25*ER20M-150L | 22 | 0.50       |
| C32*ER20M-100L | 22 | 0.50       |



## APU Drill Chuck Holder

| Order no         | Reange | D    | Weight(kg) |
|------------------|--------|------|------------|
| BT30-APU08-80L   | 1 ~ 8  | 38.3 | 1.0        |
| BT30-APU013-100L | 1 ~ 13 | 51.5 | 1.5        |
| BT40-APU08-85L   | 1 ~ 8  | 38.3 | 1.5        |
| BT40-APU013-100L | 1 ~ 13 | 51.5 | 1.9        |
| BT40-APU016-130L | 3 ~ 16 | 58.0 | 2.6        |
| BT50-APU013-100L | 1 ~ 13 | 51.5 | 4.4        |
| BT50*APU013-130L | 1 ~ 13 | 51.5 | 4.8        |
| BT50*APU013-180L | 1 ~ 13 | 51.5 | 5.8        |
| BT50*APU016-130L | 3 ~ 16 | 58.0 | 5.1        |



Each APU milling chuck attached 1pcs type wrench  
The shank and keyless drill chuck are combined together so that to avoid the drill chuck slipping out for heavy-duty and high-speed cutting

## OZ Milling Chuck(EOC)



OZ collet chuck can clamp drill, end mills and taps.  
Wrench must be ordered separately.

| Order no       | d    | D  | Weight(kg) |
|----------------|------|----|------------|
| BT40-OZ25-80L  | 3~25 | 60 | 1.7        |
| BT40-OZ25-120L | 3~25 | 60 | 2.6        |
| BT40-OZ32-80L  | 6~32 | 72 | 2.1        |
| BT50-OZ25-100L | 3~25 | 60 | 4.6        |
| BT50-OZ32-100L | 6~32 | 72 | 5.4        |

### OZ Collet (EOC)

| Order no | d          | D    | L  | Weight(kg) |
|----------|------------|------|----|------------|
| OZ25     | 1/8 3 ~ 20 | 35.5 | 52 | 0.17       |
| OZ32     | 1/8 3 ~ 32 | 44.0 | 60 | 0.36       |

### OZ Nut(EOC)

| Order no | D  | L  | G        | Weight(kg) |
|----------|----|----|----------|------------|
| N-OZ25   | 60 | 30 | M48x2.0p | 0.30       |
| N-OZ32   | 78 | 30 | M60x2.5p | 0.65       |

### OZ Wrench(EOC)

| Order no | C  | Weight(kg) |
|----------|----|------------|
| W-OZ25   | 60 | 0.30       |
| W-OZ32   | 78 | 0.45       |

\*Wrench must be ordered separately.

## DCM Strong type Milling Chuck

| Order no        | d  | D  | L   | Weight(kg) |
|-----------------|----|----|-----|------------|
| BT30-DCM20-85L  | 20 | 55 | 85  | 1.30       |
| BT30-DCM25-85L  | 25 | 58 | 85  | 1.60       |
| BT30-DCM32-90L  | 32 | 68 | 90  | 2.00       |
| Order no        | d  | D  | L   | Weight(kg) |
| BT40-DCM20-85L  | 20 | 55 | 85  | 1.90       |
| BT40-DCM20-105L | 20 | 55 | 105 | 2.30       |
| BT40-DCM25-85L  | 25 | 58 | 85  | 1.50       |
| BT40-DCM25-105L | 25 | 58 | 105 | 1.80       |
| BT40-DCM25-135L | 25 | 58 | 135 | 2.70       |
| BT40-DCM25-150L | 25 | 58 | 150 | 3.30       |
| BT40-DCM32-90L  | 32 | 68 | 90  | 2.35       |
| BT40-DCM32-105L | 32 | 68 | 105 | 2.46       |
| BT40-DCM32-135L | 32 | 68 | 135 | 3.14       |
| BT40-DCM32-150L | 32 | 68 | 150 | 3.80       |
| Order no        | d  | D  | L   | Weight(kg) |
| BT50-DCM32-105L | 32 | 68 | 105 | 4.95       |
| BT50-DCM32-135L | 32 | 68 | 135 | 6.00       |
| BT50-DCM32-165L | 32 | 68 | 165 | 6.50       |
| BT50-DCM42-105L | 42 | 88 | 105 | 5.40       |
| BT50-DCM42-165L | 42 | 88 | 165 | 7.60       |
| Order no        | d  | D  | L   | Weight(kg) |
| NT30-DCM20-85L  | 20 | 55 | 85  | 1.30       |
| NT30-DCM25-85L  | 25 | 58 | 85  | 1.60       |
| NT40-DCM20-105L | 20 | 55 | 105 | 1.90       |
| NT40-DCM25-105L | 25 | 58 | 105 | 1.80       |
| NT40-DCM32-105L | 32 | 68 | 105 | 2.46       |
| NT50-DCM32-105L | 32 | 68 | 105 | 4.95       |
| NT50-DCM42-105L | 42 | 88 | 105 | 5.40       |

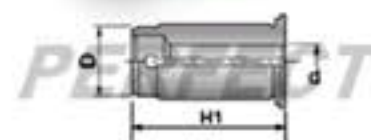


Accuracy:Concentricity 0.005mm at holder nose and 0.01mm(TIR). AT100mm from nose.  
Special desing of dust-prevents the milling chucks for locking and extends 50% or more lifetime of tool holders.  
Caution:Excessive tightening forc will damage the chuck and collet.

Each DCM milling chuck attached 1pcs type wrench

## DCM Collet

| Order no | d          | D  | H1   | Weight(kg) |
|----------|------------|----|------|------------|
| DCM20    | 4 ~ 16     | 20 | 52.7 | 0.10       |
| DCM25    | 4 ~ 20     | 25 | 63.0 | 0.16       |
| DCM32    | 4 ~ 25 1/8 | 32 | 70.4 | 0.30       |
| DCM42    | 6 ~ 32     | 42 | 80.0 | 0.60       |







## FMA Face Mill Holder-Inch



Face mill cutter must be ordered separately.

| Order no           | FIG | D      | D1     | D2 | L   | L1 | G   | W     | Wieght (kg) |
|--------------------|-----|--------|--------|----|-----|----|-----|-------|-------------|
| BT30-FMA25.4-45L   | 1   | 25.4   | 45     | 33 | 45  | 20 | M12 | 9.5   | 0.9         |
| BT30-FMA25.4-60L   | 1   | 25.4   | 45     | 33 | 60  | 20 | M12 | 9.5   | 1.2         |
| BT30-FMA31.75-45L  | 1   | 31.8   | 58     | 40 | 45  | 22 | M12 | 12.7  | 1.3         |
| BT40-FMA25.4-45L   | 1   | 25.4   | 60     | 33 | 45  | 20 | M12 | 9.5   | 1.7         |
| BT40-FMA25.4-60L   | 1   | 25.4   | 60     | 33 | 60  | 20 | M12 | 9.5   | 2.0         |
| BT40-FMA25.4-90L   | 1   | 25.4   | 60     | 33 | 90  | 20 | M12 | 9.5   | 2.6         |
| BT40-FMA25.4-105L  | 1   | 25.4   | 60     | 33 | 105 | 20 | M12 | 9.5   | 2.9         |
| BT40-FMA31.75-45L  | 1   | 31.75  | 70     | 40 | 45  | 22 | M12 | 12.7  | 1.8         |
| BT40-FMA31.75-60L  | 1   | 31.75  | 70     | 40 | 60  | 22 | M12 | 12.7  | 2.3         |
| BT40-FMA31.75-90L  | 1   | 31.75  | 70     | 40 | 90  | 22 | M12 | 12.7  | 3.2         |
| BT40-FMA31.75-105L | 1   | 31.75  | 70     | 40 | 105 | 22 | M12 | 12.7  | 3.3         |
| BT40-FMA38.1-60L   | 1   | 38.1   | 85     | 50 | 60  | 23 | M16 | 15.9  | 2.8         |
| BT50-FMA25.4-45L   | 1   | 25.4   | 60     | 33 | 45  | 20 | M12 | 9.5   | 4.2         |
| BT50-FMA25.4-75L   | 1   | 25.4   | 60     | 33 | 75  | 20 | M12 | 9.5   | 4.9         |
| BT50-FMA25.4-105L  | 1   | 25.4   | 60     | 33 | 105 | 20 | M12 | 9.5   | 5.3         |
| BT50-FMA25.4-150L  | 1   | 25.4   | 60     | 33 | 150 | 20 | M12 | 9.5   | 6.1         |
| BT50-FMA25.4-200L  | 1   | 25.4   | 60     | 33 | 200 | 20 | M12 | 9.5   | 7.3         |
| BT50-FMA25.4-250L  | 1   | 25.4   | 60     | 33 | 250 | 20 | M12 | 9.5   | 8.2         |
| BT50-FMA25.4-300L  | 1   | 25.4   | 60     | 33 | 300 | 20 | M12 | 9.5   | 9.3         |
| BT50-FMA31.75-45L  | 1   | 31.75  | 70     | 40 | 45  | 22 | M12 | 12.7  | 4.4         |
| BT50-FMA31.75-75L  | 1   | 31.75  | 70     | 40 | 75  | 22 | M12 | 12.7  | 5.3         |
| BT50-FMA31.75-105L | 1   | 31.75  | 70     | 40 | 105 | 22 | M12 | 12.7  | 6.2         |
| BT50-FMA38.1-75L   | 1   | 38.1   | 85     | 50 | 75  | 23 | M16 | 15.9  | 5.9         |
| BT50-FMA50.8-45L   | 1   | 50.8   | 95     | 65 | 45  | 24 | M16 | 19.05 | 5.0         |
| BT50-FMA50.8-75L   | 1   | 50.8   | 95     | 65 | 75  | 24 | M16 | 19.05 | 6.6         |
| BT50-FMA47.625-75L | 2   | 47.625 | 128.57 |    | 75  | 32 |     | 25.4  | 8.3         |



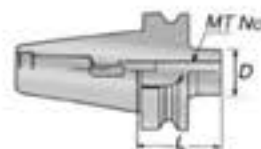
## FMB Face Mill Holder-Inch



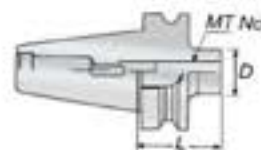
| Order no        | FIG | D  | D1     | D2 | L   | L1 | G   | W    | Wieght (kg) |
|-----------------|-----|----|--------|----|-----|----|-----|------|-------------|
| BT30-FMB22-45L  | 1   | 22 | 56     | -  | 45  | 18 | M10 | 10   | 0.8         |
| BT30-FMB27-45L  | 1   | 27 | 64     | 32 | 45  | 20 | M12 | 12   | 1           |
| BT40-FMB22-45L  | 1   | 22 | 48     | -  | 45  | 18 | M10 | 10   | 1.4         |
| BT40-FMB22-60L  | 1   | 22 | 48     | -  | 60  | 18 | M10 | 10   | 1.6         |
| BT40-FMB22-90L  | 1   | 22 | 48     | -  | 90  | 18 | M10 | 10   | 2.1         |
| BT40-FMB22-120L | 1   | 22 | 48     | -  | 120 | 18 | M10 | 10   | 2.4         |
| BT40-FMB22-150L | 1   | 22 | 48     | -  | 150 | 18 | M10 | 10   | 2.8         |
| BT40-FMB22-200L | 1   | 22 | 48     | -  | 200 | 18 | M10 | 10   | 3.5         |
| BT40-FMB22-250L | 1   | 22 | 48     | -  | 250 | 18 | M10 | 10   | 3.5         |
| BT40-FMB27-45L  | 1   | 27 | 60     | 32 | 45  | 20 | M12 | 12   | 1.7         |
| BT40-FMB27-60L  | 1   | 27 | 60     | 32 | 60  | 20 | M12 | 12   | 2           |
| BT40-FMB27-90L  | 1   | 27 | 60     | 32 | 90  | 20 | M12 | 12   | 2.6         |
| BT40-FMB32-60L  | 1   | 32 | 63     | 41 | 60  | 21 | M16 | 14   | 2.1         |
| BT40-FMB40-60L  | 1   | 40 | 68     | 47 | 60  | 23 | M16 | 16   | 2.7         |
| BT50-FMB22-45L  | 1   | 22 | 48     | -  | 45  | 18 | M10 | 10   | 4           |
| BT50-FMB22-75L  | 1   | 22 | 48     | -  | 75  | 18 | M10 | 10   | 4.5         |
| BT50-FMB22-105L | 1   | 22 | 48     | -  | 105 | 18 | M10 | 10   | 4.8         |
| BT50-FMB22-120L | 1   | 22 | 48     | -  | 120 | 18 | M10 | 10   | 5.2         |
| BT50-FMB22-150L | 1   | 22 | 48     | -  | 150 | 18 | M10 | 10   | 5.6         |
| BT50-FMB27-75L  | 1   | 27 | 65     | 32 | 75  | 20 | M12 | 12   | 5           |
| BT50-FMB27-105L | 1   | 27 | 65     | 32 | 105 | 20 | M12 | 12   | 5.8         |
| BT50-FMB32-75L  | 1   | 32 | 73     | 41 | 75  | 21 | M16 | 14   | 5.4         |
| BT50-FMB32-105L | 1   | 32 | 73     | 41 | 105 | 21 | M16 | 14   | 6.6         |
| BT50-FMB32-75L  | 1   | 40 | 85     | 47 | 75  | 23 | M16 | 16   | 5.9         |
| BT50-FMB32-105L | 1   | 40 | 85     | 47 | 105 | 23 | M16 | 16   | 6.9         |
| BT50-FMB60-75L  | 2   | 60 | 128.57 | -  | 75  | 32 | -   | 25.4 | 7.3         |



## MTA Morse Taper Holder



| Order no       | D  | L   | Weight(kg) | DRILL | REAMER  | END MILL |
|----------------|----|-----|------------|-------|---------|----------|
| BT30-MTA1-45L  | 25 | 45  | 0.5        | 2~14  | 5~14    | 10~14    |
| BT30-MTA1-120L | 25 | 120 | 0.8        | 2~14  | 5~14    | 10~14    |
| BT30-MTA2-60L  | 32 | 60  | 0.6        | 14~23 | 14.5~23 | 16~22    |
| BT30-MTA2-120L | 32 | 120 | 1.0        | 14~23 | 14.5~23 | 16~22    |
| BT30-MTA3-90L  | 40 | 90  | 0.9        | 23~32 | 24~32   | 24~32    |
| BT30-MTA3-135L | 40 | 135 | 1.3        | 23~32 | 24~32   | 24~32    |
| BT40-MTA1-45L  | 25 | 45  | 1.1        | 2~14  | 5~14    | 10~14    |
| BT40-MTA1-120L | 25 | 120 | 1.4        | 2~14  | 5~14    | 10~14    |
| BT40-MTA2-45L  | 32 | 45  | 1.1        | 14~23 | 14.5~23 | 16~22    |
| BT40-MTA2-120L | 32 | 120 | 1.6        | 14~23 | 14.5~23 | 16~22    |
| BT40-MTA3-75L  | 40 | 75  | 1.2        | 23~32 | 24~32   | 24~32    |
| BT40-MTA3-135L | 40 | 135 | 1.9        | 23~32 | 24~32   | 24~32    |
| BT40-MTA4-90L  | 50 | 90  | 1.5        | 32~50 | 32~50   | 35~50    |
| BT50-MTA1-45L  | 25 | 45  | 3.8        | 2~14  | 5~14    | 10~14    |
| BT50-MTA1-120L | 25 | 120 | 4.2        | 2~14  | 5~14    | 10~14    |
| BT50-MTA2-45L  | 32 | 45  | 3.8        | 14~23 | 14.5~23 | 16~22    |
| BT50-MTA2-135L | 32 | 135 | 4.4        | 14~23 | 14.5~23 | 16~22    |
| BT50-MTA3-60L  | 40 | 60  | 3.6        | 23~32 | 24~32   | 24~32    |
| BT50-MTA3-150L | 40 | 150 | 4.7        | 23~32 | 24~32   | 24~32    |
| BT50-MTA4-75L  | 50 | 75  | 3.8        | 32~50 | 32~50   | 35~50    |
| BT50-MTA5-105L | 65 | 105 | 4.1        | 50~75 | 50.0    | 40~75    |



## MTB Morse Taper Holder

| Order no       | D  | L   | Weight(kg) | DRILL | REAMER  | END MILL |
|----------------|----|-----|------------|-------|---------|----------|
| BT40-MTB1-45L  | 25 | 45  | 1.1        | 2~14  | 5~14    | 10~14    |
| BT40-MTB2-45L  | 32 | 45  | 1.1        | 14~23 | 14.5~23 | 16~22    |
| BT40-MTB3-75L  | 40 | 75  | 1.2        | 23~32 | 24~32   | 24~32    |
| BT40-MTB4-75L  | 50 | 75  | 1.5        | 32~50 | 32~50   | 35~50    |
| BT50-MTB1-45L  | 25 | 45  | 3.8        | 2~14  | 5~14    | 10~14    |
| BT50-MTB2-45L  | 32 | 45  | 3.8        | 14~23 | 14.5~23 | 16~22    |
| BT50-MTB3-60L  | 40 | 60  | 3.6        | 23~32 | 24~32   | 24~32    |
| BT50-MTB4-75L  | 50 | 75  | 3.8        | 32~50 | 32~50   | 35~50    |
| BT50-MTB5-120L | 65 | 120 | 4.1        | 50~75 | 50.0    | 40~75    |

## SLA End Mill Holder



| Order no          | d    | D  | L   | L1 | L2 | H  | G   | Weight(kg) |
|-------------------|------|----|-----|----|----|----|-----|------------|
| BT30-SLA6-60L     | 6    | 25 | 60  | 12 | 10 | 32 | M6  | 0.60       |
| BT30-SLA8-60L     | 8    | 28 | 60  | 14 | 12 | 36 | M8  | 0.65       |
| BT30-SLA10-60L    | 10   | 35 | 60  | 15 | 14 | 40 | M10 | 0.70       |
| BT30-SLA12-60L    | 12   | 40 | 60  | 20 | 16 | 45 | M10 | 0.80       |
| BT30-SLA16-60L    | 16   | 45 | 75  | 22 | 18 | 50 | M10 | 0.80       |
| BT30-SLA20-75L    | 20   | 50 | 75  | 25 | 20 | 60 | M12 | 1.10       |
| BT30-SLA25-75L    | 25   | 55 | 75  | 25 | 22 | 65 | M12 | 1.10       |
| Order no          | d    | D  | L   | L1 | L2 | H  | G   | Weight(kg) |
| BT40-SLA6-75L     | 6    | 25 | 75  | 12 | 10 | 32 | M6  | 1.20       |
| BT40-SLA6-100L    | 6    | 25 | 100 | 12 | 10 | 32 | M6  | 1.30       |
| BT40-SLA8-75L     | 8    | 28 | 75  | 14 | 12 | 36 | M8  | 1.25       |
| BT40-SLA8-100L    | 8    | 28 | 100 | 14 | 12 | 36 | M8  | 1.40       |
| BT40-SLA10-75L    | 10   | 35 | 75  | 15 | 14 | 40 | M10 | 1.35       |
| BT40-SLA10-100L   | 10   | 35 | 100 | 15 | 14 | 40 | M10 | 1.50       |
| BT40-SLA12-75L    | 12   | 40 | 75  | 20 | 16 | 45 | M10 | 1.45       |
| BT40-SLA12-100L   | 12   | 40 | 100 | 20 | 16 | 45 | M10 | 1.65       |
| BT40-SLA16-75L    | 16   | 42 | 75  | 20 | 18 | 50 | M10 | 1.50       |
| BT40-SLA16-100L   | 16   | 42 | 100 | 20 | 18 | 50 | M10 | 1.85       |
| BT40-SLA20-75L    | 20   | 50 | 75  | 20 | 18 | 60 | M12 | 1.60       |
| BT40-SLA20-100L   | 20   | 50 | 100 | 25 | 20 | 60 | M12 | 2.00       |
| BT40-SLA25-75L    | 25   | 55 | 75  | 22 | 18 | 65 | M12 | 1.60       |
| BT40-SLA25-100L   | 25   | 55 | 100 | 25 | 22 | 65 | M12 | 2.00       |
| BT40-SLA32-90L    | 32   | 60 | 90  | 30 | 22 | 70 | M16 | 2.00       |
| BT40-SLA40-105L   | 40   | 80 | 105 | 30 | 22 | 80 | M16 | 3.10       |
| BT40-SLA42-105L   | 42   | 80 | 105 | 35 | 25 | 80 | M20 | 3.10       |
| Order no          | d    | D  | L   | L1 | L2 | H  | G   | Weight(kg) |
| BT50-SLA8-105L    | 8    | 28 | 105 | 14 | 12 | 36 | M8  | 4.10       |
| BT50-SLA10-105L   | 10   | 35 | 105 | 15 | 14 | 40 | M10 | 4.20       |
| BT50-SLA12-105L   | 12   | 40 | 105 | 20 | 16 | 45 | M10 | 4.35       |
| BT50-SLA16-105L   | 16   | 45 | 105 | 22 | 18 | 50 | M10 | 4.45       |
| BT50-SLA20-105L   | 20   | 50 | 105 | 25 | 20 | 60 | M12 | 4.50       |
| BT50-SLA20-150L   | 20   | 50 | 150 | 25 | 20 | 60 | M12 | 5.20       |
| BT50-SLA20-200L   | 20   | 50 | 200 | 25 | 20 | 60 | M12 | 5.90       |
| BT50-SLA25-105L   | 25   | 55 | 105 | 25 | 22 | 60 | M12 | 4.60       |
| BT50-SLA25-150L   | 25   | 55 | 150 | 25 | 22 | 60 | M12 | 5.40       |
| BT50-SLA25-200L   | 25   | 55 | 200 | 25 | 22 | 60 | M12 | 6.50       |
| BT50-SLA32-105L   | 32   | 60 | 105 | 30 | 22 | 65 | M16 | 4.70       |
| BT50-SLA32-150L   | 32   | 60 | 150 | 30 | 22 | 70 | M16 | 5.80       |
| BT50-SLA32-200L   | 32   | 60 | 200 | 30 | 22 | 70 | M16 | 6.60       |
| BT50-SLA40-120L   | 40   | 80 | 120 | 30 | 22 | 80 | M20 | 6.00       |
| BT50-SLA42-120L   | 42   | 80 | 120 | 35 | 25 | 80 | M20 | 6.30       |
| BT50-SLA50.8-120L | 50.8 | 95 | 120 | 35 | 25 | 90 | M20 | 6.60       |

- For straight shank end mill
- End mill is held by two set screws
- End mill holder comes equipped with set screws



# Pull Studs



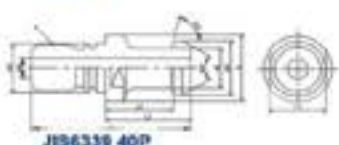
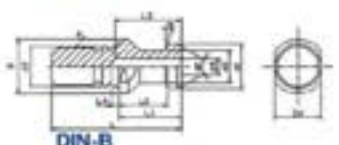
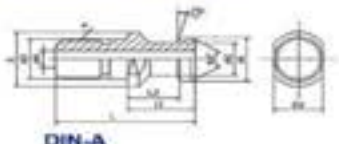
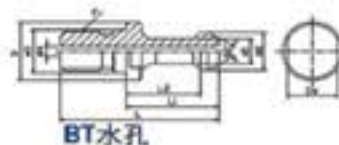
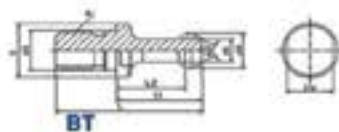
## After pulling Arbor tungsten steel

| Order no | D    | d1 | d2 | d3   | d4 | d5 | L  | L1 | L2 | L3 | L4 | SW | P        | weight(kg) |
|----------|------|----|----|------|----|----|----|----|----|----|----|----|----------|------------|
| BT30-45- | 16.5 | 7  | 11 | 12.5 | -  | -  | 43 | 23 | 18 | -  | -  | 13 | M12*1.75 | 0.03       |
| BT30-60- | 16.5 | 7  | 11 | 12.5 | -  | -  | 43 | 23 | 18 | -  | -  | 13 | M12*1.75 | 0.03       |
| BT30-90- | 16.5 | 7  | 11 | 12.5 | -  | -  | 43 | 23 | 18 | -  | -  | 13 | M12*1.75 | 0.03       |
| BT40-45- | 23   | 10 | 15 | 17   | -  | -  | 60 | 35 | 28 | -  | -  | 19 | M16*2.0  | 0.07       |
| BT40-60- | 23   | 10 | 15 | 17   | -  | -  | 60 | 35 | 28 | -  | -  | 19 | M16*2.0  | 0.07       |
| BT40-90- | 23   | 10 | 15 | 17   | -  | -  | 60 | 35 | 28 | -  | -  | 19 | M16*2.0  | 0.07       |
| BT50-45- | 38   | 17 | 23 | 25   | -  | -  | 85 | 45 | 35 | -  | -  | 30 | M24*3.0  | 0.28       |
| BT50-60- | 38   | 17 | 23 | 25   | -  | -  | 85 | 45 | 35 | -  | -  | 30 | M24*3.0  | 0.28       |
| BT50-90- | 38   | 17 | 23 | 25   | -  | -  | 85 | 45 | 35 | -  | -  | 30 | M24*3.0  | 0.27       |

| Order no      | D    | d1 | d2 | d3   | d4  | d5 | L  | L1 | L2 | L3 | L4 | SW | P        | weight(kg) |
|---------------|------|----|----|------|-----|----|----|----|----|----|----|----|----------|------------|
| BT30-45-(2*3) | 16.5 | 7  | 11 | 12.5 | 2*3 | -  | 43 | 23 | 18 | -  | -  | 13 | M12*1.75 | 0.03       |
| BT30-60-(2*3) | 16.5 | 7  | 11 | 12.5 | 2*3 | -  | 43 | 23 | 18 | -  | -  | 13 | M12*1.75 | 0.03       |
| BT40-45-(4)   | 23   | 10 | 15 | 17   | 4   | -  | 60 | 35 | 28 | -  | -  | 19 | M16*2.0  | 0.07       |
| BT40-60-(4)   | 23   | 10 | 15 | 17   | 4   | -  | 60 | 35 | 28 | -  | -  | 19 | M16*2.0  | 0.07       |
| BT40-90-(4)   | 23   | 10 | 15 | 17   | 4   | -  | 60 | 35 | 28 | -  | -  | 19 | M16*2.0  | 0.07       |
| BT40-45-(5)   | 23   | 10 | 15 | 17   | 4   | -  | 60 | 35 | 28 | -  | -  | 19 | M16*2.0  | 0.06       |
| BT40-60-(5)   | 23   | 10 | 15 | 17   | 5   | -  | 60 | 35 | 28 | -  | -  | 19 | M16*2.0  | 0.06       |
| BT50-45-(7)   | 38   | 17 | 23 | 25   | 7   | -  | 85 | 45 | 35 | -  | -  | 30 | M24*3.0  | 0.25       |
| BT50-60-(7)   | 38   | 17 | 23 | 25   | 7   | -  | 85 | 45 | 35 | -  | -  | 30 | M24*3.0  | 0.25       |
| BT50-90-(7)   | 38   | 17 | 23 | 25   | 7   | -  | 85 | 45 | 35 | -  | -  | 30 | M24*3.0  | 0.25       |

| Order no   | D    | d1   | d2   | d3 | d4   | d5 | L    | L1   | L2   | L3  | L4 | SW | P       | weight(kg) |
|------------|------|------|------|----|------|----|------|------|------|-----|----|----|---------|------------|
| ISO50-A    | 38   | 28   | 21   | 25 | 11.5 | -  | 74   | 34   | 25   | -   | -  | 30 | M24*3.0 | 0.2        |
| ISO40-B    | 22.5 | 19   | 13   | 17 | 7.35 | -  | 44.5 | 16.4 | 11.2 | -   | -  | 19 | M16*2.0 | 0.05       |
| ISO50-B    | 37   | 29.1 | 19.6 | 25 | 11.5 | -  | 65.5 | 25.5 | 18   | -   | -  | 30 | M24*3.0 | 0.18       |
| Order no   | D    | d1   | d2   | d3 | d4   | d5 | L    | L1   | L2   | L3  | L4 | SW | P       | weight(kg) |
| MAZAK-BT40 | 22   | 18.8 | 12.5 | 17 | 7    | -  | 44.1 | 19.1 | 14   | -   | -  | 19 | M16*2.0 | 0.05       |
| MAZAK-BT50 | 37   | 29   | 20.8 | 25 | 10   | 16 | 65.2 | 25.2 | 17.6 | 1.8 | -  | 30 | M24*3.0 | 0.19       |

| Order no      | D    | d1 | d2 | d3   | d4 | d5 | L    | L1   | L2   | L3 | L4 | SW | P        | weight(kg) |
|---------------|------|----|----|------|----|----|------|------|------|----|----|----|----------|------------|
| DIN30-A       | 17   | 13 | 9  | 13   | -  | -  | 44   | 24   | 19   | -  | -  | 14 | M12*1.75 | 0.04       |
| DIN40-A       | 23   | 19 | 14 | 17   | 7  | -  | 54   | 26   | 20   | -  | -  | 19 | M16*2.0  | 0.07       |
| DIN40-A-L     | 23   | 19 | 14 | 17   | 7  | -  | 54   | 29   | 23   | -  | -  | 19 | M16*2.0  | 0.07       |
| DIN30-B       | 17   | 13 | 9  | 13   | -  | -  | 44   | 24   | 19   | -  | -  | 14 | M12*1.75 | 0.04       |
| DIN40-B       | 23   | 19 | 14 | 17   | 7  | -  | 54   | 26   | 20   | 27 | 3  | 19 | M16*2.0  | 0.08       |
| DIN40-B-L     | 23   | 19 | 14 | 17   | 7  | -  | 54   | 29   | 23   | 27 | 3  | 19 | M16*2.0  | 0.08       |
| BT30-45-S     | 16.5 | 7  | 11 | 12.5 | -  | -  | 43   | 23   | 18   | -  | -  | 13 | M12*1.75 | 0.03       |
| BT30-60-S     | 16.5 | 7  | 11 | 12.5 | -  | -  | 43   | 23   | 18   | -  | -  | 13 | M12*1.75 | 0.03       |
| BT40-45-S     | 23   | 10 | 15 | 17   | -  | -  | 60   | 35   | 28   | -  | -  | 19 | M16*2.0  | 0.07       |
| CAT40*45-5/8" | 23   | 10 | 15 | -    | -  | -  | 57.2 | 32.2 | 25.2 | -  | -  | 19 | 5/8"     | 0.07       |
| CAT40*60-5/8" | 23   | 10 | 15 | -    | -  | -  | 57.2 | 32.2 | 25.2 | -  | -  | 19 | 5/8"     | 0.07       |
| CAT40*90-5/8" | 23   | 10 | 15 | -    | -  | -  | 57.2 | 32.2 | 25.2 | -  | -  | 19 | 5/8"     | 0.07       |
| JIS6339 40P   | 23   | 19 | 14 | 17   | 7  | -  | 54   | 29   | 23   | -  | -  | 19 | M16*2.0  | 0.07       |



| Order no              | L   | L1  | D  | D1 |
|-----------------------|-----|-----|----|----|
| DC4-08-C08-100L       | 100 |     | 8  | 8  |
| DC4-10-C10-100L       | 100 |     | 10 | 10 |
| DC4-10-C10-150L       | 150 |     | 10 | 10 |
| DC4-10-C12-150L-DT60  | 150 | 60  | 12 | 10 |
| DC4-10-C16-200L-DT100 | 200 | 100 | 16 | 10 |

| Order no                | L   | L1  | D  | D1   |
|-------------------------|-----|-----|----|------|
| DC6-12-C12-100L         | 100 |     | 12 | 12   |
| DC6-12-C12-150L         | 150 |     | 12 | 12   |
| DC6-12.8-C16-150L-DT60  | 150 | 60  | 16 | 12.8 |
| DC6-12.8-C16-200L-DT90  | 200 | 90  | 16 | 12.8 |
| DC6-12.8-C20-250L-DT110 | 250 | 110 | 20 | 12.8 |

| Order no               | L   | L1  | D  | D1 |
|------------------------|-----|-----|----|----|
| UC10-20-C20-150L       | 150 |     | 20 | 20 |
| UC10-20-C20-200L       | 200 |     | 20 | 20 |
| UC10-23-C25-250L-DT120 | 250 | 120 | 25 | 23 |
| UC10-23-C25-300L-DT120 | 300 | 120 | 25 | 23 |



| Order no | d                       | L    | D   | Weight kg | Hex Wrench |
|----------|-------------------------|------|-----|-----------|------------|
| SDC4     | 3 3.5 4 4.5             | 31   | 7   | 0.01      | M3         |
| SDC6     | 1/8 3 3.5 4 4.5 5 5.5 6 | 36   | 9.8 | 0.01      | M4         |
| Order no | d                       | L    | L1  | Weight kg | Hex Wrench |
| SDC10    | 3 4 6 8 10              | 56.5 | 15  | 0.07      | M5         |

- After pulling Arbor tungsten steel Features:
1. Use the advanced tungsten carbide materials.  
Quality made excellent rigidity, suck Good shock resistance
  2. extend the depth of processing, improve Machined surface precision, ultra Long ultra deep, ultra-high precision plus The feasibility work
  3. Reduce tool costs and extend Tool life





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