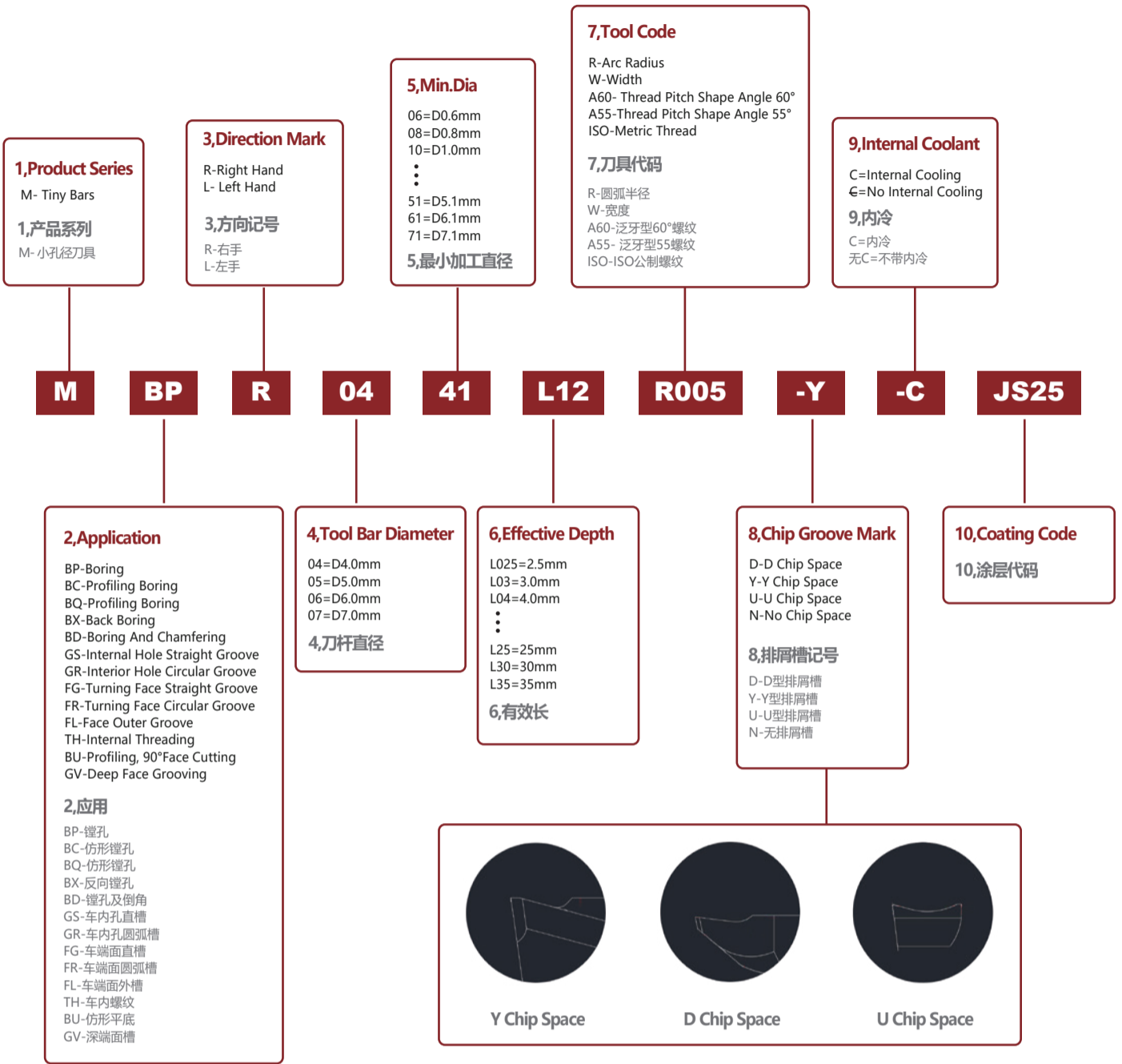


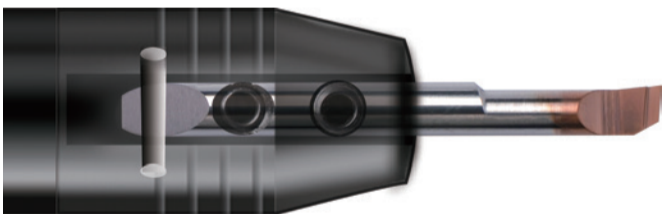
## REPRESENTATION OF SMALL DIAMETER TOOLS

### 小孔径刀表示方法



## LOCKING PRECISION DESIGN

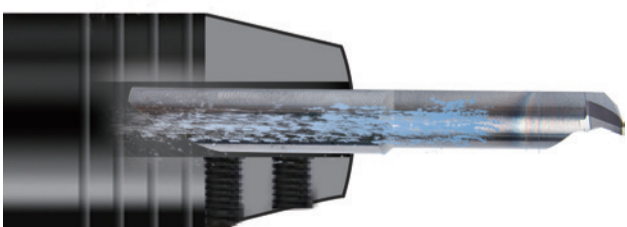
### 免对刀套设计 斜柄定位设计



- The solid carbide boring bar fits precisely into the adaptor with a locating pin. Collet-clamped adaptors ensure rigid clamping with increased stability.
- 镗刀斜柄设计，配合定位销钉刀套设计，夹持高精稳定可实现免对刀，提升设备稼动率。

## INTERNAL COOLANT

### 内冷设计

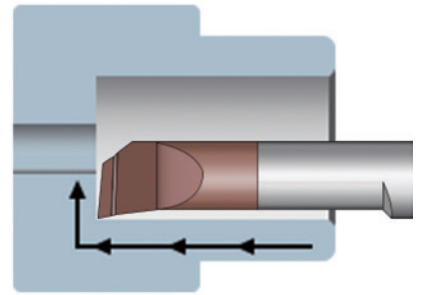
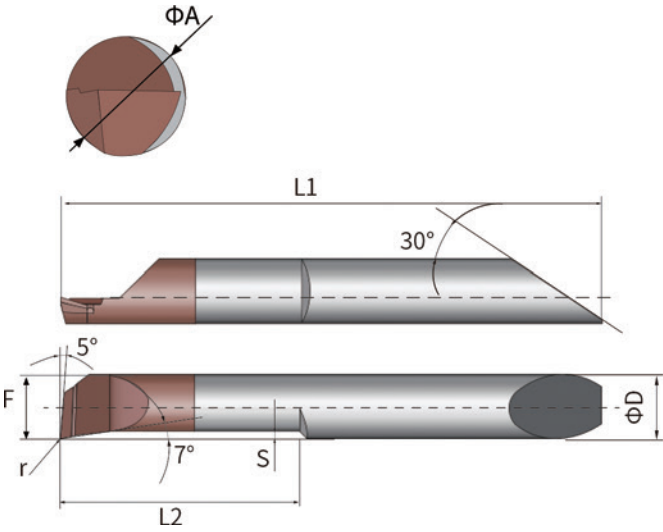


- An internal coolant supply is designed through the side grooves at the rear of the boring tool. Collet clamping adaptors feature selectable coolant orientation for better chip evacuation and safe machining.
- 镗刀斜柄位侧边开槽设计，配合中心出水刀套，实现内冷加工。

# MBPR

# INTERNAL BORING

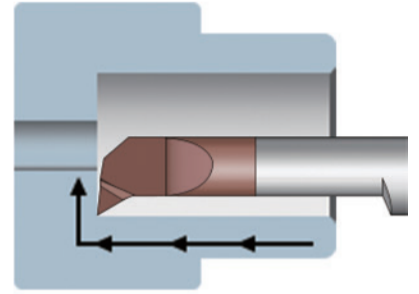
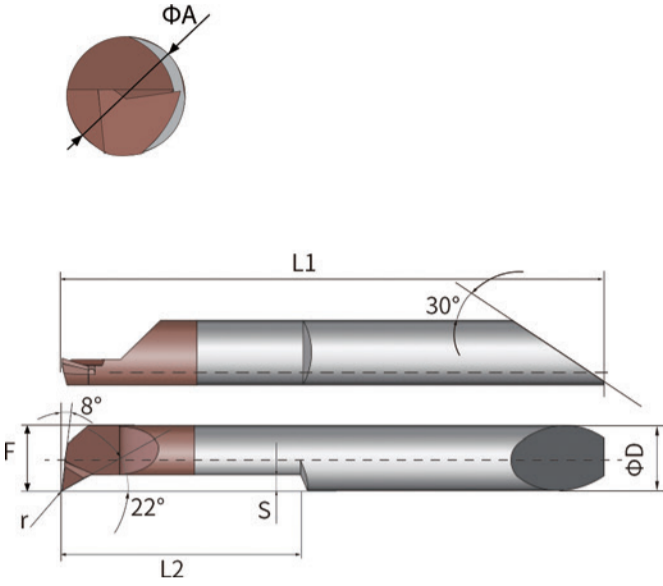
## 内孔镗刀



| 产品型号<br>Product Type   | 最小加工直径<br>Min. Dia<br>(mm) ΦA | ΦD | r    | L1 | L2 | F    | S    | JS25 | AL25 |
|------------------------|-------------------------------|----|------|----|----|------|------|------|------|
| MBPR0421L06R005-Y- (C) | 2.1                           | 4  | 0.05 | 31 | 6  | 1.85 | 0.2  | ●    | ●    |
| MBPR0421L06R010-Y- (C) | 2.1                           | 4  | 0.10 | 31 | 6  | 1.85 | 0.2  | ●    | ●    |
| MBPR0421L10R005-Y- (C) | 2.1                           | 4  | 0.05 | 35 | 10 | 1.85 | 0.2  | ●    | ●    |
| MBPR0421L10R010-Y- (C) | 2.1                           | 4  | 0.10 | 35 | 10 | 1.85 | 0.2  | ●    | ●    |
| MBPR0426L08R005-Y- (C) | 2.6                           | 4  | 0.05 | 33 | 8  | 2.35 | 0.25 | ●    | ●    |
| MBPR0426L08R010-Y- (C) | 2.6                           | 4  | 0.10 | 33 | 8  | 2.35 | 0.25 | ●    | ●    |
| MBPR0426L08R015-Y- (C) | 2.6                           | 4  | 0.15 | 33 | 8  | 2.35 | 0.25 | ●    | ●    |
| MBPR0426L12R005-Y- (C) | 2.6                           | 4  | 0.05 | 37 | 12 | 2.35 | 0.25 | ●    | ●    |
| MBPR0426L12R010-Y- (C) | 2.6                           | 4  | 0.10 | 37 | 12 | 2.35 | 0.25 | ●    | ●    |
| MBPR0426L12R015-Y- (C) | 2.6                           | 4  | 0.15 | 37 | 12 | 2.35 | 0.25 | ●    | ●    |
| MBPR0431L10R005-Y- (C) | 3.1                           | 4  | 0.05 | 35 | 10 | 2.8  | 0.30 | ●    | ●    |
| MBPR0431L10R010-Y- (C) | 3.1                           | 4  | 0.10 | 35 | 10 | 2.8  | 0.30 | ●    | ●    |
| MBPR0431L10R015-Y- (C) | 3.1                           | 4  | 0.15 | 35 | 10 | 2.8  | 0.30 | ●    | ●    |
| MBPR0431L15R005-Y- (C) | 3.1                           | 4  | 0.05 | 40 | 15 | 2.8  | 0.30 | ●    | ●    |
| MBPR0431L15R010-Y- (C) | 3.1                           | 4  | 0.10 | 40 | 15 | 2.8  | 0.30 | ●    | ●    |
| MBPR0431L15R015-Y- (C) | 3.1                           | 4  | 0.15 | 40 | 15 | 2.8  | 0.30 | ●    | ●    |
| MBPR0441L12R005-Y- (C) | 4.1                           | 4  | 0.05 | 37 | 12 | 3.8  | 0.40 | ●    | ●    |
| MBPR0441L12R010-Y- (C) | 4.1                           | 4  | 0.10 | 37 | 12 | 3.8  | 0.40 | ●    | ●    |
| MBPR0441L12R020-Y- (C) | 4.1                           | 4  | 0.20 | 37 | 12 | 3.8  | 0.40 | ●    | ●    |
| MBPR0441L16R005-Y- (C) | 4.1                           | 4  | 0.05 | 41 | 16 | 3.8  | 0.40 | ●    | ●    |
| MBPR0441L16R010-Y- (C) | 4.1                           | 4  | 0.10 | 41 | 16 | 3.8  | 0.40 | ●    | ●    |
| MBPR0441L16R020-Y- (C) | 4.1                           | 4  | 0.20 | 41 | 16 | 3.8  | 0.40 | ●    | ●    |
| MBPR0441L20R005-Y- (C) | 4.1                           | 4  | 0.05 | 45 | 20 | 3.8  | 0.40 | ●    | ●    |
| MBPR0441L20R010-Y- (C) | 4.1                           | 4  | 0.10 | 45 | 20 | 3.8  | 0.40 | ●    | ●    |
| MBPR0441L20R020-Y- (C) | 4.1                           | 4  | 0.20 | 45 | 20 | 3.8  | 0.40 | ●    | ●    |
| MBPR0551L15R010-Y- (C) | 5.1                           | 5  | 0.10 | 40 | 15 | 4.8  | 0.50 | ●    | ●    |
| MBPR0551L15R020-Y- (C) | 5.1                           | 5  | 0.20 | 40 | 15 | 4.8  | 0.50 | ●    | ●    |
| MBPR0551L20R010-Y- (C) | 5.1                           | 5  | 0.10 | 45 | 20 | 4.8  | 0.50 | ●    | ●    |
| MBPR0551L20R020-Y- (C) | 5.1                           | 5  | 0.20 | 45 | 20 | 4.8  | 0.50 | ●    | ●    |
| MBPR0551L25R010-Y- (C) | 5.1                           | 5  | 0.10 | 50 | 25 | 4.8  | 0.50 | ●    | ●    |
| MBPR0551L25R020-Y- (C) | 5.1                           | 5  | 0.20 | 50 | 25 | 4.8  | 0.50 | ●    | ●    |
| MBPR0661L15R010-Y- (C) | 6.1                           | 6  | 0.10 | 40 | 15 | 5.8  | 0.60 | ●    | ●    |
| MBPR0661L15R020-Y- (C) | 6.1                           | 6  | 0.20 | 40 | 15 | 5.8  | 0.60 | ●    | ●    |
| MBPR0661L20R010-Y- (C) | 6.1                           | 6  | 0.10 | 45 | 20 | 5.8  | 0.60 | ●    | ●    |
| MBPR0661L20R020-Y- (C) | 6.1                           | 6  | 0.20 | 45 | 20 | 5.8  | 0.60 | ●    | ●    |
| MBPR0661L25R010-Y- (C) | 6.1                           | 6  | 0.10 | 50 | 25 | 5.8  | 0.60 | ●    | ●    |
| MBPR0661L25R020-Y- (C) | 6.1                           | 6  | 0.20 | 50 | 25 | 5.8  | 0.60 | ●    | ●    |
| MBPR0661L30R010-Y- (C) | 6.1                           | 6  | 0.10 | 55 | 30 | 5.8  | 0.60 | ●    | ●    |
| MBPR0661L30R020-Y- (C) | 6.1                           | 6  | 0.20 | 55 | 30 | 5.8  | 0.60 | ●    | ●    |
| MBPR0771L25R010-Y- (C) | 7.1                           | 7  | 0.10 | 54 | 25 | 6.8  | 0.70 | ●    | ●    |
| MBPR0771L25R020-Y- (C) | 7.1                           | 7  | 0.20 | 54 | 25 | 6.8  | 0.70 | ●    | ●    |
| MBPR0771L35R010-Y- (C) | 7.1                           | 7  | 0.10 | 64 | 35 | 6.8  | 0.70 | ●    | ●    |
| MBPR0771L35R020-Y- (C) | 7.1                           | 7  | 0.20 | 64 | 35 | 6.8  | 0.70 | ●    | ●    |

# MBQR

# PROFILING AND BORING 仿形镗刀

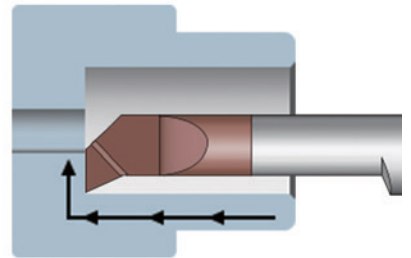
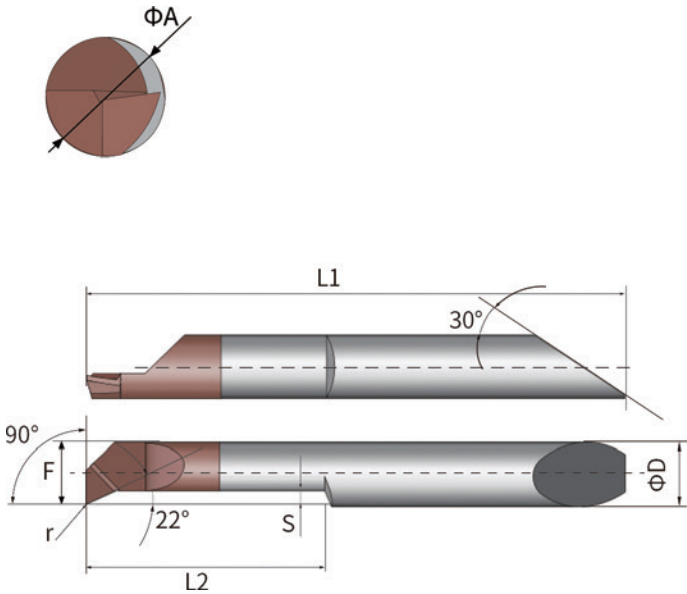


| 产品型号<br>Product Type   | 最小加工直径<br>Effective diameter<br>(mm) ΦA | ΦD | r    | L1 | L2  | F    | S    | JS25 | AL25 |
|------------------------|---|----|------|----|-----|------|------|------|------|
| MBQR0406L02R003-D-(C)  | 0.6                                     | 4  | 0.03 | 28 | 2   | 0.55 | 0.06 | ●    | ●    |
| MBQR0408L025R003-D-(C) | 0.8                                     | 4  | 0.03 | 28 | 2.5 | 0.75 | 0.08 | ●    | ●    |
| MBQR0410L04R005-D-(C)  | 1                                       | 4  | 0.05 | 29 | 4   | 0.9  | 0.15 | ●    | ●    |
| MBQR0410L04R010-D-(C)  | 1                                       | 4  | 0.1  | 29 | 4   | 0.9  | 0.15 | ●    | ●    |
| MBQR0410L06R005-D-(C)  | 1                                       | 4  | 0.05 | 31 | 6   | 0.9  | 0.15 | ●    | ●    |
| MBQR0410L06R010-D-(C)  | 1                                       | 4  | 0.1  | 31 | 6   | 0.9  | 0.15 | ●    | ●    |
| MBQR0412L04R005-D-(C)  | 1.2                                     | 4  | 0.05 | 29 | 4   | 1.1  | 0.15 | ●    | ●    |
| MBQR0412L04R010-D-(C)  | 1.2                                     | 4  | 0.1  | 29 | 4   | 1.1  | 0.15 | ●    | ●    |
| MBQR0412L06R005-D-(C)  | 1.2                                     | 4  | 0.05 | 29 | 6   | 1.1  | 0.15 | ●    | ●    |
| MBQR0412L06R010-D-(C)  | 1.2                                     | 4  | 0.1  | 29 | 6   | 1.1  | 0.15 | ●    | ●    |
| MBQR0415L05R005-D-(C)  | 1.5                                     | 4  | 0.05 | 30 | 5   | 1.4  | 0.2  | ●    | ●    |
| MBQR0415L05R010-D-(C)  | 1.5                                     | 4  | 0.1  | 30 | 5   | 1.4  | 0.2  | ●    | ●    |
| MBQR0415L08R005-D-(C)  | 1.5                                     | 4  | 0.05 | 33 | 8   | 1.4  | 0.2  | ●    | ●    |
| MBQR0415L08R010-D-(C)  | 1.5                                     | 4  | 0.1  | 33 | 8   | 1.4  | 0.2  | ●    | ●    |
| MBQR0418L05R005-D-(C)  | 1.8                                     | 4  | 0.05 | 30 | 5   | 1.7  | 0.2  | ●    | ●    |
| MBQR0418L05R010-D-(C)  | 1.8                                     | 4  | 0.1  | 30 | 5   | 1.7  | 0.2  | ●    | ●    |
| MBQR0418L09R005-D-(C)  | 1.8                                     | 4  | 0.05 | 34 | 9   | 1.7  | 0.2  | ●    | ●    |
| MBQR0418L09R010-D-(C)  | 1.8                                     | 4  | 0.1  | 34 | 9   | 1.7  | 0.2  | ●    | ●    |
| MBQR0421L06R005-D-(C)  | 2.1                                     | 4  | 0.05 | 31 | 6   | 1.85 | 0.25 | ●    | ●    |
| MBQR0421L06R010-D-(C)  | 2.1                                     | 4  | 0.1  | 31 | 6   | 1.85 | 0.25 | ●    | ●    |
| MBQR0421L10R005-D-(C)  | 2.1                                     | 4  | 0.05 | 35 | 10  | 1.85 | 0.25 | ●    | ●    |
| MBQR0421L10R010-D-(C)  | 2.1                                     | 4  | 0.1  | 35 | 10  | 1.85 | 0.25 | ●    | ●    |
| MBQR0426L08R005-D-(C)  | 2.6                                     | 4  | 0.05 | 33 | 8   | 2.35 | 0.3  | ●    | ●    |
| MBQR0426L08R010-D-(C)  | 2.6                                     | 4  | 0.1  | 33 | 8   | 2.35 | 0.3  | ●    | ●    |
| MBQR0426L08R015-D-(C)  | 2.6                                     | 4  | 0.15 | 33 | 8   | 2.35 | 0.3  | ●    | ●    |
| MBQR0426L12R005-D-(C)  | 2.6                                     | 4  | 0.05 | 37 | 12  | 2.35 | 0.3  | ●    | ●    |
| MBQR0426L12R010-D-(C)  | 2.6                                     | 4  | 0.1  | 37 | 12  | 2.35 | 0.3  | ●    | ●    |
| MBQR0426L12R015-D-(C)  | 2.6                                     | 4  | 0.15 | 37 | 12  | 2.35 | 0.3  | ●    | ●    |
| MBQR0431L10R005-D-(C)  | 3.1                                     | 4  | 0.05 | 35 | 10  | 2.8  | 0.5  | ●    | ●    |
| MBQR0431L10R010-D-(C)  | 3.1                                     | 4  | 0.1  | 35 | 10  | 2.8  | 0.5  | ●    | ●    |
| MBQR0431L10R015-D-(C)  | 3.1                                     | 4  | 0.15 | 35 | 10  | 2.8  | 0.5  | ●    | ●    |
| MBQR0431L15R005-D-(C)  | 3.1                                     | 4  | 0.05 | 40 | 15  | 2.8  | 0.5  | ●    | ●    |
| MBQR0431L15R010-D-(C)  | 3.1                                     | 4  | 0.1  | 40 | 15  | 2.8  | 0.5  | ●    | ●    |
| MBQR0431L15R015-D-(C)  | 3.1                                     | 4  | 0.15 | 40 | 15  | 2.8  | 0.5  | ●    | ●    |
| MBQR0441L12R005-D-(C)  | 4.1                                     | 4  | 0.05 | 37 | 12  | 3.8  | 0.6  | ●    | ●    |
| MBQR0441L12R010-D-(C)  | 4.1                                     | 4  | 0.1  | 37 | 12  | 3.8  | 0.6  | ●    | ●    |
| MBQR0441L12R020-D-(C)  | 4.1                                     | 4  | 0.2  | 37 | 12  | 3.8  | 0.6  | ●    | ●    |
| MBQR0441L16R005-D-(C)  | 4.1                                     | 4  | 0.05 | 41 | 16  | 3.8  | 0.6  | ●    | ●    |
| MBQR0441L16R010-D-(C)  | 4.1                                     | 4  | 0.1  | 41 | 16  | 3.8  | 0.6  | ●    | ●    |
| MBQR0441L16R020-D-(C)  | 4.1                                     | 4  | 0.2  | 41 | 16  | 3.8  | 0.6  | ●    | ●    |
| MBQR0441L20R005-D-(C)  | 4.1                                     | 4  | 0.05 | 45 | 20  | 3.8  | 0.6  | ●    | ●    |
| MBQR0441L20R010-D-(C)  | 4.1                                     | 4  | 0.1  | 45 | 20  | 3.8  | 0.6  | ●    | ●    |
| MBQR0441L20R020-D-(C)  | 4.1                                     | 4  | 0.2  | 45 | 20  | 3.8  | 0.6  | ●    | ●    |
| MBQR0551L15R005-D-(C)  | 5.1                                     | 5  | 0.05 | 40 | 15  | 4.8  | 0.8  | ●    | ●    |
| MBQR0551L15R010-D-(C)  | 5.1                                     | 5  | 0.1  | 40 | 15  | 4.8  | 0.8  | ●    | ●    |
| MBQR0551L15R020-D-(C)  | 5.1                                     | 5  | 0.2  | 40 | 15  | 4.8  | 0.8  | ●    | ●    |
| MBQR0551L20R005-D-(C)  | 5.1                                     | 5  | 0.05 | 45 | 20  | 4.8  | 0.8  | ●    | ●    |
| MBQR0551L20R010-D-(C)  | 5.1                                     | 5  | 0.1  | 45 | 20  | 4.8  | 0.8  | ●    | ●    |
| MBQR0551L20R020-D-(C)  | 5.1                                     | 5  | 0.2  | 45 | 20  | 4.8  | 0.8  | ●    | ●    |
| MBQR0551L25R005-D-(C)  | 5.1                                     | 5  | 0.05 | 50 | 25  | 4.8  | 0.8  | ●    | ●    |
| MBQR0551L25R010-D-(C)  | 5.1                                     | 5  | 0.1  | 50 | 25  | 4.8  | 0.8  | ●    | ●    |
| MBQR0551L25R020-D-(C)  | 5.1                                     | 5  | 0.2  | 50 | 25  | 4.8  | 0.8  | ●    | ●    |
| MBQR0661L15R005-D-(C)  | 6.1                                     | 6  | 0.05 | 40 | 15  | 5.8  | 1    | ●    | ●    |
| MBQR0661L15R010-D-(C)  | 6.1                                     | 6  | 0.1  | 40 | 15  | 5.8  | 1    | ●    | ●    |
| MBQR0661L15R020-D-(C)  | 6.1                                     | 6  | 0.2  | 40 | 15  | 5.8  | 1    | ●    | ●    |
| MBQR0661L20R005-D-(C)  | 6.1                                     | 6  | 0.05 | 45 | 20  | 5.8  | 1    | ●    | ●    |
| MBQR0661L20R010-D-(C)  | 6.1                                     | 6  | 0.1  | 45 | 20  | 5.8  | 1    | ●    | ●    |
| MBQR0661L20R020-D-(C)  | 6.1                                     | 6  | 0.2  | 45 | 20  | 5.8  | 1    | ●    | ●    |
| MBQR0661L25R005-D-(C)  | 6.1                                     | 6  | 0.05 | 50 | 25  | 5.8  | 1    | ●    | ●    |
| MBQR0661L25R010-D-(C)  | 6.1                                     | 6  | 0.1  | 50 | 25  | 5.8  | 1    | ●    | ●    |
| MBQR0661L25R020-D-(C)  | 6.1                                     | 6  | 0.2  | 50 | 25  | 5.8  | 1    | ●    | ●    |
| MBQR0661L30R005-D-(C)  | 6.1                                     | 6  | 0.05 | 55 | 30  | 5.8  | 1    | ●    | ●    |
| MBQR0661L30R010-D-(C)  | 6.1                                     | 6  | 0.1  | 55 | 30  | 5.8  | 1    | ●    | ●    |
| MBQR0661L30R020-D-(C)  | 6.1                                     | 6  | 0.2  | 55 | 30  | 5.8  | 1    | ●    | ●    |
| MBQR0771L25R010-D-(C)  | 7.1                                     | 7  | 0.1  | 54 | 25  | 6.8  | 1.2  | ●    | ●    |
| MBQR0771L25R020-D-(C)  | 7.1                                     | 7  | 0.2  | 54 | 25  | 6.8  | 1.2  | ●    | ●    |
| MBQR0771L35R010-D-(C)  | 7.1                                     | 7  | 0.1  | 64 | 35  | 6.8  | 1.2  | ●    | ●    |
| MBQR0771L35R020-D-(C)  | 7.1                                     | 7  | 0.2  | 64 | 35  | 6.8  | 1.2  | ●    | ●    |

● 有库存 (C) 代表可内冷定制 ● on stock (C) Internal cooling customization

## MBUR

## PROFILING, 90°FACE CUTTING 仿形平底镗刀

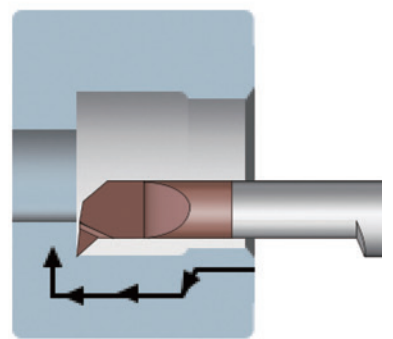
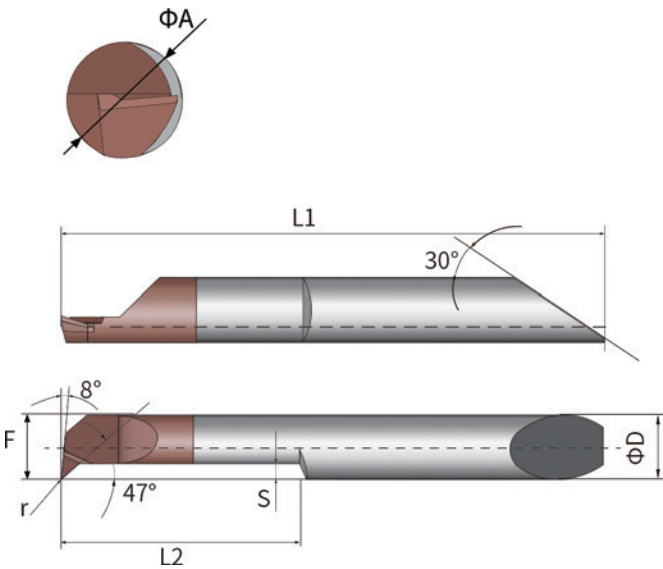


| 产品型号<br>Product Type  | 最小加工直径<br>Min. Dia<br>(mm) ΦA | ΦD | r    | L1 | L2 | F   | S    | JS25 | AL25 |
|-----------------------|-------------------------------|----|------|----|----|-----|------|------|------|
| MBUR0431L10R010-D-(C) | 3.1                           | 4  | 0.10 | 35 | 10 | 2.8 | 0.40 | ●    | ●    |
| MBUR0441L12R010-D-(C) | 4.1                           | 4  | 0.10 | 37 | 12 | 3.8 | 0.50 | ●    | ●    |
| MBUR0551L15R015-D-(C) | 5.1                           | 5  | 0.15 | 40 | 15 | 4.8 | 0.70 | ●    | ●    |
| MBUR0661L20R015-D-(C) | 6.1                           | 6  | 0.15 | 45 | 20 | 5.8 | 0.90 | ●    | ●    |

● 有库存 (C) 代表可内冷定制 ● on stock (C) Internal cooling customization

## MBCR

## PROFILING AND BORING 仿形镗刀

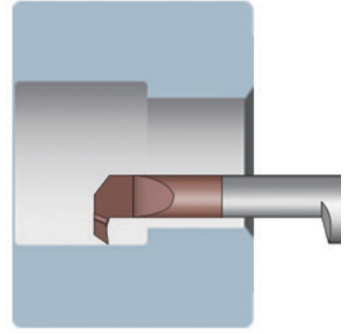
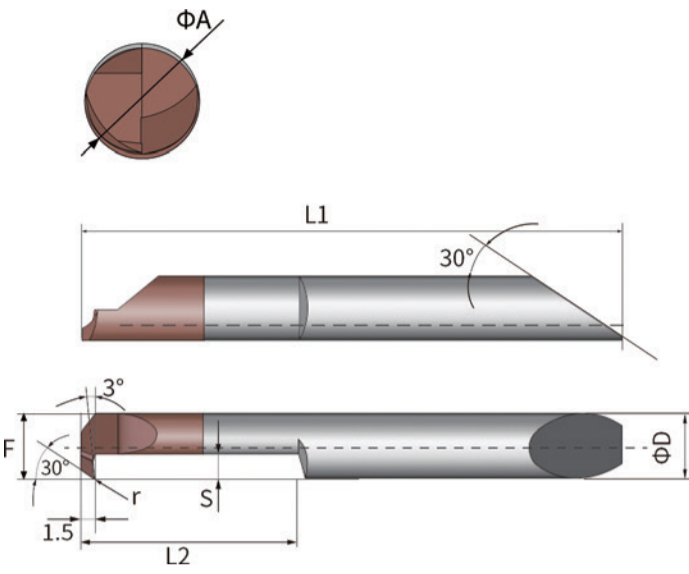


| 产品型号<br>Product Type  | 最小加工直径<br>Min. Dia<br>(mm) ΦA | ΦD | r    | L1 | L2 | F   | S    | JS25 | AL25 |
|-----------------------|-------------------------------|----|------|----|----|-----|------|------|------|
| MBCR0431L10R005-D-(C) | 3.1                           | 4  | 0.05 | 35 | 10 | 2.8 | 0.60 | ●    | ●    |
| MBCR0431L10R010-D-(C) | 3.1                           | 4  | 0.10 | 35 | 10 | 2.8 | 0.60 | ●    | ●    |
| MBCR0431L15R005-D-(C) | 3.1                           | 4  | 0.05 | 37 | 15 | 2.8 | 0.60 | ●    | ●    |
| MBCR0431L15R010-D-(C) | 3.1                           | 4  | 0.10 | 37 | 15 | 2.8 | 0.60 | ●    | ●    |
| MBCR0441L12R005-D-(C) | 4.1                           | 4  | 0.05 | 37 | 12 | 3.8 | 0.80 | ●    | ●    |
| MBCR0441L12R010-D-(C) | 4.1                           | 4  | 0.10 | 37 | 12 | 3.8 | 0.80 | ●    | ●    |
| MBCR0441L16R005-D-(C) | 4.1                           | 4  | 0.05 | 41 | 16 | 3.8 | 0.80 | ●    | ●    |
| MBCR0441L16R010-D-(C) | 4.1                           | 4  | 0.10 | 41 | 16 | 3.8 | 0.80 | ●    | ●    |
| MBCR0441L20R005-D-(C) | 4.1                           | 4  | 0.05 | 45 | 20 | 3.8 | 0.80 | ●    | ●    |
| MBCR0441L20R010-D-(C) | 4.1                           | 4  | 0.10 | 45 | 20 | 3.8 | 0.80 | ●    | ●    |
| MBCR0551L20R005-D-(C) | 5.1                           | 5  | 0.05 | 45 | 20 | 4.8 | 1.00 | ●    | ●    |
| MBCR0551L20R015-D-(C) | 5.1                           | 5  | 0.15 | 45 | 20 | 4.8 | 1.00 | ●    | ●    |
| MBCR0551L25R005-D-(C) | 5.1                           | 5  | 0.05 | 50 | 25 | 4.8 | 1.00 | ●    | ●    |
| MBCR0551L25R015-D-(C) | 5.1                           | 5  | 0.15 | 50 | 25 | 4.8 | 1.00 | ●    | ●    |
| MBCR0661L20R005-D-(C) | 6.1                           | 6  | 0.05 | 45 | 20 | 5.8 | 1.20 | ●    | ●    |
| MBCR0661L20R015-D-(C) | 6.1                           | 6  | 0.15 | 45 | 20 | 5.8 | 1.20 | ●    | ●    |
| MBCR0661L25R005-D-(C) | 6.1                           | 6  | 0.05 | 50 | 25 | 5.8 | 1.20 | ●    | ●    |
| MBCR0661L25R015-D-(C) | 6.1                           | 6  | 0.15 | 50 | 25 | 5.8 | 1.20 | ●    | ●    |
| MBCR0661L30R005-D-(C) | 6.1                           | 6  | 0.05 | 55 | 30 | 5.8 | 1.20 | ●    | ●    |
| MBCR0661L30R015-D-(C) | 6.1                           | 6  | 0.15 | 55 | 30 | 5.8 | 1.20 | ●    | ●    |

● 有库存 (C) 代表可内冷定制 ● on stock (C) Internal cooling customization

## MBXR

## REVERSE BORING CUTTER 反向镗刀

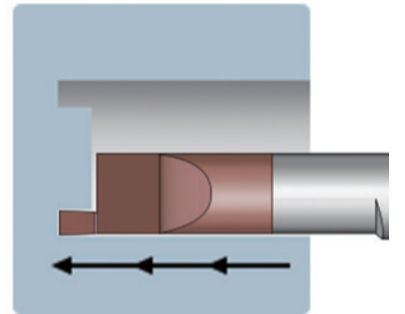
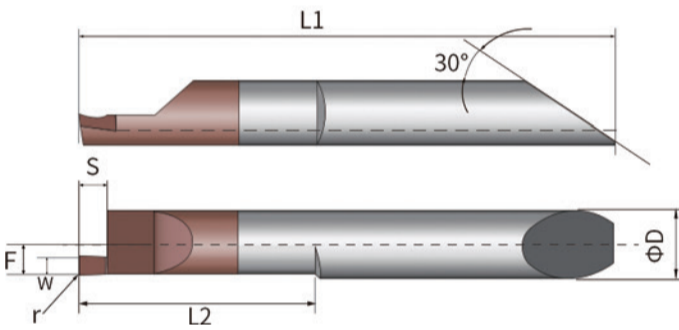


| 产品型号<br>Product Type  | 最小加工直径<br>Min. Dia<br>(mm) ΦA | ΦD | r    | L1 | L2 | F   | S    | JS25 | AL25 |
|-----------------------|-------------------------------|----|------|----|----|-----|------|------|------|
| MBXR0441L16R010-D-(C) | 4.1                           | 4  | 0.10 | 41 | 16 | 3.8 | 1.00 | ●    | ●    |
| MBXR0551L20R010-D-(C) | 5.1                           | 5  | 0.10 | 45 | 20 | 4.8 | 1.30 | ●    | ●    |
| MBXR0661L25R010-D-(C) | 6.1                           | 6  | 0.10 | 50 | 25 | 5.8 | 1.60 | ●    | ●    |

● 有库存 (C) 代表可内冷定制 ● on stock (C) Internal cooling customization

## MFGR

## FACE GROOVING 端面槽刀

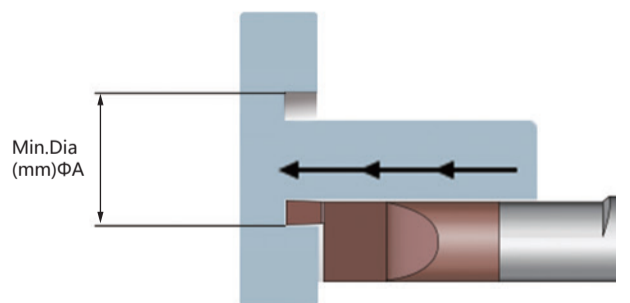
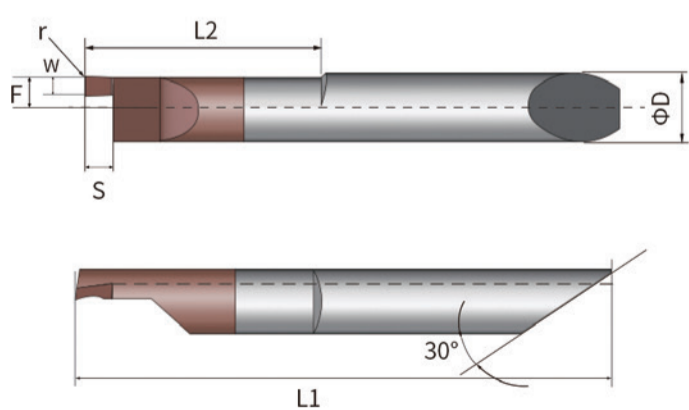


| 产品型号<br>Product Type  | 最小加工直径<br>Min. Dia<br>(mm) ΦA | ΦD | r    | L1 | L2 | F   | S    | W    | JS25 | AL25 |
|-----------------------|-------------------------------|----|------|----|----|-----|------|------|------|------|
| MFGR0450L12W050-U-(C) | 5.0                           | 4  | 0.05 | 37 | 12 | 1.9 | 1.00 | 0.50 | ●    | ●    |
| MFGR0450L12W100-U-(C) | 5.0                           | 4  | 0.05 | 37 | 12 | 1.9 | 1.50 | 1.00 | ●    | ●    |
| MFGR0450L12W150-U-(C) | 5.0                           | 4  | 0.05 | 37 | 12 | 1.9 | 2.00 | 1.50 | ●    | ●    |
| MFGR0560L15W100-U-(C) | 6.0                           | 5  | 0.10 | 40 | 15 | 2.4 | 1.50 | 1.00 | ●    | ●    |
| MFGR0560L15W150-U-(C) | 6.0                           | 5  | 0.10 | 40 | 15 | 2.4 | 2.50 | 1.50 | ●    | ●    |
| MFGR0560L15W200-U-(C) | 6.0                           | 5  | 0.10 | 40 | 15 | 2.4 | 3.00 | 2.00 | ●    | ●    |
| MFGR0680L20W100-U-(C) | 8.0                           | 6  | 0.10 | 45 | 20 | 2.9 | 2.00 | 1.00 | ●    | ●    |
| MFGR0680L20W150-U-(C) | 8.0                           | 6  | 0.10 | 45 | 20 | 2.9 | 2.50 | 1.50 | ●    | ●    |
| MFGR0680L20W200-U-(C) | 8.0                           | 6  | 0.10 | 45 | 20 | 2.9 | 3.00 | 2.00 | ●    | ●    |
| MFGR0680L20W300-U-(C) | 8.0                           | 6  | 0.10 | 45 | 20 | 2.9 | 4.50 | 3.00 | ●    | ●    |

● 有库存 (C) 代表可内冷定制 ● on stock (C) Internal cooling customization

## MFGL

## FACE GROOVING 端面槽刀



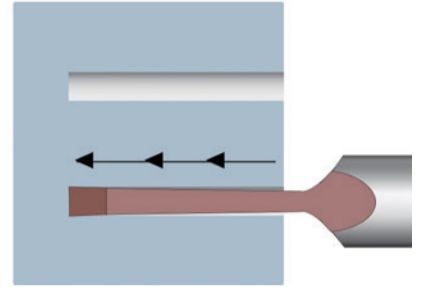
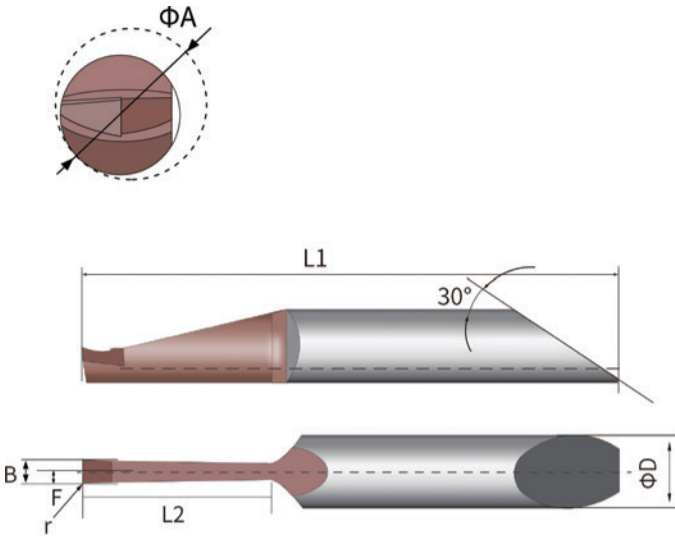
| 产品型号<br>Product Type  | 最小加工直径<br>Min. Dia<br>(mm) ΦA | ΦD | r    | L1 | L2 | F   | S    | W    | JS25 | AL25 |
|-----------------------|-------------------------------|----|------|----|----|-----|------|------|------|------|
| MFGL0662L20W080-U-(C) | 6.2                           | 6  | 0.05 | 45 | 20 | 2.9 | 1.80 | 0.80 | ●    | ●    |
| MFGL0662L20W100-U-(C) | 6.2                           | 6  | 0.05 | 45 | 20 | 2.9 | 2.00 | 1.00 | ●    | ●    |
| MFGL0662L20W150-U-(C) | 6.2                           | 6  | 0.10 | 45 | 20 | 2.9 | 3.00 | 1.50 | ●    | ●    |
| MFGL0662L20W200-U-(C) | 6.2                           | 6  | 0.10 | 45 | 20 | 2.9 | 4.00 | 2.00 | ●    | ●    |
| MFGL0662L20W250-U-(C) | 6.2                           | 6  | 0.10 | 45 | 20 | 2.9 | 5.00 | 2.50 | ●    | ●    |

● 有库存 (C) 代表可内冷定制 ● on stock (C) Internal cooling customization

## MGVR

## DEEP FACE GROOVING

### 深端面槽刀



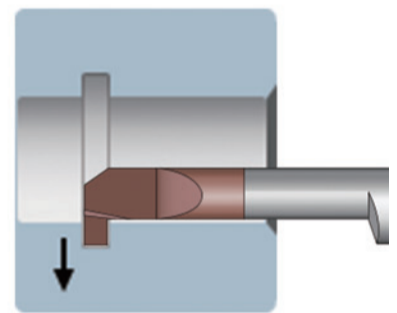
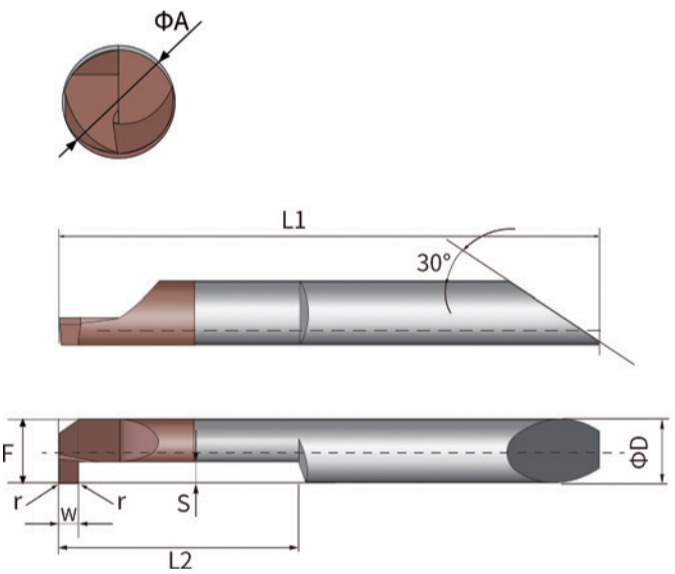
| 产品型号<br>Product Type  | 最小加工环径<br>Min.Dia<br>(mm)ΦA | ΦD | r   | L1 | L2 | B   | F   | JS25 | AL25 |
|-----------------------|-----------------------------|----|-----|----|----|-----|-----|------|------|
| MGVR0712L15W200-U-(C) | 12                          | 7  | 0.2 | 47 | 15 | 2.0 | 1.1 | ●    | ●    |
| MGVR0712L15W250-U-(C) | 12                          | 7  | 0.2 | 47 | 15 | 2.5 | 1.4 | ●    | ●    |
| MGVR0712L15W300-U-(C) | 12                          | 7  | 0.2 | 47 | 15 | 3.0 | 1.6 | ●    | ●    |

● 有库存 (C)代表可内冷定制 ● on stock (C)Internal cooling customization

## MGSR

## INTERNAL GROOVING

### 内孔切槽刀

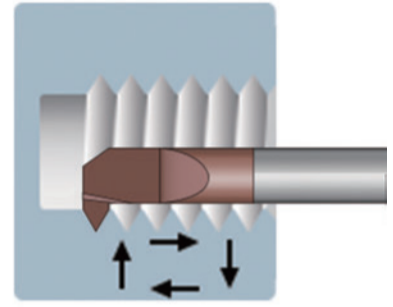
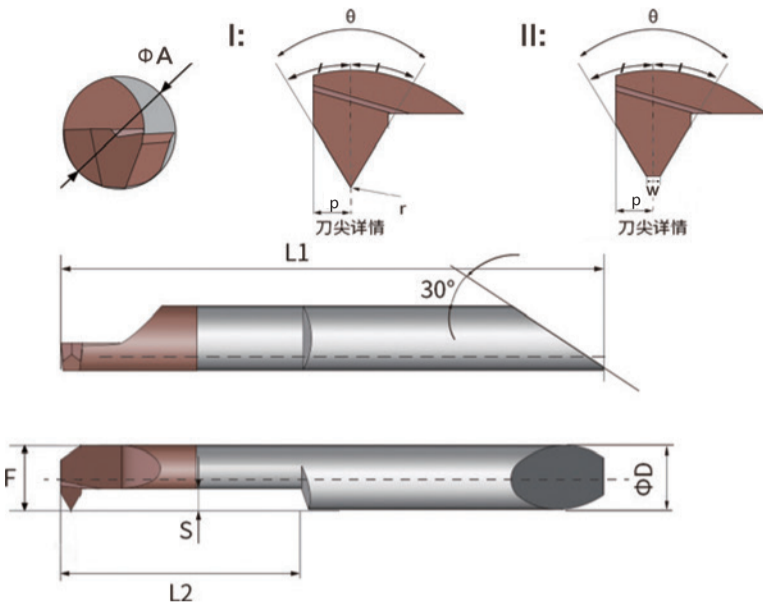


| 产品型号<br>Product Type  | 最小加工直径<br>Min.Dia<br>(mm)ΦA | ΦD | r±0.01 | L1 | L2 | F    | S    | W    | JS25 | AL25 |
|-----------------------|-----------------------------|----|--------|----|----|------|------|------|------|------|
| MGSR0426L05W050-D-(C) | 2.6                         | 4  | 0.05   | 30 | 5  | 2.35 | 0.65 | 0.50 | ●    | ●    |
| MGSR0426L05W075-D-(C) | 2.6                         | 4  | 0.05   | 30 | 5  | 2.35 | 0.65 | 0.75 | ●    | ●    |
| MGSR0431L05W050-D-(C) | 3.1                         | 4  | 0.05   | 30 | 5  | 2.8  | 0.80 | 0.50 | ●    | ●    |
| MGSR0431L05W075-D-(C) | 3.1                         | 4  | 0.05   | 30 | 5  | 2.8  | 0.80 | 0.75 | ●    | ●    |
| MGSR0431L05W100-D-(C) | 3.1                         | 4  | 0.05   | 30 | 5  | 2.8  | 0.80 | 1.00 | ●    | ●    |
| MGSR0431L10W050-D-(C) | 3.1                         | 4  | 0.05   | 35 | 10 | 2.8  | 0.80 | 0.50 | ●    | ●    |
| MGSR0431L10W075-D-(C) | 3.1                         | 4  | 0.05   | 35 | 10 | 2.8  | 0.80 | 0.75 | ●    | ●    |
| MGSR0431L10W100-D-(C) | 3.1                         | 4  | 0.05   | 35 | 10 | 2.8  | 0.80 | 1.00 | ●    | ●    |
| MGSR0441L06W050-D-(C) | 4.1                         | 4  | 0.05   | 31 | 6  | 3.8  | 1.00 | 0.50 | ●    | ●    |
| MGSR0441L06W075-D-(C) | 4.1                         | 4  | 0.05   | 31 | 6  | 3.8  | 1.00 | 0.75 | ●    | ●    |
| MGSR0441L06W100-D-(C) | 4.1                         | 4  | 0.05   | 31 | 6  | 3.8  | 1.00 | 1.00 | ●    | ●    |
| MGSR0441L06W150-D-(C) | 4.1                         | 4  | 0.05   | 31 | 6  | 3.8  | 1.00 | 1.50 | ●    | ●    |
| MGSR0441L12W050-D-(C) | 4.1                         | 4  | 0.05   | 37 | 12 | 3.8  | 1.00 | 0.50 | ●    | ●    |
| MGSR0441L12W075-D-(C) | 4.1                         | 4  | 0.05   | 37 | 12 | 3.8  | 1.00 | 0.75 | ●    | ●    |
| MGSR0441L12W100-D-(C) | 4.1                         | 4  | 0.05   | 37 | 12 | 3.8  | 1.00 | 1.00 | ●    | ●    |
| MGSR0441L12W150-D-(C) | 4.1                         | 4  | 0.05   | 37 | 12 | 3.8  | 1.00 | 1.50 | ●    | ●    |
| MGSR0551L08W100-D-(C) | 5.1                         | 5  | 0.10   | 33 | 8  | 4.8  | 1.50 | 1.00 | ●    | ●    |
| MGSR0551L08W150-D-(C) | 5.1                         | 5  | 0.10   | 33 | 8  | 4.8  | 1.50 | 1.50 | ●    | ●    |
| MGSR0551L08W200-D-(C) | 5.1                         | 5  | 0.10   | 33 | 8  | 4.8  | 1.50 | 2.00 | ●    | ●    |
| MGSR0551L15W100-D-(C) | 5.1                         | 5  | 0.10   | 40 | 15 | 4.8  | 1.50 | 1.00 | ●    | ●    |
| MGSR0551L15W150-D-(C) | 5.1                         | 5  | 0.10   | 40 | 15 | 4.8  | 1.50 | 1.50 | ●    | ●    |
| MGSR0551L15W200-D-(C) | 5.1                         | 5  | 0.10   | 40 | 15 | 4.8  | 1.50 | 2.00 | ●    | ●    |
| MGSR0661L10W100-D-(C) | 6.1                         | 6  | 0.10   | 35 | 10 | 5.8  | 2.00 | 1.00 | ●    | ●    |
| MGSR0661L10W150-D-(C) | 6.1                         | 6  | 0.10   | 35 | 10 | 5.8  | 2.00 | 1.50 | ●    | ●    |
| MGSR0661L10W200-D-(C) | 6.1                         | 6  | 0.10   | 35 | 10 | 5.8  | 2.00 | 2.00 | ●    | ●    |
| MGSR0661L20W100-D-(C) | 6.1                         | 6  | 0.10   | 45 | 20 | 5.8  | 2.00 | 1.00 | ●    | ●    |
| MGSR0661L20W150-D-(C) | 6.1                         | 6  | 0.10   | 45 | 20 | 5.8  | 2.00 | 1.50 | ●    | ●    |
| MGSR0661L20W200-D-(C) | 6.1                         | 6  | 0.10   | 45 | 20 | 5.8  | 2.00 | 2.00 | ●    | ●    |
| MGSR0771L25W100-D-(C) | 7.1                         | 7  | 0.10   | 54 | 25 | 6.8  | 2.00 | 1.00 | ●    | ●    |
| MGSR0771L25W150-D-(C) | 7.1                         | 7  | 0.10   | 54 | 25 | 6.8  | 2.00 | 1.50 | ●    | ●    |
| MGSR0771L25W200-D-(C) | 7.1                         | 7  | 0.10   | 54 | 25 | 6.8  | 2.00 | 2.00 | ●    | ●    |

● 有库存 (C)代表可内冷定制 ● on stock (C) Internal cooling customization

# MTHR

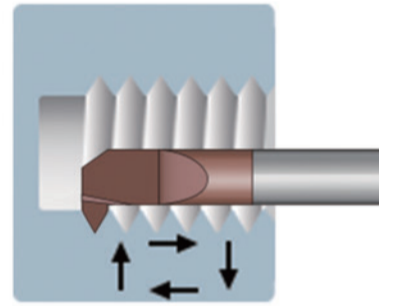
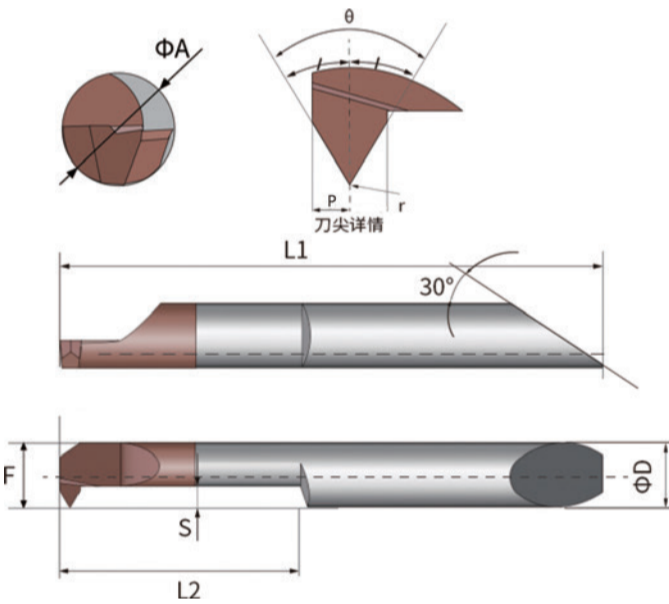
# INTERNAL THREADING 内孔螺纹刀



## 60° 范围牙

| 产品型号<br>Product Type   | 最小加工直径<br>Min. Dia<br>(mm) ΦA | ΦD | w    | r    | p     | L1 | L2 | F   | S   | θ   | Pitch Range<br>螺距范围(mm) | Type<br>类型 | JS25 | AL25 |
|------------------------|-------------------------------|----|------|------|-------|----|----|-----|-----|-----|-------------------------|------------|------|------|
| MTHR0415L04A60-D- (C)  | 1.5                           | 4  | 0.03 | /    | 0.25  | 29 | 4  | 1.4 | 0.4 | 60° | P0.25~P0.4              | II         | ●    | ●    |
| MTHR0420L06A60-D- (C)  | 2.0                           | 4  | 0.04 | /    | 0.305 | 31 | 6  | 1.9 | 0.5 | 60° | P0.3~P0.5               | II         | ●    | ●    |
| MTHR0425L08A60-D- (C)  | 2.5                           | 4  | 0.06 | /    | 0.375 | 33 | 8  | 2.4 | 0.6 | 60° | P0.4~P0.6               | II         | ●    | ●    |
| MTHR0430L10A60-D- (C)  | 3.0                           | 4  | /    | 0.05 | 0.605 | 35 | 10 | 2.9 | 1.0 | 60° | P0.5~P0.8               | I          | ●    | ●    |
| MTHR0441L12A60X-D- (C) | 4.0                           | 4  | /    | 0.05 | 0.72  | 37 | 12 | 3.9 | 1.2 | 60° | P0.5~P1.0               | I          | ●    | ●    |
| MTHR0441L12A60-D- (C)  | 4.0                           | 4  | /    | 0.10 | 0.75  | 37 | 12 | 3.9 | 1.2 | 60° | P1.0~P1.5               | I          | ●    | ●    |
| MTHR0551L15A60X-D- (C) | 5.0                           | 5  | /    | 0.05 | 0.895 | 40 | 15 | 4.9 | 1.5 | 60° | P0.5~P1.0               | I          | ●    | ●    |
| MTHR0551L15A60-D- (C)  | 5.0                           | 5  | /    | 0.10 | 0.925 | 40 | 15 | 4.9 | 1.5 | 60° | P1.0~P1.5               | I          | ●    | ●    |
| MTHR0661L20A60X-D- (C) | 6.0                           | 6  | /    | 0.05 | 1.07  | 45 | 20 | 5.9 | 1.8 | 60° | P0.5~P1.0               | I          | ●    | ●    |
| MTHR0661L20A60-D- (C)  | 6.0                           | 6  | /    | 0.10 | 1.095 | 45 | 20 | 5.9 | 1.8 | 60° | P1.0~P1.75              | I          | ●    | ●    |

● 有库存 (C) 代表可内冷定制 ● on stock (C) Internal cooling customization



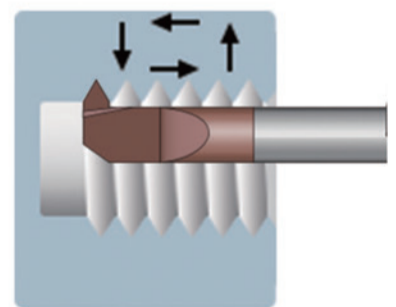
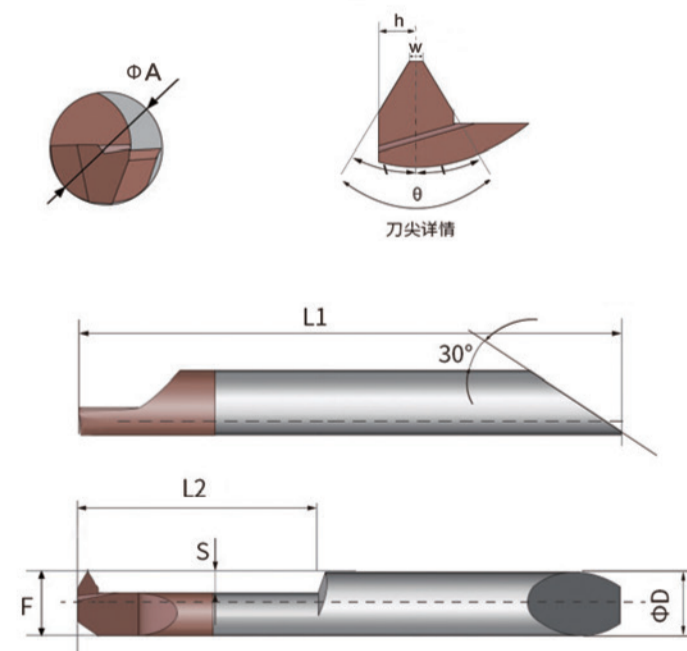
## 55° 范围牙

| 产品型号<br>Product Type  | 最小加工直径<br>Min. Dia<br>(mm) ΦA | ΦD | r    | p     | L1 | L2 | F   | S   | θ   | TPI<br>可加工每英寸牙数范围 | JS25 | AL25 |
|-----------------------|-------------------------------|----|------|-------|----|----|-----|-----|-----|-------------------|------|------|
| MTHR0431L10A55-D- (C) | 3.1                           | 4  | 0.05 | 0.55  | 35 | 10 | 2.9 | 1.0 | 55° | 48-24             | ●    | ●    |
| MTHR0441L12A55-D- (C) | 4.1                           | 4  | 0.05 | 0.655 | 37 | 12 | 3.9 | 1.2 | 55° | 48-24             | ●    | ●    |
| MTHR0551L15A55-D- (C) | 5.1                           | 5  | 0.08 | 0.865 | 40 | 15 | 4.9 | 1.6 | 55° | 48-16             | ●    | ●    |
| MTHR0661L20A55-D- (C) | 6.1                           | 6  | 0.08 | 1.04  | 45 | 20 | 5.9 | 1.9 | 55° | 48-12             | ●    | ●    |
| MTHR0771L25A55-D- (C) | 7.1                           | 7  | 0.15 | 1.13  | 54 | 25 | 7.9 | 2.5 | 55° | 26-11             | ●    | ●    |

● 有库存 (C) 代表可内冷定制 ● on stock (C) Internal cooling customization

# MTHL

# INTERNAL THREADING 内孔螺纹刀



## 60° 范围牙左手刀

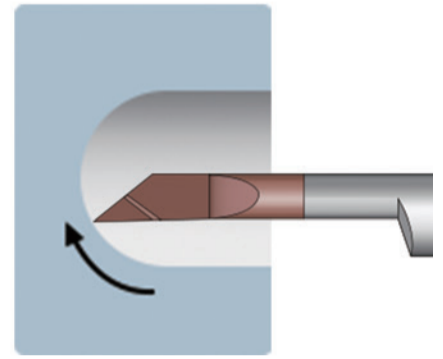
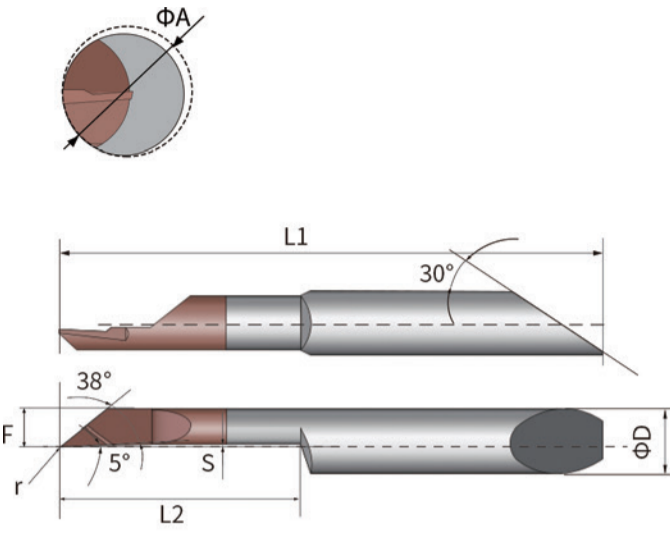
| 产品型号<br>Product Type   | 最小加工直径<br>Min. Dia<br>(mm) ΦA | ΦD | w    | r | h     | L1 | L2 | F   | S   | θ   | Pitch Range<br>螺距范围(mm) | JS25 | AL25 |
|------------------------|-------------------------------|----|------|---|-------|----|----|-----|-----|-----|-------------------------|------|------|
| MTHL0441L12A60X-D- (C) | 1.5                           | 4  | 0.05 | / | 0.72  | 29 | 4  | 1.4 | 0.4 | 60° | P0.5~P0.8               | ●    | ●    |
| MTHL0441L12A60-D- (C)  | 2.0                           | 4  | 0.1  | / | 0.75  | 31 | 6  | 1.9 | 0.5 | 60° | P0.8~P1.0               | ●    | ●    |
| MTHL0551L15A60X-D- (C) | 2.5                           | 4  | 0.06 | / | 0.895 | 33 | 8  | 2.4 | 0.6 | 60° | P0.5~P1.0               | ●    | ●    |
| MTHL0551L15A60-D- (C)  | 3.0                           | 4  | 0.12 | / | 0.925 | 35 | 10 | 2.9 | 1.0 | 60° | P1.0~P1.5               | ●    | ●    |
| MTHL0661L20A60X-D- (C) | 4.0                           | 4  | 0.08 | / | 1.07  | 37 | 12 | 3.9 | 1.2 | 60° | P0.5~P1.0               | ●    | ●    |
| MTHL0661L20A60-D- (C)  | 4.0                           | 4  | 0.16 | / | 1.095 | 37 | 12 | 3.9 | 1.2 | 60° | P1.0~P1.75              | ●    | ●    |

● 有库存 (C) 代表可内冷定制 ● on stock (C) Internal cooling customization

**MFWR**

**SPHERICAL AND FACE PROFILING BORING**

内孔球面·端面·仿形镗刀

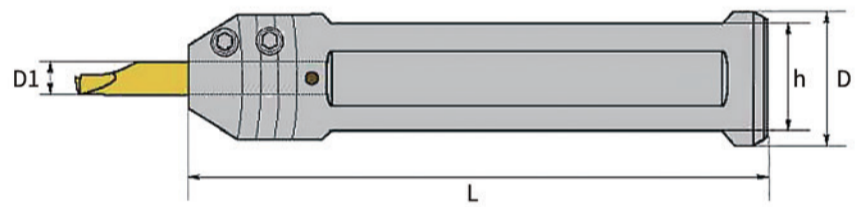


| 产品型号<br>Product Type  | 最小加工直径<br>Min. Dia<br>(mm) ΦA | ΦD | r    | L1 | L2 | F    | S    | JS25 | AL25 |
|-----------------------|-------------------------------|----|------|----|----|------|------|------|------|
| MFWR0435L08R010-D-(C) | 3.5                           | 4  | 0.10 | 33 | 8  | 1.55 | 0.15 | ●    | ●    |
| MFWR0445L10R010-D-(C) | 4.5                           | 4  | 0.10 | 35 | 10 | 1.95 | 0.25 | ●    | ●    |
| MFWR0555L12R010-D-(C) | 5.5                           | 5  | 0.10 | 38 | 12 | 2.45 | 0.30 | ●    | ●    |
| MFWR0665L15R010-D-(C) | 6.5                           | 6  | 0.10 | 40 | 15 | 2.95 | 0.35 | ●    | ●    |

● 有库存 (C)代表可内冷定制 ● on stock (C) Internal cooling customization

**TINY TOOLS TOOLHOLDERS**

微型小镗刀变径套刀杆

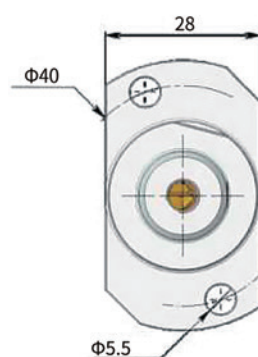
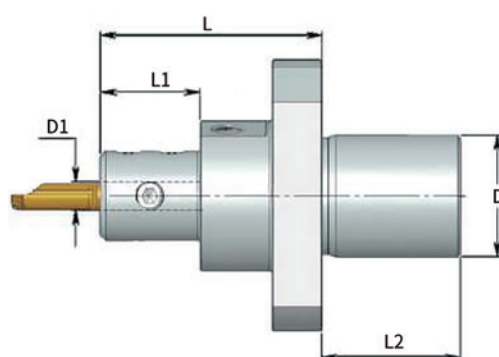


| 产品型号<br>Product Type | D     | D1 | L   | h    | 锁紧螺钉<br>Clamping Screw |
|----------------------|-------|----|-----|------|------------------------|
| SIM0012-D4           | 12    | 4  | 75  | 10.6 | T0507                  |
| SIM0012-D5           | 12    | 5  | 75  | 10.6 | T0507                  |
| SIM0012-D6           | 12    | 6  | 75  | 10.6 | T0507                  |
| SIM0016-D4           | 16    | 4  | 90  | 14.6 | T0507                  |
| SIM0016-D5           | 16    | 5  | 90  | 14.6 | T0507                  |
| SIM0016-D6           | 16    | 6  | 90  | 14.6 | T0507                  |
| SIM0016-D7           | 16    | 7  | 90  | 14.6 | T0507                  |
| SIM0750-D4           | 19.05 | 4  | 90  | 17.8 | T0507                  |
| SIM0750-D5           | 19.05 | 5  | 90  | 17.8 | T0507                  |
| SIM0750-D6           | 19.05 | 6  | 90  | 17.8 | T0507                  |
| SIM0750-D7           | 19.05 | 7  | 90  | 17.8 | T0507                  |
| SIM0020-D4           | 20    | 4  | 90  | 18   | T0507                  |
| SIM0020-D5           | 20    | 5  | 90  | 18   | T0507                  |
| SIM0020-D6           | 20    | 6  | 90  | 18   | T0507                  |
| SIM0020-D7           | 20    | 7  | 90  | 18   | T0507                  |
| SIM0022-D4(130)      | 22    | 4  | 130 | 20.6 | T0507                  |
| SIM0022-D5(130)      | 22    | 5  | 130 | 20.6 | T0507                  |
| SIM0022-D6(130)      | 22    | 6  | 130 | 20.6 | T0507                  |
| SIM0022-D7           | 22    | 7  | 90  | 20.6 | T0507                  |
| SIM0025-D4           | 25    | 4  | 90  | 23   | T0507                  |
| SIM0025-D5           | 25    | 5  | 90  | 23   | T0507                  |
| SIM0025-D6           | 25    | 6  | 90  | 23   | T0507                  |
| SIM0025-D7           | 25    | 7  | 90  | 23   | T0507                  |
| SIM1000-D4           | 25.4  | 4  | 90  | 23   | T0507                  |
| SIM1000-D5           | 25.4  | 5  | 90  | 23   | T0507                  |
| SIM1000-D6           | 25.4  | 6  | 90  | 23   | T0507                  |
| SIM1000-D7           | 25.4  | 7  | 90  | 23   | T0507                  |



# STAR TINY TOOLS TOOLHOLDERS FOR MACHINES








## STAR机床微型变径套刀杆



| 产品型号<br>Product Type | D  | D1  | L  | L1 | L2 | dp<br>水管孔Hole Tube | 锁紧螺钉<br>clamping screw |
|----------------------|----|-----|----|----|----|--------------------|------------------------|
| SIM22S-D4            | 22 | 4.0 | 52 | 30 | 25 | 6.0                | T0507                  |
| SIM22S-D5            | 22 | 5.0 | 52 | 30 | 25 | 6.0                | T0507                  |
| SIM22S-D6            | 22 | 6.0 | 52 | 30 | 25 | 6.0                | T0507                  |
| SIM22S-D7            | 22 | 7.0 | 52 | 30 | 25 | 6.0                | T0507                  |

## COATING ITEM

### 涂层说明

| Coated Item<br>涂层编号 | Color<br>颜色   | Application<br>加工材料  | Performance parameter<br>特性参数  |
|---------------------|---|--|--|
| AT12                | Gold<br>金色<br>             | Universal use for ≤HRC45 material;<br>Stainless(austenitic&Martensite,303,304,316F...);<br>Steel(Bearing steel, quenched steel, Cr-Mo steel, Mn steel...);<br>Koveralloy; Superalloy;Copper;<br>Iron castingPig iron; Nickel alloy,PMMA...<br>泛用于HRC45以内材料, 包括但不限于:<br>奥氏体/马氏体不锈钢,303,316F,镍不锈钢等;<br>钢材(淬火钢, 洛钼钢, 锰钢等碳钢);<br>生铁, 铸铁, 镍合金, 亚克力等。  | Nano Hardness :HV3500<br>Friction Coefficient: 0.3<br>Max.Temp: 900°   |
| JS25                | Bronze<br>古铜色<br>          | Universal use for ≤HRC60 material;<br>Stainless(austenitic&Martensite,316L,303,304,321,316F,High Nickel Stainless...);<br>Steel(Bearing steel,quenched steel,Cr-Mo steel,Mn steel...);<br>Koveralloy; Superalloy;Copper;<br>Iron castingPig iron; Nickel alloy..<br>泛用于HRC60以内材料, 包括但不限于:<br>奥氏体/马氏体不锈钢,316L,303,321,316F,高镍不锈钢等;<br>钢材(轴承钢, 淬火钢, 洛钼钢, 锰钢等高碳钢);<br>可伐合金; 高温合金; 生铁, 铸铁, 镍合金等。 | Nano Hardness :HV4500,<br>Friction Coefficient: 0.4<br>Max.Temp: 1100° |
| AL25                | Blue Grey<br>黑蓝色<br>       | Special use for mild material ;<br>Especial for Pure iron ,<br>special for mild steel & mild stainless,like 304.<br>特别用于低碳材料, 尤其纯铁; 适用于低碳钢和低碳不锈钢, 比如304不锈钢   | Nano Hardness :HV3500,<br>Friction Coefficient: 0.25<br>Max.Temp: 800° |
| AD12                | Black<br>黑色<br>            | Special use for viscous Material;<br>Aluminium, PMMA, Polyethylene.CFRP.<br>粘材专用, 尤其铝材、亚克力、聚乙烯, 碳纤维材料。   | Nano Hardness :HV2200,<br>Friction Coefficient: 0.2<br>Max.Temp: 400°  |
| TZ25                | Champagne Gold<br>香槟金色<br> | Special use for titanium alloy.<br>钛合金专用。  | Nano Hardness :HV4000<br>Friction Coefficient: 0.55<br>Max.Temp: 900°  |
| AT25                | Black<br>黑色<br>            | Carbon Steel,alloy steel,Bearing steel,<br>quenched steel,Cr-Mo steel,Mn steel...;<br>碳素钢,合金钢,轴承钢,淬火钢,洛钼钢,锰钢等等   | Nano Hardness :HV3500,<br>Friction Coefficient: 0.6<br>Max.Temp: 900°  |
| LC25                | Rainbow<br>七彩色<br>         | Special use for viscous Material;<br>Aluminium, PMMA, Polyethylene.CFRP.<br>粘材专用, 尤其铝材、亚克力、聚乙烯, 碳纤维材料。   | Nano Hardness :HV5000<br>Friction Coefficient: 0.05<br>Max.Temp: 450°  |