

专注 · 务实  
FOCUS · PRAGMATIC  
高效 · 包容  
EFFICIENCY · INCLUSIVENESS



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 **CORTOOL**<sup>®</sup>  
ISO 9001:2015

**HIGH-PERFORMANCE  
TAPS**



**SUITABLE FOR DIFFERENT  
WORKPIECES TO BE MACHINED**

**Industrial Production Tools**  
工业级生产工具

## COMPANY PROFILE

Cortool Manufacturing Group has grown steadily since its foundation in 1999 and earned profound trust and high acclaim from customers across the globe. We are mainly engaged in the sales of cemented carbide and HSS material cutting tools, including milling cutters, drills, taps & dies, inserts, reamers and non-standard special tools. Our products cover a wide range of applications in varieties of metal-cutting processes mainly, serving industries such as automotive and motorcycle engines, general machinery, electronics, medical equipment and mould manufacturing. We deliver consistent high-quality products and services to our customers.

Cortool Group's products are exported worldwide, with Europe and North America as key markets. Under rigorous quality control systems, our items boast superior quality and consistent performance, winning widespread recognition from global clients. Guided by the corporate philosophy of "Focus, Pragmatic, Efficiency and Inclusiveness", Cortool Group has consistently delivered valuable products and services hand in hand with all customers and partners.

Moving forward, we aim to be a reliable partner supporting manufacturing industries. By continuously upgrading our products and services, we strive to become a trusted enterprise that creates tangible value for society.



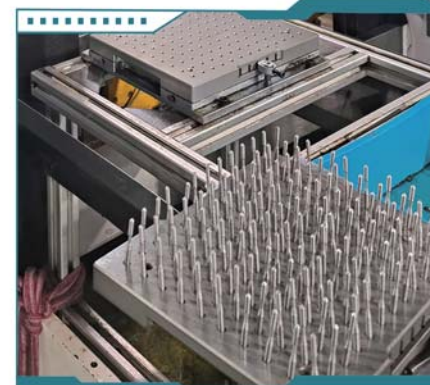
For other products, please refer to our general catalog or feel free to contact us.

## SUITABLE FOR DIFFERENT WORKPIECES TO BE MACHINED

### Advanced Technology 工艺先进



### Excellent Assembly 装备精良



### Focus on the production and research of thread cutting tools

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## HSS TAPS

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## HSS-PM TAPS

## SOLID CARBIDE TAPS

## INDUSTRY-SPECIFIC TAPS

## HSS DIES

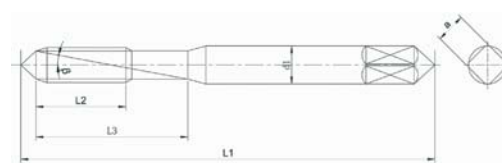
## TECHNICAL SPECIFICATIONS

## HSS TAPS



## DIN371/376 BLUE COLOURED RING TAPS

Specification range: M3 - M12  
Material: HSSE  
Types: Thread point, Spiral flute  
Coating: Bright, Tlc  
Application range:  
Wear-resistant steel, Alloy steel



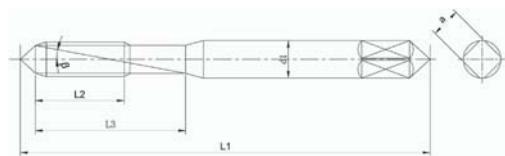
| Size       | Pitch | Oal. L1 | Thread length L2 |              | Shank diameter d1 | Square tail a |
|------------|-------|---------|------------------|--------------|-------------------|---------------|
|            |       |         | Straight flute   | Spiral flute |                   |               |
| M3 × 0.5   | 0.5   | 56      | 11               | 6            | 3.5               | 2.7           |
| M4 × 0.7   | 0.7   | 63      | 13               | 7            | 4.5               | 3.4           |
| M5 × 0.8   | 0.8   | 70      | 16               | 8            | 6                 | 4.9           |
| M6 × 1.0   | 1     | 80      | 19               | 10           | 6                 | 4.9           |
| M8 × 1.25  | 1.25  | 90      | 22               | 14           | 8                 | 6.2           |
| M10 × 1.5  | 1.5   | 100     | 24               | 16           | 10                | 8             |
| M12 × 1.75 | 1.75  | 110     | 29               | 18           | 9                 | 7             |
| M14 × 2.0  | 2     | 110     | 30               | 20           | 11                | 9             |
| M16 × 2.0  | 2     | 110     | 32               | 22           | 12                | 9             |
| M18 × 2.5  | 2.5   | 125     | 34               | 25           | 14                | 11            |
| M20 × 2.5  | 2.5   | 140     | 34               | 25           | 16                | 12            |

M3-M10 (DIN371), M12 (DIN376)

## DIN371/376 RED COLOURED RING TAPS



Specification range: M3 - M12  
Material: HSSE  
Types: Straight flute  
Coating: Bright, Ticon  
Application range: die steel



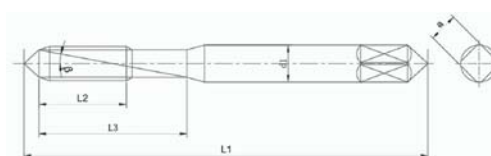
| Size       | Pitch | Oal. L1 | Thread length L2 | Shank diameter d1 | Square tail a |
|------------|-------|---------|------------------|-------------------|---------------|
| M3 × 0.5   | 0.5   | 56      | 11               | 3.5               | 2.7           |
| M4 × 0.7   | 0.7   | 63      | 13               | 4.5               | 3.4           |
| M5 × 0.8   | 0.8   | 70      | 16               | 6                 | 4.9           |
| M6 × 1.0   | 1     | 80      | 19               | 6                 | 4.9           |
| M8 × 1.25  | 1.25  | 90      | 22               | 8                 | 6.2           |
| M10 × 1.5  | 1.5   | 100     | 24               | 10                | 8             |
| M12 × 1.75 | 1.75  | 110     | 29               | 9                 | 7             |
| M14 × 2.0  | 2     | 110     | 30               | 11                | 9             |
| M16 × 2.0  | 2     | 110     | 32               | 12                | 9             |
| M18 × 2.5  | 2.5   | 125     | 34               | 14                | 11            |
| M20 × 2.5  | 2.5   | 140     | 34               | 16                | 12            |

M3-M10 (DIN371), M12 (DIN376)

## DIN371/376 YELLOW COLOURED RING TAPS



Specification range: M3 - M12  
Material: HSSE  
Types: Spiral flute  
Coating: Bright, Ticon  
Application range: Aluminium



| Size       | Pitch | Oal. L1 | Thread length L2 | Shank diameter d1 | Square tail a |
|------------|-------|---------|------------------|-------------------|---------------|
| M3 × 0.5   | 0.5   | 56      | 6                | 3.5               | 2.7           |
| M4 × 0.7   | 0.7   | 63      | 7                | 4.5               | 3.4           |
| M5 × 0.8   | 0.8   | 70      | 8                | 6                 | 4.9           |
| M6 × 1.0   | 1     | 80      | 10               | 6                 | 4.9           |
| M8 × 1.25  | 1.25  | 90      | 14               | 8                 | 6.2           |
| M10 × 1.5  | 1.5   | 100     | 16               | 10                | 8             |
| M12 × 1.75 | 1.75  | 110     | 18               | 9                 | 7             |
| M14 × 2.0  | 2     | 110     | 20               | 11                | 9             |
| M16 × 2.0  | 2     | 110     | 22               | 12                | 9             |
| M18 × 2.5  | 2.5   | 125     | —                | —                 | —             |
| M20 × 2.5  | 2.5   | 140     | —                | —                 | —             |

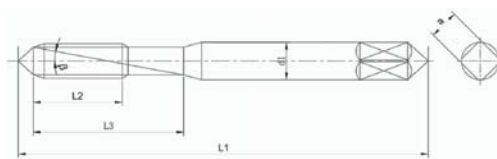
M3-M10 (DIN371), M12 (DIN376)

## DIN371/376 GREEN COLOURED RING TAPS

## DIN371/376 ORANGE COLOURED RING TAPS



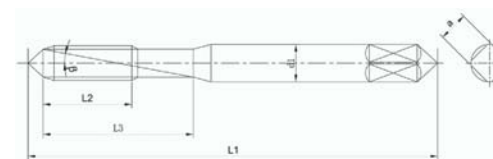
Specification range: M3 - M12  
Material: HSSE  
Types: Thread point, spiral flute  
Coating: Bright, Tin  
Application range: Universal



| Size       | Pitch | Oal. L1 | Thread length L2<br>Straight flute | Thread length L2<br>Spiral flute | Shank<br>diameter d1 | Square tail a |
|------------|-------|---------|------------------------------------|----------------------------------|----------------------|---------------|
| M3 × 0.5   | 0.5   | 56      | 11                                 | 6                                | 3.5                  | 2.7           |
| M4 × 0.7   | 0.7   | 63      | 13                                 | 7                                | 4.5                  | 3.4           |
| M5 × 0.8   | 0.8   | 70      | 16                                 | 8                                | 6                    | 4.9           |
| M6 × 1.0   | 1     | 80      | 19                                 | 10                               | 6                    | 4.9           |
| M8 × 1.25  | 1.25  | 90      | 22                                 | 14                               | 8                    | 6.2           |
| M10 × 1.5  | 1.5   | 100     | 24                                 | 16                               | 10                   | 8             |
| M12 × 1.75 | 1.75  | 110     | 29                                 | 18                               | 9                    | 7             |
| M14 × 2.0  | 2     | 110     | 30                                 | 20                               | 11                   | 9             |
| M16 × 2.0  | 2     | 110     | 32                                 | 22                               | 12                   | 9             |
| M18 × 2.5  | 2.5   | 125     | 34                                 | 25                               | 14                   | 11            |
| M20 × 2.5  | 2.5   | 140     | 34                                 | 25                               | 16                   | 12            |

M3-M10 (DIN371), M12 (DIN376)

Specification range: M3 - M12  
Material: HSSE  
Types: Straight flute  
Coating: Bright, Ticon  
Application range: Brass



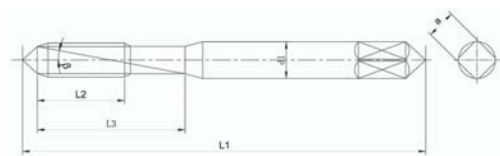
| Size       | Pitch | Oal. L1 | Thread length L2 | Shank<br>diameter d1 | Square tail a |
|------------|-------|---------|------------------|----------------------|---------------|
| M3 × 0.5   | 0.5   | 56      | 11               | 3.5                  | 2.7           |
| M4 × 0.7   | 0.7   | 63      | 13               | 4.5                  | 3.4           |
| M5 × 0.8   | 0.8   | 70      | 16               | 6                    | 4.9           |
| M6 × 1.0   | 1     | 80      | 19               | 6                    | 4.9           |
| M8 × 1.25  | 1.25  | 90      | 22               | 8                    | 6.2           |
| M10 × 1.5  | 1.5   | 100     | 24               | 10                   | 8             |
| M12 × 1.75 | 1.75  | 110     | 29               | 9                    | 7             |
| M14 × 2.0  | 2     | 110     | 30               | 11                   | 9             |
| M16 × 2.0  | 2     | 110     | 32               | 12                   | 9             |
| M18 × 2.5  | 2.5   | 125     | 34               | 14                   | 11            |
| M20 × 2.5  | 2.5   | 140     | 34               | 16                   | 12            |

M3-M10 (DIN371), M12 (DIN376)

## DIN371/376 BLACK COLOURED RING TAPS



Specification range: M3 - M12  
Material: HSSE  
Types: Straight flute  
Coating: Oxynitride  
Application range: cast steel

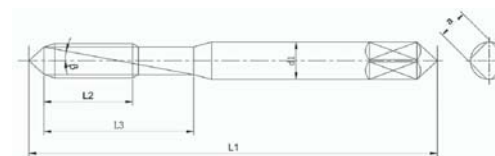


| Size       | Pitch | Oal. L1 | Thread length L2 | Shank diameter d1 | Square tail a |
|------------|-------|---------|------------------|-------------------|---------------|
| M3 × 0.5   | 0.5   | 56      | 11               | 3.5               | 2.7           |
| M4 × 0.7   | 0.7   | 63      | 13               | 4.5               | 3.4           |
| M5 × 0.8   | 0.8   | 70      | 16               | 6                 | 4.9           |
| M6 × 1.0   | 1     | 80      | 19               | 6                 | 4.9           |
| M8 × 1.25  | 1.25  | 90      | 22               | 8                 | 6.2           |
| M10 × 1.5  | 1.5   | 100     | 24               | 10                | 8             |
| M12 × 1.75 | 1.75  | 110     | 29               | 9                 | 7             |
| M14 × 2.0  | 2     | 110     | 30               | 11                | 9             |
| M16 × 2.0  | 2     | 110     | 32               | 12                | 9             |
| M18 × 2.5  | 2.5   | 125     | 34               | 14                | 11            |
| M20 × 2.5  | 2.5   | 140     | 34               | 16                | 12            |

M3-M10 (DIN371), M12 (DIN376)

## DIN371/376 WHITE COLOURED RING TAPS

Specification range: M3 - M12  
Material: HSSE  
Types: Thread point, spiral flute  
Coating: VAP  
Application range: Stainless



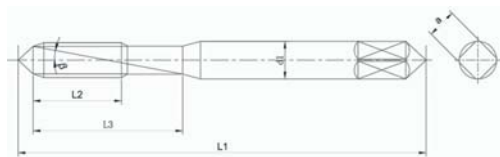
| Size       | Pitch | Oal. L1 | Thread length L2 | Shank diameter d1 | Square tail a |
|------------|-------|---------|------------------|-------------------|---------------|
| M3 × 0.5   | 0.5   | 56      | 11               | 3.5               | 2.7           |
| M4 × 0.7   | 0.7   | 63      | 13               | 4.5               | 3.4           |
| M5 × 0.8   | 0.8   | 70      | 16               | 6                 | 4.9           |
| M6 × 1.0   | 1     | 80      | 19               | 6                 | 4.9           |
| M8 × 1.25  | 1.25  | 90      | 22               | 8                 | 6.2           |
| M10 × 1.5  | 1.5   | 100     | 24               | 10                | 8             |
| M12 × 1.75 | 1.75  | 110     | 29               | 9                 | 7             |
| M14 × 2.0  | 2     | 110     | 30               | 11                | 9             |
| M16 × 2.0  | 2     | 110     | 32               | 12                | 9             |
| M18 × 2.5  | 2.5   | 125     | 34               | 14                | 11            |
| M20 × 2.5  | 2.5   | 140     | 34               | 16                | 12            |

M3~M10 (DIN371), M12 (DIN376)

## T-JIS BLUE COLOURED RING TAPS



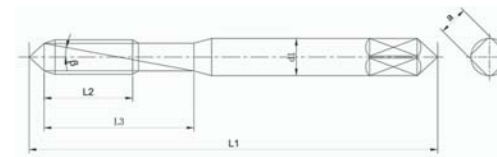
Specification range: M3 - M12  
Material: HSSE  
Types: Thread point, spiral flute  
Coating: Bright, Tico  
Application range:  
Wear-resistant steel, Alloy steel



| Size       | Pitch | Oal. L1 | Thread length L2<br>Straight flute | Thread length L2<br>Spiral flute | Shank<br>diameter d1 | Square tail a |
|------------|-------|---------|------------------------------------|----------------------------------|----------------------|---------------|
| M3 × 0.5   | 0.5   | 46      | 9                                  | 6                                | 4                    | —             |
| M4 × 0.7   | 0.7   | 52      | 11                                 | 7                                | 5                    | —             |
| M5 × 0.8   | 0.8   | 60      | 14                                 | 8                                | 5.5                  | —             |
| M6 × 1.0   | 1     | 62      | 17                                 | 10                               | 6                    | —             |
| M8 × 1.25  | 1.25  | 70      | 20                                 | 14                               | 6.2                  | —             |
| M10 × 1.5  | 1.5   | 75      | 22                                 | 16                               | 7                    | —             |
| M12 × 1.75 | 1.75  | 82      | 27                                 | 18                               | 8.5                  | —             |
| M14 × 2    | 2     | 88      | 28                                 | 20                               | 10.5                 | —             |
| M16 × 2    | 2     | 95      | 30                                 | 22                               | 12.5                 | —             |
| M18 × 2.5  | 2.5   | 100     | 32                                 | 25                               | 14                   | —             |
| M20 × 2.5  | 2.5   | 105     | 32                                 | 25                               | 15                   | —             |

## T-JIS RED COLOURED RING TAPS

Specification range: M3 - M12  
Material: HSSE  
Types: Straight flute  
Coating: Bright, Tico  
Application range: Die steel

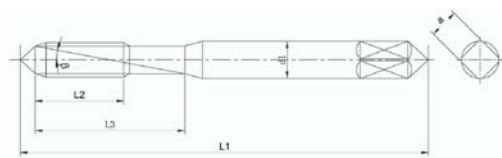


| Size       | Pitch | Oal. L1 | Thread length L2 | Shank<br>diameter d1 | Square tail a |
|------------|-------|---------|------------------|----------------------|---------------|
| M3 × 0.5   | 0.5   | 46      | 9                | 4                    | —             |
| M4 × 0.7   | 0.7   | 52      | 11               | 5                    | —             |
| M5 × 0.8   | 0.8   | 60      | 14               | 5.5                  | —             |
| M6 × 1.0   | 1     | 62      | 17               | 6                    | —             |
| M8 × 1.25  | 1.25  | 70      | 20               | 6.2                  | —             |
| M10 × 1.5  | 1.5   | 75      | 22               | 7                    | —             |
| M12 × 1.75 | 1.75  | 82      | 27               | 8.5                  | —             |
| M14 × 2    | 2     | 88      | 28               | 10.5                 | —             |
| M16 × 2    | 2     | 95      | 30               | 12.5                 | —             |
| M18 × 2.5  | 2.5   | 100     | 32               | 14                   | —             |
| M20 × 2.5  | 2.5   | 105     | 32               | 15                   | —             |

## T-JIS YELLOW COLOURED RING TAPS



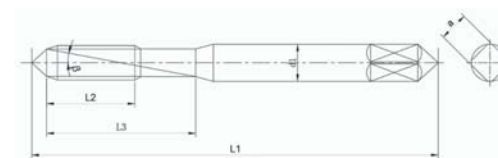
Specification range: M3 - M12  
Material: HSSE  
Types: spiral flute  
Coating: Bright, Ticon  
Application range: Aluminium



| Size       | Pitch | Oal. L1 | Thread length L2 | Shank diameter d1 | Square tail a |
|------------|-------|---------|------------------|-------------------|---------------|
| M3 × 0.5   | 0.5   | 46      | 6                | 4                 | —             |
| M4 × 0.7   | 0.7   | 52      | 7                | 5                 | —             |
| M5 × 0.8   | 0.8   | 60      | 8                | 5.5               | —             |
| M6 × 1.0   | 1     | 62      | 10               | 6                 | —             |
| M8 × 1.25  | 1.25  | 70      | 14               | 6.2               | —             |
| M10 × 1.5  | 1.5   | 75      | 16               | 7                 | —             |
| M12 × 1.75 | 1.75  | 82      | 18               | 8.5               | —             |
| M14 × 2.0  | 2     | 88      | 20               | 10.5              | —             |
| M16 × 2.0  | 2     | 95      | 22               | 12.5              | —             |
| M18 × 2.5  | 2.5   | 100     | 25               | 14                | —             |
| M20 × 2.5  | 2.5   | 105     | 25               | 15                | —             |

## T-JIS GREEN COLOURED RING TAPS

Specification range: M3 - M12  
Material: HSSE  
Types: Thread point, spiral flute  
Coating: Bright, Tin  
Application range: Universal

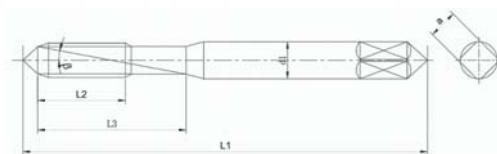


| Size       | Pitch | Oal. L1 | Thread length L2 | Thread length L2 | Shank diameter d1 | Square tail a |
|------------|-------|---------|------------------|------------------|-------------------|---------------|
|            |       |         | Straight flute   | Spiral flute     |                   |               |
| M3 × 0.5   | 0.5   | 46      | 9                | 6                | 4                 | —             |
| M4 × 0.7   | 0.7   | 52      | 11               | 7                | 5                 | —             |
| M5 × 0.8   | 0.8   | 60      | 14               | 8                | 5.5               | —             |
| M6 × 1.0   | 1     | 62      | 17               | 10               | 6                 | —             |
| M8 × 1.25  | 1.25  | 70      | 20               | 14               | 6.2               | —             |
| M10 × 1.5  | 1.5   | 75      | 22               | 16               | 7                 | —             |
| M12 × 1.75 | 1.75  | 82      | 27               | 18               | 8.5               | —             |
| M14 × 2.0  | 2     | 88      | 28               | 20               | 10.5              | —             |
| M16 × 2.0  | 2     | 95      | 30               | 22               | 12.5              | —             |
| M18 × 2.5  | 2.5   | 100     | 32               | 25               | 14                | —             |
| M20 × 2.5  | 2.5   | 105     | 32               | 25               | 15                | —             |

## T-JIS ORANGE COLOURED RING TAPS



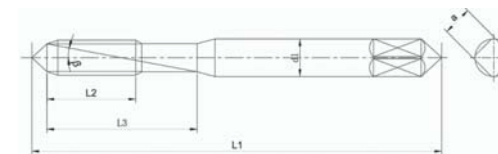
Specification range: M3 - M12  
Material: HSSE  
Types: Straight flute  
Coating: Bright, Tcn  
Application range: Brass



| Size       | Pitch | Oal. L1 | Thread length L2 | Shank diameter d1 | Square tail a |
|------------|-------|---------|------------------|-------------------|---------------|
| M3 × 0.5   | 0.5   | 46      | 9                | 4                 | —             |
| M4 × 0.7   | 0.7   | 52      | 11               | 5                 | —             |
| M5 × 0.8   | 0.8   | 60      | 14               | 5.5               | —             |
| M6 × 1.0   | 1     | 62      | 17               | 6                 | —             |
| M8 × 1.25  | 1.25  | 70      | 20               | 6.2               | —             |
| M10 × 1.5  | 1.5   | 75      | 22               | 7                 | —             |
| M12 × 1.75 | 1.75  | 82      | 27               | 8.5               | —             |
| M14 × 2.0  | 2     | 88      | 28               | 10.5              | —             |
| M16 × 2.0  | 2     | 95      | 30               | 12.5              | —             |
| M18 × 2.5  | 2.5   | 100     | 32               | 14                | —             |
| M20 × 2.5  | 2.5   | 105     | 32               | 15                | —             |

## T-JIS BLACK COLOURED RING TAPS

Specification range: M3 - M12  
Material: HSSE  
Types: Straight flute  
Coating: Oxynitride  
Application range: Cast steel

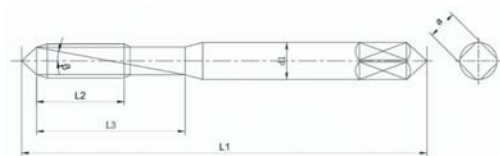


| Size       | Pitch | Oal. L1 | Thread length L2 | Shank diameter d1 | Square tail a |
|------------|-------|---------|------------------|-------------------|---------------|
| M3 × 0.5   | 0.5   | 46      | 9                | 4                 | -             |
| M4 × 0.7   | 0.7   | 52      | 11               | 5                 | -             |
| M5 × 0.8   | 0.8   | 60      | 14               | 5.5               | -             |
| M6 × 1.0   | 1     | 62      | 17               | 6                 | -             |
| M8 × 1.25  | 1.25  | 70      | 20               | 6.2               | -             |
| M10 × 1.5  | 1.5   | 75      | 22               | 7                 | -             |
| M12 × 1.75 | 1.75  | 82      | 27               | 8.5               | -             |
| M14 × 2.0  | 2     | 88      | 28               | 10.5              | -             |
| M16 × 2.0  | 2     | 95      | 30               | 12.5              | -             |
| M18 × 2.5  | 2.5   | 100     | 32               | 14                | -             |
| M20 × 2.5  | 2.5   | 105     | 32               | 15                | -             |

## T-JIS WHITE COLOURED RING TAPS



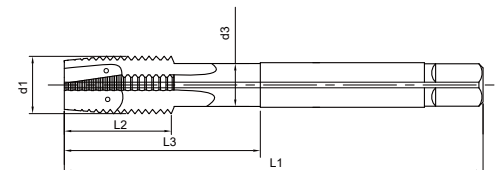
Specification range: M3-M12  
Material: HSSE  
Types: Thread point, spiral flute  
Coating: VAP  
Application range: Stainless



| Size       | Pitch | Oal. L1 | Thread length L2<br>Straight flute | Thread length L2<br>Spiral flute | Shank<br>diameter d1 | Square<br>tail a |
|------------|-------|---------|------------------------------------|----------------------------------|----------------------|------------------|
| M3 × 0.5   | 0.5   | 46      | 9                                  | 6                                | 4                    | -                |
| M4 × 0.7   | 0.7   | 52      | 11                                 | 7                                | 5                    | -                |
| M5 × 0.8   | 0.8   | 60      | 14                                 | 8                                | 5.5                  | -                |
| M6 × 1.0   | 1     | 62      | 17                                 | 10                               | 6                    | -                |
| M8 × 1.25  | 1.25  | 70      | 20                                 | 14                               | 6.2                  | -                |
| M10 × 1.5  | 1.5   | 75      | 22                                 | 16                               | 7                    | -                |
| M12 × 1.75 | 1.75  | 82      | 27                                 | 18                               | 8.5                  | -                |
| M14 × 2.0  | 2     | 88      | 28                                 | 20                               | 10.5                 | -                |
| M16 × 2.0  | 2     | 95      | 30                                 | 22                               | 12.5                 | -                |
| M18 × 2.5  | 2.5   | 100     | 32                                 | 25                               | 14                   | -                |
| M20 × 2.5  | 2.5   | 105     | 32                                 | 25                               | 15                   | -                |

## DIN371/376 HSS-THREAD POINT TAPS WITH COOLANT

2P chamfers, for blind hole  
Specification range: M8-M24  
Material: HSSE  
Types: Thread point  
Coating: AlTiN  
Application range: Processing materials: stainless steel,  
die steel, medium and low carbon steel, ductile iron.

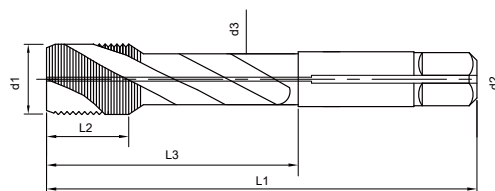


| Lc | d 1 | Pitch | Dimensions (mm) |      |     |    |    | Recommended drill<br>diameter d |
|----|-----|-------|-----------------|------|-----|----|----|---------------------------------|
|    |     |       | d 2             | d 3  | L1  | L2 | L3 |                                 |
| 2P | M8  | 1.25  | 6               | 5.5  | 90  | 13 | 45 | 6.8                             |
| 2P | M10 | 1.5   | 7               | 6.5  | 100 | 15 | 50 | 8.5                             |
| 2P | M12 | 1.75  | 9               | 8.5  | 110 | 18 | 55 | 10.2                            |
| 2P | M14 | 2     | 11              | 10.5 | 110 | 20 | 55 | 12                              |
| 2P | M16 | 2     | 12              | 11.5 | 110 | 20 | 55 | 14                              |
| 2P | M18 | 2.5   | 14              | 13.5 | 125 | 25 | 65 | 15.5                            |
| 2P | M20 | 2.5   | 16              | 15.5 | 140 | 25 | 70 | 17.5                            |
| 2P | M22 | 2.5   | 18              | 17.5 | 140 | 25 | 70 | 19.5                            |
| 2P | M24 | 3     | 18              | 17.5 | 160 | 30 | 80 | 21                              |

## DIN371/376 HSS-SPRIAL FLUTE TAPS WITH COOLANT



4P chamfers, for through hole  
 Specification range: M8-M24  
 Material: HSSE  
 Types: Spiral flute  
 Coating: AlTiN  
 Application range: Processing materials: stainless steel, die steel, medium and low carbon steel, ductile iron.



| Lc | d 1 | Pitch | d 2 | d 3  | Dimensions (mm) |      |    | Recommended drill diameter d |
|----|-----|-------|-----|------|-----------------|------|----|------------------------------|
|    |     |       |     |      | I1              | I2   | I3 |                              |
| 4P | M8  | 1,25  | 6   | 5,8  | 90              | 17,8 | 35 | 6,8                          |
| 4P | M10 | 1,5   | 7   | 6,8  | 100             | 19,8 | 39 | 8,5                          |
| 4P | M12 | 1,75  | 9   | 8,8  | 110             | 24,8 | 42 | 10,2                         |
| 4P | M14 | 2     | 11  | 10,5 | 110             | 24   | 50 | 12                           |
| 4P | M16 | 2     | 12  | 11,5 | 110             | 26   | 52 | 14                           |
| 4P | M18 | 2,5   | 14  | 13,5 | 125             | 31   | 57 | 15,5                         |
| 4P | M20 | 2,5   | 16  | 15,5 | 140             | 31   | 57 | 17,5                         |
| 4P | M22 | 2,5   | 18  | 17,5 | 140             | 32   | 58 | 19,5                         |
| 4P | M24 | 3     | 18  | 17,5 | 160             | 39   | 65 | 21                           |

## ANSI-GENERAL-PURPOSE SHORT-TOOTH HELICAL TAPS

Application

Suitable for processing: Blind holes

Cutting cone length: 2.5P

It is made of cobalt-containing high-speed steel.

It can be widely processed for various carbon steels, copper, aluminum alloys, ductile iron, etc.

It is highly suitable for using on CNC numerical control machines for tapping.



Processing depth: <2D

Size range

No.4-40UNC~1"-8UNC

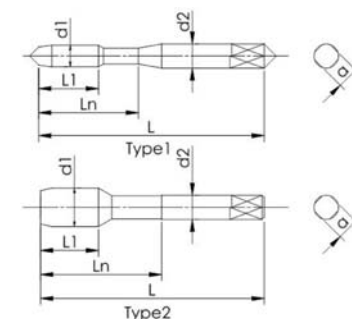
No.4-48UNF~1"-12UNF

Helix Angle: 40°

Material: HSSE

Surface treatment:

Bright, TIN coating or TiCN coating.



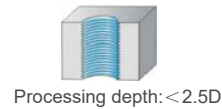
| Specification d1 | Pitch | Precision | Cutting cone length | Full length L | Long teeth L1 | Long neck Ln | Shank diameter d2 | Square tail a | Square tail Length | Number of slots |
|------------------|-------|-----------|---------------------|---------------|---------------|--------------|-------------------|---------------|--------------------|-----------------|
| No.4             | 40    | SF1       | 2.5P                | 44            | 7.7           | 17           | 3                 | 2.5           | 5                  | 3               |
|                  | 48    | SF1       | 2.5P                |               |               |              |                   |               |                    |                 |
| No.6             | 32    | SF2       | 2.5P                | 48            | 9.6           | 21           | 4                 | 3.2           | 6                  |                 |
|                  | 40    | SF1       | 2.5P                |               |               |              |                   |               |                    |                 |
| No.8             | 32    | SF2       | 2.5P                | 52            | 9.6           | 21           | 5                 | 4             | 7                  |                 |
|                  | 36    | SF2       | 2.5P                |               |               |              |                   |               |                    |                 |
| No.10            | 24    | SF2       | 2.5P                | 60            | 12.7          | 24           | 5.5               | 4.5           | 7                  |                 |
|                  | 32    | SF2       | 2.5P                |               |               |              |                   |               |                    |                 |
| No.12            | 24    | SF2       | 2.5P                | 60            | 12.7          | 25           | 5.5               | 4.5           | 7                  |                 |
|                  | 28    | SF2       | 2.5P                |               |               |              |                   |               |                    |                 |
| 1/4              | 20    | SF3       | 2.5P                | 62            | 15.3          | 29           | 6                 | 4.5           | 7                  |                 |
|                  | 28    | SF2       | 2.5P                |               |               |              |                   |               |                    |                 |
| 5/16             | 18    | SF3       | 2.5P                | 70            | 17            | 37           | 6.1               | 5             | 8                  |                 |
|                  | 24    | SF2       | 2.5P                |               |               |              |                   |               |                    |                 |
| 3/8              | 16    | SF3       | 2.5P                | 75            | 19            | 41           | 7                 | 5.5           | 8                  |                 |
|                  | 24    | SF2       | 2.5P                |               |               |              |                   |               |                    |                 |
| 7/16             | 14    | SF3       | 2.5P                | 80            | 22            | 48           | 8                 | 6             | 9                  |                 |
|                  | 20    | SF3       | 2.5P                |               |               |              |                   |               |                    |                 |
| 1/2              | 13    | SF3       | 2.5P                | 85            | 23            | 48           | 9                 | 7             | 10                 |                 |
|                  | 20    | SF3       | 2.5P                |               |               |              |                   |               |                    |                 |
| 9/16             | 12    | SF2       | 2.5P                | 90            | 25            | 48           | 10.5              | 8             | 11                 |                 |
|                  | 18    | SF2       | 2.5P                |               | 17            |              |                   |               |                    |                 |
| 5/8              | 11    | SF3       | 2.5P                | 95            | 28            | 52           | 12                | 9             | 12                 |                 |
|                  | 18    | SF2       | 2.5P                |               | 17            |              |                   |               |                    |                 |
| 3/4              | 10    | SF3       | 2.5P                | 105           | 31            | 58           | 14                | 11            | 14                 |                 |
|                  | 16    | SF2       | 2.5P                |               | 19            |              |                   |               |                    |                 |
| 7/8              | 9     | SF3       | 2.5P                | 115           | 34            | 63           | 17                | 13            | 16                 |                 |
|                  | 14    | SF2       | 2.5P                |               | 22            |              |                   |               |                    |                 |
| 1                | 8     | SF3       | 2.5P                | 125           | 38            | 68           | 20                | 15            | 18                 |                 |
|                  | 12    | SF3       | 2.5P                |               | 25            |              |                   |               |                    |                 |

## ANSI-GENERAL-PURPOSE SPIRALPOINTED TAPS



### Application

Suitable for processing: Through holes  
Cutting cone length: 5P

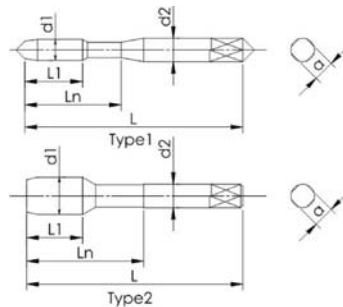


It is made of cobalt-containing high-speed steel.

It can be widely processed for various types of carbon steel, copper, aluminum alloy, ductile iron, etc.

It is highly suitable for using on CNC numerical control machines for tapping.

The surface treatment employs a composite coating with high hardness and excellent wear resistance.



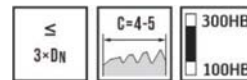
### Size range

No.4-40UNC ~ 1"-8UNC  
No.4-48UNF ~ 1"-12UNF

Material: HSSE

Surface treatment:

Bright, TIN coating or TiCN coating.



| Specification d1 | Pitch | Precision | Cutting cone length | Full length L | Long teeth L1 | Long neck Ln | Shank diameter d2 | Square tail a | Square tail Length | Number of slots |
|------------------|-------|-----------|---------------------|---------------|---------------|--------------|-------------------|---------------|--------------------|-----------------|
| No.4             | 40    | SF2       | 5P                  | 44            | 15            | 21           | 3                 | 2.5           | 5                  | 2               |
|                  | 48    | SF2       | 5P                  |               |               |              |                   |               |                    |                 |
| No.6             | 32    | SF2       | 5P                  | 48            | 13            | 21           | 4                 | 3.2           | 6                  | 3               |
|                  | 40    | SF2       | 5P                  |               |               |              |                   |               |                    |                 |
| No.8             | 32    | SF2       | 5P                  | 52            | 13            | 21           | 5                 | 4             | 7                  |                 |
|                  | 36    | SF2       | 5P                  |               |               |              |                   |               |                    |                 |
| No.10            | 24    | SF2       | 5P                  | 60            | 16            | 24           | 5.5               | 4.5           | 7                  |                 |
|                  | 32    | SF2       | 5P                  |               |               |              |                   |               |                    |                 |
| No.12            | 24    | SF2       | 5P                  | 60            | 17            | 25           | 5.5               | 4.5           | 7                  |                 |
|                  | 28    | SF2       | 5P                  |               |               |              |                   |               |                    |                 |
| 1/4              | 20    | SF3       | 5P                  | 62            | 19            | 29           | 6                 | 4.5           | 7                  |                 |
|                  | 28    | SF2       | 5P                  |               |               |              |                   |               |                    |                 |
| 5/16             | 18    | SF3       | 5P                  | 70            | 22            | 37           | 6.1               | 5             | 8                  |                 |
|                  | 24    | SF3       | 5P                  |               |               |              |                   |               |                    |                 |
| 3/8              | 16    | SF3       | 5P                  | 75            | 24            | 41           | 7                 | 5.5           | 8                  |                 |
|                  | 24    | SF3       | 5P                  |               |               |              |                   |               |                    |                 |
| 7/16             | 14    | SF3       | 5P                  | 80            | 25            | 48           | 8                 | 6             | 9                  |                 |
|                  | 20    | SF3       | 5P                  |               |               |              |                   |               |                    |                 |
| 1/2              | 13    | SF3       | 5P                  | 85            | 29            | 48           | 9                 | 7             | 10                 |                 |
|                  | 20    | SF3       | 5P                  |               |               |              |                   |               |                    |                 |
| 9/16             | 12    | SF3       | 5P                  | 90            | 30            | 48           | 10.5              | 8             | 11                 |                 |
|                  | 18    | SF3       | 5P                  |               |               |              |                   |               |                    |                 |
| 5/8              | 11    | SF3       | 5P                  | 95            | 32            | 52           | 12                | 9             | 12                 |                 |
|                  | 18    | SF3       | 5P                  |               |               |              |                   |               |                    |                 |
| 3/4              | 10    | SF3       | 5P                  | 105           | 37            | 58           | 14                | 11            | 14                 |                 |
|                  | 16    | SF3       | 5P                  |               |               |              |                   |               |                    |                 |
| 7/8              | 9     | SF4       | 5P                  | 115           | 38            | 63           | 17                | 13            | 16                 |                 |
|                  | 14    | SF3       | 5P                  |               |               |              |                   |               |                    |                 |
| 1                | 8     | SF4       | 5P                  | 125           | 45            | 68           | 20                | 15            | 18                 |                 |
|                  | 12    | SF3       | 5P                  |               |               |              |                   |               |                    |                 |

## DIN-PM-SFT HSS PM MATERIAL TAPS

Upgraded version of the universal spiral series.

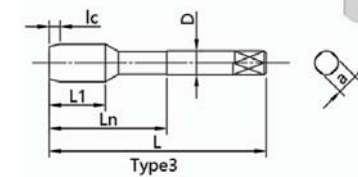
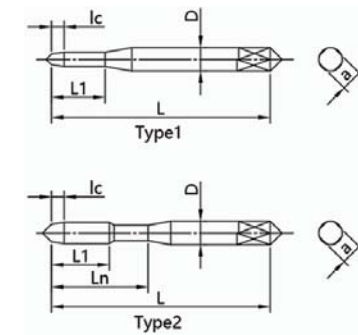
Made of powder high-speed steel, greatly improving the lifespan of the tap.



DIN371: M2-M10, MF2-MF10

DIN374:MF12-MF16

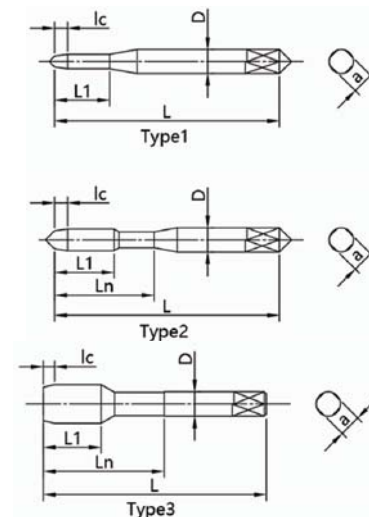
DIN376:M12-M16



| Size        | Lc   | TAP Limit | L  | L1 | Ln | D   | a   | Flutes | Type |
|-------------|------|-----------|----|----|----|-----|-----|--------|------|
| M2 × 0.4    | 2.5P | 6H        | 45 | 8  | 14 | 2.8 | 2.1 | 2      | 1    |
| M2 × 0.4    | 2.5P | 6H        | 45 | 8  | 14 | 2.8 | 2.1 |        |      |
| M2.5 × 0.45 | 2.5P | 6H        | 50 | 5  | 15 | 2.8 | 2.1 | 3      | 2    |
| M2.5 × 0.45 | 2.5P | 6H        | 50 | 5  | 15 | 2.8 | 2.1 |        |      |
| M3 × 0.5    | 2.5P | 6H        | 56 | 5  | 18 | 3.5 | 2.7 |        |      |
| M3 × 0.5    | 2.5P | 6H        | 56 | 5  | 18 | 3.5 | 2.7 |        |      |
| M3.5 × 0.6  | 2.5P | 6H        | 56 | 6  | 20 | 4   | 3   |        |      |
| M3.5 × 0.6  | 2.5P | 6H        | 56 | 6  | 20 | 4   | 3   |        |      |
| M4 × 0.7    | 2.5P | 6H        | 63 | 7  | 21 | 4.5 | 3.4 |        |      |
| M4 × 0.7    | 2.5P | 6H        | 63 | 7  | 21 | 4.5 | 3.4 |        |      |
| MF4 × 0.5   | 2.5P | 6G        | 63 | 7  | 21 | 4.5 | 3.4 |        |      |
| MF4 × 0.5   | 2.5P | 6G        | 63 | 7  | 21 | 4.5 | 3.4 |        |      |
| M5 × 0.8    | 2.5P | 6H        | 70 | 8  | 25 | 6   | 4.9 |        |      |
| M5 × 0.8    | 2.5P | 6H        | 70 | 8  | 25 | 6   | 4.9 |        |      |

## DIN-ALCRN-PM-SFT HSS PM MATERIAL TAPS

Upgraded version of the universal spiral series.  
Made of powder high-speed steel, greatly improving the lifespan of the tap.



DIN371: M2-M10, MF2-MF10  
DIN374:MF12-MF16  
DIN376:M12-M16



| Size.     | lc   | TAP Limit | L   | L1 | Ln | D  | a   | Flutes | Type |
|-----------|------|-----------|-----|----|----|----|-----|--------|------|
| MF5×0.5   | 2.5P | 6H        | 70  | 8  | 25 | 6  | 4.9 | 2      |      |
| MF5×0.5   | 2.5P | 6G        | 70  | 8  | 25 | 6  | 4.9 |        |      |
| M6×1.0    | 2.5P | 6H        | 80  | 10 | 30 | 6  | 4.9 |        |      |
| M6×1.0    | 2.5P | 6G        | 80  | 10 | 30 | 6  | 4.9 |        |      |
| MF6×0.75  | 2.5P | 6H        | 80  | 10 | 30 | 6  | 4.9 |        |      |
| MF6×0.75  | 2.5P | 6G        | 80  | 10 | 30 | 6  | 4.9 |        |      |
| M8×1.25   | 2.5P | 6H        | 90  | 13 | 35 | 8  | 6.2 |        |      |
| M8×1.25   | 2.5P | 6G        | 90  | 13 | 35 | 8  | 6.2 |        |      |
| MF8×1.0   | 2.5P | 6H        | 90  | 13 | 35 | 8  | 6.2 |        |      |
| MF8×1.0   | 2.5P | 6G        | 90  | 13 | 35 | 8  | 6.2 |        |      |
| M10×1.5   | 2.5P | 6H        | 100 | 15 | 39 | 10 | 8   | 3      |      |
| M10×1.5   | 2.5P | 6G        | 100 | 15 | 39 | 10 | 8   |        |      |
| MF10×1.25 | 2.5P | 6H        | 100 | 13 | 39 | 10 | 8   |        |      |
| MF10×1.25 | 2.5P | 6G        | 100 | 13 | 39 | 10 | 8   |        |      |
| MF10×1.0  | 2.5P | 6H        | 100 | 13 | 39 | 10 | 8   |        |      |
| MF10×1.0  | 2.5P | 6G        | 100 | 13 | 39 | 10 | 8   |        |      |
| M12×1.75  | 2.5P | 6H        | 110 | 18 | 53 | 9  | 7   |        |      |
| M12×1.75  | 2.5P | 6G        | 110 | 18 | 53 | 9  | 7   |        |      |
| MF12×1.5  | 2.5P | 6H        | 100 | 15 | 48 | 9  | 7   |        |      |
| MF12×1.5  | 2.5P | 6G        | 100 | 15 | 48 | 9  | 7   |        |      |
| MF12×1.25 | 2.5P | 6H        | 100 | 15 | 48 | 9  | 7   | 3      |      |
| MF12×1.25 | 2.5P | 6G        | 100 | 15 | 48 | 9  | 7   |        |      |
| MF12×1.0  | 2.5P | 6H        | 100 | 15 | 48 | 9  | 7   |        |      |
| MF12×1.0  | 2.5P | 6G        | 100 | 15 | 48 | 9  | 7   |        |      |
| M14×2.0   | 2.5P | 6H        | 110 | 20 | 53 | 11 | 9   |        |      |
| M14×2.0   | 2.5P | 6G        | 110 | 20 | 53 | 11 | 9   |        |      |
| MF14×1.5  | 2.5P | 6H        | 100 | 15 | 48 | 11 | 9   |        |      |
| MF14×1.5  | 2.5P | 6G        | 100 | 15 | 48 | 11 | 9   |        |      |
| MF14×1.0  | 2.5P | 6H        | 100 | 15 | 48 | 11 | 9   |        |      |
| MF14×1.0  | 2.5P | 6G        | 100 | 15 | 48 | 11 | 9   |        |      |
| M16×2.0   | 2.5P | 6H        | 110 | 20 | 53 | 12 | 9   | 3      |      |
| M16×2.0   | 2.5P | 6G        | 110 | 20 | 53 | 12 | 9   |        |      |
| MF16×1.5  | 2.5P | 6H        | 100 | 15 | 48 | 12 | 9   |        |      |
| MF16×1.5  | 2.5P | 6G        | 100 | 15 | 48 | 12 | 9   |        |      |
| MF16×1.0  | 2.5P | 6H        | 100 | 15 | 48 | 12 | 9   |        |      |
| MF16×1.0  | 2.5P | 6G        | 100 | 15 | 48 | 12 | 9   |        |      |

Recommendedmachinable materials.

| 高碳钢<br>C<0.25% | 中碳钢<br>C0.25~0.45% | 高碳钢<br>C>0.45% | 合金钢<br>SCM | 工研钢<br>SKD | 铜<br>Cu | 黄铜<br>Br | 青铜<br>PB | 铝合金<br>AL | 压铸铝<br>ADC | 钛合金<br>MC | 钛合金<br>ZDC | 不锈钢<br>303/304 | 不锈钢<br>316/317 | 铸铁<br>FC | 球墨铸铁<br>FCD | 高碳钢<br>Q27 | 钛合金<br>Ti | 镍合金<br>Ni |
|----------------|--------------------|----------------|------------|------------|---------|----------|----------|-----------|------------|-----------|------------|----------------|----------------|----------|-------------|------------|-----------|-----------|
| ○              | ●                  | ●              | ○          | ●          | ○       | ○        | ○        | ○         | ○          | ○         | ○          | ○              | ○              | ○        | ○           | ○          | ○         | ○         |

备注: ●铁(非钢结合) ○铁(钢结合)

## DIN-PM-POT HSS PM MATERIAL TAPS

| Size.       | lc   | TAP Limit | L   | L1 | Ln | D  | a   | Flutes | Type |
|-------------|------|-----------|-----|----|----|----|-----|--------|------|
| MF5 x 0.5   | 2.5P | 6H        | 70  | 8  | 25 | 6  | 4.9 | 2      |      |
| MF5 x 0.5   | 2.5P | 6G        | 70  | 8  | 25 | 6  | 4.9 |        |      |
| M6 x 1.0    | 2.5P | 6H        | 80  | 10 | 30 | 6  | 4.9 |        |      |
| M6 x 1.0    | 2.5P | 6G        | 80  | 10 | 30 | 6  | 4.9 |        |      |
| MF6 x 0.75  | 2.5P | 6H        | 80  | 10 | 30 | 6  | 4.9 |        |      |
| MF6 x 0.75  | 2.5P | 6G        | 80  | 10 | 30 | 6  | 4.9 |        |      |
| M8 x 1.25   | 2.5P | 6H        | 90  | 13 | 35 | 8  | 6.2 |        |      |
| M8 x 1.25   | 2.5P | 6G        | 90  | 13 | 35 | 8  | 6.2 |        |      |
| MF8 x 1.0   | 2.5P | 6H        | 90  | 13 | 35 | 8  | 6.2 |        |      |
| MF8 x 1.0   | 2.5P | 6G        | 90  | 13 | 35 | 8  | 6.2 |        |      |
| M10 x 1.5   | 2.5P | 6H        | 100 | 15 | 39 | 10 | 8   | 3      |      |
| M10 x 1.5   | 2.5P | 6G        | 100 | 15 | 39 | 10 | 8   |        |      |
| MF10 x 1.25 | 2.5P | 6H        | 100 | 13 | 39 | 10 | 8   |        |      |
| MF10 x 1.25 | 2.5P | 6G        | 100 | 13 | 39 | 10 | 8   |        |      |
| MF10 x 1.0  | 2.5P | 6H        | 100 | 13 | 39 | 10 | 8   |        |      |
| MF10 x 1.0  | 2.5P | 6G        | 100 | 13 | 39 | 10 | 8   |        |      |
| M12 x 1.75  | 2.5P | 6H        | 110 | 18 | 53 | 9  | 7   |        |      |
| M12 x 1.75  | 2.5P | 6G        | 110 | 18 | 53 | 9  | 7   |        |      |
| MF12 x 1.5  | 2.5P | 6H        | 100 | 15 | 48 | 9  | 7   |        |      |
| MF12 x 1.5  | 2.5P | 6G        | 100 | 15 | 48 | 9  | 7   |        |      |
| MF12 x 1.25 | 2.5P | 6H        | 100 | 15 | 48 | 9  | 7   | 3      |      |
| MF12 x 1.25 | 2.5P | 6G        | 100 | 15 | 48 | 9  | 7   |        |      |
| MF12 x 1.0  | 2.5P | 6H        | 100 | 15 | 48 | 9  | 7   |        |      |
| MF12 x 1.0  | 2.5P | 6G        | 100 | 15 | 48 | 9  | 7   |        |      |
| M14 x 2.0   | 2.5P | 6H        | 110 | 20 | 53 | 11 | 9   |        |      |
| M14 x 2.0   | 2.5P | 6G        | 110 | 20 | 53 | 11 | 9   |        |      |
| MF14 x 1.5  | 2.5P | 6H        | 100 | 15 | 48 | 11 | 9   |        |      |
| MF14 x 1.5  | 2.5P | 6G        | 100 | 15 | 48 | 11 | 9   |        |      |
| MF14 x 1.0  | 2.5P | 6H        | 100 | 15 | 48 | 11 | 9   |        |      |
| MF14 x 1.0  | 2.5P | 6G        | 100 | 15 | 48 | 11 | 9   |        |      |
| M16 x 2.0   | 2.5P | 6H        | 110 | 20 | 53 | 12 | 9   | 3      |      |
| M16 x 2.0   | 2.5P | 6G        | 110 | 20 | 53 | 12 | 9   |        |      |
| MF16 x 1.5  | 2.5P | 6H        | 100 | 15 | 48 | 12 | 9   |        |      |
| MF16 x 1.5  | 2.5P | 6G        | 100 | 15 | 48 | 12 | 9   |        |      |
| MF16 x 1.0  | 2.5P | 6H        | 100 | 15 | 48 | 12 | 9   |        |      |
| MF16 x 1.0  | 2.5P | 6G        | 100 | 15 | 48 | 12 | 9   |        |      |

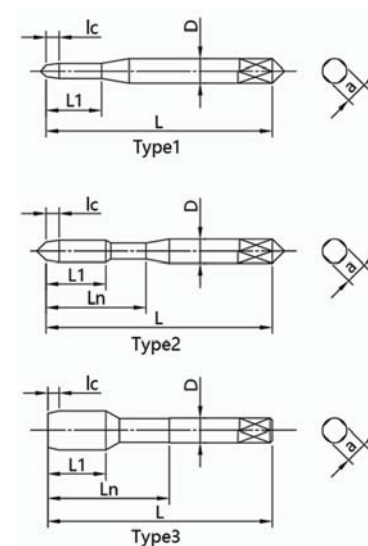
Recommendedmachinable materials.

| 铝合金<br>C<0.25% | 铸钢<br>C0.25-0.45% | 钛合金<br>C<0.45% | 不锈钢<br>SCM | 工具钢<br>SKD | 铜<br>Cu | 黄铜<br>H | 青铜<br>Pb | 铝合金<br>AL | 压铸铝<br>ADC | 钛合金<br>MC | 钛合金<br>ZDC | 不锈钢<br>303/304 | 不锈钢<br>316/317 | 铸铁<br>TC | 球墨铸铁<br>FCO | 高强度钢<br>25-35HRC | 高强度钢<br>35-45HRC | 钛合金<br>Ti | 铝合金<br>Ni |
|----------------|-------------------|----------------|------------|------------|---------|---------|----------|-----------|------------|-----------|------------|----------------|----------------|----------|-------------|------------------|------------------|-----------|-----------|
| ●              | ●                 | ●              | ●          | ●          | ○       | ○       | ○        | ○         | ○          | ○         | ○          | ○              | ○              | ○        | ○           | ○                | ○                | ○         | ○         |

备注: ●(可加工) ○(不可加工)

Upgraded version of the universal advanced series.

Made of powder high-speed steel, greatly improving the service life of the tap.



DIN371: M2-M10, MF2-MF10

DIN374:MF12-MF16

DIN376:M12-M16

| Size.       | lc | TAP Limit | L  | L1 | Ln | D   | a   | Flutes | Type |
|-------------|----|-----------|----|----|----|-----|-----|--------|------|
| M2 x 0.4    | 5P | 6H        | 45 | 8  | 14 | 2.8 | 2.1 | 2      | 1    |
| M2 x 0.4    | 5P | 6G        | 45 | 8  | 14 | 2.8 | 2.1 |        |      |
| M2.5 x 0.45 | 5P | 6H        | 50 | 9  | 15 | 2.8 | 2.1 | 3      | 2    |
| M2.5 x 0.45 | 5P | 6G        | 50 | 9  | 15 | 2.8 | 2.1 |        |      |
| M3 x 0.5    | 5P | 6H        | 56 | 9  | 15 | 2.8 | 2.1 |        |      |
| M3 x 0.5    | 5P | 6G        | 56 | 9  | 15 | 2.8 | 2.1 |        |      |
| M3.5 x 0.6  | 5P | 6H        | 56 | 12 | 20 | 4   | 3   |        |      |
| M3.5 x 0.6  | 5P | 6G        | 56 | 12 | 20 | 4   | 3   |        |      |
| M4 x 0.7    | 5P | 6H        | 63 | 13 | 21 | 4.5 | 3.4 |        |      |
| M4 x 0.7    | 5P | 6G        | 63 | 13 | 21 | 4.5 | 3.4 |        |      |
| MF4 x 0.5   | 5P | 6H        | 63 | 13 | 21 | 4.5 | 3.4 |        |      |
| MF4 x 0.5   | 5P | 6G        | 63 | 13 | 21 | 4.5 | 3.4 |        |      |
| M5 x 0.8    | 5P | 6H        | 70 | 14 | 25 | 6   | 4.9 |        |      |
| M5 x 0.8    | 5P | 6G        | 70 | 14 | 25 | 6   | 4.9 |        |      |

## DIN-ALCRN-PM-POT HSS PM MATERIAL TAPS

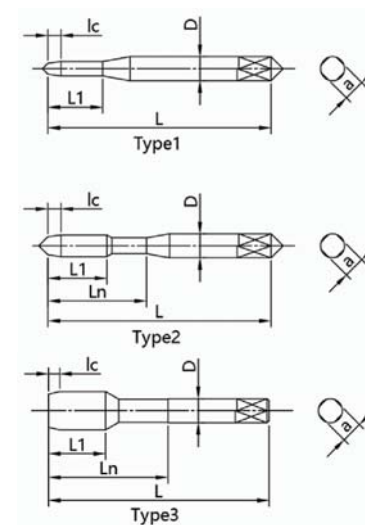
| Size.       | lc | TAP Limit | L   | L1 | Ln | D  | a   | Flutes | Type |
|-------------|----|-----------|-----|----|----|----|-----|--------|------|
| MF5 x 0.5   | 5P | 6H        | 70  | 14 | 25 | 6  | 4.9 |        | 2    |
| MF5 x 0.5   | 5P | 6G        | 70  | 14 | 25 | 6  | 4.9 |        |      |
| M6 x 1.0    | 5P | 6H        | 80  | 15 | 30 | 6  | 4.9 |        |      |
| M6 x 1.0    | 5P | 6G        | 80  | 15 | 30 | 6  | 4.9 |        |      |
| MF6 x 0.75  | 5P | 6H        | 80  | 15 | 30 | 6  | 4.9 |        |      |
| MF6 x 0.75  | 5P | 6G        | 80  | 15 | 30 | 6  | 4.9 |        |      |
| M8 x 1.25   | 5P | 6H        | 90  | 18 | 35 | 8  | 6.2 |        |      |
| M8 x 1.25   | 5P | 6G        | 90  | 18 | 35 | 8  | 6.2 |        |      |
| MF8 x 1.0   | 5P | 6H        | 90  | 18 | 35 | 8  | 6.2 |        |      |
| MF8 x 1.0   | 5P | 6G        | 90  | 18 | 35 | 8  | 6.2 |        |      |
| M10 x 1.5   | 5P | 6H        | 100 | 20 | 39 | 10 | 8   | 3      |      |
| M10 x 1.5   | 5P | 6G        | 100 | 20 | 39 | 10 | 8   |        |      |
| MF10 x 1.25 | 5P | 6H        | 100 | 16 | 39 | 10 | 8   |        |      |
| MF10 x 1.25 | 5P | 6G        | 100 | 16 | 39 | 10 | 8   |        |      |
| MF10 x 1.0  | 5P | 6H        | 100 | 16 | 39 | 10 | 8   |        |      |
| MF10 x 1.0  | 5P | 6G        | 100 | 16 | 39 | 10 | 8   |        |      |
| M12 x 1.75  | 5P | 6H        | 110 | 24 | 53 | 9  | 7   |        |      |
| M12 x 1.75  | 5P | 6G        | 110 | 24 | 53 | 9  | 7   |        |      |
| MF12 x 1.5  | 5P | 6H        | 100 | 22 | 48 | 9  | 7   |        |      |
| MF12 x 1.5  | 5P | 6G        | 100 | 22 | 48 | 9  | 7   |        |      |
| MF12 x 1.25 | 5P | 6H        | 100 | 22 | 48 | 9  | 7   | 3      | 3    |
| MF12 x 1.25 | 5P | 6G        | 100 | 22 | 48 | 9  | 7   |        |      |
| MF12 x 1.0  | 5P | 6H        | 100 | 22 | 48 | 9  | 7   |        |      |
| MF12 x 1.0  | 5P | 6G        | 100 | 22 | 48 | 9  | 7   |        |      |
| M14 x 2.0   | 5P | 6H        | 110 | 26 | 53 | 11 | 9   |        |      |
| M14 x 2.0   | 5P | 6G        | 110 | 26 | 53 | 11 | 9   |        |      |
| MF14 x 1.5  | 5P | 6H        | 100 | 22 | 48 | 11 | 9   |        |      |
| MF14 x 1.5  | 5P | 6G        | 100 | 22 | 48 | 11 | 9   |        |      |
| MF14 x 1.0  | 5P | 6H        | 100 | 22 | 48 | 11 | 9   |        |      |
| MF14 x 1.0  | 5P | 6G        | 100 | 22 | 48 | 11 | 9   |        |      |
| M16 x 2.0   | 5P | 6H        | 110 | 27 | 53 | 12 | 9   |        |      |
| M16 x 2.0   | 5P | 6G        | 110 | 27 | 53 | 12 | 9   |        |      |
| MF16 x 1.5  | 5P | 6H        | 100 | 22 | 48 | 12 | 9   |        |      |
| MF16 x 1.5  | 5P | 6G        | 100 | 22 | 48 | 12 | 9   |        |      |
| MF16 x 1.0  | 5P | 6H        | 100 | 22 | 48 | 12 | 9   |        |      |
| MF16 x 1.0  | 5P | 6G        | 100 | 22 | 48 | 12 | 9   |        |      |

Recommendedmachinable materials.

| 高碳钢<br>C<0.25% | 中碳钢<br>C0.25~0.45% | 高碳钢<br>C>0.45% | 合金钢<br>SCM | 工具钢<br>SKD | 铜<br>Cu | 黄铜<br>Br | 青铜<br>PB | 铝合金<br>AL | 压铸铝<br>ADC | 钛合金<br>MC | 镍合金<br>ZDC | 不锈钢<br>303/304 | 不锈钢<br>316/317 | 铸铁<br>FC | 球墨铸铁<br>FCD | 高温合金<br>25-35HRC | 高温合金<br>35-45HRC | 钛合金<br>Ti | 镍合金<br>Ni |
|----------------|--------------------|----------------|------------|------------|---------|----------|----------|-----------|------------|-----------|------------|----------------|----------------|----------|-------------|------------------|------------------|-----------|-----------|
| ○              | ●                  | ○              | ○          | ○          | ○       | ○        | ○        | ○         | ○          | ○         | ○          | ○              | ○              | ○        | ○           | ○                | ○                | ○         | ○         |

备注：●(非常适用) ○(适用加工)

Upgraded version of the universal advanced series.  
Made of powder high-speed steel, greatly improving the service life of the tap.



DIN371: M2-M10, MF2-MF10  
DIN374:MF12-MF16  
DIN376:M12-M16

| Size.       | lc | TAP Limit | L  | L1 | Ln | D   | a   | Flutes | Type |
|-------------|----|-----------|----|----|----|-----|-----|--------|------|
| M2 x 0.4    | 5P | 6H        | 45 | 8  | 14 | 2.8 | 2.1 | 2      | 1    |
| M2 x 0.4    | 5P | 6G        | 45 | 8  | 14 | 2.8 | 2.1 |        |      |
| M2.5 x 0.45 | 5P | 6H        | 50 | 9  | 15 | 2.8 | 2.1 | 3      | 2    |
| M2.5 x 0.45 | 5P | 6G        | 50 | 9  | 15 | 2.8 | 2.1 |        |      |
| M3 x 0.5    | 5P | 6H        | 56 | 9  | 15 | 2.8 | 2.1 |        |      |
| M3 x 0.5    | 5P | 6G        | 56 | 9  | 15 | 2.8 | 2.1 |        |      |
| M3.5 x 0.6  | 5P | 6H        | 56 | 12 | 20 | 4   | 3   |        |      |
| M3.5 x 0.6  | 5P | 6G        | 56 | 12 | 20 | 4   | 3   |        |      |
| M4 x 0.7    | 5P | 6H        | 63 | 13 | 21 | 4.5 | 3.4 |        |      |
| M4 x 0.7    | 5P | 6G        | 63 | 13 | 21 | 4.5 | 3.4 |        |      |
| MF4 x 0.5   | 5P | 6H        | 63 | 13 | 21 | 4.5 | 3.4 |        |      |
| MF4 x 0.5   | 5P | 6G        | 63 | 13 | 21 | 4.5 | 3.4 |        |      |
| M5 x 0.8    | 5P | 6H        | 70 | 14 | 25 | 6   | 4.9 |        |      |
| M5 x 0.8    | 5P | 6G        | 70 | 14 | 25 | 6   | 4.9 |        |      |

## JIS-GENERAL-PURPOSE HELICAL TAPS

| Size        | lc | TAP Limit | L   | L1 | Ln | D  | a   | Flutes | Type |
|-------------|----|-----------|-----|----|----|----|-----|--------|------|
| MF5 x 0.5   | 5P | 6H        | 70  | 14 | 25 | 6  | 4.9 | 2      |      |
| MF5 x 0.5   | 5P | 6G        | 70  | 14 | 25 | 6  | 4.9 |        |      |
| M6 x 1.0    | 5P | 6H        | 80  | 15 | 30 | 6  | 4.9 |        |      |
| M6 x 1.0    | 5P | 6G        | 80  | 15 | 30 | 6  | 4.9 |        |      |
| MF6 x 0.75  | 5P | 6H        | 80  | 15 | 30 | 6  | 4.9 |        |      |
| MF6 x 0.75  | 5P | 6G        | 80  | 15 | 30 | 6  | 4.9 |        |      |
| M8 x 1.25   | 5P | 6H        | 90  | 18 | 35 | 8  | 6.2 |        |      |
| M8 x 1.25   | 5P | 6G        | 90  | 18 | 35 | 8  | 6.2 |        |      |
| MF8 x 1.0   | 5P | 6H        | 90  | 18 | 35 | 8  | 6.2 |        |      |
| MF8 x 1.0   | 5P | 6G        | 90  | 18 | 35 | 8  | 6.2 |        |      |
| M10 x 1.5   | 5P | 6H        | 100 | 20 | 39 | 10 | 8   | 3      |      |
| M10 x 1.5   | 5P | 6G        | 100 | 20 | 39 | 10 | 8   |        |      |
| MF10 x 1.25 | 5P | 6H        | 100 | 16 | 39 | 10 | 8   |        |      |
| MF10 x 1.25 | 5P | 6G        | 100 | 16 | 39 | 10 | 8   |        |      |
| MF10 x 1.0  | 5P | 6H        | 100 | 16 | 39 | 10 | 8   |        |      |
| MF10 x 1.0  | 5P | 6G        | 100 | 16 | 39 | 10 | 8   |        |      |
| M12 x 1.75  | 5P | 6H        | 110 | 24 | 53 | 9  | 7   |        |      |
| M12 x 1.75  | 5P | 6G        | 110 | 24 | 53 | 9  | 7   |        |      |
| MF12 x 1.5  | 5P | 6H        | 100 | 22 | 48 | 9  | 7   |        |      |
| MF12 x 1.5  | 5P | 6G        | 100 | 22 | 48 | 9  | 7   |        |      |
| MF12 x 1.25 | 5P | 6H        | 100 | 22 | 48 | 9  | 7   | 3      |      |
| MF12 x 1.25 | 5P | 6G        | 100 | 22 | 48 | 9  | 7   |        |      |
| MF12 x 1.0  | 5P | 6H        | 100 | 22 | 48 | 9  | 7   |        |      |
| MF12 x 1.0  | 5P | 6G        | 100 | 22 | 48 | 9  | 7   |        |      |
| M14 x 2.0   | 5P | 6H        | 110 | 26 | 53 | 11 | 9   |        |      |
| M14 x 2.0   | 5P | 6G        | 110 | 26 | 53 | 11 | 9   |        |      |
| MF14 x 1.5  | 5P | 6H        | 100 | 22 | 48 | 11 | 9   |        |      |
| MF14 x 1.5  | 5P | 6G        | 100 | 22 | 48 | 11 | 9   |        |      |
| MF14 x 1.0  | 5P | 6H        | 100 | 22 | 48 | 11 | 9   |        |      |
| MF14 x 1.0  | 5P | 6G        | 100 | 22 | 48 | 11 | 9   |        |      |
| M16 x 2.0   | 5P | 6H        | 110 | 27 | 53 | 12 | 9   | 3      |      |
| M16 x 2.0   | 5P | 6G        | 110 | 27 | 53 | 12 | 9   |        |      |
| MF16 x 1.5  | 5P | 6H        | 100 | 22 | 48 | 12 | 9   |        |      |
| MF16 x 1.5  | 5P | 6G        | 100 | 22 | 48 | 12 | 9   |        |      |
| MF16 x 1.0  | 5P | 6H        | 100 | 22 | 48 | 12 | 9   |        |      |
| MF16 x 1.0  | 5P | 6G        | 100 | 22 | 48 | 12 | 9   |        |      |

Recommendedmachinable materials.

| 碳钢<br>C<0.25% | 中碳钢<br>C0.25~0.45% | 高碳钢<br>C>0.45% | 合金钢<br>SCM | 工具钢<br>SKD | 铜<br>Cu | 黄铜<br>Br | 青铜<br>PB | 铝合金<br>AL | 压铸铝<br>ADC | 钛合金<br>TiC | 钛合金<br>ZDC | 不锈钢<br>303/304 | 不锈钢<br>316/317 | 铸铁<br>FC | 球墨铸铁<br>FCD | 耐热钢<br>25-35HRC | 耐热钢<br>35-45HRC | 钛合金<br>Ti | 钛合金<br>Ni |
|---------------|--------------------|----------------|------------|------------|---------|----------|----------|-----------|------------|------------|------------|----------------|----------------|----------|-------------|-----------------|-----------------|-----------|-----------|
| ●             | ●                  | ●              | ●          | ○          | ○       | ○        | ○        | ○         | ○          | ○          | ○          | ○              | ○              | ○        | ○           | ○               | ○               | ○         | ○         |

备注: ●(非常适用) ○(适用加工)

## Application

Suitable for processing: Blind holes

Cutting cone length: 2-3P

It is made of high-end powder high-speed steel with excellent heat resistance and wear resistance.

It has strong versatility and is suitable for processing carbon steel, stainless steel, quenched and tempered steel, copper, aluminum alloy, ductile iron, etc.

The special slot design ensures smooth chip removal.

The surface treatment employs a composite coating with high hardness and excellent wear resistance.

Suitable for high-speed processing.

## Size range

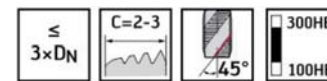
M3 ~ M24 / MF4×0.5 ~ M24×1

Helix Angle: 45°

Material: HSS-PM

Surface treatment:

Bright, AlCrN coating.



Processing depth: &lt; 3D



| Specification | d1   | Pitch | Precision | Cutting cone length | Full length L | Long teeth L1 | Long neck Ln | Shank diameter d2 | Square tail a | Square tail Length | Number of slots |
|---------------|------|-------|-----------|---------------------|---------------|---------------|--------------|-------------------|---------------|--------------------|-----------------|
| M3            | 0.5  | SF2   | 2.5P      | 46                  | 4             | 19            | 4            | 3.2               | 6             | 3                  |                 |
| M3.5          | 0.6  | SF2   | 2.5P      | 48                  | 4.8           | 20            | 4            | 3.2               | 6             |                    |                 |
| M4            | 0.7  | SF3   | 2.5P      | 52                  | 5.6           | 21            | 5            | 4                 | 7             |                    |                 |
| MF4           | 0.5  | SF2   | 2.5P      | 60                  | 6.4           | 24            | 5.5          | 4.5               | 7             |                    |                 |
| M5            | 0.8  | SF3   | 2.5P      | 62                  | 8             | 29            | 6            | 4.5               | 7             |                    |                 |
| MF5           | 0.5  | SF2   | 2.5P      |                     |               |               |              |                   |               |                    |                 |
| M6            | 1    | SF3   | 2.5P      | 65                  | 12            | 33            | 6.2          | 5                 | 8             |                    |                 |
| MF6           | 0.75 | SF2   | 2.5P      | 70                  | 15            | 37            | 6.2          | 5                 | 8             |                    |                 |
| M7            | 1    | SF3   | 2.5P      | 70                  | 12            | 37            | 6.2          | 5                 | 8             |                    |                 |
| M8            | 1.25 | SF3   | 2.5P      | 75                  | 18            | 41            | 7            | 5.5               | 9             |                    |                 |
| MF8           | 1    | SF3   | 2.5P      | 75                  | 15            | 41            | 7            | 5.5               | 9             |                    |                 |
| M10           | 1.5  | SF3   | 2.5P      | 82                  | 21            | 48            | 8.5          | 6.5               | 9             |                    |                 |
| MF10          | 1.25 | SF3   | 2.5P      | 82                  | 18            | 48            | 8.5          | 6.5               | 9             |                    |                 |
| M12           | 1.75 | SF4   | 2.5P      | 88                  | 24            | 48            | 10.5         | 8                 | 11            |                    |                 |
|               | 1.5  | SF3   | 2.5P      |                     |               |               |              |                   |               |                    |                 |
| MF12          | 1.25 | SF3   | 2.5P      | 95                  | 24            | 52            | 12.5         | 10                | 13            |                    |                 |
| M14           | 2    | SF4   | 2.5P      | 95                  | 18            | 52            | 12.5         | 10                | 13            |                    |                 |
|               | 1.5  | SF3   | 2.5P      |                     |               |               |              |                   |               |                    |                 |
| MF14          | 1.25 | SF3   | 2.5P      | 100                 | 30            | 55            | 14           | 11                | 14            |                    |                 |
| M16           | 1    | SF3   | 2.5P      | 100                 | 24            | 55            | 14           | 11                | 14            |                    |                 |
|               | 2    | SF4   | 2.5P      |                     |               |               |              |                   |               |                    |                 |
| MF16          | 1.5  | SF3   | 2.5P      | 105                 | 30            | 58            | 15           | 12                | 15            |                    |                 |
| M18           | 2.5  | SF5   | 2.5P      | 105                 | 24            | 58            | 15           | 12                | 15            |                    |                 |
|               | 2    | SF4   | 2.5P      |                     |               |               |              |                   |               |                    |                 |
| MF18          | 1.5  | SF4   | 2.5P      | 115                 | 30            | 63            | 17           | 13                | 16            |                    |                 |
| M20           | 2    | SF4   | 2.5P      | 115                 | 24            | 63            | 17           | 13                | 16            |                    |                 |
|               | 1.5  | SF3   | 2.5P      |                     |               |               |              |                   |               |                    |                 |
| MF20          | 1.5  | SF4   | 2.5P      | 120                 | 36            | 66            | 19           | 15                | 18            |                    |                 |
| M22           | 2.5  | SF5   | 2.5P      | 120                 | 24            | 66            | 19           | 15                | 18            |                    |                 |
|               | 2    | SF4   | 2.5P      |                     |               |               |              |                   |               |                    |                 |
| MF22          | 1.5  | SF4   | 2.5P      | 120                 | 24            | 66            | 19           | 15                | 18            |                    |                 |
| M24           | 3    | SF5   | 2.5P      | 120                 | 24            | 66            | 19           | 15                | 18            |                    |                 |
|               | 2    | SF4   | 2.5P      |                     |               |               |              |                   |               |                    |                 |
| MF24          | 1.5  | SF4   | 2.5P      | 120                 | 24            | 66            | 19           | 15                | 18            |                    |                 |
|               | 1    | SF3   | 2.5P      |                     |               |               |              |                   |               |                    |                 |

## JIS-GENERAL-PURPOSE SPIRALPOINTED TAPS



### Application

Suitable for processing: Through holes

Cutting cone length: 4-5P

It is made of high-end powder high-speed steel with excellent heat resistance and wear resistance.

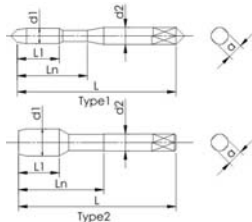
It has strong versatility and is suitable for processing carbon steel, stainless steel, quenched and tempered steel, copper, aluminum alloy, etc.

The special slot design ensures smooth chip removal.

The surface treatment employs a composite coating with high hardness and excellent wear resistance. Suitable for high-speed processing.



Processing depth: <2.5D



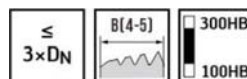
### Size range

M3~M24 / MF4×0.5~M24×1

Material: HSS-PM

Surface treatment:

Bright, AlCrN coating.



| Specification d1 | Pitch | Precision | Cutting cone length | Full length L | Long teeth L1 | Long neck L2 | Shank diameter d2 | Square tail a | Square tail Length | Number of slots |
|------------------|-------|-----------|---------------------|---------------|---------------|--------------|-------------------|---------------|--------------------|-----------------|
| M3               | 0.5   | SF3       | 5P                  | 46            | 11            | 19           | 4                 | 3.2           | 6                  | 2               |
| M3.5             | 0.6   | SF2       | 5P                  | 48            | 13            | 20           | 4                 | 3.2           | 6                  |                 |
| M4               | 0.7   | SF3       | 5P                  | 52            | 13            | 21           | 5                 | 4             | 7                  |                 |
| MF4              | 0.5   | SF3       | 5P                  | 60            | 16            | 24           | 5.5               | 4.5           | 7                  |                 |
| M5               | 0.8   | SF3       | 5P                  | 62            | 19            | 29           | 6                 | 4.5           | 7                  |                 |
| MF5              | 0.5   | SF3       | 5P                  | 65            | 19            | 33           | 6.2               | 5             | 8                  |                 |
| M6               | 1     | SF3       | 5P                  | 70            | 22            | 37           | 6.2               | 5             | 8                  |                 |
| MF6              | 0.75  | SF3       | 5P                  | 75            | 24            | 41           | 7                 | 5.5           | 9                  |                 |
| M7               | 1     | SF3       | 5P                  | 82            | 29            | 48           | 8.5               | 6.5           | 9                  |                 |
| M8               | 1.25  | SF3       | 5P                  | 88            | 30            | 48           | 10.5              | 8             | 11                 |                 |
| MF8              | 1     | SF3       | 5P                  | 95            | 32            | 52           | 12.5              | 10            | 13                 | 3               |
| M10              | 1.5   | SF4       | 5P                  | 100           | 37            | 55           | 14                | 11            | 14                 |                 |
| MF10             | 1.25  | SF3       | 5P                  | 105           | 37            | 58           | 15                | 12            | 15                 |                 |
| M12              | 1.75  | SF4       | 5P                  | 115           | 38            | 63           | 17                | 13            | 16                 |                 |
| MF12             | 1.25  | SF3       | 5P                  | 120           | 45            | 66           | 19                | 15            | 18                 |                 |
| M14              | 2     | SF4       | 5P                  |               |               |              |                   |               |                    |                 |
| MF14             | 1.5   | SF4       | 5P                  |               |               |              |                   |               |                    |                 |
| M16              | 2     | SF4       | 5P                  |               |               |              |                   |               |                    |                 |
| MF16             | 1.5   | SF4       | 5P                  |               |               |              |                   |               |                    |                 |
| M18              | 2.5   | SF5       | 5P                  |               |               |              |                   |               |                    |                 |
| MF18             | 1.5   | SF4       | 5P                  |               |               |              |                   |               |                    |                 |
| M20              | 2.5   | SF5       | 5P                  |               |               |              |                   |               |                    | 4               |
| MF20             | 1.5   | SF4       | 5P                  |               |               |              |                   |               |                    |                 |
| M22              | 2.5   | SF5       | 5P                  |               |               |              |                   |               |                    |                 |
| MF22             | 1.5   | SF4       | 5P                  |               |               |              |                   |               |                    |                 |
| M24              | 3     | SF5       | 5P                  |               |               |              |                   |               |                    |                 |
| MF24             | 1.5   | SF4       | 5P                  |               |               |              |                   |               |                    |                 |
|                  | 1     | SF3       | 5P                  |               |               |              |                   |               |                    |                 |

## ANSI-GENERAL-PURPOSE HELICAL TAPS

### Application

Suitable for processing: Blind holes

Cutting cone length: 2.5P

It is made of high-end powder high-speed steel with excellent heat resistance and wear resistance.

It has strong versatility and is suitable for processing carbon steel, stainless steel, quenched and tempered steel, copper, aluminum alloy, ductile iron, etc.

The special slot design ensures smooth chip removal.

The surface treatment employs a composite coating with high hardness and excellent wear resistance. Suitable for high-speed processing.



Processing depth: <3D

### Size range

No.4-40UNC~1"-8UNC

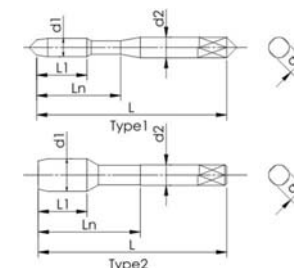
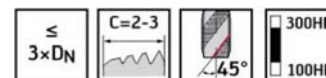
No.4-48UNF~1"-12UNF

Helix Angle: 45°

Material: HSS-PM

Surface treatment:

Bright, AlCrN coating.



| Specification d1 | Pitch | Precision | Cutting cone length | Full length L | Long teeth L1 | Long neck L2 | Shank diameter d2 | Square tail a | Square tail Length | Number of slots |
|------------------|-------|-----------|---------------------|---------------|---------------|--------------|-------------------|---------------|--------------------|-----------------|
| No.4             | 40    | SF2       | 2.5P                | 44            | 5.1           | 17           | 3                 | 2.5           | 5                  | 2               |
|                  | 48    | SF2       | 2.5P                |               |               |              |                   |               |                    |                 |
| No.6             | 32    | SF2       | 2.5P                | 48            | 6.4           | 21           | 4                 | 3.2           | 6                  |                 |
|                  | 40    | SF2       | 2.5P                |               |               |              |                   |               |                    |                 |
| No.8             | 32    | SF2       | 2.5P                | 52            | 6.4           | 21           | 5                 | 4             | 7                  |                 |
|                  | 36    | SF2       | 2.5P                |               |               |              |                   |               |                    |                 |
| No.10            | 24    | SF2       | 2.5P                | 60            | 8.5           | 24           | 5.5               | 4.5           | 7                  |                 |
|                  | 32    | SF2       | 2.5P                |               |               |              |                   |               |                    |                 |
| No.12            | 24    | SF2       | 2.5P                | 60            | 8.5           | 24           | 5.5               | 4.5           | 7                  |                 |
|                  | 28    | SF2       | 2.5P                |               |               |              |                   |               |                    |                 |
| 1/4              | 20    | SF3       | 2.5P                | 62            | 10.2          | 29           | 6                 | 4.5           | 7                  | 3               |
|                  | 28    | SF2       | 2.5P                |               |               |              |                   |               |                    |                 |
| 5/16             | 18    | SF3       | 2.5P                | 70            | 17            | 37           | 6.1               | 5             | 8                  |                 |
|                  | 24    | SF3       | 2.5P                |               | 13            |              |                   |               |                    |                 |
| 3/8              | 16    | SF3       | 2.5P                | 75            | 19            | 41           | 7                 | 5.5           | 8                  |                 |
|                  | 24    | SF3       | 2.5P                |               | 13            |              |                   |               |                    |                 |
| 7/16             | 14    | SF3       | 2.5P                | 80            | 22            | 48           | 8                 | 6             | 9                  |                 |
|                  | 20    | SF3       | 2.5P                |               | 15            |              |                   |               |                    |                 |
| 1/2              | 13    | SF3       | 2.5P                | 85            | 23            | 48           | 9                 | 7             | 10                 |                 |
|                  | 20    | SF3       | 2.5P                |               | 15            |              |                   |               |                    |                 |
| 9/16             | 12    | SF4       | 2.5P                | 90            | 25            | 48           | 10.5              | 8             | 11                 | 4               |
|                  | 18    | SF3       | 2.5P                |               | 17            |              |                   |               |                    |                 |
| 5/8              | 11    | SF4       | 2.5P                | 95            | 28            | 52           | 12                | 9             | 12                 |                 |
|                  | 18    | SF3       | 2.5P                |               | 17            |              |                   |               |                    |                 |
| 3/4              | 10    | SF4       | 2.5P                | 105           | 31            | 58           | 14                | 11            | 14                 |                 |
|                  | 16    | SF3       | 2.5P                |               | 19            |              |                   |               |                    |                 |
| 7/8              | 9     | SF5       | 2.5P                | 115           | 34            | 63           | 17                | 13            | 16                 |                 |
|                  | 14    | SF4       | 2.5P                |               | 22            |              |                   |               |                    |                 |
| 1                | 8     | SF5       | 2.5P                | 125           | 38            | 68           | 20                | 15            | 18                 |                 |
|                  | 12    | SF5       | 2.5P                |               | 25            |              |                   |               |                    |                 |

## ANSI-GENERAL-PURPOSE SPIRALPOINTED TAPS



### Application

Suitable for processing: Through holes

Cutting cone length: 5P

It is made of high-end powder high-speed steel with excellent heat resistance and wear resistance.

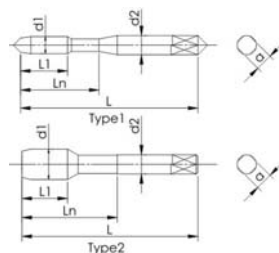
It has strong versatility and is suitable for processing carbon steel, stainless steel, quenched and tempered steel, copper, aluminum alloy, etc.

The special slot design ensures smooth chip removal.

The surface treatment employs a composite coating with high hardness and excellent wear resistance. Suitable for high-speed processing.



Processing depth: < 2.5D



### Size range

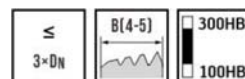
No.4-40UNC ~ 1"-8UNC

No.4-48UNF ~ 1"-12UNF

Material: HSS-PM

Surface treatment:

Bright, AlCrN coating.



| Specification d1 | Pitch | Precision | Cutting cone length | Full length L | Long teeth L1 | Long neck Ln | Shank diameter d2 | Square tail a | Square tail Length | Number of slots |
|------------------|-------|-----------|---------------------|---------------|---------------|--------------|-------------------|---------------|--------------------|-----------------|
| No.4             | 40    | SF2       | 5P                  | 44            | 15            | -            | 3                 | 2.5           | 5                  | 2               |
|                  | 48    | SF2       | 5P                  |               |               |              |                   |               |                    |                 |
| No.6             | 32    | SF2       | 5P                  | 48            | 13            | 21           | 4                 | 3.2           | 6                  |                 |
|                  | 40    | SF2       | 5P                  |               |               |              |                   |               |                    |                 |
| No.8             | 32    | SF2       | 5P                  | 52            | 13            | 21           | 5                 | 4             | 7                  |                 |
|                  | 36    | SF2       | 5P                  |               |               |              |                   |               |                    |                 |
| No.10            | 24    | SF2       | 5P                  | 60            | 16            | 24           | 5.5               | 4.5           | 7                  |                 |
|                  | 32    | SF2       | 5P                  |               |               |              |                   |               |                    |                 |
| No.12            | 24    | SF2       | 5P                  | 60            | 17            | 25           | 5.5               | 4.5           | 7                  |                 |
|                  | 28    | SF2       | 5P                  |               |               |              |                   |               |                    |                 |
| 1/4              | 20    | SF3       | 5P                  | 62            | 19            | 29           | 6                 | 4.5           | 7                  |                 |
|                  | 28    | SF2       | 5P                  |               |               |              |                   |               |                    |                 |
| 5/16             | 18    | SF3       | 5P                  | 70            | 22            | 37           | 6.1               | 5             | 8                  |                 |
|                  | 24    | SF3       | 5P                  |               |               |              |                   |               |                    |                 |
| 3/8              | 16    | SF3       | 5P                  | 75            | 24            | 41           | 7                 | 5.5           | 8                  |                 |
|                  | 24    | SF3       | 5P                  |               |               |              |                   |               |                    |                 |
| 7/16             | 14    | SF3       | 5P                  | 80            | 25            | 48           | 8                 | 6             | 9                  | 3               |
|                  | 20    | SF3       | 5P                  |               |               |              |                   |               |                    |                 |
| 1/2              | 13    | SF4       | 5P                  | 85            | 29            | 48           | 9                 | 7             | 10                 |                 |
|                  | 20    | SF3       | 5P                  |               |               |              |                   |               |                    |                 |
| 9/16             | 12    | SF4       | 5P                  | 90            | 30            | 48           | 10.5              | 8             | 11                 |                 |
|                  | 18    | SF3       | 5P                  |               |               |              |                   |               |                    |                 |
| 5/8              | 11    | SF4       | 5P                  | 95            | 32            | 52           | 12                | 9             | 12                 |                 |
|                  | 18    | SF3       | 5P                  |               |               |              |                   |               |                    |                 |
| 3/4              | 10    | SF4       | 5P                  | 105           | 37            | 58           | 14                | 11            | 14                 |                 |
|                  | 16    | SF4       | 5P                  |               |               |              |                   |               |                    |                 |
| 7/8              | 9     | SF5       | 5P                  | 115           | 38            | 63           | 17                | 13            | 16                 |                 |
|                  | 14    | SF4       | 5P                  |               |               |              |                   |               |                    |                 |
| 1                | 8     | SF5       | 5P                  | 125           | 45            | 68           | 20                | 15            | 18                 |                 |
|                  | 12    | SF4       | 5P                  |               |               |              |                   |               |                    |                 |

## JIS-SOLID CARBIDE FORMING TAPS



2P chamfers, for blind hole

4P chamfers, for through hole

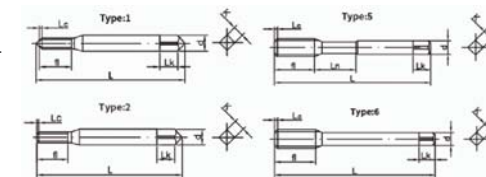
○ Solid carbide material.

○ Suitable for high-speed, long tool life mass production.

○ Various coating selection, suitable for Aluminum alloy,

Magnesium alloy, Copper alloy, Cast Aluminum,

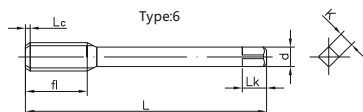
Cast Zinc alloy.



単位:mm Unit:mm

| Thread Size | Limit | LC | Type | L    | fl  | Dimensions (mm) |     |     |    | Flutes | Stock |
|-------------|-------|----|------|------|-----|-----------------|-----|-----|----|--------|-------|
|             |       |    |      |      |     | In              | d   | k   | Lk |        |       |
| M1×0.25     | RH4   | 4P | 1    | 38   | 4.5 | -               | 3   | 2.5 | 3  | -      | ○     |
| M1×0.25     | RH4   | 2P | 2    | 37   | 3.5 | -               | 3   | 2.5 | 3  | -      | ○     |
| M1.2×0.25   | RH4   | 4P | 1    | 38   | 4.5 | -               | 3   | 2.5 | 3  | -      | ○     |
| M1.2×0.25   | RH4   | 2P | 2    | 37   | 3.5 | -               | 3   | 2.5 | 3  | -      | ○     |
| M1.4×0.3    | RH4   | 4P | 1    | 38   | 6.5 | -               | 3   | 2.5 | 3  | -      | ○     |
| M1.4×0.3    | RH4   | 2P | 2    | 37   | 6.5 | -               | 3   | 2.5 | 3  | -      | ○     |
| M1.6×0.35   | RH5   | 4P | 1    | 38   | 8   | -               | 3   | 2.5 | 3  | -      | ○     |
| M1.6×0.35   | RH5   | 2P | 2    | 36.5 | 8   | -               | 3   | 2.5 | 3  | -      | ○     |
| M2×0.4      | RH5   | 4P | 1    | 49   | 10  | -               | 3   | 2.5 | 3  | -      | ○     |
| M2×0.4      | RH5   | 2P | 2    | 47.5 | 10  | -               | 3   | 2.5 | 3  | -      | ○     |
| M2.5×0.45   | RH5   | 4P | 1    | 49   | 13  | -               | 3   | 2.5 | 3  | -      | ○     |
| M2.5×0.45   | RH5   | 2P | 2    | 47.5 | 13  | -               | 3   | 2.5 | 3  | -      | ○     |
| M3×0.5      | RH6   | 4P | 1    | 50   | 16  | -               | 4   | 3.2 | 6  | -      | ○     |
| M3×0.5      | RH6   | 2P | 2    | 48   | 16  | -               | 4   | 3.2 | 6  | -      | ○     |
| M4×0.7      | RH7   | 4P | 1    | 54   | 18  | -               | 5   | 4   | 7  | -      | ○     |
| M4×0.7      | RH7   | 2P | 2    | 52   | 18  | -               | 5   | 4   | 7  | -      | ○     |
| M5×0.8      | RH7   | 4P | 1    | 62   | 20  | -               | 5.5 | 4.5 | 7  | -      | ○     |
| M5×0.8      | RH7   | 2P | 2    | 59.5 | 20  | -               | 5.5 | 4.5 | 7  | -      | ○     |
| M6×1        | RH7   | 4P | 5    | 62   | 19  | 10              | 6   | 4.5 | 7  | 2      | ○     |
| M6×1        | RH7   | 2P | 5    | 62   | 19  | 10              | 6   | 4.5 | 7  | 2      | ○     |
| M8×1.25     | RH7   | 4P | 6    | 75   | 13  | -               | 6.2 | 5   | 8  | 3      | ○     |
| M8×1.25     | RH7   | 2P | 6    | 75   | 13  | -               | 6.2 | 5   | 8  | 3      | ○     |
| M8×1        | RH7   | 4P | 6    | 75   | 13  | -               | 6.2 | 5   | 8  | 3      | ○     |
| M8×1        | RH7   | 2P | 6    | 75   | 13  | -               | 6.2 | 5   | 8  | 3      | ○     |
| M10×1.5     | RH8   | 4P | 6    | 75   | 15  | -               | 7   | 5.5 | 8  | 6      | ○     |
| M10×1.5     | RH8   | 2P | 6    | 75   | 15  | -               | 7   | 5.5 | 8  | 6      | ○     |
| M10×1.25    | RH7   | 4P | 6    | 75   | 15  | -               | 7   | 5.5 | 8  | 6      | ○     |
| M10×1.25    | RH7   | 2P | 6    | 75   | 15  | -               | 7   | 5.5 | 8  | 6      | ○     |
| M10×1       | RH7   | 4P | 6    | 75   | 15  | -               | 7   | 5.5 | 8  | 6      | ○     |
| M10×1       | RH7   | 2P | 6    | 75   | 15  | -               | 7   | 5.5 | 8  | 6      | ○     |

## JIS-SOLID CARBIDE FORMING TAPS



- 2P chamfers, for blind hole  
 4P chamfers, for through hole  
 ◎ Solid carbide material.  
 ◎ Suitable for high-speed, long tool life mass production.  
 ◎ Various coating selection, suitable for Aluminum alloy,  
 Magnesium alloy, Copper alloy, Cast Aluminum,  
 Cast Zinc alloy.



単位:mm Unit:mm

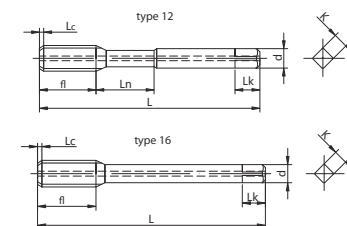
| Thread Size | Limit | LC | Type | L   | fl | Dimensions (mm) |      |     |    | Flutes | Stock |
|-------------|-------|----|------|-----|----|-----------------|------|-----|----|--------|-------|
|             |       |    |      |     |    | In              | d    | k   | Lk |        |       |
| M12×1.75    | RH9   | 4P | 6    | 82  | 17 | -               | 8.5  | 6.5 | 9  | 6      | ○     |
| M12×1.75    | RH9   | 2P | 6    | 82  | 17 | -               | 8.5  | 6.5 | 9  | 6      | ○     |
| M12×1.5     | RH8   | 4P | 6    | 82  | 17 | -               | 8.5  | 6.5 | 9  | 6      | ○     |
| M12×1.5     | RH8   | 2P | 6    | 82  | 17 | -               | 8.5  | 6.5 | 9  | 6      | ○     |
| M12×1.25    | RH7   | 4P | 6    | 82  | 17 | -               | 8.5  | 6.5 | 9  | 6      | ○     |
| M12×1.25    | RH7   | 2P | 6    | 82  | 17 | -               | 8.5  | 6.5 | 9  | 6      | ○     |
| M12×1       | RH7   | 4P | 6    | 82  | 17 | -               | 8.5  | 6.5 | 9  | 6      | ○     |
| M12×1       | RH7   | 2P | 6    | 82  | 17 | -               | 8.5  | 6.5 | 9  | 6      | ○     |
| M14×2       | RH10  | 4P | 6    | 100 | 20 | -               | 10.5 | 8   | 11 | 6      | ○     |
| M14×2       | RH10  | 2P | 6    | 100 | 20 | -               | 10.5 | 8   | 11 | 6      | ○     |
| M14×1.5     | RH8   | 4P | 6    | 100 | 20 | -               | 10.5 | 8   | 11 | 6      | ○     |
| M14×1.5     | RH8   | 2P | 6    | 100 | 20 | -               | 10.5 | 8   | 11 | 6      | ○     |
| M14×1.25    | RH7   | 4P | 6    | 100 | 20 | -               | 10.5 | 8   | 11 | 6      | ○     |
| M14×1.25    | RH7   | 2P | 6    | 100 | 20 | -               | 10.5 | 8   | 11 | 6      | ○     |
| M14×1       | RH7   | 4P | 6    | 100 | 20 | -               | 10.5 | 8   | 11 | 6      | ○     |
| M14×1       | RH7   | 2P | 6    | 100 | 20 | -               | 10.5 | 8   | 11 | 6      | ○     |
| M16×2       | RH10  | 4P | 6    | 100 | 20 | -               | 12.5 | 10  | 13 | 6      | ○     |
| M16×2       | RH10  | 2P | 6    | 100 | 20 | -               | 12.5 | 10  | 13 | 6      | ○     |
| M16×1.5     | RH8   | 4P | 6    | 100 | 20 | -               | 12.5 | 10  | 13 | 6      | ○     |
| M16×1.5     | RH8   | 2P | 6    | 100 | 20 | -               | 12.5 | 10  | 13 | 6      | ○     |
| M16×1.25    | RH7   | 4P | 6    | 100 | 20 | -               | 12.5 | 10  | 13 | 6      | ○     |
| M16×1.25    | RH7   | 2P | 6    | 100 | 20 | -               | 12.5 | 10  | 13 | 6      | ○     |
| M16×1       | RH7   | 4P | 6    | 100 | 20 | -               | 12.5 | 10  | 13 | 6      | ○     |
| M16×1       | RH7   | 2P | 6    | 100 | 20 | -               | 12.5 | 10  | 13 | 6      | ○     |

| P           | P           | P            | Alloy<br>SCM | M                    | K                  | K                 | N  | N           | N            | S        | S        | H      |
|-------------|-------------|--------------|--------------|----------------------|--------------------|-------------------|----|-------------|--------------|----------|----------|--------|
| Low-C steel | Mid-C steel | High-C steel | <HRC35       | Stainless steel(SUS) | Gray cast iron(FC) | Ductile iron(FCD) | Al | Cu(Pure Cu) | ADC Al alloy | Ti alloy | Ni alloy | >HRC35 |
| -           | -           | -            | -            | -                    | -                  | -                 | •  | •           | •            | -        | -        | -      |

## JIS-SOLID CARBIDE FORMING TAPS WITH INTERNAL COOLANT



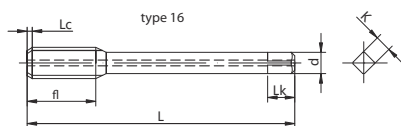
- 2P chamfers, for blind hole  
 4P chamfers, for through hole  
 ◎ Solid carbide material.  
 ◎ Suitable for high-speed, long tool life mass production.  
 ◎ Various coating selection, suitable for Aluminum alloy,  
 Magnesium alloy, Copper alloy, Cast Aluminum, Cast Zinc alloy.



単位:mm Unit:mm

| Thread Size | Limit | LC | Type | L   | Dimensions (mm) |    |      |     | Lk | Oilgroovetype | Flutes | Stock |
|-------------|-------|----|------|-----|-----------------|----|------|-----|----|---------------|--------|-------|
|             |       |    |      |     | fl              | In | d    | k   |    |               |        |       |
| M6×1        | RH7   | 4P | 12   | 62  | 19              | 10 | 6    | 4.5 | 7  | Side C        | 2      | ○     |
| M6×1        | RH7   | 2P | 12   | 62  | 19              | 10 | 6    | 4.5 | 7  | Center Z      | 2      | ○     |
| M8×1.25     | RH7   | 4P | 16   | 75  | 13              | -  | 6.2  | 5   | 8  | Side C        | 3      | ○     |
| M8×1.25     | RH7   | 2P | 16   | 75  | 13              | -  | 6.2  | 5   | 8  | Center Z      | 3      | ○     |
| M8×1        | RH7   | 4P | 16   | 75  | 13              | -  | 6.2  | 5   | 8  | Side C        | 3      | ○     |
| M8×1        | RH7   | 2P | 16   | 75  | 13              | -  | 6.2  | 5   | 8  | Center Z      | 3      | ○     |
| M10×1.5     | RH8   | 4P | 16   | 75  | 15              | -  | 7    | 5.5 | 8  | Side C        | 6      | ○     |
| M10×1.5     | RH8   | 2P | 16   | 75  | 15              | -  | 7    | 5.5 | 8  | Center Z      | 6      | ○     |
| M10×1.25    | RH7   | 4P | 16   | 75  | 15              | -  | 7    | 5.5 | 8  | Side C        | 6      | ○     |
| M10×1.25    | RH7   | 2P | 16   | 75  | 15              | -  | 7    | 5.5 | 8  | Center Z      | 6      | ○     |
| M10×1       | RH7   | 4P | 16   | 75  | 15              | -  | 7    | 5.5 | 8  | Side C        | 6      | ○     |
| M10×1       | RH7   | 2P | 16   | 75  | 15              | -  | 7    | 5.5 | 8  | Center Z      | 6      | ○     |
| M12×1.75    | RH9   | 4P | 16   | 82  | 17              | -  | 8.5  | 6.5 | 9  | Side C        | 6      | ○     |
| M12×1.75    | RH9   | 2P | 16   | 82  | 17              | -  | 8.5  | 6.5 | 9  | Center Z      | 6      | ○     |
| M12×1.5     | RH8   | 4P | 16   | 82  | 17              | -  | 8.5  | 6.5 | 9  | Side C        | 6      | ○     |
| M12×1.5     | RH8   | 2P | 16   | 82  | 17              | -  | 8.5  | 6.5 | 9  | Center Z      | 6      | ○     |
| M12×1.25    | RH7   | 4P | 16   | 82  | 17              | -  | 8.5  | 6.5 | 9  | Side C        | 6      | ○     |
| M12×1.25    | RH7   | 2P | 16   | 82  | 17              | -  | 8.5  | 6.5 | 9  | Center Z      | 6      | ○     |
| M12×1       | RH7   | 4P | 16   | 82  | 17              | -  | 8.5  | 6.5 | 9  | Side C        | 6      | ○     |
| M12×1       | RH7   | 2P | 16   | 82  | 17              | -  | 8.5  | 6.5 | 9  | Center Z      | 6      | ○     |
| M14×2       | RH10  | 4P | 16   | 100 | 20              | -  | 10.5 | 8   | 11 | Side C        | 6      | ○     |
| M14×2       | RH10  | 2P | 16   | 100 | 20              | -  | 10.5 | 8   | 11 | Center Z      | 6      | ○     |
| M14×1.5     | RH8   | 4P | 16   | 100 | 20              | -  | 10.5 | 8   | 11 | Side C        | 6      | ○     |
| M14×1.5     | RH8   | 2P | 16   | 100 | 20              | -  | 10.5 | 8   | 11 | Center Z      | 6      | ○     |
| M14×1.25    | RH7   | 4P | 16   | 100 | 20              | -  | 10.5 | 8   | 11 | Side C        | 6      | ○     |
| M14×1.25    | RH7   | 2P | 16   | 100 | 20              | -  | 10.5 | 8   | 11 | Center Z      | 6      | ○     |
| M14×1       | RH7   | 4P | 16   | 100 | 20              | -  | 10.5 | 8   | 11 | Side C        | 6      | ○     |
| M14×1       | RH7   | 2P | 16   | 100 | 20              | -  | 10.5 | 8   | 11 | Center Z      | 6      | ○     |

## JIS-SOLID CARBIDE FORMING TAPS WITH INTERNAL COOLANT



2P chamfers, for blind hole  
4P chamfers, for through hole  
○ Solid carbide material.  
○ Suitable for high-speed, long tool life mass production.  
○ Various coating selection, suitable for Aluminum alloy, Magnesium alloy, Copper alloy, Cast Aluminum, Cast Zinc alloy.



単位:mm Unit:mm

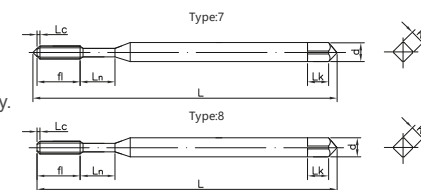
| Thread Size | Limit | LC | Type | L   | fl | (mm)Dimensions |      |    |    | Oilgroovetype | Flutes | Stock |
|-------------|-------|----|------|-----|----|----------------|------|----|----|---------------|--------|-------|
|             |       |    |      |     |    | In             | d    | k  | Lk |               |        |       |
| M16×2       | RH10  | 4P | 16   | 100 | 20 | -              | 12.5 | 10 | 13 | Side C        | 6      | ○     |
| M16×2       | RH10  | 2P | 16   | 100 | 20 | -              | 12.5 | 10 | 13 | Center Z      | 6      | ○     |
| M16×1.5     | RH8   | 4P | 16   | 100 | 20 | -              | 12.5 | 10 | 13 | Side C        | 6      | ○     |
| M16×1.5     | RH8   | 2P | 16   | 100 | 20 | -              | 12.5 | 10 | 13 | Center Z      | 6      | ○     |
| M16×1.25    | RH7   | 4P | 16   | 100 | 20 | -              | 12.5 | 10 | 13 | Side C        | 6      | ○     |
| M16×1.25    | RH7   | 2P | 16   | 100 | 20 | -              | 12.5 | 10 | 13 | Center Z      | 6      | ○     |
| M16×1       | RH7   | 4P | 16   | 100 | 20 | -              | 12.5 | 10 | 13 | Side C        | 6      | ○     |
| M16×1       | RH7   | 2P | 16   | 100 | 20 | -              | 12.5 | 10 | 13 | Center Z      | 6      | ○     |

| P           | P           | P            | Alloy SCM | M                    | K                  | K                 | N  | N           | N            | S        | S        | H      |
|-------------|-------------|--------------|-----------|----------------------|--------------------|-------------------|----|-------------|--------------|----------|----------|--------|
| Low-C steel | Mid-C steel | High-C steel | <HRC35    | Stainless steel(SUS) | Gray cast iron(FC) | Ductile iron(FCD) | Al | Cu(Pure Cu) | ADC Al alloy | Ti alloy | Ni alloy | >HRC35 |
| -           | -           | -            | -         | -                    | -                  | -                 | ●  | ●           | ●            | -        | -        | -      |

## JIS-SOLID CARBIDE FORMING TAPS WITH LONG SHANK



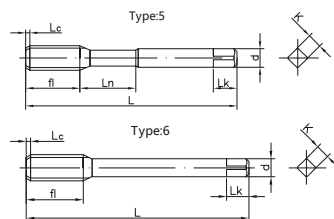
2P chamfers, for blind hole  
4P chamfers, for through hole  
○ Solid carbide material.  
○ Suitable for high-speed, long tool life mass production.  
○ Various coating selection, suitable for Aluminum alloy, Magnesium alloy, Copper alloy, Cast Aluminum, Cast Zinc alloy.



単位:mm Unit:mm

| Thread Size | Limit | LC | Type | L   | Dimensions (mm) |    |     |     | Lk | Flutes | Stock |
|-------------|-------|----|------|-----|-----------------|----|-----|-----|----|--------|-------|
|             |       |    |      |     | fl              | In | d   | k   |    |        |       |
| M2×0.4      | RH5   | 4P | 7    | 80  | 10              | -  | 3   | 2.5 | 3  | -      | ○     |
| M2×0.4      | RH5   | 2P | 8    | 78  | 10              | -  | 3   | 2.5 | 3  | -      | ○     |
| M2×0.4      | RH5   | 4P | 7    | 100 | 10              | -  | 3   | 2.5 | 3  | -      | ○     |
| M2×0.4      | RH5   | 2P | 8    | 98  | 10              | -  | 3   | 2.5 | 3  | -      | ○     |
| M2×0.4      | RH5   | 4P | 7    | 120 | 10              | -  | 3   | 2.5 | 3  | -      | ○     |
| M2.5×0.45   | RH5   | 4P | 7    | 118 | 10              | -  | 3   | 2.5 | 3  | -      | ○     |
| M2.5×0.45   | RH5   | 2P | 8    | 80  | 13              | -  | 3   | 2.5 | 3  | -      | ○     |
| M2.5×0.45   | RH5   | 2P | 8    | 78  | 13              | -  | 3   | 2.5 | 3  | -      | ○     |
| M2.5×0.45   | RH5   | 4P | 7    | 100 | 13              | -  | 3   | 2.5 | 3  | -      | ○     |
| M2.5×0.45   | RH5   | 2P | 8    | 98  | 13              | -  | 3   | 2.5 | 3  | -      | ○     |
| M2.5×0.45   | RH5   | 4P | 7    | 120 | 13              | -  | 3   | 2.5 | 3  | -      | ○     |
| M2.5×0.45   | RH5   | 2P | 8    | 118 | 13              | -  | 3   | 2.5 | 3  | -      | ○     |
| M3×0.5      | RH6   | 4P | 7    | 80  | 16              | -  | 4   | 3.2 | 6  | -      | ○     |
| M3×0.5      | RH6   | 2P | 8    | 78  | 16              | -  | 4   | 3.2 | 6  | -      | ○     |
| M3×0.5      | RH6   | 4P | 7    | 100 | 16              | -  | 4   | 3.2 | 6  | -      | ○     |
| M3×0.5      | RH6   | 2P | 8    | 98  | 16              | -  | 4   | 3.2 | 6  | -      | ○     |
| M3×0.5      | RH6   | 4P | 7    | 120 | 16              | -  | 4   | 3.2 | 6  | -      | ○     |
| M3×0.5      | RH6   | 2P | 8    | 118 | 16              | -  | 4   | 3.2 | 6  | -      | ○     |
| M3×0.5      | RH6   | 4P | 7    | 150 | 16              | -  | 4   | 3.2 | 6  | -      | ○     |
| M3×0.5      | RH6   | 2P | 8    | 148 | 16              | -  | 4   | 3.2 | 6  | -      | ○     |
| M4×0.7      | RH7   | 4P | 7    | 80  | 18              | -  | 5   | 4   | 7  | -      | ○     |
| M4×0.7      | RH7   | 2P | 8    | 78  | 18              | -  | 5   | 4   | 7  | -      | ○     |
| M4×0.7      | RH7   | 4P | 7    | 100 | 18              | -  | 5   | 4   | 7  | -      | ○     |
| M4×0.7      | RH7   | 2P | 8    | 98  | 18              | -  | 5   | 4   | 7  | -      | ○     |
| M4×0.7      | RH7   | 4P | 7    | 120 | 18              | -  | 5   | 4   | 7  | -      | ○     |
| M4×0.7      | RH7   | 2P | 8    | 118 | 18              | -  | 5   | 4   | 7  | -      | ○     |
| M4×0.7      | RH7   | 4P | 7    | 150 | 18              | -  | 5   | 4   | 7  | -      | ○     |
| M4×0.7      | RH7   | 2P | 8    | 148 | 18              | -  | 5   | 4   | 7  | -      | ○     |
| M5×0.8      | RH7   | 4P | 7    | 80  | 20              | -  | 5.5 | 4.5 | 7  | -      | ○     |
| M5×0.8      | RH7   | 2P | 8    | 78  | 20              | -  | 5.5 | 4.5 | 7  | -      | ○     |
| M5×0.8      | RH7   | 4P | 7    | 100 | 20              | -  | 5.5 | 4.5 | 7  | -      | ○     |
| M5×0.8      | RH7   | 2P | 8    | 98  | 20              | -  | 5.5 | 4.5 | 7  | -      | ○     |
| M5×0.8      | RH7   | 4P | 7    | 120 | 20              | -  | 5.5 | 4.5 | 7  | -      | ○     |
| M5×0.8      | RH7   | 2P | 8    | 118 | 20              | -  | 5.5 | 4.5 | 7  | -      | ○     |
| M5×0.8      | RH7   | 4P | 7    | 150 | 20              | -  | 5.5 | 4.5 | 7  | -      | ○     |

## JIS-SOLID CARBIDE FORMING TAPS WITH LONG SHANK



2P chamfers, for blind hole  
4P chamfers, for through hole

- Solid carbide material.
- Suitable for high-speed, long tool life mass production.
- Various coating selection, suitable for Aluminum alloy, Magnesium alloy, Copper alloy, Cast Aluminum, Cast Zinc alloy.



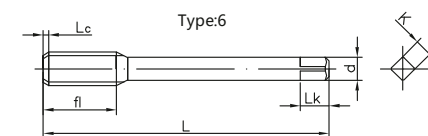
単位:mm Unit:mm

| Thread Size | Limit | LC | Type | L   | fl | Dimensions (mm) |      |     |    | Flutes | Stock |
|-------------|-------|----|------|-----|----|-----------------|------|-----|----|--------|-------|
|             |       |    |      |     |    | In              | d    | k   | Lk |        |       |
| M6×1        | RH7   | 2P | 5    | 80  | 19 | 10              | 6    | 4.5 | 7  | 2      | ○     |
| M6×1        | RH7   | 2P | 5    | 100 | 19 | 10              | 6    | 4.5 | 7  | 2      | ○     |
| M6×1        | RH7   | 2P | 5    | 120 | 19 | 10              | 6    | 4.5 | 7  | 2      | ○     |
| M6×1        | RH7   | 2P | 5    | 150 | 19 | 10              | 6    | 4.5 | 7  | 2      | ○     |
| M8×1.25     | RH7   | 2P | 6    | 100 | 13 | -               | 6.2  | 5   | 8  | 3      | ○     |
| M8×1.25     | RH7   | 2P | 6    | 120 | 13 | -               | 6.2  | 5   | 8  | 3      | ○     |
| M8×1.25     | RH7   | 2P | 6    | 150 | 13 | -               | 6.2  | 5   | 8  | 3      | ○     |
| M8×1        | RH7   | 2P | 6    | 100 | 13 | -               | 6.2  | 5   | 8  | 3      | ○     |
| M8×1        | RH7   | 2P | 6    | 120 | 13 | -               | 6.2  | 5   | 8  | 3      | ○     |
| M8×1        | RH7   | 2P | 6    | 150 | 13 | -               | 6.2  | 5   | 8  | 3      | ○     |
| M10×1.5     | RH8   | 2P | 6    | 100 | 15 | -               | 7    | 5.5 | 8  | 6      | ○     |
| M10×1.5     | RH8   | 2P | 6    | 120 | 15 | -               | 7    | 5.5 | 8  | 6      | ○     |
| M10×1.5     | RH8   | 2P | 6    | 150 | 15 | -               | 7    | 5.5 | 8  | 6      | ○     |
| M10×1.25    | RH7   | 2P | 6    | 100 | 15 | -               | 7    | 5.5 | 8  | 6      | ○     |
| M10×1.25    | RH7   | 2P | 6    | 120 | 15 | -               | 7    | 5.5 | 8  | 6      | ○     |
| M10×1.25    | RH7   | 2P | 6    | 150 | 15 | -               | 7    | 5.5 | 8  | 6      | ○     |
| M10×1       | RH7   | 2P | 6    | 100 | 15 | -               | 7    | 5.5 | 8  | 6      | ○     |
| M10×1       | RH7   | 2P | 6    | 120 | 15 | -               | 7    | 5.5 | 8  | 6      | ○     |
| M10×1       | RH7   | 2P | 6    | 150 | 15 | -               | 7    | 5.5 | 8  | 6      | ○     |
| M12×1.75    | RH9   | 2P | 6    | 100 | 17 | -               | 8.5  | 6.5 | 9  | 6      | ○     |
| M12×1.75    | RH9   | 2P | 6    | 120 | 17 | -               | 8.5  | 6.5 | 9  | 6      | ○     |
| M12×1.75    | RH9   | 2P | 6    | 150 | 17 | -               | 8.5  | 6.5 | 9  | 6      | ○     |
| M12×1.5     | RH8   | 2P | 6    | 100 | 17 | -               | 8.5  | 6.5 | 9  | 6      | ○     |
| M12×1.5     | RH8   | 2P | 6    | 120 | 17 | -               | 8.5  | 6.5 | 9  | 6      | ○     |
| M12×1.5     | RH8   | 2P | 6    | 150 | 17 | -               | 8.5  | 6.5 | 9  | 6      | ○     |
| M12×1.25    | RH7   | 2P | 6    | 100 | 17 | -               | 8.5  | 6.5 | 9  | 6      | ○     |
| M12×1.25    | RH7   | 2P | 6    | 120 | 17 | -               | 8.5  | 6.5 | 9  | 6      | ○     |
| M12×1.25    | RH7   | 2P | 6    | 150 | 17 | -               | 8.5  | 6.5 | 9  | 6      | ○     |
| M12×1       | RH7   | 2P | 6    | 100 | 17 | -               | 8.5  | 6.5 | 9  | 6      | ○     |
| M12×1       | RH7   | 2P | 6    | 120 | 17 | -               | 8.5  | 6.5 | 9  | 6      | ○     |
| M12×1       | RH7   | 2P | 6    | 150 | 17 | -               | 8.5  | 6.5 | 9  | 6      | ○     |
| M14×2       | RH10  | 2P | 6    | 120 | 20 | -               | 10.5 | 8   | 11 | 6      | ○     |
| M14×2       | RH10  | 2P | 6    | 150 | 20 | -               | 10.5 | 8   | 11 | 6      | ○     |

## JIS-SOLID CARBIDE FORMING TAPS WITH LONG SHANK



- 2P chamfers, for blind hole  
4P chamfers, for through hole
- Solid carbide material.
  - Suitable for high-speed, long tool life mass production.
  - Various coating selection, suitable for Aluminum alloy, Magnesium alloy, Copper alloy, Cast Aluminum, Cast Zinc alloy.

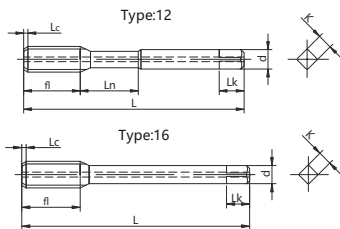


単位:mm Unit:mm

| Thread Size | Limit | LC | Type | L   | fl | Dimensions (mm) |      |    |    | Flutes | Stock |
|-------------|-------|----|------|-----|----|-----------------|------|----|----|--------|-------|
|             |       |    |      |     |    | In              | d    | k  | Lk |        |       |
| M14×1.5     | RH8   | 2P | 6    | 120 | 20 | -               | 10.5 | 8  | 11 | 6      | ○     |
| M14×1.5     | RH8   | 2P | 6    | 150 | 20 | -               | 10.5 | 8  | 11 | 6      | ○     |
| M14×1.25    | RH7   | 2P | 6    | 120 | 20 | -               | 10.5 | 8  | 11 | 6      | ○     |
| M14×1.25    | RH7   | 2P | 6    | 150 | 20 | -               | 10.5 | 8  | 11 | 6      | ○     |
| M14×1       | RH7   | 2P | 6    | 120 | 20 | -               | 10.5 | 8  | 11 | 6      | ○     |
| M14×1       | RH7   | 2P | 6    | 150 | 20 | -               | 10.5 | 8  | 11 | 6      | ○     |
| M16×2       | RH10  | 2P | 6    | 120 | 20 | -               | 12.5 | 10 | 13 | 6      | ○     |
| M16×2       | RH10  | 2P | 6    | 150 | 20 | -               | 12.5 | 10 | 13 | 6      | ○     |
| M16×1.5     | RH8   | 2P | 6    | 120 | 20 | -               | 12.5 | 10 | 13 | 6      | ○     |
| M16×1.5     | RH8   | 2P | 6    | 150 | 20 | -               | 12.5 | 10 | 13 | 6      | ○     |
| M16×1.25    | RH7   | 2P | 6    | 120 | 20 | -               | 12.5 | 10 | 13 | 6      | ○     |
| M16×1.25    | RH7   | 2P | 6    | 150 | 20 | -               | 12.5 | 10 | 13 | 6      | ○     |
| M16×1       | RH7   | 2P | 6    | 120 | 20 | -               | 12.5 | 10 | 13 | 6      | ○     |
| M16×1       | RH7   | 2P | 6    | 150 | 20 | -               | 12.5 | 10 | 13 | 6      | ○     |

| P           | P           | P            | Alloy SCM | M                    | K                  | K                 | N  | N           | N            | S        | S        | H      |
|-------------|-------------|--------------|-----------|----------------------|--------------------|-------------------|----|-------------|--------------|----------|----------|--------|
| Low-C steel | Mid-C steel | High-C steel | <HRC35    | Stainless steel(SUS) | Gray cast iron(FC) | Ductile iron(FCD) | Al | Cu(Pure Cu) | ADC Al alloy | Ti alloy | Ni alloy | >HRC35 |
| -           | -           | -            | -         | -                    | -                  | -                 | •  | •           | •            | -        | -        | -      |

## JIS-SOLID CARBIDE FORMING TAPS WITH LONG SHANK&amp;INTERNAL COOLANT



2P chamfers, for blind hole  
4P chamfers, for through hole  
○ Solid carbide material.  
○ Suitable for high-speed, long tool life mass production.  
○ Various coating selection, suitable for Aluminum alloy, Magnesium alloy, Copper alloy, Cast Aluminum, Cast Zinc alloy.



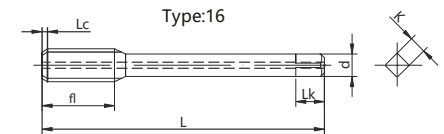
単位:mm Unit:mm

| Thread Size | Limit | LC | Type | L   | fl | Dimensions (mm) |     |     | Lk | Oilgroovetype | Flutes | Stock |
|-------------|-------|----|------|-----|----|-----------------|-----|-----|----|---------------|--------|-------|
|             |       |    |      |     |    | In              | d   | k   |    |               |        |       |
| M6×1        | RH7   | 4P | 12   | 80  | 19 | 10              | 6   | 4.5 | 7  | Side C        | 2      | ○     |
| M6×1        | RH7   | 2P | 12   | 80  | 19 | 10              | 6   | 4.5 | 7  | Center Z      | 2      | ○     |
| M6×1        | RH7   | 4P | 12   | 100 | 19 | 10              | 6   | 4.5 | 7  | Side C        | 2      | ○     |
| M6×1        | RH7   | 2P | 12   | 100 | 19 | 10              | 6   | 4.5 | 7  | Center Z      | 2      | ○     |
| M6×1        | RH7   | 4P | 12   | 120 | 19 | 10              | 6   | 4.5 | 7  | Side C        | 2      | ○     |
| M6×1        | RH7   | 2P | 12   | 120 | 19 | 10              | 6   | 4.5 | 7  | Center Z      | 2      | ○     |
| M6×1        | RH7   | 4P | 12   | 150 | 19 | 10              | 6   | 4.5 | 7  | Side C        | 2      | ○     |
| M6×1        | RH7   | 2P | 12   | 150 | 19 | 10              | 6   | 4.5 | 7  | Center Z      | 2      | ○     |
| M8×1.25     | RH7   | 4P | 16   | 100 | 13 | -               | 6.2 | 5   | 8  | Side C        | 3      | ○     |
| M8×1.25     | RH7   | 2P | 16   | 100 | 13 | -               | 6.2 | 5   | 8  | Center Z      | 3      | ○     |
| M8×1.25     | RH7   | 4P | 16   | 120 | 13 | -               | 6.2 | 5   | 8  | Side C        | 3      | ○     |
| M8×1.25     | RH7   | 2P | 16   | 120 | 13 | -               | 6.2 | 5   | 8  | Center Z      | 3      | ○     |
| M8×1.25     | RH7   | 4P | 16   | 150 | 13 | -               | 6.2 | 5   | 8  | Side C        | 3      | ○     |
| M8×1.25     | RH7   | 2P | 16   | 150 | 13 | -               | 6.2 | 5   | 8  | Center Z      | 3      | ○     |
| M8×1        | RH7   | 4P | 16   | 100 | 13 | -               | 6.2 | 5   | 8  | Side C        | 3      | ○     |
| M8×1        | RH7   | 2P | 16   | 100 | 13 | -               | 6.2 | 5   | 8  | Center Z      | 3      | ○     |
| M8×1        | RH7   | 4P | 16   | 150 | 13 | -               | 6.2 | 5   | 8  | Side C        | 3      | ○     |
| M8×1        | RH7   | 2P | 16   | 150 | 13 | -               | 6.2 | 5   | 8  | Center Z      | 3      | ○     |
| M10×1.5     | RH8   | 4P | 16   | 100 | 15 | -               | 7   | 5.5 | 8  | Side C        | 6      | ○     |
| M10×1.5     | RH8   | 2P | 16   | 100 | 15 | -               | 7   | 5.5 | 8  | Center Z      | 6      | ○     |
| M10×1.5     | RH8   | 4P | 16   | 120 | 15 | -               | 7   | 5.5 | 8  | Side C        | 6      | ○     |
| M10×1.5     | RH8   | 2P | 16   | 120 | 15 | -               | 7   | 5.5 | 8  | Center Z      | 6      | ○     |
| M10×1.5     | RH8   | 4P | 16   | 150 | 15 | -               | 7   | 5.5 | 8  | Side C        | 6      | ○     |
| M10×1.5     | RH8   | 2P | 16   | 150 | 15 | -               | 7   | 5.5 | 8  | Center Z      | 6      | ○     |
| M10×1.25    | RH7   | 4P | 16   | 100 | 15 | -               | 7   | 5.5 | 8  | Side C        | 6      | ○     |
| M10×1.25    | RH7   | 2P | 16   | 100 | 15 | -               | 7   | 5.5 | 8  | Center Z      | 6      | ○     |
| M10×1.25    | RH7   | 4P | 16   | 120 | 15 | -               | 7   | 5.5 | 8  | Side C        | 6      | ○     |
| M10×1.25    | RH7   | 2P | 16   | 120 | 15 | -               | 7   | 5.5 | 8  | Center Z      | 6      | ○     |
| M10×1.25    | RH7   | 4P | 16   | 150 | 15 | -               | 7   | 5.5 | 8  | Side C        | 6      | ○     |
| M10×1.25    | RH7   | 2P | 16   | 150 | 15 | -               | 7   | 5.5 | 8  | Center Z      | 6      | ○     |

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2P chamfers, for blind hole  
4P chamfers, for through hole  
○ Solid carbide material.  
○ Suitable for high-speed, long tool life mass production.  
○ Various coating selection, suitable for Aluminum alloy, Magnesium alloy, Copper alloy, Cast Aluminum, Cast Zinc alloy.



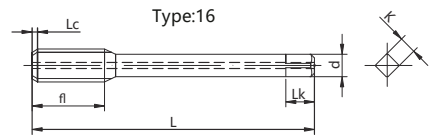
単位:mm Unit:mm

| Thread Size | Limit | LC | Type | L   | fl | Dimensions (mm) |      |     | Lk | Oilgroovetype | Flutes | Stock |
|-------------|-------|----|------|-----|----|-----------------|------|-----|----|---------------|--------|-------|
|             |       |    |      |     |    | In              | d    | k   |    |               |        |       |
| M10×1       | RH7   | 4P | 16   | 100 | 15 | -               | 7    | 5.5 | 8  | Side C        | 6      | ○     |
| M10×1       | RH7   | 2P | 16   | 100 | 15 | -               | 7    | 5.5 | 8  | Center Z      | 6      | ○     |
| M10×1       | RH7   | 4P | 16   | 120 | 15 | -               | 7    | 5.5 | 8  | Side C        | 6      | ○     |
| M10×1       | RH7   | 2P | 16   | 120 | 15 | -               | 7    | 5.5 | 8  | Center Z      | 6      | ○     |
| M10×1       | RH7   | 4P | 16   | 150 | 15 | -               | 7    | 5.5 | 8  | Side C        | 6      | ○     |
| M10×1       | RH7   | 2P | 16   | 150 | 15 | -               | 7    | 5.5 | 8  | Center Z      | 6      | ○     |
| M12×1.75    | RH9   | 4P | 16   | 100 | 17 | -               | 8.5  | 6.5 | 9  | Side C        | 6      | ○     |
| M12×1.75    | RH9   | 2P | 16   | 100 | 17 | -               | 8.5  | 6.5 | 9  | Center Z      | 6      | ○     |
| M12×1.75    | RH9   | 4P | 16   | 120 | 17 | -               | 8.5  | 6.5 | 9  | Side C        | 6      | ○     |
| M12×1.75    | RH9   | 2P | 16   | 120 | 17 | -               | 8.5  | 6.5 | 9  | Center Z      | 6      | ○     |
| M12×1.75    | RH9   | 4P | 16   | 150 | 17 | -               | 8.5  | 6.5 | 9  | Side C        | 6      | ○     |
| M12×1.75    | RH9   | 2P | 16   | 150 | 17 | -               | 8.5  | 6.5 | 9  | Center Z      | 6      | ○     |
| M12×1.5     | RH8   | 4P | 16   | 100 | 17 | -               | 8.5  | 6.5 | 9  | Side C        | 6      | ○     |
| M12×1.5     | RH8   | 2P | 16   | 100 | 17 | -               | 8.5  | 6.5 | 9  | Center Z      | 6      | ○     |
| M12×1.5     | RH8   | 4P | 16   | 120 | 17 | -               | 8.5  | 6.5 | 9  | Side C        | 6      | ○     |
| M12×1.5     | RH8   | 2P | 16   | 120 | 17 | -               | 8.5  | 6.5 | 9  | Center Z      | 6      | ○     |
| M12×1.5     | RH8   | 4P | 16   | 150 | 17 | -               | 8.5  | 6.5 | 9  | Side C        | 6      | ○     |
| M12×1.5     | RH8   | 2P | 16   | 150 | 17 | -               | 8.5  | 6.5 | 9  | Center Z      | 6      | ○     |
| M12×1.25    | RH7   | 4P | 16   | 100 | 17 | -               | 8.5  | 6.5 | 9  | Side C        | 6      | ○     |
| M12×1.25    | RH7   | 2P | 16   | 100 | 17 | -               | 8.5  | 6.5 | 9  | Center Z      | 6      | ○     |
| M12×1.25    | RH7   | 4P | 16   | 120 | 17 | -               | 8.5  | 6.5 | 9  | Side C        | 6      | ○     |
| M12×1.25    | RH7   | 2P | 16   | 120 | 17 | -               | 8.5  | 6.5 | 9  | Center Z      | 6      | ○     |
| M12×1.25    | RH7   | 4P | 16   | 150 | 17 | -               | 8.5  | 6.5 | 9  | Side C        | 6      | ○     |
| M12×1.25    | RH7   | 2P | 16   | 150 | 17 | -               | 8.5  | 6.5 | 9  | Center Z      | 6      | ○     |
| M12×1       | RH7   | 4P | 16   | 100 | 17 | -               | 8.5  | 6.5 | 9  | Side C        | 6      | ○     |
| M12×1       | RH7   | 2P | 16   | 100 | 17 | -               | 8.5  | 6.5 | 9  | Center Z      | 6      | ○     |
| M12×1       | RH7   | 4P | 16   | 120 | 17 | -               | 8.5  | 6.5 | 9  | Side C        | 6      | ○     |
| M12×1       | RH7   | 2P | 16   | 120 | 17 | -               | 8.5  | 6.5 | 9  | Center Z      | 6      | ○     |
| M12×1       | RH7   | 4P | 16   | 150 | 17 | -               | 8.5  | 6.5 | 9  | Side C        | 6      | ○     |
| M12×1       | RH7   | 2P | 16   | 150 | 17 | -               | 8.5  | 6.5 | 9  | Center Z      | 6      | ○     |
| M14×2       | RH10  | 4P | 16   | 120 | 20 | -               | 10.5 | 8   | 11 | Side C        | 6      | ○     |
| M14×2       | RH10  | 2P | 16   | 120 | 20 | -               | 10.5 | 8   | 11 | Center Z      | 6      | ○     |
| M14×2       | RH10  | 4P | 16   | 150 | 20 | -               | 10.5 | 8   | 11 | Side C        | 6      | ○     |
| M14×2       | RH10  | 2P | 16   | 150 | 20 | -               | 10.5 | 8   | 11 | Center Z      | 6      | ○     |

## JIS-SOLID CARBIDE FORMING TAPS WITH LONG SHANK&amp;INTERNAL COOLANT



- 2P chamfers, for blind hole  
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単位:mm Unit:mm

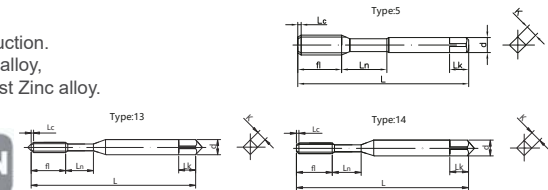
| Thread Size | Limit | LC | Type | L   | fl | Dimensions (mm) |      |    | Lk | Oilgroovetype | Flutes | Stock |
|-------------|-------|----|------|-----|----|-----------------|------|----|----|---------------|--------|-------|
|             |       |    |      |     |    | In              | d    | k  |    |               |        |       |
| M14×1.5     | RH8   | 4P | 16   | 120 | 20 | -               | 10.5 | 8  | 11 | Side C        | 6      | ○     |
| M14×1.5     | RH8   | 2P | 16   | 120 | 20 | -               | 10.5 | 8  | 11 | Center Z      | 6      | ○     |
| M14×1.5     | RH8   | 4P | 16   | 150 | 20 | -               | 10.5 | 8  | 11 | Side C        | 6      | ○     |
| M14×1.5     | RH8   | 2P | 16   | 150 | 20 | -               | 10.5 | 8  | 11 | Center Z      | 6      | ○     |
| M14×1.25    | RH7   | 4P | 16   | 120 | 20 | -               | 10.5 | 8  | 11 | Side C        | 6      | ○     |
| M14×1.25    | RH7   | 2P | 16   | 120 | 20 | -               | 10.5 | 8  | 11 | Center Z      | 6      | ○     |
| M14×1.25    | RH7   | 4P | 16   | 150 | 20 | -               | 10.5 | 8  | 11 | Side C        | 6      | ○     |
| M14×1.25    | RH7   | 2P | 16   | 150 | 20 | -               | 10.5 | 8  | 11 | Center Z      | 6      | ○     |
| M14×1       | RH7   | 4P | 16   | 120 | 20 | -               | 10.5 | 8  | 11 | Side C        | 6      | ○     |
| M14×1       | RH7   | 2P | 16   | 120 | 20 | -               | 10.5 | 8  | 11 | Center Z      | 6      | ○     |
| M14×1       | RH7   | 4P | 16   | 150 | 20 | -               | 10.5 | 8  | 11 | Side C        | 6      | ○     |
| M14×1       | RH7   | 2P | 16   | 150 | 20 | -               | 10.5 | 8  | 11 | Center Z      | 6      | ○     |
| M16×2       | RH10  | 4P | 16   | 120 | 20 | -               | 12.5 | 10 | 13 | Side C        | 6      | ○     |
| M16×2       | RH10  | 2P | 16   | 120 | 20 | -               | 12.5 | 10 | 13 | Center Z      | 6      | ○     |
| M16×2       | RH10  | 4P | 16   | 150 | 20 | -               | 12.5 | 10 | 13 | Side C        | 6      | ○     |
| M16×2       | RH10  | 2P | 16   | 150 | 20 | -               | 12.5 | 10 | 13 | Center Z      | 6      | ○     |
| M16×1.5     | RH8   | 4P | 16   | 120 | 20 | -               | 12.5 | 10 | 13 | Side C        | 6      | ○     |
| M16×1.5     | RH8   | 2P | 16   | 120 | 20 | -               | 12.5 | 10 | 13 | Center Z      | 6      | ○     |
| M16×1.5     | RH8   | 4P | 16   | 150 | 20 | -               | 12.5 | 10 | 13 | Side C        | 6      | ○     |
| M16×1.5     | RH8   | 2P | 16   | 150 | 20 | -               | 12.5 | 10 | 13 | Center Z      | 6      | ○     |
| M16×1.25    | RH7   | 4P | 16   | 120 | 20 | -               | 12.5 | 10 | 13 | Side C        | 6      | ○     |
| M16×1.25    | RH7   | 2P | 16   | 120 | 20 | -               | 12.5 | 10 | 13 | Center Z      | 6      | ○     |
| M16×1.25    | RH7   | 4P | 16   | 150 | 20 | -               | 12.5 | 10 | 13 | Side C        | 6      | ○     |
| M16×1.25    | RH7   | 2P | 16   | 150 | 20 | -               | 12.5 | 10 | 13 | Center Z      | 6      | ○     |
| M16×1       | RH7   | 4P | 16   | 120 | 20 | -               | 12.5 | 10 | 13 | Side C        | 6      | ○     |
| M16×1       | RH7   | 2P | 16   | 120 | 20 | -               | 12.5 | 10 | 13 | Center Z      | 6      | ○     |
| M16×1       | RH7   | 4P | 16   | 150 | 20 | -               | 12.5 | 10 | 13 | Side C        | 6      | ○     |
| M16×1       | RH7   | 2P | 16   | 150 | 20 | -               | 12.5 | 10 | 13 | Center Z      | 6      | ○     |

| P           | P           | P            | Alloy SCM | M                    | K                  | K                 | N  | N           | N            | S        | S        | H      |
|-------------|-------------|--------------|-----------|----------------------|--------------------|-------------------|----|-------------|--------------|----------|----------|--------|
| Low-C steel | Mid-C steel | High-C steel | <HRC35    | Stainless steel(SUS) | Gray cast iron(FC) | Ductile iron(FCD) | Al | Cu(Pure Cu) | ADC Al alloy | Ti alloy | Ni alloy | >HRC35 |
| -           | -           | -            | -         | -                    | -                  | -                 | •  | •           | •            | -        | -        | -      |

## DIN-SOLID CARBIDE FORMING TAPS



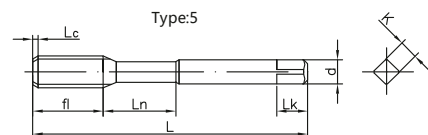
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単位:mm Unit:mm

| Thread Size | Limit | LC   | Type | L   | fl | Dimensions (mm) |     |     | Lk | Stock |
|-------------|-------|------|------|-----|----|-----------------|-----|-----|----|-------|
|             |       |      |      |     |    | In              | d   | k   |    |       |
| M4×0.7      | RH7   | 4P   | 13   | 63  | 9  | 12              | 4.5 | 3.4 | 6  | •     |
| M4×0.7      | RH7   | 2.5P | 14   | 63  | 9  | 12              | 4.5 | 3.4 | 6  | •     |
| M5×0.8      | RH7   | 4P   | 13   | 70  | 10 | 15              | 6   | 4.9 | 8  | •     |
| M5×0.8      | RH7   | 2.5P | 14   | 70  | 10 | 15              | 6   | 4.9 | 8  | •     |
| M6×1        | RH7   | 4P   | 13   | 80  | 10 | 20              | 6   | 4.9 | 8  | •     |
| M6×1        | RH7   | 2.5P | 14   | 80  | 10 | 20              | 6   | 4.9 | 8  | •     |
| M7×1        | RH7   | 4P   | 13   | 80  | 10 | 20              | 7   | 5.5 | 8  | •     |
| M7×1        | RH7   | 2.5P | 14   | 80  | 10 | 20              | 7   | 5.5 | 8  | •     |
| M8×1.25     | RH7   | 4P   | 5    | 90  | 13 | 22              | 8   | 6.2 | 9  | •     |
| M8×1.25     | RH7   | 2.5P | 5    | 90  | 13 | 22              | 8   | 6.2 | 9  | •     |
| M8×1        | RH7   | 4P   | 5    | 90  | 13 | 22              | 8   | 6.2 | 9  | •     |
| M8×1        | RH7   | 2.5P | 5    | 90  | 13 | 22              | 8   | 6.2 | 9  | •     |
| M10×1.5     | RH8   | 4P   | 5    | 100 | 15 | 24              | 10  | 8   | 11 | •     |
| M10×1.5     | RH8   | 2.5P | 5    | 100 | 15 | 24              | 10  | 8   | 11 | •     |
| M10×1.25    | RH7   | 4P   | 5    | 100 | 15 | 24              | 10  | 8   | 11 | •     |
| M10×1.25    | RH7   | 2.5P | 5    | 100 | 15 | 24              | 10  | 8   | 11 | •     |
| M10×1       | RH7   | 4P   | 5    | 100 | 15 | 24              | 10  | 8   | 11 | •     |
| M10×1       | RH7   | 2.5P | 5    | 100 | 15 | 24              | 10  | 8   | 11 | •     |
| M12×1.75    | RH9   | 4P   | 5    | 110 | 17 | 32              | 9   | 7   | 10 | •     |
| M12×1.75    | RH9   | 2.5P | 5    | 110 | 17 | 32              | 9   | 7   | 10 | •     |
| M12×1.5     | RH8   | 4P   | 5    | 110 | 17 | 32              | 9   | 7   | 10 | •     |
| M12×1.5     | RH8   | 2.5P | 5    | 110 | 17 | 32              | 9   | 7   | 10 | •     |
| M12×1.25    | RH7   | 4P   | 5    | 110 | 17 | 32              | 9   | 7   | 10 | •     |
| M12×1.25    | RH7   | 2.5P | 5    | 110 | 17 | 32              | 9   | 7   | 10 | •     |
| M12×1       | RH7   | 4P   | 5    | 110 | 17 | 32              | 9   | 7   | 10 | •     |
| M12×1       | RH7   | 2.5P | 5    | 110 | 17 | 32              | 9   | 7   | 10 | •     |
| M14×2       | RH10  | 4P   | 5    | 110 | 20 | 33              | 11  | 9   | 12 | •     |
| M14×2       | RH10  | 2.5P | 5    | 110 | 20 | 33              | 11  | 9   | 12 | •     |
| M14×1.5     | RH8   | 4P   | 5    | 110 | 20 | 33              | 11  | 9   | 12 | •     |
| M14×1.5     | RH8   | 2.5P | 5    | 110 | 20 | 33              | 11  | 9   | 12 | •     |
| M14×1.25    | RH7   | 4P   | 5    | 110 | 20 | 33              | 11  | 9   | 12 | •     |
| M14×1.25    | RH7   | 2.5P | 5    | 110 | 20 | 33              | 11  | 9   | 12 | •     |
| M14×1       | RH7   | 4P   | 5    | 110 | 20 | 33              | 11  | 9   | 12 | •     |
| M14×1       | RH7   | 2.5P | 5    | 110 | 20 | 33              | 11  | 9   | 12 | •     |

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○ Various coating selection, suitable for Aluminum alloy, Magnesium alloy, Copper alloy, Cast Aluminum, Cast Zinc alloy.



単位:mm Unit:mm

| Thread Size | Limit | LC   | Type | Dimensions (mm) |    |    |    |      |    |  | Stock |
|-------------|-------|------|------|-----------------|----|----|----|------|----|--|-------|
|             |       |      |      | L               | fl | In | d  | k    | Lk |  |       |
| M16×2       | RH10  | 4P   | 5    | 110             | 20 | 34 | 12 | 9    | 12 |  | ●     |
| M16×2       | RH10  | 2.5P | 5    | 110             | 20 | 34 | 12 | 9    | 12 |  | ●     |
| M16×1.5     | RH8   | 4P   | 5    | 110             | 20 | 34 | 12 | 9    | 12 |  | ●     |
| M16×1.5     | RH8   | 2.5P | 5    | 110             | 20 | 34 | 12 | 9    | 12 |  | ●     |
| M16×1.25    | RH7   | 4P   | 5    | 110             | 20 | 34 | 12 | 9    | 12 |  | ●     |
| M16×1.25    | RH7   | 2.5P | 5    | 110             | 20 | 34 | 12 | 9    | 12 |  | ●     |
| M16×1       | RH7   | 4P   | 5    | 110             | 20 | 34 | 12 | 9    | 12 |  | ●     |
| M16×1       | RH7   | 2.5P | 5    | 110             | 20 | 34 | 12 | 9    | 12 |  | ●     |
| M18×2.5     | RH10  | 4P   | 5    | 125             | 25 | 36 | 14 | 11   | 14 |  | ●     |
| M18×2.5     | RH10  | 2.5P | 5    | 125             | 25 | 36 | 14 | 11   | 14 |  | ●     |
| M18×2       | RH10  | 4P   | 5    | 125             | 25 | 36 | 14 | 11   | 14 |  | ●     |
| M18×2       | RH10  | 2.5P | 5    | 125             | 25 | 36 | 14 | 11   | 14 |  | ●     |
| M18×1.5     | RH8   | 4P   | 5    | 125             | 25 | 36 | 14 | 11   | 14 |  | ●     |
| M18×1.5     | RH8   | 2.5P | 5    | 125             | 25 | 36 | 14 | 11   | 14 |  | ●     |
| M20×2.5     | RH10  | 4P   | 5    | 140             | 25 | 44 | 16 | 12   | 15 |  | ●     |
| M20×2.5     | RH10  | 2.5P | 5    | 140             | 25 | 44 | 16 | 12   | 15 |  | ●     |
| M20×2       | RH10  | 4P   | 5    | 140             | 25 | 44 | 16 | 12   | 15 |  | ●     |
| M20×2       | RH10  | 2.5P | 5    | 140             | 25 | 44 | 16 | 12   | 15 |  | ●     |
| M20×1.5     | RH8   | 4P   | 5    | 140             | 25 | 44 | 16 | 12   | 15 |  | ●     |
| M20×1.5     | RH8   | 2.5P | 5    | 140             | 25 | 44 | 16 | 12   | 15 |  | ●     |
| M22×2.5     | RH10  | 4P   | 5    | 140             | 25 | 44 | 18 | 14.5 | 17 |  | ●     |
| M22×2.5     | RH10  | 2.5P | 5    | 140             | 25 | 44 | 18 | 14.5 | 17 |  | ●     |
| M22×2       | RH10  | 4P   | 5    | 140             | 25 | 44 | 18 | 14.5 | 17 |  | ●     |
| M22×2       | RH10  | 2.5P | 5    | 140             | 25 | 44 | 18 | 14.5 | 17 |  | ●     |
| M22×1.5     | RH8   | 4P   | 5    | 140             | 25 | 44 | 18 | 14.5 | 17 |  | ●     |
| M22×1.5     | RH8   | 2.5P | 5    | 140             | 25 | 44 | 18 | 14.5 | 17 |  | ●     |
| M24×3       | RH12  | 4P   | 5    | 160             | 30 | 48 | 18 | 14.5 | 17 |  | ●     |
| M24×3       | RH12  | 2.5P | 5    | 160             | 30 | 48 | 18 | 14.5 | 17 |  | ●     |
| M24×2.5     | RH10  | 4P   | 5    | 160             | 30 | 48 | 18 | 14.5 | 17 |  | ●     |
| M24×2.5     | RH10  | 2.5P | 5    | 160             | 30 | 48 | 18 | 14.5 | 17 |  | ●     |
| M24×2       | RH10  | 4P   | 5    | 160             | 30 | 48 | 18 | 14.5 | 17 |  | ●     |
| M24×2       | RH10  | 2.5P | 5    | 160             | 30 | 48 | 18 | 14.5 | 17 |  | ●     |

## DIN-SOLID CARBIDE FORMING TAPS



2P chamfers, for blind hole  
4P chamfers, for through hole  
○ Solid carbide material.  
○ Suitable for high-speed, long tool life mass production.  
○ Various coating selection, suitable for Aluminum alloy, Magnesium alloy, Copper alloy, Cast Aluminum, Cast Zinc alloy.

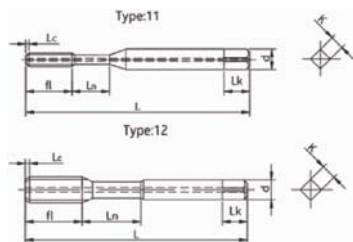


単位:mm Unit:mm

| Thread Size | Limit | LC   | Type | Dimensions (mm) |    |    |    |    |    |  | Stock |
|-------------|-------|------|------|-----------------|----|----|----|----|----|--|-------|
|             |       |      |      | L               | fl | In | d  | k  | Lk |  |       |
| M27×3       | RH10  | 4P   | 5    | 160             | 30 | 48 | 20 | 16 | 19 |  | ●     |
| M27×3       | RH10  | 2.5P | 5    | 160             | 30 | 48 | 20 | 16 | 19 |  | ●     |
| M27×2.5     | RH10  | 4P   | 5    | 160             | 30 | 48 | 20 | 16 | 19 |  | ●     |
| M27×2.5     | RH10  | 2.5P | 5    | 160             | 30 | 48 | 20 | 16 | 19 |  | ●     |
| M27×2       | RH10  | 4P   | 5    | 160             | 30 | 48 | 20 | 16 | 19 |  | ●     |
| M27×2       | RH10  | 2.5P | 5    | 160             | 30 | 48 | 20 | 16 | 19 |  | ●     |
| M30×3.5     | RH13  | 4P   | 5    | 180             | 35 | 53 | 22 | 18 | 21 |  | ●     |
| M30×3.5     | RH13  | 2.5P | 5    | 180             | 35 | 53 | 22 | 18 | 21 |  | ●     |
| M30×3       | RH12  | 4P   | 5    | 180             | 35 | 53 | 22 | 18 | 21 |  | ●     |
| M30×3       | RH12  | 2.5P | 5    | 180             | 35 | 53 | 22 | 18 | 21 |  | ●     |
| M30×2.5     | RH10  | 4P   | 5    | 180             | 35 | 53 | 22 | 18 | 21 |  | ●     |
| M30×2.5     | RH10  | 2.5P | 5    | 180             | 35 | 53 | 22 | 18 | 21 |  | ●     |
| M30×2       | RH10  | 4P   | 5    | 180             | 35 | 53 | 22 | 18 | 21 |  | ●     |
| M30×2       | RH10  | 2.5P | 5    | 180             | 35 | 53 | 22 | 18 | 21 |  | ●     |

| P           | P           | P            | Alloy SCM | M                    | K                  | K                 | N  | N           | N            | S        | S        | H      |
|-------------|-------------|--------------|-----------|----------------------|--------------------|-------------------|----|-------------|--------------|----------|----------|--------|
| Low-C steel | Mid-C steel | High-C steel | <HRC35    | Stainless steel(SUS) | Gray cast iron(FC) | Ductile iron(FCD) | Al | Cu(Pure Cu) | ADC Al alloy | Ti alloy | Ni alloy | >HRC35 |
| -           | -           | -            | -         | -                    | -                  | -                 | ●  | ●           | ●            | -        | -        | -      |

## DIN-SOLID CARBIDE FORMING TAPS WITH INTERNAL COOLANT



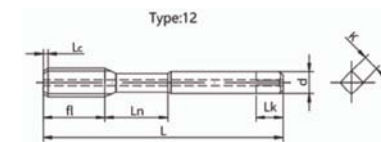
- 2P chamfers, for blind hole  
4P chamfers, for through hole
- Solid carbide material.
  - Suitable for high-speed, long tool life mass production.
  - Various coating selection, suitable for Aluminum alloy, Magnesium alloy, Copper alloy, Cast Aluminum, Cast Zinc alloy.



単位:mm Unit:mm

| Thread Size | Limit | LC   | Type | Dimensions (mm) |    |    |     |     |    |  | Oil groove type | Stock |
|-------------|-------|------|------|-----------------|----|----|-----|-----|----|--|-----------------|-------|
|             |       |      |      | L               | fl | In | d   | k   | Lk |  |                 |       |
| M4×0.7      | RH7   | 4P   | 11   | 63              | 9  | 12 | 4.5 | 3.4 | 6  |  | Side C          | •     |
| M4×0.7      | RH7   | 2.5P | 11   | 63              | 9  | 12 | 4.5 | 3.4 | 6  |  | Center Z        | •     |
| M5×0.8      | RH7   | 4P   | 11   | 70              | 10 | 15 | 6   | 4.9 | 8  |  | Side C          | •     |
| M5×0.8      | RH7   | 2.5P | 11   | 70              | 10 | 15 | 6   | 4.9 | 8  |  | Center Z        | •     |
| M6×1        | RH7   | 4P   | 11   | 80              | 10 | 20 | 6   | 4.9 | 8  |  | Side C          | •     |
| M6×1        | RH7   | 2.5P | 11   | 80              | 10 | 20 | 6   | 4.9 | 8  |  | Center Z        | •     |
| M7×1        | RH7   | 4P   | 11   | 80              | 10 | 20 | 7   | 5.5 | 8  |  | Side C          | •     |
| M7×1        | RH7   | 2.5P | 11   | 80              | 10 | 20 | 7   | 5.5 | 8  |  | Center Z        | •     |
| M8×1.25     | RH7   | 4P   | 12   | 90              | 13 | 22 | 8   | 6.2 | 9  |  | Side C          | •     |
| M8×1.25     | RH7   | 2.5P | 12   | 90              | 13 | 22 | 8   | 6.2 | 9  |  | Center Z        | •     |
| M8×1        | RH7   | 4P   | 12   | 90              | 13 | 22 | 8   | 6.2 | 9  |  | Side C          | •     |
| M8×1        | RH7   | 2.5P | 12   | 90              | 13 | 22 | 8   | 6.2 | 9  |  | Center Z        | •     |
| M10×1.5     | RH8   | 4P   | 12   | 100             | 15 | 24 | 10  | 8   | 11 |  | Side C          | •     |
| M10×1.5     | RH8   | 2.5P | 12   | 100             | 15 | 24 | 10  | 8   | 11 |  | Center Z        | •     |
| M10×1.25    | RH7   | 4P   | 12   | 100             | 15 | 24 | 10  | 8   | 11 |  | Side C          | •     |
| M10×1.25    | RH7   | 2.5P | 12   | 100             | 15 | 24 | 10  | 8   | 11 |  | Center Z        | •     |
| M10×1       | RH7   | 4P   | 12   | 100             | 15 | 24 | 10  | 8   | 11 |  | Side C          | •     |
| M10×1       | RH7   | 2.5P | 12   | 100             | 15 | 24 | 10  | 8   | 11 |  | Center Z        | •     |
| M12×1.75    | RH9   | 4P   | 12   | 110             | 17 | 32 | 9   | 7   | 10 |  | Side C          | •     |
| M12×1.75    | RH9   | 2.5P | 12   | 110             | 17 | 32 | 9   | 7   | 10 |  | Center Z        | •     |
| M12×1.5     | RH8   | 4P   | 12   | 110             | 17 | 32 | 9   | 7   | 10 |  | Side C          | •     |
| M12×1.5     | RH8   | 2.5P | 12   | 110             | 17 | 32 | 9   | 7   | 10 |  | Center Z        | •     |
| M12×1.25    | RH7   | 4P   | 12   | 110             | 17 | 32 | 9   | 7   | 10 |  | Side C          | •     |
| M12×1.25    | RH7   | 2.5P | 12   | 110             | 17 | 32 | 9   | 7   | 10 |  | Center Z        | •     |
| M12×1       | RH7   | 4P   | 12   | 110             | 17 | 32 | 9   | 7   | 10 |  | Side C          | •     |
| M12×1       | RH7   | 2.5P | 12   | 110             | 17 | 32 | 9   | 7   | 10 |  | Center Z        | •     |
| M14×2       | RH10  | 4P   | 12   | 110             | 20 | 33 | 11  | 9   | 12 |  | Side C          | •     |
| M14×2       | RH10  | 2.5P | 12   | 110             | 20 | 33 | 11  | 9   | 12 |  | Center Z        | •     |
| M14×1.5     | RH8   | 4P   | 12   | 110             | 20 | 33 | 11  | 9   | 12 |  | Side C          | •     |
| M14×1.5     | RH8   | 2.5P | 12   | 110             | 20 | 33 | 11  | 9   | 12 |  | Center Z        | •     |
| M14×1.25    | RH7   | 4P   | 12   | 110             | 20 | 33 | 11  | 9   | 12 |  | Side C          | •     |
| M14×1.25    | RH7   | 2.5P | 12   | 110             | 20 | 33 | 11  | 9   | 12 |  | Center Z        | •     |
| M14×1       | RH7   | 4P   | 12   | 110             | 20 | 33 | 11  | 9   | 12 |  | Side C          | •     |
| M14×1       | RH7   | 2.5P | 12   | 110             | 20 | 33 | 11  | 9   | 12 |  | Center Z        | •     |

## DIN-SOLID CARBIDE FORMING TAPS WITH INTERNAL COOLANT



- 2P chamfers, for blind hole  
4P chamfers, for through hole
- Solid carbide material.
  - Suitable for high-speed, long tool life mass production.
  - Various coating selection, suitable for Aluminum alloy, Magnesium alloy, Copper alloy, Cast Aluminum, Cast Zinc alloy.



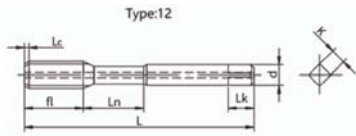
単位:mm Unit:mm

| Thread Size | Limit | LC   | Type | Dimensions (mm) |    |    |    |      |    |  | Oil groove type | Stock |
|-------------|-------|------|------|-----------------|----|----|----|------|----|--|-----------------|-------|
|             |       |      |      | L               | fl | In | d  | k    | Lk |  |                 |       |
| M16×2       | RH10  | 4P   | 12   | 110             | 20 | 34 | 12 | 9    | 12 |  | Side C          | •     |
| M16×2       | RH10  | 2.5P | 12   | 110             | 20 | 34 | 12 | 9    | 12 |  | Center Z        | •     |
| M16×1.5     | RH8   | 4P   | 12   | 110             | 20 | 34 | 12 | 9    | 12 |  | Side C          | •     |
| M16×1.5     | RH8   | 2.5P | 12   | 110             | 20 | 34 | 12 | 9    | 12 |  | Center Z        | •     |
| M16×1.25    | RH7   | 4P   | 12   | 110             | 20 | 34 | 12 | 9    | 12 |  | Side C          | •     |
| M16×1.25    | RH7   | 2.5P | 12   | 110             | 20 | 34 | 12 | 9    | 12 |  | Center Z        | •     |
| M16×1       | RH7   | 4P   | 12   | 110             | 20 | 34 | 12 | 9    | 12 |  | Side C          | •     |
| M16×1       | RH7   | 2.5P | 12   | 110             | 20 | 34 | 12 | 9    | 12 |  | Center Z        | •     |
| M18×2.5     | RH10  | 4P   | 12   | 125             | 25 | 36 | 14 | 11   | 14 |  | Side C          | •     |
| M18×2.5     | RH10  | 2.5P | 12   | 125             | 25 | 36 | 14 | 11   | 14 |  | Center Z        | •     |
| M18×2       | RH10  | 4P   | 12   | 125             | 25 | 36 | 14 | 11   | 14 |  | Side C          | •     |
| M18×2       | RH10  | 2.5P | 12   | 125             | 25 | 36 | 14 | 11   | 14 |  | Center Z        | •     |
| M18×1.5     | RH8   | 4P   | 12   | 125             | 25 | 36 | 14 | 11   | 14 |  | Side C          | •     |
| M18×1.5     | RH8   | 2.5P | 12   | 125             | 25 | 36 | 14 | 11   | 14 |  | Center Z        | •     |
| M20×2.5     | RH10  | 4P   | 12   | 140             | 25 | 44 | 16 | 12   | 15 |  | Side C          | •     |
| M20×2.5     | RH10  | 2.5P | 12   | 140             | 25 | 44 | 16 | 12   | 15 |  | Center Z        | •     |
| M20×2       | RH10  | 4P   | 12   | 140             | 25 | 44 | 16 | 12   | 15 |  | Side C          | •     |
| M20×2       | RH10  | 2.5P | 12   | 140             | 25 | 44 | 16 | 12   | 15 |  | Center Z        | •     |
| M20×1.5     | RH8   | 4P   | 12   | 140             | 25 | 44 | 16 | 12   | 15 |  | Side C          | •     |
| M20×1.5     | RH8   | 2.5P | 12   | 140             | 25 | 44 | 16 | 12   | 15 |  | Center Z        | •     |
| M22×2.5     | RH10  | 4P   | 12   | 140             | 25 | 44 | 18 | 14.5 | 17 |  | Side C          | •     |
| M22×2.5     | RH10  | 2.5P | 12   | 140             | 25 | 44 | 18 | 14.5 | 17 |  | Center Z        | •     |
| M22×2       | RH10  | 4P   | 12   | 140             | 25 | 44 | 18 | 14.5 | 17 |  | Side C          | •     |
| M22×2       | RH10  | 2.5P | 12   | 140             | 25 | 44 | 18 | 14.5 | 17 |  | Center Z        | •     |
| M22×1.5     | RH8   | 4P   | 12   | 140             | 25 | 44 | 18 | 14.5 | 17 |  | Side C          | •     |
| M22×1.5     | RH8   | 2.5P | 12   | 140             | 25 | 44 | 18 | 14.5 | 17 |  | Center Z        | •     |
| M24×3       | RH12  | 4P   | 12   | 160             | 30 | 48 | 18 | 14.5 | 17 |  | Side C          | •     |
| M24×3       | RH12  | 2.5P | 12   | 160             | 30 | 48 | 18 | 14.5 | 17 |  | Center Z        | •     |
| M24×2.5     | RH10  | 4P   | 12   | 160             | 30 | 48 | 18 | 14.5 | 17 |  | Side C          | •     |
| M24×2.5     | RH10  | 2.5P | 12   | 160             | 30 | 48 | 18 | 14.5 | 17 |  | Center Z        | •     |
| M24×2       | RH10  | 4P   | 12   | 160             | 30 | 48 | 18 | 14.5 | 17 |  | Side C          | •     |
| M24×2       | RH10  | 2.5P | 12   | 160             | 30 | 48 | 18 | 14.5 | 17 |  | Center Z        | •     |
| M27×3       | RH10  | 4P   | 12   | 160             | 30 | 48 | 20 | 16   | 19 |  | Side C          | •     |
| M27×3       | RH10  | 2.5P | 12   | 160             | 30 | 48 | 20 | 16   | 19 |  | Center Z        | •     |

## DIN-SOLID CARBIDE FORMING TAPS WITH INTERNAL COOLANT



- 2P chamfers, for blind hole  
4P chamfers, for through hole
- Solid carbide material.
  - Suitable for high-speed, long tool life mass production.
  - Various coating selection, suitable for Aluminum alloy, Magnesium alloy, Copper alloy, Cast Aluminum, Cast Zinc alloy.



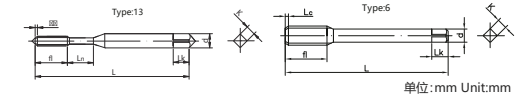
単位:mm Unit:mm

| Thread Size | Limit | LC   | Type | L   | Dimensions (mm) |    |    |    |    | Oil groove type | Stock |
|-------------|-------|------|------|-----|-----------------|----|----|----|----|-----------------|-------|
|             |       |      |      |     | fl              | Ln | d  | k  | Lk |                 |       |
| M27×2.5     | RH10  | 4P   | 12   | 160 | 30              | 48 | 20 | 16 | 19 | Side C          | ●     |
| M27×2.5     | RH10  | 2.5P | 12   | 160 | 30              | 48 | 20 | 16 | 19 | Center Z        | ●     |
| M27×2       | RH10  | 4P   | 12   | 160 | 30              | 48 | 20 | 16 | 19 | Side C          | ●     |
| M27×2       | RH10  | 2.5P | 12   | 160 | 30              | 48 | 20 | 16 | 19 | Center Z        | ●     |
| M30×3.5     | RH13  | 4P   | 12   | 180 | 35              | 53 | 22 | 18 | 21 | Side C          | ●     |
| M30×3.5     | RH13  | 2.5P | 12   | 180 | 35              | 53 | 22 | 18 | 21 | Center Z        | ●     |
| M30×3       | RH12  | 4P   | 12   | 180 | 35              | 53 | 22 | 18 | 21 | Side C          | ●     |
| M30×3       | RH12  | 2.5P | 12   | 180 | 35              | 53 | 22 | 18 | 21 | Center Z        | ●     |
| M30×2.5     | RH10  | 4P   | 12   | 180 | 35              | 53 | 22 | 18 | 21 | Side C          | ●     |
| M30×2.5     | RH10  | 2.5P | 12   | 180 | 35              | 53 | 22 | 18 | 21 | Center Z        | ●     |
| M30×2       | RH10  | 4P   | 12   | 180 | 35              | 53 | 22 | 18 | 21 | Side C          | ●     |
| M30×2       | RH10  | 2.5P | 12   | 180 | 35              | 53 | 22 | 18 | 21 | Center Z        | ●     |

| P           | P           | P            | Alloy SCM | M                    | K                  | K                 | N  | N           | N            | S        | S        | H      |
|-------------|-------------|--------------|-----------|----------------------|--------------------|-------------------|----|-------------|--------------|----------|----------|--------|
| Low-C steel | Mid-C steel | High-C steel | <HRC35    | Stainless steel(SUS) | Gray cast iron(FC) | Ductile iron(FCD) | Al | Cu(Pure Cu) | ADC Al alloy | Ti alloy | Ni alloy | >HRC35 |
| -           | -           | -            | -         | -                    | -                  | -                 | ●  | ●           | ●            | -        | -        | -      |

## DIN-SOLID CARBIDE STRAIGHT FLUTED TAPS

- 2P chamfers, for blind hole  
4P chamfers, for through hole
- Solid carbide material.
  - Suitable for high-speed, long tool life mass production.
  - Various coating selection, suitable for Aluminum alloy, Magnesium alloy, Copper alloy, Cast Aluminum, Cast Zinc alloy.

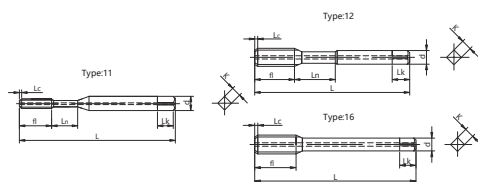


単位:mm Unit:mm

| Thread Size | Limit | LC   | Type | L   | fl | Dimensions (mm) |     |      |    | Flutes | Stock |
|-------------|-------|------|------|-----|----|-----------------|-----|------|----|--------|-------|
|             |       |      |      |     |    | ln              | d   | k    | Lk |        |       |
| M4×0.7      | P2    | 2.5P | 13   | 63  | 13 | 8               | 4.5 | 3.4  | 6  | 3      | ○     |
| M5×0.8      | P2    | 2.5P | 13   | 70  | 15 | 10              | 6   | 4.9  | 8  | 3      | ○     |
| M6×1        | P2    | 2.5P | 13   | 80  | 17 | 13              | 6   | 4.9  | 8  | 3      | ○     |
| M7×1        | P3    | 2.5P | 13   | 80  | 17 | 13              | 7   | 5.5  | 8  | 3      | ○     |
| M8×1        | P3    | 2.5P | 5    | 90  | 16 | 19              | 8   | 6.2  | 9  | 3      | ○     |
| M8×1.25     | P3    | 2.5P | 5    | 90  | 16 | 19              | 8   | 6.2  | 9  | 3      | ○     |
| M10×1.5     | P4    | 2.5P | 5    | 90  | 18 | 21              | 10  | 8    | 11 | 3      | ○     |
| M10×1.25    | P3    | 2.5P | 5    | 90  | 18 | 21              | 10  | 8    | 11 | 3      | ○     |
| M12×1.75    | P4    | 2.5P | 6    | 110 | 22 | -               | 9   | 7    | 10 | 3      | ○     |
| M12×1.5     | P4    | 2.5P | 6    | 110 | 22 | -               | 9   | 7    | 10 | 3      | ○     |
| M12×1.25    | P3    | 2.5P | 6    | 110 | 22 | -               | 9   | 7    | 10 | 3      | ○     |
| M14×2       | P5    | 2.5P | 6    | 110 | 26 | -               | 11  | 9    | 12 | 3      | ○     |
| M14×1.5     | P4    | 2.5P | 6    | 110 | 22 | -               | 11  | 9    | 12 | 3      | ○     |
| M14×1.25    | P3    | 2.5P | 6    | 110 | 22 | -               | 11  | 9    | 12 | 3      | ○     |
| M16×2       | P5    | 2.5P | 6    | 110 | 27 | -               | 12  | 9    | 12 | 3      | ○     |
| M16×1.5     | P4    | 2.5P | 6    | 110 | 22 | -               | 12  | 9    | 12 | 3      | ○     |
| M16×1.25    | P3    | 2.5P | 6    | 110 | 18 | -               | 12  | 9    | 12 | 3      | ○     |
| M18×2.5     | P6    | 2.5P | 6    | 125 | 30 | -               | 14  | 11   | 14 | 4      | ○     |
| M18×2       | P5    | 2.5P | 6    | 125 | 26 | -               | 14  | 11   | 14 | 4      | ○     |
| M18×1.5     | P4    | 2.5P | 6    | 125 | 25 | -               | 14  | 11   | 14 | 4      | ○     |
| M20×2.5     | P6    | 2.5P | 6    | 140 | 32 | -               | 16  | 12   | 15 | 4      | ○     |
| M20×2       | P5    | 2.5P | 6    | 140 | 27 | -               | 16  | 12   | 15 | 4      | ○     |
| M20×1.5     | P4    | 2.5P | 6    | 140 | 25 | -               | 16  | 12   | 15 | 4      | ○     |
| M22×2.5     | P6    | 2.5P | 6    | 140 | 32 | -               | 18  | 14.5 | 17 | 4      | ○     |
| M22×2       | P5    | 2.5P | 6    | 140 | 27 | -               | 18  | 14.5 | 17 | 4      | ○     |
| M22×1.5     | P4    | 2.5P | 6    | 140 | 25 | -               | 18  | 14.5 | 17 | 4      | ○     |
| M24×3       | P6    | 2.5P | 6    | 140 | 34 | -               | 18  | 14.5 | 17 | 4      | ○     |
| M24×2       | P5    | 2.5P | 6    | 140 | 27 | -               | 18  | 14.5 | 17 | 4      | ○     |
| M24×1.5     | P4    | 2.5P | 6    | 140 | 27 | -               | 18  | 14.5 | 17 | 4      | ○     |
| M27×3       | P6    | 2.5P | 6    | 160 | 36 | -               | 20  | 16   | 19 | 4      | ○     |
| M30×3.5     | P7    | 2.5P | 6    | 180 | 40 | -               | 22  | 18   | 21 | 4      | ○     |

| P           | P           | P            | Alloy SCM | M                    | K                  | K                 | N  | N           | N            | S        | S        | H      |
|-------------|-------------|--------------|-----------|----------------------|--------------------|-------------------|----|-------------|--------------|----------|----------|--------|
| Low-C steel | Mid-C steel | High-C steel | <HRC35    | Stainless steel(SUS) | Gray cast iron(FC) | Ductile iron(FCD) | Al | Cu(Pure Cu) | ADC Al alloy | Ti alloy | Ni alloy | >HRC35 |
| -           | -           | -            | -         | -                    | -                  | -                 | ●  | ●           | ●            | -        | -        | -      |

## DIN-SOLID CARBIDE SPIRAL FLUTED TAPS WITH INTERNAL COOLANT



2P chamfers, for blind hole  
4P chamfers, for through hole  
 ◎ Solid carbide material.  
 ◎ Suitable for high-speed, long tool life mass production.  
 ◎ Various coating selection, suitable for Aluminum alloy, Magnesium alloy, Copper alloy, Cast Aluminum, Cast Zinc alloy.



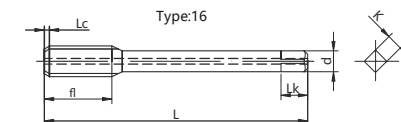
単位:mm Unit:mm

| Thread Size | Limit | LC   | Type | L   | Dimensions (mm) |    |     |     |    | Oilgroovetype | Flutes | Stock |
|-------------|-------|------|------|-----|-----------------|----|-----|-----|----|---------------|--------|-------|
|             |       |      |      |     | fl              | In | d   | k   | Lk |               |        |       |
| M4×0.7      | P2    | 2.5P | 11   | 63  | 13              | 8  | 4.5 | 3.4 | 6  | Side C        | 3      | ○     |
| M4×0.7      | P2    | 2.5P | 11   | 63  | 13              | 8  | 4.5 | 3.4 | 6  | Center Z      | 3      | ○     |
| M5×0.8      | P2    | 2.5P | 11   | 70  | 15              | 8  | 6   | 4.9 | 8  | Side C        | 3      | ○     |
| M5×0.8      | P2    | 2.5P | 11   | 70  | 15              | 10 | 6   | 4.9 | 8  | Center Z      | 3      | ○     |
| M6×1        | P2    | 2.5P | 11   | 80  | 17              | 10 | 6   | 4.9 | 8  | Side C        | 3      | ○     |
| M6×1        | P2    | 2.5P | 11   | 80  | 17              | 13 | 6   | 4.9 | 8  | Center Z      | 3      | ○     |
| M7×1        | P3    | 2.5P | 11   | 80  | 17              | 13 | 7   | 5.5 | 8  | Side C        | 3      | ○     |
| M7×1        | P3    | 2.5P | 11   | 80  | 17              | 13 | 7   | 5.5 | 8  | Center Z      | 3      | ○     |
| M8×1        | P3    | 2.5P | 12   | 90  | 16              | 13 | 8   | 6.2 | 9  | Side C        | 3      | ○     |
| M8×1        | P3    | 2.5P | 12   | 90  | 16              | 19 | 8   | 6.2 | 9  | Center Z      | 3      | ○     |
| M8×1.25     | P3    | 2.5P | 12   | 90  | 16              | 19 | 8   | 6.2 | 9  | Side C        | 3      | ○     |
| M8×1.25     | P3    | 2.5P | 12   | 90  | 16              | 19 | 8   | 6.2 | 9  | Center Z      | 3      | ○     |
| M10×1.5     | P4    | 2.5P | 12   | 100 | 18              | 21 | 10  | 8   | 11 | Side C        | 3      | ○     |
| M10×1.5     | P4    | 2.5P | 12   | 100 | 18              | 21 | 10  | 8   | 11 | Center Z      | 3      | ○     |
| M10×1.25    | P3    | 2.5P | 12   | 100 | 18              | 21 | 10  | 8   | 11 | Side C        | 3      | ○     |
| M10×1.25    | P3    | 2.5P | 12   | 100 | 18              | 21 | 10  | 8   | 11 | Center Z      | 3      | ○     |
| M12×1.75    | P4    | 2.5P | 16   | 110 | 22              | -  | 9   | 7   | 10 | Side C        | 3      | ○     |
| M12×1.75    | P4    | 2.5P | 16   | 110 | 22              | -  | 9   | 7   | 10 | Center Z      | 3      | ○     |
| M12×1.5     | P4    | 2.5P | 16   | 110 | 22              | -  | 9   | 7   | 10 | Side C        | 3      | ○     |
| M12×1.5     | P4    | 2.5P | 16   | 110 | 22              | -  | 9   | 7   | 10 | Center Z      | 3      | ○     |
| M12×1.25    | P3    | 2.5P | 16   | 110 | 22              | -  | 9   | 7   | 10 | Side C        | 3      | ○     |
| M12×1.25    | P3    | 2.5P | 16   | 110 | 22              | -  | 9   | 7   | 10 | Center Z      | 3      | ○     |
| M14×2       | P5    | 2.5P | 16   | 110 | 26              | -  | 11  | 9   | 12 | Side C        | 3      | ○     |
| M14×2       | P5    | 2.5P | 16   | 110 | 26              | -  | 11  | 9   | 12 | Center Z      | 3      | ○     |
| M14×1.5     | P4    | 2.5P | 16   | 110 | 22              | -  | 11  | 9   | 12 | Side C        | 3      | ○     |
| M14×1.5     | P4    | 2.5P | 16   | 110 | 22              | -  | 11  | 9   | 12 | Center Z      | 3      | ○     |
| M14×1.25    | P3    | 2.5P | 16   | 110 | 22              | -  | 11  | 9   | 12 | Side C        | 3      | ○     |
| M14×1.25    | P3    | 2.5P | 16   | 110 | 22              | -  | 11  | 9   | 12 | Center Z      | 3      | ○     |
| M16×2       | P5    | 2.5P | 16   | 110 | 27              | -  | 12  | 9   | 12 | Side C        | 3      | ○     |
| M16×2       | P5    | 2.5P | 16   | 110 | 27              | -  | 12  | 9   | 12 | Center Z      | 3      | ○     |
| M16×1.5     | P4    | 2.5P | 16   | 110 | 22              | -  | 12  | 9   | 12 | Side C        | 3      | ○     |
| M16×1.5     | P4    | 2.5P | 16   | 110 | 22              | -  | 12  | 9   | 12 | Center Z      | 3      | ○     |
| M16×1.25    | P3    | 2.5P | 16   | 110 | 18              | -  | 12  | 9   | 12 | Side C        | 3      | ○     |
| M16×1.25    | P3    | 2.5P | 16   | 110 | 18              | -  | 12  | 9   | 12 | Center Z      | 3      | ○     |

## DIN-SOLID CARBIDE SPIRAL FLUTED TAPS WITH INTERNAL COOLANT



2P chamfers, for blind hole  
4P chamfers, for through hole  
 ◎ Solid carbide material.  
 ◎ Suitable for high-speed, long tool life mass production.  
 ◎ Various coating selection, suitable for Aluminum alloy, Magnesium alloy, Copper alloy, Cast Aluminum, Cast Zinc alloy.

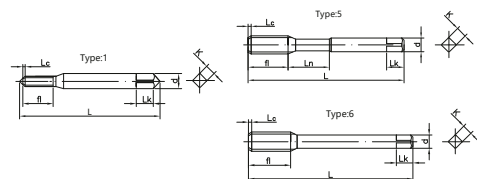


単位:mm Unit:mm

| Thread Size | Limit | LC   | Type | L   | fl | Dimensions (mm) |    |      |    | Oilgroovetype | Flutes | Stock |
|-------------|-------|------|------|-----|----|-----------------|----|------|----|---------------|--------|-------|
|             |       |      |      |     |    | In              | d  | k    | Lk |               |        |       |
| M18×2.5     | P6    | 2.5P | 16   | 125 | 30 | -               | 14 | 11   | 14 | Side C        | 4      | ○     |
| M18×2.5     | P6    | 2.5P | 16   | 125 | 30 | -               | 14 | 11   | 14 | Center Z      | 4      | ○     |
| M18×2       | P5    | 2.5P | 16   | 125 | 26 | -               | 14 | 11   | 14 | Side C        | 4      | ○     |
| M18×2       | P5    | 2.5P | 16   | 125 | 26 | -               | 14 | 11   | 14 | Center Z      | 4      | ○     |
| M18×1.5     | P4    | 2.5P | 16   | 125 | 25 | -               | 14 | 11   | 14 | Side C        | 4      | ○     |
| M18×1.5     | P4    | 2.5P | 16   | 125 | 25 | -               | 14 | 11   | 14 | Center Z      | 4      | ○     |
| M20×2.5     | P6    | 2.5P | 16   | 140 | 32 | -               | 16 | 12   | 15 | Side C        | 4      | ○     |
| M20×2.5     | P6    | 2.5P | 16   | 140 | 32 | -               | 16 | 12   | 15 | Center Z      | 4      | ○     |
| M20×2       | P5    | 2.5P | 16   | 140 | 27 | -               | 16 | 12   | 15 | Side C        | 4      | ○     |
| M20×2       | P5    | 2.5P | 16   | 140 | 27 | -               | 16 | 12   | 15 | Center Z      | 4      | ○     |
| M20×1.5     | P4    | 2.5P | 16   | 140 | 25 | -               | 16 | 12   | 15 | Side C        | 4      | ○     |
| M20×1.5     | P4    | 2.5P | 16   | 140 | 25 | -               | 16 | 12   | 15 | Center Z      | 4      | ○     |
| M22×2.5     | P6    | 2.5P | 16   | 140 | 32 | -               | 18 | 14.5 | 17 | Side C        | 4      | ○     |
| M22×2.5     | P6    | 2.5P | 16   | 140 | 32 | -               | 18 | 14.5 | 17 | Center Z      | 4      | ○     |
| M22×2       | P5    | 2.5P | 16   | 140 | 27 | -               | 18 | 14.5 | 17 | Side C        | 4      | ○     |
| M22×2       | P5    | 2.5P | 16   | 140 | 27 | -               | 18 | 14.5 | 17 | Center Z      | 4      | ○     |
| M22×1.5     | P4    | 2.5P | 16   | 140 | 25 | -               | 18 | 14.5 | 17 | Side C        | 4      | ○     |
| M22×1.5     | P4    | 2.5P | 16   | 140 | 25 | -               | 18 | 14.5 | 17 | Center Z      | 4      | ○     |
| M24×3       | P6    | 2.5P | 16   | 140 | 34 | -               | 18 | 14.5 | 17 | Side C        | 4      | ○     |
| M24×3       | P6    | 2.5P | 16   | 140 | 34 | -               | 18 | 14.5 | 17 | Center Z      | 4      | ○     |
| M24×2       | P5    | 2.5P | 16   | 140 | 27 | -               | 18 | 14.5 | 17 | Side C        | 4      | ○     |
| M24×2       | P5    | 2.5P | 16   | 140 | 27 | -               | 18 | 14.5 | 17 | Center Z      | 4      | ○     |
| M24×1.5     | P4    | 2.5P | 16   | 140 | 27 | -               | 18 | 14.5 | 17 | Side C        | 4      | ○     |
| M24×1.5     | P4    | 2.5P | 16   | 140 | 27 | -               | 18 | 14.5 | 17 | Center Z      | 4      | ○     |
| M27×3       | P6    | 2.5P | 16   | 160 | 36 | -               | 20 | 16   | 19 | Side C        | 4      | ○     |
| M27×3       | P6    | 2.5P | 16   | 160 | 36 | -               | 20 | 16   | 19 | Center Z      | 4      | ○     |
| M30×3.5     | P7    | 2.5P | 16   | 180 | 40 | -               | 22 | 18   | 21 | Side C        | 4      | ○     |
| M30×3.5     | P7    | 2.5P | 16   | 180 | 40 | -               | 22 | 18   | 21 | Center Z      | 4      | ○     |

| P           | P           | P            | Alloy SCM | M                    | K                  | K                 | N  | N           | N            | S        | S        | H      |
|-------------|-------------|--------------|-----------|----------------------|--------------------|-------------------|----|-------------|--------------|----------|----------|--------|
| Low-C steel | Mid-C steel | High-C steel | <HRC35    | Stainless steel(SUS) | Gray cast iron(FC) | Ductile iron(FCD) | Al | Cu(Pure Cu) | ADC Al alloy | Ti alloy | Ni alloy | >HRC35 |
| -           | -           | -            | -         | -                    | -                  | -                 | •  | •           | •            | -        | -        | -      |

## JIS-SOLID CARBIDE STRAIGHT FLUTED TAPS



- Solid carbide material.
- YC-T50 coating, excellent wear resistance.
- Suitable for gray cast iron, ductile cast iron mass continuous processing threading, high processing accuracy.



単位:mm Unit:mm

| Thread Size | Limit | LC   | Type | L  | fl | ln | d    | k   | Lk | Flutes | Stock |
|-------------|-------|------|------|----|----|----|------|-----|----|--------|-------|
| M5×0.8      | P3    | 2.5P | 1    | 62 | 16 | -  | 5.5  | 4.5 | 7  | 3      | ○     |
| M6×1        | P3    | 2.5P | 5    | 62 | 19 | 10 | 6    | 4.5 | 7  | 3      | ○     |
| M8×1.25     | P4    | 2.5P | 6    | 75 | 22 | -  | 6.2  | 5   | 8  | 3      | ○     |
| M10×1.5     | P5    | 2.5P | 6    | 75 | 24 | -  | 7    | 5.5 | 8  | 4      | ○     |
| M10×1.25    | P4    | 2.5P | 6    | 75 | 24 | -  | 7    | 5.5 | 8  | 4      | ○     |
| M12×1.75    | P5    | 2.5P | 6    | 82 | 29 | -  | 8.5  | 6.5 | 9  | 4      | ○     |
| M12×1.5     | P5    | 2.5P | 6    | 82 | 29 | -  | 8.5  | 6.5 | 9  | 4      | ○     |
| M12×1.25    | P5    | 2.5P | 6    | 82 | 29 | -  | 8.5  | 6.5 | 9  | 4      | ○     |
| M14×2       | P6    | 2.5P | 6    | 88 | 20 | -  | 10.5 | 8   | 11 | 4      | ○     |
| M14×1.5     | P5    | 2.5P | 6    | 88 | 20 | -  | 10.5 | 8   | 11 | 4      | ○     |
| M16×2       | P6    | 2.5P | 6    | 95 | 20 | -  | 12.5 | 10  | 13 | 4      | ○     |
| M16×1.5     | P5    | 2.5P | 6    | 95 | 20 | -  | 12.5 | 10  | 13 | 4      | ○     |

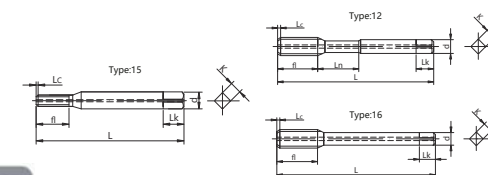
| P           | P           | P            | Alloy SCM | M                    | K                  | K                 | N  | N           | N            | S        | S        | H      |
|-------------|-------------|--------------|-----------|----------------------|--------------------|-------------------|----|-------------|--------------|----------|----------|--------|
| Low-C steel | Mid-C steel | High-C steel | <HRC35    | Stainless steel(SUS) | Gray cast iron(FC) | Ductile iron(FCD) | Al | Cu(Pure Cu) | ADC Al alloy | Ti alloy | Ni alloy | >HRC35 |

|   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| - | - | - | - | - | • | • | - | - | - | - | - | - |
|---|---|---|---|---|---|---|---|---|---|---|---|---|

## JIS-SOLID CARBIDE STRAIGHT FLUTED TAPS WITH INTERNAL COOLANT



- Solid carbide material.
- YC-T50 coating, excellent wear resistance.
- Suitable for gray cast iron, ductile cast iron mass continuous processing threading, high processing accuracy.



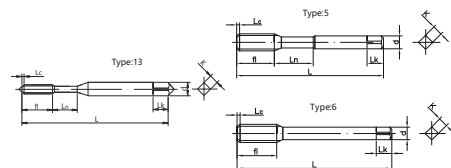
単位:mm Unit:mm

| Thread Size | Limit | LC   | Type | L  | fl | ln | d    | k   | Lk | Oil groove type | Flutes | Stock |
|-------------|-------|------|------|----|----|----|------|-----|----|-----------------|--------|-------|
| M5×0.8      | P3    | 2.5P | 15   | 57 | 16 | -  | 5.5  | 4.5 | 7  | Side C          | 3      | ○     |
| M5×0.8      | P3    | 2.5P | 15   | 57 | 16 | -  | 5.5  | 4.5 | 7  | Center Z        | 3      | ○     |
| M6×1        | P3    | 2.5P | 12   | 62 | 19 | 10 | 6    | 4.5 | 7  | Side C          | 3      | ○     |
| M6×1        | P3    | 2.5P | 12   | 62 | 19 | 10 | 6    | 4.5 | 7  | Center Z        | 3      | ○     |
| M8×1.25     | P4    | 2.5P | 16   | 75 | 22 | -  | 6.2  | 5   | 8  | Side C          | 3      | ○     |
| M8×1.25     | P4    | 2.5P | 16   | 75 | 22 | -  | 6.2  | 5   | 8  | Center Z        | 3      | ○     |
| M10×1.5     | P5    | 2.5P | 16   | 75 | 24 | -  | 7    | 5.5 | 8  | Side C          | 4      | ○     |
| M10×1.5     | P5    | 2.5P | 16   | 75 | 24 | -  | 7    | 5.5 | 8  | Center Z        | 4      | ○     |
| M10×1.25    | P4    | 2.5P | 16   | 75 | 24 | -  | 7    | 5.5 | 8  | Side C          | 4      | ○     |
| M10×1.25    | P4    | 2.5P | 16   | 75 | 24 | -  | 7    | 5.5 | 8  | Center Z        | 4      | ○     |
| M12×1.75    | P5    | 2.5P | 16   | 82 | 29 | -  | 8.5  | 6.5 | 9  | Side C          | 4      | ○     |
| M12×1.75    | P5    | 2.5P | 16   | 82 | 29 | -  | 8.5  | 6.5 | 9  | Center Z        | 4      | ○     |
| M12×1.5     | P5    | 2.5P | 16   | 82 | 29 | -  | 8.5  | 6.5 | 9  | Side C          | 4      | ○     |
| M12×1.5     | P5    | 2.5P | 16   | 82 | 29 | -  | 8.5  | 6.5 | 9  | Center Z        | 4      | ○     |
| M12×1.25    | P5    | 2.5P | 16   | 82 | 29 | -  | 8.5  | 6.5 | 9  | Side C          | 4      | ○     |
| M12×1.25    | P5    | 2.5P | 16   | 82 | 29 | -  | 8.5  | 6.5 | 9  | Center Z        | 4      | ○     |
| M14×2       | P6    | 2.5P | 16   | 88 | 20 | -  | 10.5 | 8   | 11 | Side C          | 4      | ○     |
| M14×2       | P6    | 2.5P | 16   | 88 | 20 | -  | 10.5 | 8   | 11 | Center Z        | 4      | ○     |
| M14×1.5     | P5    | 2.5P | 16   | 88 | 20 | -  | 10.5 | 8   | 11 | Side C          | 4      | ○     |
| M14×1.5     | P5    | 2.5P | 16   | 88 | 20 | -  | 10.5 | 8   | 11 | Center Z        | 4      | ○     |
| M16×2       | P6    | 2.5P | 16   | 95 | 20 | -  | 12.5 | 10  | 13 | Side C          | 4      | ○     |
| M16×2       | P6    | 2.5P | 16   | 95 | 20 | -  | 12.5 | 10  | 13 | Center Z        | 4      | ○     |
| M16×1.5     | P5    | 2.5P | 16   | 95 | 20 | -  | 12.5 | 10  | 13 | Side C          | 4      | ○     |
| M16×1.5     | P5    | 2.5P | 16   | 95 | 20 | -  | 12.5 | 10  | 13 | Center Z        | 4      | ○     |

| P           | P           | P            | Alloy SCM | M                    | K                  | K                 | N  | N           | N            | S        | S        | H      |
|-------------|-------------|--------------|-----------|----------------------|--------------------|-------------------|----|-------------|--------------|----------|----------|--------|
| Low-C steel | Mid-C steel | High-C steel | <HRC35    | Stainless steel(SUS) | Gray cast iron(FC) | Ductile iron(FCD) | Al | Cu(Pure Cu) | ADC Al alloy | Ti alloy | Ni alloy | >HRC35 |

|   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| - | - | - | - | - | • | • | - | - | - | - | - | - |
|---|---|---|---|---|---|---|---|---|---|---|---|---|

## DIN-SOLID CARBIDE STRAIGHT FLUTED TAPS



- Solid carbide material.
- YC-T50 coating, excellent wear resistance.
- Suitable for gray cast iron, ductile cast iron mass continuous processing threading, high processing accuracy.



単位:mm Unit:mm

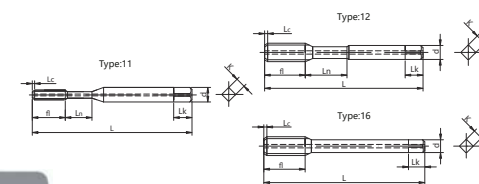
| Thread Size | Limit | LC   | Type | L   | Dimensions (mm) |    |    |      |    | Flutes | Stock |
|-------------|-------|------|------|-----|-----------------|----|----|------|----|--------|-------|
|             |       |      |      |     | fl              | In | d  | k    | Lk |        |       |
| M5×0.8      | P2    | 2.5P | 13   | 70  | 15              | 10 | 6  | 4.9  | 8  | 3      | ○     |
| M6×1        | P2    | 2.5P | 13   | 80  | 17              | 13 | 6  | 4.9  | 8  | 3      | ○     |
| M7×1        | P3    | 2.5P | 13   | 80  | 17              | 13 | 7  | 5.5  | 8  | 3      | ○     |
| M8×1        | P3    | 2.5P | 5    | 80  | 16              | 19 | 8  | 6.2  | 9  | 4      | ○     |
| M8×1.25     | P3    | 2.5P | 5    | 90  | 16              | 19 | 8  | 6.2  | 9  | 4      | ○     |
| M10×1.5     | P4    | 2.5P | 5    | 90  | 18              | 21 | 10 | 8    | 11 | 4      | ○     |
| M10×1.25    | P3    | 2.5P | 5    | 100 | 18              | 21 | 10 | 8    | 11 | 4      | ○     |
| M12×1.75    | P4    | 2.5P | 6    | 110 | 22              | -  | 9  | 7    | 10 | 4      | ○     |
| M12×1.5     | P3    | 2.5P | 6    | 110 | 22              | -  | 9  | 7    | 10 | 4      | ○     |
| M12×1.25    | P3    | 2.5P | 6    | 110 | 22              | -  | 9  | 7    | 10 | 4      | ○     |
| M14×2       | P5    | 2.5P | 6    | 110 | 26              | -  | 11 | 9    | 12 | 4      | ○     |
| M14×1.5     | P4    | 2.5P | 6    | 110 | 22              | -  | 11 | 9    | 12 | 4      | ○     |
| M14×1.25    | P3    | 2.5P | 6    | 110 | 22              | -  | 11 | 9    | 12 | 4      | ○     |
| M16×2       | P5    | 2.5P | 6    | 110 | 27              | -  | 12 | 9    | 12 | 4      | ○     |
| M16×1.5     | P4    | 2.5P | 6    | 110 | 22              | -  | 12 | 9    | 12 | 4      | ○     |
| M16×1.25    | P3    | 2.5P | 6    | 110 | 18              | -  | 12 | 9    | 12 | 4      | ○     |
| M18×2.5     | P6    | 2.5P | 6    | 125 | 30              | -  | 14 | 11   | 14 | 4      | ○     |
| M18×2       | P5    | 2.5P | 6    | 125 | 26              | -  | 14 | 11   | 14 | 4      | ○     |
| M18×1.5     | P4    | 2.5P | 6    | 125 | 25              | -  | 14 | 11   | 14 | 4      | ○     |
| M20×2.5     | P6    | 2.5P | 6    | 140 | 32              | -  | 16 | 12   | 15 | 4      | ○     |
| M20×2       | P5    | 2.5P | 6    | 140 | 27              | -  | 16 | 12   | 15 | 4      | ○     |
| M20×1.5     | P4    | 2.5P | 6    | 140 | 25              | -  | 16 | 12   | 15 | 4      | ○     |
| M22×2.5     | P6    | 2.5P | 6    | 140 | 32              | -  | 18 | 14.5 | 17 | 4      | ○     |
| M22×2       | P5    | 2.5P | 6    | 140 | 27              | -  | 18 | 14.5 | 17 | 4      | ○     |
| M22×1.5     | P4    | 2.5P | 6    | 140 | 25              | -  | 18 | 14.5 | 17 | 4      | ○     |
| M24×3       | P6    | 2.5P | 6    | 140 | 34              | -  | 18 | 14.5 | 17 | 4      | ○     |
| M24×2       | P5    | 2.5P | 6    | 140 | 27              | -  | 18 | 14.5 | 17 | 4      | ○     |
| M24×1.5     | P4    | 2.5P | 6    | 140 | 27              | -  | 18 | 14.5 | 17 | 4      | ○     |
| M27×3       | P6    | 2.5P | 6    | 160 | 36              | -  | 20 | 16   | 19 | 4      | ○     |
| M30×3.5     | P7    | 2.5P | 6    | 180 | 40              | -  | 22 | 18   | 21 | 4      | ○     |

| P           | P           | P            | Alloy SCM | M                    | K                  | K                 | N  | N           | N            | S        | S        | H      |
|-------------|-------------|--------------|-----------|----------------------|--------------------|-------------------|----|-------------|--------------|----------|----------|--------|
| Low-C steel | Mid-C steel | High-C steel | <HRC35    | Stainless steel(SUS) | Gray cast iron(FC) | Ductile iron(FCD) | Al | Cu(Pure Cu) | ADC Al alloy | Ti alloy | Ni alloy | >HRC35 |
| -           | -           | -            | -         | -                    | •                  | •                 | -  | -           | -            | -        | -        | -      |

## DIN-SOLID CARBIDE STRAIGHT FLUTED TAPS WITH INTERNAL COOLANT



- Solid carbide material.
- Suitable for high-speed, long tool life mass production.
- Various coating selection, suitable for Aluminum alloy, Magnesium alloy, Copper alloy, Cast Aluminum, Cast Zinc alloy.

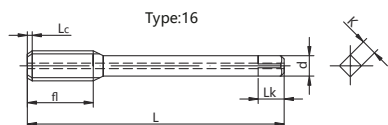


単位:mm Unit:mm



| Thread Size | Limit | LC   | Type | L   | Dimensions (mm) |    |    |     |    | Oilgroovetype | Flutes | Stock |
|-------------|-------|------|------|-----|-----------------|----|----|-----|----|---------------|--------|-------|
|             |       |      |      |     | fl              | In | d  | k   | Lk |               |        |       |
| M5×0.8      | P2    | 2.5P | 11   | 70  | 15              | 10 | 6  | 4.9 | 8  | Side C        | 3      | •     |
| M5×0.8      | P2    | 2.5P | 11   | 70  | 15              | 10 | 6  | 4.9 | 8  | Center Z      | 3      | •     |
| M6×1        | P2    | 2.5P | 11   | 80  | 17              | 13 | 6  | 4.9 | 8  | Side C        | 3      | •     |
| M6×1        | P2    | 2.5P | 11   | 80  | 17              | 13 | 6  | 4.9 | 8  | Center Z      | 3      | •     |
| M7×1        | P3    | 2.5P | 11   | 80  | 17              | 13 | 7  | 5.5 | 8  | Side C        | 3      | •     |
| M7×1        | P3    | 2.5P | 11   | 80  | 17              | 13 | 7  | 5.5 | 8  | Center Z      | 3      | •     |
| M8×1        | P3    | 2.5P | 12   | 80  | 16              | 19 | 8  | 6.2 | 9  | Side C        | 4      | •     |
| M8×1        | P3    | 2.5P | 12   | 80  | 16              | 19 | 8  | 6.2 | 9  | Center Z      | 4      | •     |
| M8×1.25     | P3    | 2.5P | 12   | 90  | 16              | 19 | 8  | 6.2 | 9  | Side C        | 4      | •     |
| M8×1.25     | P3    | 2.5P | 12   | 90  | 16              | 19 | 8  | 6.2 | 9  | Center Z      | 4      | •     |
| M10×1.5     | P4    | 2.5P | 12   | 90  | 18              | 21 | 10 | 8   | 11 | Side C        | 4      | •     |
| M10×1.5     | P4    | 2.5P | 12   | 90  | 18              | 21 | 10 | 8   | 11 | Center Z      | 4      | •     |
| M10×1.25    | P3    | 2.5P | 12   | 100 | 18              | 21 | 10 | 8   | 11 | Side C        | 4      | •     |
| M10×1.25    | P3    | 2.5P | 12   | 100 | 18              | 21 | 10 | 8   | 11 | Center Z      | 4      | •     |
| M12×1.75    | P4    | 2.5P | 16   | 110 | 22              | -  | 9  | 7   | 10 | Side C        | 4      | •     |
| M12×1.75    | P4    | 2.5P | 16   | 110 | 22              | -  | 9  | 7   | 10 | Center Z      | 4      | •     |
| M12×1.5     | P3    | 2.5P | 16   | 110 | 22              | -  | 9  | 7   | 10 | Side C        | 4      | •     |
| M12×1.5     | P3    | 2.5P | 16   | 110 | 22              | -  | 9  | 7   | 10 | Center Z      | 4      | •     |
| M12×1.25    | P3    | 2.5P | 16   | 110 | 22              | -  | 9  | 7   | 10 | Side C        | 4      | •     |
| M12×1.25    | P3    | 2.5P | 16   | 110 | 22              | -  | 9  | 7   | 10 | Center Z      | 4      | •     |
| M14×2       | P5    | 2.5P | 16   | 110 | 26              | -  | 11 | 9   | 12 | Side C        | 4      | •     |
| M14×2       | P5    | 2.5P | 16   | 110 | 26              | -  | 11 | 9   | 12 | Center Z      | 4      | •     |
| M14×1.5     | P4    | 2.5P | 16   | 110 | 22              | -  | 11 | 9   | 12 | Side C        | 4      | •     |
| M14×1.5     | P4    | 2.5P | 16   | 110 | 22              | -  | 11 | 9   | 12 | Center Z      | 4      | •     |
| M14×1.25    | P3    | 2.5P | 16   | 110 | 22              | -  | 11 | 9   | 12 | Side C        | 4      | •     |
| M14×1.25    | P3    | 2.5P | 16   | 110 | 22              | -  | 11 | 9   | 12 | Center Z      | 4      | •     |
| M16×2       | P5    | 2.5P | 16   | 110 | 27              | -  | 12 | 9   | 12 | Side C        | 4      | •     |
| M16×2       | P5    | 2.5P | 16   | 110 | 27              | -  | 12 | 9   | 12 | Center Z      | 4      | •     |
| M16×1.5     | P4    | 2.5P | 16   | 110 | 22              | -  | 12 | 9   | 12 | Side C        | 4      | •     |
| M16×1.5     | P4    | 2.5P | 16   | 110 | 22              | -  | 12 | 9   | 12 | Center Z      | 4      | •     |
| M16×1.25    | P3    | 2.5P | 16   | 110 | 18              | -  | 12 | 9   | 12 | Side C        | 4      | •     |
| M16×1.25    | P3    | 2.5P | 16   | 110 | 18              | -  | 12 | 9   | 12 | Center Z      | 4      | •     |

## DIN-SOLID CARBIDE STRAIGHT FLUTED TAPS WITH INTERNAL COOLANT



- Solid carbide material.
- Suitable for high-speed, long tool life mass production.
- Various coating selection, suitable for Aluminum alloy, Magnesium alloy, Copper alloy, Cast Aluminum, Cast Zinc alloy.



|             |       |      | Dimensions (mm) |     |    |    |    |      |    |               |        |       |  |  |
|-------------|-------|------|-----------------|-----|----|----|----|------|----|---------------|--------|-------|--|--|
| Thread Size | Limit | LC   | Type            | L   | fl | In | d  | k    | Lk | Oilgroovetype | Flutes | Stock |  |  |
| M18×2.5     | P6    | 2.5P | 16              | 125 | 30 | -  | 14 | 11   | 14 | Side C        | 4      | ●     |  |  |
| M18×2.5     | P6    | 2.5P | 16              | 125 | 30 | -  | 14 | 11   | 14 | Center Z      | 4      | ●     |  |  |
| M18×2       | P5    | 2.5P | 16              | 125 | 26 | -  | 14 | 11   | 14 | Side C        | 4      | ●     |  |  |
| M18×2       | P5    | 2.5P | 16              | 125 | 26 | -  | 14 | 11   | 14 | Center Z      | 4      | ●     |  |  |
| M18×1.5     | P4    | 2.5P | 16              | 125 | 25 | -  | 14 | 11   | 14 | Side C        | 4      | ●     |  |  |
| M18×1.5     | P4    | 2.5P | 16              | 125 | 25 | -  | 14 | 11   | 14 | Center Z      | 4      | ●     |  |  |
| M20×2.5     | P6    | 2.5P | 16              | 140 | 32 | -  | 16 | 12   | 15 | Side C        | 4      | ●     |  |  |
| M20×2.5     | P6    | 2.5P | 16              | 140 | 32 | -  | 16 | 12   | 15 | Center Z      | 4      | ●     |  |  |
| M20×2       | P5    | 2.5P | 16              | 140 | 27 | -  | 16 | 12   | 15 | Side C        | 4      | ●     |  |  |
| M20×2       | P5    | 2.5P | 16              | 140 | 27 | -  | 16 | 12   | 15 | Center Z      | 4      | ●     |  |  |
| M20×1.5     | P4    | 2.5P | 16              | 140 | 25 | -  | 16 | 12   | 15 | Side C        | 4      | ●     |  |  |
| M20×1.5     | P4    | 2.5P | 16              | 140 | 25 | -  | 16 | 12   | 15 | Center Z      | 4      | ●     |  |  |
| M22×2.5     | P6    | 2.5P | 16              | 140 | 32 | -  | 18 | 14.5 | 17 | Side C        | 4      | ●     |  |  |
| M22×2.5     | P6    | 2.5P | 16              | 140 | 32 | -  | 18 | 14.5 | 17 | Center Z      | 4      | ●     |  |  |
| M22×2       | P5    | 2.5P | 16              | 140 | 27 | -  | 18 | 14.5 | 17 | Side C        | 4      | ●     |  |  |
| M22×2       | P5    | 2.5P | 16              | 140 | 27 | -  | 18 | 14.5 | 17 | Center Z      | 4      | ●     |  |  |
| M22×1.5     | P4    | 2.5P | 16              | 140 | 25 | -  | 18 | 14.5 | 17 | Side C        | 4      | ●     |  |  |
| M22×1.5     | P4    | 2.5P | 16              | 140 | 25 | -  | 18 | 14.5 | 17 | Center Z      | 4      | ●     |  |  |
| M24×3       | P6    | 2.5P | 16              | 140 | 34 | -  | 18 | 14.5 | 17 | Side C        | 4      | ●     |  |  |
| M24×3       | P6    | 2.5P | 16              | 140 | 34 | -  | 18 | 14.5 | 17 | Center Z      | 4      | ●     |  |  |
| M24×2       | P5    | 2.5P | 16              | 140 | 27 | -  | 18 | 14.5 | 17 | Side C        | 4      | ●     |  |  |
| M24×2       | P5    | 2.5P | 16              | 140 | 27 | -  | 18 | 14.5 | 17 | Center Z      | 4      | ●     |  |  |
| M24×1.5     | P4    | 2.5P | 16              | 140 | 27 | -  | 18 | 14.5 | 17 | Side C        | 4      | ●     |  |  |
| M24×1.5     | P4    | 2.5P | 16              | 140 | 27 | -  | 18 | 14.5 | 17 | Center Z      | 4      | ●     |  |  |
| M27×3       | P6    | 2.5P | 16              | 160 | 36 | -  | 20 | 16   | 19 | Side C        | 4      | ●     |  |  |
| M27×3       | P6    | 2.5P | 16              | 160 | 36 | -  | 20 | 16   | 19 | Center Z      | 4      | ●     |  |  |
| M30×3.5     | P7    | 2.5P | 16              | 180 | 40 | -  | 22 | 18   | 21 | Side C        | 4      | ●     |  |  |
| M30×3.5     | P7    | 2.5P | 16              | 180 | 40 | -  | 22 | 18   | 21 | Center Z      | 4      | ●     |  |  |

| P           | P           | P            | Alloy SCM | M                    | K                  | K                 | N  | N           | N            | S        | S        | H      |
|-------------|-------------|--------------|-----------|----------------------|--------------------|-------------------|----|-------------|--------------|----------|----------|--------|
| Low-C steel | Mid-C steel | High-C steel | <HRC35    | Stainless steel(SUS) | Gray cast iron(FC) | Ductile iron(FCD) | Al | Cu(Pure Cu) | ADC Al alloy | Ti alloy | Ni alloy | >HRC35 |
| -           | -           | -            | -         | -                    | •                  | •                 | -  | -           | -            | -        | -        | -      |

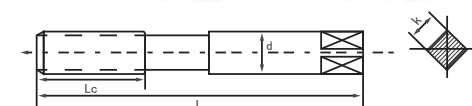
## PIPE THREAD TAPS

Machine tap for cylindrical pipe thread / tapered pipe thread

Features:

The British standard pipe thread tap is a special tool for machining internal threads of pipes. It has a simple structure and is easy to operate.

It is the most commonly used machining tool for internal threads of medium and small-sized pipes.



| Size     | L     | Lc    | d     | k     | Recommended Tap Drill Size |
|----------|-------|-------|-------|-------|----------------------------|
| G1/8-28  | 59.00 | 8.50  | 8.00  | 6.20  | 8.70                       |
| G1/4-19  | 67.00 | 13.00 | 11.00 | 9.00  | 11.70                      |
| G3/8-19  | 75.00 | 13.00 | 14.00 | 12.00 | 15.20                      |
| G1/2-14  | 87.00 | 16.00 | 18.00 | 14.50 | 19.00                      |
| G3/4-14  | 96.00 | 16.00 | 22.00 | 18.00 | 24.50                      |
| G1-11    | 96.00 | 16.00 | 26.00 | 22.00 | 30.20                      |
| ZG1/8-28 | 96.00 | 16.00 | 8.00  | 6.20  | 8.40                       |
| ZG1/4-19 | 96.00 | 16.00 | 11.00 | 9.00  | 11.20                      |
| ZG3/8-19 | 96.00 | 16.00 | 14.00 | 12.00 | 14.75                      |
| ZG1/2-14 | 96.00 | 16.00 | 18.00 | 14.50 | 18.25                      |
| ZG3/4-14 | 96.00 | 16.00 | 22.00 | 18.00 | 23.75                      |
| ZG1-11   | 96.00 | 16.00 | 26.00 | 22.00 | 30.00                      |

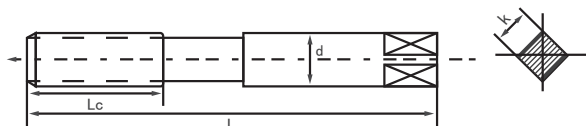
## ST/STI TAPS



Special tap for ST thread insert.

Features:

Thread insert tap is a special tap for machining installation holes of stainless steel thread inserts.



| Size        | L     | Lc    | d     | k    | Recommended Tap Drill Size |
|-------------|-------|-------|-------|------|----------------------------|
| STI2x0.4    | 44.50 | 9.50  | 2.80  | 2.24 | 2.00                       |
| STI2.5x0.45 | 48.00 | 11.00 | 3.35  | 2.80 | 2.60                       |
| STI3x0.5    | 53.00 | 13.00 | 4.00  | 3.15 | 3.10                       |
| STI4x0.7    | 58.00 | 16.00 | 5.00  | 4.50 | 4.10                       |
| STI5x0.8    | 66.00 | 19.00 | 6.30  | 5.00 | 5.20                       |
| STI6x1.0    | 72.00 | 22.00 | 6.30  | 5.00 | 6.20                       |
| STI8x1.25   | 80.00 | 24.00 | 8.00  | 6.30 | 8.30                       |
| STI10x1.5   | 80.00 | 29.00 | 9.00  | 7.10 | 10.30                      |
| STI12x1.75  | 95.00 | 30.00 | 11.20 | 9.00 | 12.40                      |

## HSS COMBINATION DRILL & TAPS

Features:

One tool performs drilling, tapping and deburring in one pass to streamline processes and boost efficiency.

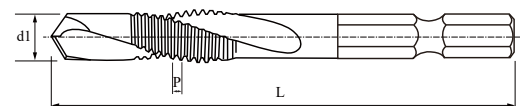
Works with power drills & bench drill presses; perfect for assembly tasks and small-batch production.

Titanium coating greatly improves wear resistance and durability vs standard tools for consistent long-term cutting performance.



Patented Product

PATENT



| Size | L  | d1   | P    |
|------|----|------|------|
| M3   | 65 | 2.5  | 0.50 |
| M4   | 65 | 3.3  | 0.70 |
| M5   | 69 | 4.2  | 0.80 |
| M6   | 69 | 5    | 1.00 |
| M8   | 72 | 6.8  | 1.25 |
| M10  | 72 | 8.5  | 1.50 |
| M12  | 80 | 10.3 | 1.75 |
| 3/8  | 72 | 8    | 1.58 |



Drilling Threading Countersinking

## HSS ROUND DIES / HEXAGON DIES



High performance dies for industry.  
We can also accept customization for machine taps long length.  
Technical feature:  
Suitable for high-speed, long tool life mass production.  
According to customer needs, matching the corresponding material of the processing die, can accept customization.

单位: mm Unit: mm

| Size     | Dia. x thickness | Size     | Dia. x thickness | Size     | Dia. x thickness | Size    | Dia. x thickness |
|----------|------------------|----------|------------------|----------|------------------|---------|------------------|
| M17×0.75 | 45×14            | M21×0.75 | 45×14            | M25×1    | 55×16            | M30×2   | 65×18            |
| M17×1    | 45×14            | M21×1    | 45×14            | M25×1.5  | 55×16            | M30×3   | 65×18            |
| M17×1.5  | 45×14            | M21×1.5  | 45×14            | M25×2    | 55×16            | M30×3.5 | 65×25            |
| M18×0.5  | 45×14            | M21×2    | 45×14            | M26×0.5  | 55×16            | M32×1   | 65×18            |
| M18×0.75 | 45×14            | M22×0.5  | 55×16            | M26×0.75 | 55×16            | M32×1.5 | 65×18            |
| M18×1    | 45×14            | M22×0.75 | 55×16            | M26×1    | 55×16            | M32×3   | 65×18            |
| M18×1.25 | 45×14            | M22×1    | 55×16            | M26×1.5  | 55×16            | M33×1   | 65×18            |
| M18×1.5  | 45×14            | M22×1.5  | 55×16            | M26×2    | 55×16            | M33×1.5 | 65×18            |
| M18×2    | 45×14            | M22×2    | 55×16            | M27×0.5  | 65×18            | M33×2   | 65×18            |
| M18×2.5  | 45×18            | M22×2.5  | 55×22            | M27×0.75 | 65×18            | M33×3.5 | 65×25            |
| M19×0.5  | 45×14            | M23×0.5  | 55×16            | M27×1    | 65×18            | M34×1   | 65×18            |
| M19×0.75 | 45×14            | M23×0.75 | 55×16            | M27×1.5  | 65×18            | M34×1.5 | 65×18            |
| M19×1    | 45×14            | M23×1    | 55×16            | M27×2    | 65×18            | M34×2   | 65×18            |
| M19×1.5  | 45×14            | M23×1.5  | 55×16            | M27×3    | 65×25            | M34×3   | 65×25            |
| M19×2    | 45×14            | M23×2    | 55×16            | M28×0.5  | 65×18            | M35×1   | 65×18            |
| M20×0.5  | 45×14            | M24×0.5  | 55×16            | M28×0.75 | 65×18            | M35×1.5 | 65×18            |
| M20×0.75 | 45×14            | M24×0.75 | 55×16            | M28×1    | 65×18            | M35×2   | 65×18            |
| M20×1    | 45×14            | M24×1    | 55×16            | M28×1.5  | 65×18            | M35×3   | 65×25            |
| M20×1.25 | 45×14            | M24×1.5  | 55×16            | M28×2    | 65×18            | M36×1   | 65×18            |
| M20×1.5  | 45×14            | M24×2    | 55×16            | M30×0.5  | 65×18            | M36×1.5 | 65×18            |
| M20×2    | 45×14            | M24×3    | 55×22            | M30×0.75 | 65×18            | M36×2   | 65×18            |
| M20×2.5  | 45×18            | M25×0.5  | 55×16            | M30×1    | 65×18            | M36×3   | 65×25            |
| M21×0.5  | 45×14            | M25×0.75 | 55×16            | M30×1.5  | 65×18            | M36×4   | 65×25            |

## ANSI MACHINE HAND ROUND THREAD DIES



HSS or Alloy Tool Steel.

Technical feature:  
Suitable for high-speed, long tool life mass production.  
According to customer needs, matching the corresponding material of the processing die, can accept customization.

| Size      | Outside | Size     | Outside | Size    | Outside |
|-----------|---------|----------|---------|---------|---------|
| M2.3x0.4  | 1"      | M8x1     | 1"      | M16x2   | 2"      |
| M2.5x0.45 | 13/16"  | M8x1.25  | 1"      | M17x1.5 | 1-1/2"  |
| M2.5x0.45 | 1"      | M9x1     | 1"      | M17x1.5 | 2"      |
| M2.6x0.45 | 13/16"  | M9x1     | 1-1/2"  | M18x1.5 | 1-1/2"  |
| M2.6x0.45 | 1"      | M9x1.25  | 1"      | M18x1.5 | 2"      |
| M3x0.5    | 13/16"  | M9x1.25  | 1-1/2"  | M18x2   | 1-1/2"  |
| M3x0.5    | 1"      | M10x0.75 | 1"      | M18x2   | 2"      |
| M3x0.6    | 13/16"  | M10x0.75 | 1-1/2"  | M18x2.5 | 1-1/2"  |
| M3x0.6    | 1"      | M10x1    | 1"      | M18x2.5 | 2"      |
| M3.5x0.6  | 13/16"  | M10x1    | 1-1/2"  | M20x1.5 | 1-1/2"  |
| M3.5x0.6  | 1"      | M10x1.25 | 1"      | M20x1.5 | 2"      |
| M4x0.5    | 13/16"  | M10x1.25 | 1-1/2"  | M20x2   | 1-1/2"  |
| M4x0.5    | 1"      | M10x1.5  | 1"      | M20x2   | 2"      |
| M4x0.7    | 13/16"  | M10x1.5  | 1-1/2"  | M22x2.5 | 2"      |
| M4x0.7    | 1"      | M11x1    | 1       | M24x1.5 | 2"      |
| M4.5x0.5  | 13/16"  | M11x1    | 1-1/2"  | M24x1.5 | 2-1/2"  |
| M4.5x0.5  | 1"      | M11x1.5  | 1"      | M24x2   | 2"      |
| M4.5x0.75 | 13/16"  | M11x1.5  | 1-1/2"  | M24x2   | 2-1/2"  |
| M4.5x0.75 | 1"      | M12x1    | 1"      | M24x3   | 2-1/2"  |
| M5x0.5    | 13/16"  | M12x1    | 1-1/2"  | M27x2   | 2-1/2"  |
| M5x0.5    | 1"      | M12x1.25 | 1"      | M27x3   | 2-1/2"  |
| M5x0.8    | 13/16"  | M12x1.25 | 1-1/2"  | M28x2   | 2-1/2"  |
| M5x0.8    | 1"      | M12x1.5  | 1-1/2"  | M30x1.5 | 2-1/2"  |
| M5x0.9    | 13/16"  | M12x1.75 | 1-1/2"  | M30x2   | 2-1/2"  |
| M5x0.9    | 1"      | M14x1    | 1-1/2"  | M30x3   | 2-1/2"  |
| M6x0.5    | 13/16"  | M14x1.25 | 1-1/2"  | M30x3.5 | 2-1/2"  |
| M6x0.5    | 1"      | M14x1.5  | 1-1/2"  | M33x3   | 2-1/2"  |
| M6x0.75   | 13/16"  | M14x2    | 1-1/2"  | M33x3.5 | 2-1/2"  |
| M6x0.75   | 1"      | M15x1.5  | 1-1/2"  | M36x3   | 2-1/2"  |
| M6x1      | 13/16"  | M15x1.5  | 2"      | M36x4   | 3"      |
| M6x1      | 1"      | M16x1    | 1-1/2"  | M39x3   | 3"      |
| M6.3x1.0  | 1"      | M16x1    | 2"      | M39x4   | 3"      |
| M7x0.75   | 1"      | M16x1.5  | 1-1/2"  |         |         |
| M7x1      | 1"      | M16x1.5  | 2"      |         |         |
| M8x0.75   | 1"      | M16x2    | 1-1/2"  |         |         |

## BRITISH STANDARD PIPE THREAD (BSPT) DIES



HSS or Alloy Tool Steel.

Technical feature:

Suitable for high-speed, long tool life mass production.

According to customer needs, matching the corresponding material of the processing die, can accept customization.

| Size       | Outside | Size        | Outside | Size           | Outside  |
|------------|---------|-------------|---------|----------------|----------|
| 1/8-40BSW  | 20x5mm  | 9/16-16BSF  | 38x10mm | 1-1/4-9BSF     | 65x25mm  |
| 3/16-24BSW | 20x7mm  | 5/8-11BSW   | 45x18mm | 1-1/2-6BSW     | 75x30mm  |
| 3/16-32BSF | 20x7mm  | 5/8-14BSF   | 45x14mm | 1-1/2-8BSF     | 75x30mm  |
| 1/4-20BSW  | 25x9mm  | 11/16-11BSW | 45x18mm | 1-3/4-5BSW     | 90x36mm  |
| 1/4-26BSF  | 25x9mm  | 11/16-14BSF | 45x14mm | 1-3/4-7BSF     | 90x36mm  |
| 5/16-18BSW | 25x9mm  | 3/4-10BSW   | 45x18mm | 2-4-1/2BSW     | 90x36mm  |
| 5/16-22BSF | 25x9mm  | 3/4-12BSF   | 45x14mm | 2-7BSF         | 90x36mm  |
| 3/8-18BSW  | 30x11mm | 7/8-9BSW    | 55x22mm | 2-1/4-4BSW     | 105x36mm |
| 3/8-20BSF  | 30x11mm | 7/8-11BSF   | 55x22mm | 2-1/4-6BSF     | 105x36mm |
| 7/16-14BSW | 30x11mm | 1-8BSW      | 55x22mm | 2-1/2-4BSW     | 120x36mm |
| 7/16-18BSF | 30x11mm | 1-10BSF     | 55x22mm | 2-1/2-6BSF     | 120x36mm |
| 1/2-12BSW  | 38x14mm | 1-1/8-7BSW  | 65x25mm | 2-3/4-3-1/2BSW | 120x36mm |
| 1/2-16BSF  | 38x10mm | 1-1/8-9BSF  | 65x25mm | 2-3/4-6BSF     | 120x36mm |
| 9/16-12BSW | 38x14mm | 1-1/4-7BSW  | 65x25mm |                |          |

## AMERICAN UNIFIED THREAD DIES (UNC/UNF)



HSS or Alloy Tool Steel.

Technical feature:

Suitable for high-speed, long tool life mass production.

According to customer needs, matching the corresponding material of the processing die, can accept customization.

| Size         | Outside | Size         | Outside | Size        | Outside |
|--------------|---------|--------------|---------|-------------|---------|
| No. 0-80UNF  | 16x5mm  | No. 12-24UNC | 20x7mm  | 3/4-16UNF   | 45x14mm |
| No. 1-64UNC  | 16x5mm  | No. 12-28UNF | 20x7mm  | 7/8-9UNC    | 55x22mm |
| No. 1-72UNF  | 16x5mm  | 1/4-20UNC    | 20x7mm  | 7/8-14UNF   | 55x16mm |
| No. 2-56UNC  | 16x5mm  | 1/4-28UNF    | 20x7mm  | 1-8UNC      | 55x22mm |
| No. 2-64UNF  | 16x5mm  | 5/16-18UNC   | 25x9mm  | 1-12UNF     | 55x16mm |
| No. 3-48UNC  | 16x5mm  | 5/16-24UNF   | 25x9mm  | 1-14NS      | 55x16mm |
| No. 3-56UNF  | 16x5mm  | 3/8-16UNC    | 30x11mm | 1-1/8-7UNC  | 65x25mm |
| No. 4-40UNC  | 20x5mm  | 3/8-24UNF    | 30x11mm | 1-1/8-12UNF | 65x18mm |
| No. 4-48UNF  | 20x5mm  | 7/16-14UNC   | 30x11mm | 1-1/4-7UNC  | 65x25mm |
| No. 5-40UNC  | 20x5mm  | 7/16-20UNF   | 30x11mm | 1-1/4-12UNF | 65x18mm |
| No. 5-44UNF  | 20x5mm  | 1/2-13UNC    | 38x14mm | 1-3/8-6UNC  | 65x25mm |
| No. 6-32UNC  | 20x5mm  | 1/2-20UNF    | 38x10mm | 1-3/8-12UNF | 65x18mm |
| No. 6-40UNF  | 20x5mm  | 9/16-12UNC   | 38x14mm | 1-1/2-6UNC  | 75x30mm |
| No. 8-32UNC  | 20x5mm  | 9/16-18UNF   | 38x10mm | 1-1/2-12UNF | 75x20mm |
| No. 8-36UNF  | 20x5mm  | 5/8-11UNC    | 45x18mm | 1-3/4-5UNC  | 90x36mm |
| No. 10-24UNC | 20x7mm  | 5/8-18UNF    | 45x14mm | 2-4-1/2UNC  | 90x36mm |
| No. 10-32UNF | 20x7mm  | 3/4-10UNC    | 45x18mm |             |         |

## PIPE HEXAGON DIES

Comprehensive size range covering metric and inch standards for versatile applications.

Precise dimensions including across flats and thickness B to ensure accurate threading performance.

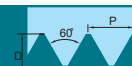


| Pipe HEXAGON DIES | Metric SIZES | INCH SIZES                | Across Flats | Thickness B  |
|-------------------|--------------|---------------------------|--------------|--------------|
| NPT<br>NPS        | 6mm          | 1/4-20NC<br>1/4-28NF      | 19/32"       | 1/4"         |
| BSPT<br>BSPS      | 7~8mm        | 5/16-18NC<br>5/16-24NF    | 11/16"       | 5/16"        |
| 1/8"              | 9~10mm       | 3/8-16NC<br>3/8-24NF      | 25/32"       | 3/8"         |
|                   | 11mm         | 7/16-14NC<br>7/16-20NF    | 7/8"         | 7/16"        |
| 1/4"              | 12~13mm      | 1/2-13NC<br>1/2-20NF      | 1-1/16"      | 1/2"         |
|                   | 14mm         | 9/16-12NC<br>9/16-18NF    | 1-1/16"      | 1/2"         |
| 3/8"              | 15~16mm      | 5/8-11NC<br>5/8-18NF      | 1-1/4"       | 5/8"         |
|                   |              | 11/16-11NS<br>11/16-16NS  | 1-7/16"      | 11/16"       |
| 1/2"              | 17~20mm      | 3/4-10NC<br>3/4-16NF      | 1-7/16"      | 3/4"         |
|                   | 21~23mm      | 7/8-9NC<br>7/8-14NF       | 1-5/8"       | 7/8"         |
| 3/4"              | 24~26mm      | 1-8NC<br>1-12NF<br>1-14NS | 1-13/16"     | 1"           |
|                   | 27~30mm      | 1-1/8-7NC<br>1-1/8-12NF   | 2"           | 1"           |
| 1"                | 31~33mm      | 1-1/4-7NC<br>1-1/4-12NF   | 2-3/16"      | 1"           |
|                   | 34~35mm      | 1-3/8-6NC<br>1-3/8-12NF   | 2-3/8"       | 1"           |
| 1-1/4"            | 36~40mm      | 1-1/2-6NC<br>1-1/2-12NF   | 2-9/16"      | 1"           |
|                   | 41~42mm      | NC&NF<br>1-5/8            | 3-1/8"       | 1"           |
| 1-1/2"            | 43~45mm      | 1-3/4                     | 3-1/8"       | 1 1/4"       |
|                   | 46~48mm      | 1-7/8                     | 3-1/8"       | 1 1/4"       |
| 1-3/4"            | 50~52mm      | 2                         | 3-1/2"       | 1 1/4"       |
|                   | 53~57mm      | 2-1/4                     | 3-1/2"       | 1 1/2"       |
| 2"                | 58~60mm      | 2-3/8                     | 4-1/2"       | 1 1/2"       |
|                   | 63~65mm      | 2-1/2                     | 4-1/2"       | 1 5/8"       |
|                   | 65~68mm      | 2-5/8                     | 4-1/2"       | 1 5/8"       |
|                   | 69~70mm      | 2-3/4                     | 4-1/2"       | 1 3/4"       |
|                   | 70~72mm      | 2-7/8                     | 5"           | 2"           |
| 2-1/2"            | 75~88mm      | 3~3-1/2                   | 5"           | 2 1/4~2 3/8" |
| 3"                | 90~88mm      | 3-5/8~3-7/8               | 6"           | 2 3/8"       |
|                   | 100~112mm    | 4~4-1/2                   | 7"           | 2 1/2"       |
|                   | 115~127mm    | 4-5/8~5                   | 7"           | 2 1/2"       |

## RECOMMENDED DRILL HOLE SIZE

1

## FORMING TAP



| METRIC THREAD          |           | M/MF    |       |
|------------------------|-----------|---------|-------|
| size<br>D × P<br>mm mm | Precision | Drill Ø |       |
|                        |           | MAX     | MIN   |
| M1.0×0.25              | RH4       | 0.92    | 0.90  |
| M1.1×0.25              | RH4       | 1.02    | 1.00  |
| M1.2×0.25              | RH4       | 1.12    | 1.10  |
| M1.4×0.30              | RH4       | 1.294   | 1.270 |
| M1.6×0.35              | RH4       | 1.48    | 1.44  |
| M1.7×0.35              | RH4       | 1.58    | 1.54  |
| M2.0×0.40              | RH4       | 1.85    | 1.81  |
| M2.3×0.40              | RH4       | 2.15    | 2.11  |
| M2.5×0.45              | RH4       | 2.33    | 2.28  |
| M2.6×0.45              | RH4       | 2.43    | 2.38  |
| M3.0×0.50              | RH5       | 2.81    | 2.76  |
| M3.5×0.60              | RH5       | 3.26    | 3.20  |
| M4.0×0.70              | RH6       | 3.70    | 3.65  |
| M5.0×0.80              | RH6       | 4.66    | 4.59  |
| M6.0×1.0               | RH7       | 5.57    | 5.48  |
| M7.0×1.0               | RH7       | 6.57    | 6.48  |

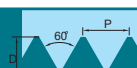
| UNIFIED COARSE THREAD UNC      |           | UNC     |       |
|--------------------------------|-----------|---------|-------|
| size<br>D × P/1"<br>inch (tpi) | Precision | Drill Ø |       |
|                                |           | MAX     | MIN   |
| NO.2-56                        | RH4       | 2.02    | 1.96  |
| NO.3-48                        | RH4       | 2.32    | 2.25  |
| NO.4-40                        | RH5       | 2.60    | 2.52  |
| NO.5-40                        | RH5       | 2.93    | 2.86  |
| NO.6-32                        | RH5       | 3.17    | 3.09  |
| NO.8-32                        | RH6       | 3.83    | 3.75  |
| NO.10-24                       | RH6       | 4.35    | 4.26  |
| NO.12-24                       | RH6       | 5.01    | 4.92  |
| 1/4-20                         | RH6       | 5.76    | 5.66  |
| 5/16-18                        | RH7       | 7.29    | 7.18  |
| 3/8-16                         | RH7       | 8.78    | 8.66  |
| 7/16-14                        | RH7       | 10.25   | 10.11 |
| 1/2-13                         | RH8       | 11.78   | 11.62 |
| 9/16-12                        | RH10      | 13.27   | 13.14 |
| 5/8-11                         | RH11      | 14.76   | 14.62 |
| 3/4-10                         | RH12      | 17.88   | 17.67 |
| 7/8-9                          | RH12      | 20.85   | 20.68 |
| 1-8                            | RH13      | 23.84   | 23.65 |

| METRIC THREAD          |           | M/MF    |       |
|------------------------|-----------|---------|-------|
| size<br>D × P<br>mm mm | Precision | Drill Ø |       |
|                        |           | MAX     | MIN   |
| M8.0×1.25              | RH7       | 7.41    | 7.34  |
| M8.0×1.0               | RH7       | 7.57    | 7.48  |
| M10×1.50               | RH7       | 9.28    | 9.18  |
| M10×1.25               | RH7       | 9.41    | 9.34  |
| M10×1.0                | RH7       | 9.57    | 9.48  |
| M12×1.75               | RH8       | 11.15   | 11.05 |
| M12×1.5                | RH7       | 11.28   | 11.18 |
| M12×1.25               | RH7       | 11.41   | 11.34 |
| M12×1.0                | RH7       | 11.57   | 11.48 |
| M14×2.0                | RH10      | 13.04   | 12.92 |
| M14×1.5                | RH9       | 13.30   | 13.21 |
| M16×2.0                | RH10      | 15.04   | 14.92 |
| M16×1.5                | RH9       | 15.30   | 15.21 |
| M18×2.5                | RH11      | 16.78   | 16.63 |
| M18×1.5                | RH10      | 17.31   | 17.22 |
| M20×2.5                | RH11      | 18.78   | 18.63 |
| M20×1.5                | RH10      | 19.31   | 19.22 |

| UNIFIED FINE THREAD UNF        |           | UNF     |       |
|--------------------------------|-----------|---------|-------|
| size<br>D × P/1"<br>inch (tpi) | Precision | Drill Ø |       |
|                                |           | MAX     | MIN   |
| NO.2-56                        | RH3       | 2.04    | 1.98  |
| NO.3-56                        | RH4       | 2.35    | 2.29  |
| NO.4-48                        | RH4       | 2.64    | 2.57  |
| NO.5-44                        | RH4       | 2.95    | 2.88  |
| NO.6-40                        | RH5       | 3.26    | 3.19  |
| NO.8-36                        | RH5       | 3.88    | 3.80  |
| NO.10-32                       | RH5       | 4.48    | 4.41  |
| NO.12-28                       | RH5       | 5.08    | 5.00  |
| 1/4-28                         | RH5       | 5.93    | 5.86  |
| 5/16-24                        | RH6       | 7.46    | 7.38  |
| 3/8-24                         | RH6       | 9.05    | 8.96  |
| 7/16-20                        | RH7       | 10.54   | 10.44 |
| 1/2-20                         | RH7       | 12.12   | 12.02 |
| 9/16-18                        | RH9       | 13.66   | 13.55 |
| 5/8-18                         | RH9       | 15.25   | 15.14 |
| 3/4-16                         | RH10      | 18.32   | 18.22 |
| 7/8-14                         | RH11      | 21.38   | 21.27 |
| 1-12                           | RH12      | 24.41   | 24.28 |

2

## CUTTING TAP



| METRIC COARSE THREAD M |                      |                                |        |
|------------------------|----------------------|--------------------------------|--------|
| size<br>D × P<br>mm mm | Standard<br>hole Dia | For jis class 2 drill hole dia |        |
|                        |                      | MAX                            | MIN    |
| M1.0x0.25              | 0.75                 | 0.785                          | 0.729  |
| M1.2x0.25              | 0.95                 | 0.985                          | 0.929  |
| M1.4x0.3               | 1.10                 | 1.142                          | 1.075  |
| M1.6x0.35              | 1.25                 | 1.321                          | 1.221  |
| M1.7x0.35              | 1.35                 | 1.421                          | 1.321  |
| M1.8x0.35              | 1.45                 | 1.521                          | 1.421  |
| M2.0x0.4               | 1.60                 | 1.679                          | 1.567  |
| M2.3x0.4               | 1.90                 | 1.979                          | 1.867  |
| M2.5x0.45              | 2.10                 | 2.138                          | 2.013  |
| M2.6x0.45              | 2.20                 | 2.238                          | 2.113  |
| M3.0x0.5               | 2.50                 | 2.599                          | 2.459  |
| M3.5x0.6               | 2.90                 | 3.010                          | 2.850  |
| M4.0x0.7               | 3.30                 | 3.422                          | 3.242  |
| M4.5x0.75              | 3.80                 | 3.878                          | 3.688  |
| M5.0x0.8               | 4.20                 | 4.334                          | 4.134  |
| M6.0x1.0               | 5.00                 | 5.153                          | 4.917  |
| M7.0x1.0               | 6.00                 | 6.153                          | 5.917  |
| M8.0x1.25              | 6.80                 | 6.912                          | 6.647  |
| M10x1.5                | 8.50                 | 8.676                          | 8.376  |
| M12x1.75               | 10.30                | 10.441                         | 10.106 |
| M14x2.0                | 12.00                | 12.210                         | 11.835 |
| M16x2.0                | 14.00                | 14.210                         | 13.835 |
| M18x2.5                | 15.50                | 15.744                         | 15.294 |
| M20x2.5                | 17.50                | 17.744                         | 17.294 |

| METRIC FINE THREAD MF  |                      |                                |        |
|------------------------|----------------------|--------------------------------|--------|
| size<br>D × P<br>mm mm | Standard<br>hole Dia | For jis class 2 drill hole dia |        |
|                        |                      | MAX                            | MIN    |
| M1.0x0.2               | 0.80                 | 0.821                          | 0.783  |
| M1.2x0.2               | 1.00                 | 1.021                          | 0.983  |
| M1.4x0.2               | 1.20                 | 1.221                          | 1.183  |
| M1.6x0.2               | 1.40                 | 1.421                          | 1.383  |
| M1.7x0.2               | 1.5                  | 1.521                          | 1.483  |
| M1.8x0.2               | 1.60                 | 1.621                          | 1.583  |
| M2.0x0.25              | 1.75                 | 1.785                          | 1.729  |
| M2.3x0.25              | 2.05                 | 2.061                          | 2.001  |
| M2.5x0.35              | 2.20                 | 2.221                          | 2.121  |
| M2.6x0.35              | 2.20                 | 2.246                          | 2.186  |
| M3.0x0.35              | 2.70                 | 2.721                          | 2.621  |
| M3.5x0.35              | 3.20                 | 3.221                          | 3.121  |
| M4.0x0.5               | 3.50                 | 3.599                          | 3.459  |
| M5.0x0.5               | 4.50                 | 4.599                          | 4.459  |
| M6.0x0.75              | 5.30                 | 5.378                          | 5.188  |
| M8.0x1.0               | 7.00                 | 7.153                          | 6.917  |
| M10x1.25               | 8.80                 | 8.912                          | 8.647  |
| M10x1.0                | 9.00                 | 9.153                          | 8.917  |
| M12x1.5                | 10.50                | 10.676                         | 10.376 |
| M12x1.25               | 10.80                | 10.912                         | 10.647 |
| M12x1.0                | 11.00                | 11.153                         | 10.917 |
| M14x1.5                | 12.50                | 12.676                         | 12.376 |
| M16x1.5                | 14.50                | 14.676                         | 14.376 |
| M18x2.0                | 16.00                | 16.210                         | 15.835 |
| M20x2.5                | 18.00                | 18.210                         | 17.835 |

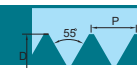
| UNIFIED COARSE THREAD UNC   |                      |                                |        |
|-----------------------------|----------------------|--------------------------------|--------|
| size<br>D × P/1" inch (tpi) | Standard<br>hole Dia | For jis class 2 drill hole dia |        |
|                             |                      | MAX                            | MIN    |
| NO.1-64                     | 1.55                 | 1.582                          | 1.425  |
| NO.2-56                     | 1.80                 | 1.871                          | 1.695  |
| NO.3-48                     | 2.10                 | 2.146                          | 1.941  |
| NO.4-40                     | 2.30                 | 2.385                          | 2.157  |
| NO.5-40                     | 2.60                 | 2.697                          | 2.487  |
| NO.6-32                     | 2.80                 | 2.895                          | 2.642  |
| NO.8-32                     | 3.40                 | 3.530                          | 3.302  |
| NO.10-24                    | 3.90                 | 3.962                          | 3.683  |
| NO.12-24                    | 4.50                 | 4.597                          | 4.344  |
| 1/4-20                      | 5.10                 | 5.257                          | 4.979  |
| 5/16-18                     | 6.60                 | 6.731                          | 6.401  |
| 3/8-16                      | 8.00                 | 8.153                          | 7.798  |
| 7/16-14                     | 9.40                 | 9.550                          | 9.144  |
| 1/2-13                      | 10.90                | 11.023                         | 10.592 |
| 9/16-12                     | 12.20                | 12.466                         | 11.989 |
| 5/8-11                      | 13.60                | 13.868                         | 13.386 |
| 3/4-10                      | 16.60                | 16.840                         | 16.307 |

| UNIFIED FINE THREAD UNF     |                      |                                |        |
|-----------------------------|----------------------|--------------------------------|--------|
| size<br>D × P/1" inch (tpi) | Standard<br>hole Dia | For jis class 2 drill hole dia |        |
|                             |                      | MAX                            | MIN    |
| NO.0-80                     | 1.25                 | 1.305                          | 1.182  |
| NO.1-72                     | 1.55                 | 1.612                          | 1.474  |
| NO.2-64                     | 1.85                 | 1.912                          | 1.756  |
| NO.3-56                     | 2.10                 | 2.197                          | 2.025  |
| NO.4-48                     | 2.40                 | 2.458                          | 2.271  |
| NO.5-44                     | 2.70                 | 2.740                          | 2.551  |
| NO.6-40                     | 2.90                 | 3.022                          | 2.820  |
| NO.8-36                     | 3.50                 | 3.606                          | 3.404  |
| NO.10-32                    | 4.10                 | 4.165                          | 3.963  |
| NO.12-28                    | 4.60                 | 4.724                          | 4.496  |
| 1/4-28                      | 5.50                 | 5.588                          | 5.360  |
| 5/16-24                     | 6.90                 | 7.035                          | 6.782  |
| 3/8-24                      | 8.50                 | 8.636                          | 8.382  |
| 7/16-20                     | 9.90                 | 10.033                         | 9.729  |
| 1/2-20                      | 11.50                | 11.607                         | 11.329 |
| 9/16-18                     | 12.90                | 13.081                         | 12.751 |
| 5/8-18                      | 14.50                | 14.681                         | 14.351 |
| 3/4-16                      | 17.50                | 17.678                         | 17.323 |

3

## CYLINDRICAL PIPE THREADS

G



| size<br>D | OD     | Drill Ø |        |
|-----------|--------|---------|--------|
|           |        | MIN     | MAX    |
| G 1/16    | 7.723  | 6.561   | 6.843  |
| 1/8       | 9.728  | 8.566   | 8.848  |
| 1/4       | 13.157 | 11.445  | 11.89  |
| 3/8       | 16.662 | 14.95   | 15.395 |
| 1/2       | 20.955 | 18.631  | 19.172 |
| 3/4       | 26.441 | 24.117  | 24.658 |
| 1         | 33.249 | 30.291  | 30.931 |
| 1 1/4     | 41.91  | 38.952  | 39.592 |
| 1 1/2     | 47.803 | 44.845  | 45.485 |
| 2         | 59.614 | 56.656  | 57.296 |

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## TAPERED PIPE THREADS

Note: Taper 1:16

## BRITISH STANDARD PIPE THREAD BSPT

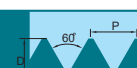
| size<br>D<br>inch | OD     | Rc(PT)              |         | Rp(PS)              |         |
|-------------------|--------|---------------------|---------|---------------------|---------|
|                   |        | calculated<br>value | Drill Ø | calculated<br>value | Drill Ø |
| 1/16              | 7.723  | 6.23                | 6.2     | 6.49                | 6.5     |
| 1/8               | 9.728  | 8.235               | 8.2     | 8.495               | 8.5     |
| 1/4               | 13.157 | 10.941              | 10.9    | 11.341              | 11.4    |
| 3/8               | 16.662 | 14.428              | 14.4    | 14.846              | 14.9    |
| 1/2               | 20.955 | 17.95               | 18      | 18.489              | 18.5    |
| 3/4               | 26.441 | 23.349              | 23      | 23.975              | 24      |
| 1                 | 33.249 | 29.423              | 29      | 30.111              | 30      |
| 1 1/4             | 41.91  | 37.94               | 38      | 38.772              | 39      |
| 1 1/2             | 47.803 | 43.833              | 44      | 44.565              | 45      |
| 2                 | 59.614 | 55.412              | 55      | 56.476              | 56      |

## AMERICAN TAPERED PIPE THREAD NPT

| size<br>D<br>inch | OD     | Rc                  |                         | Rp                  |                         |
|-------------------|--------|---------------------|-------------------------|---------------------|-------------------------|
|                   |        | Drill Ø             |                         | Drill Ø             |                         |
|                   |        | When using a reamer | When not using a reamer | When using a reamer | When not using a reamer |
| 1/16              | 7.77   | -                   | 5.94                    | -                   | 6.15                    |
| 1/8               | 10.117 | 21/64               | 8.33                    | -                   | 8.74                    |
| 1/4               | 13.426 | 27/64               | 10.72                   | 7/16                | 11.13                   |
| 3/8               | 16.866 | 9/16                | 14.27                   | 9/16                | 14.27                   |
| 1/2               | 20.98  | 11/16               | 17.48                   | 45/64               | 17.86                   |
| 3/4               | 26.325 | 57/64               | 22.63                   | 29/32               | 23.01                   |
| 1                 | 32.934 | 1-1/8               | 28.58                   | 1-9/64              | 28.98                   |
| 1 1/4             | 41.689 | 1-15/32             | 37.31                   | 1-31/64             | 37.69                   |
| 1 1/2             | 47.76  | 1-45/64             | 43.26                   | 1-23/32             | 43.66                   |
| 2                 | 59.797 | 2-11/64             | 55.17                   | 2-3/16              | 55.58                   |

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## STI CUTTING TAPS



## METRIC THREAD M(STI)

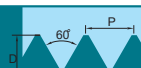
| size<br>D × P<br>mm mm | Drill hole dia. |       | Suitable<br>Drill dia. |
|------------------------|-----------------|-------|------------------------|
|                        | MIN             | MAX   |                        |
| ST M2.5x0.45           | 2.6             | 2.69  | 2.65                   |
| M2.6x0.45              | 2.7             | 2.79  | 2.75                   |
| M3x0.5                 | 3.12            | 3.2   | 3.15                   |
| M4x0.7                 | 4.17            | 4.3   | 4.25                   |
| M5x0.8                 | 5.18            | 5.33  | 5.25                   |
| M6x1                   | 6.22            | 6.4   | 6.3                    |
| M8x1.25                | 8.28            | 8.48  | 8.4                    |
| M10x1.5                | 10.33           | 10.56 | 10.45                  |
| M12x1.75               | 12.38           | 12.64 | 12.5                   |
| M14x2                  | 14.44           | 14.73 | 14.6                   |
| M16x2                  | 16.44           | 16.73 | 16.66                  |
| M10x1                  | 10.25           | 10.4  | 10.3                   |
| M10x1.25               | 10.31           | 10.48 | 10.4                   |
| M12x1.25               | 12.28           | 12.48 | 12.4                   |
| M12x1.5                | 12.33           | 12.56 | 12.5                   |
| M14x1.5                | 14.33           | 14.56 | 14.5                   |
| M16x1.5                | 16.33           | 16.56 | 16.5                   |

## UNIFIED THREAD U(STI)

| size<br>D × P/1" inch (tpi) | Drill hole dia. |       | Suitable<br>Drill dia. |
|-----------------------------|-----------------|-------|------------------------|
|                             | MIN             | MAX   |                        |
| ST NO.2-56UNC               | 2.29            | 2.44  | 2.35                   |
| NO.3-48UNC                  | 2.64            | 2.83  | 2.75                   |
| NO.4-40UNC                  | 2.99            | 3.18  | 3.10                   |
| NO.5-40UNC                  | 3.31            | 3.52  | 3.40                   |
| NO.6-32UNC                  | 3.68            | 3.87  | 3.75                   |
| NO.8-32UNC                  | 4.33            | 4.52  | 4.45                   |
| NO.10-24UNC                 | 5.60            | 5.25  | 5.20                   |
| NO.12-24UNC                 | 5.72            | 5.92  | 5.80                   |
| 1/4-20UNC                   | 6.63            | 6.86  | 6.75                   |
| 5/16-18UNC                  | 8.33            | 8.48  | 8.40                   |
| 3/8-16UNC                   | 9.87            | 10.12 | 10.00                  |
| NO.4-48UNF                  | 2.97            | 3.15  | 3.05                   |
| NO.6-40UNF                  | 3.66            | 3.81  | 3.75                   |
| NO.8-36UNF                  | 4.33            | 4.49  | 4.40                   |
| NO.10-32UNF                 | 5.00            | 4.18  | 5.10                   |
| 1/4-28UNF                   | 6.55            | 6.72  | 6.65                   |
| 5/16-24UNF                  | 8.2             | 8.35  | 8.25                   |
| 3/8-24UNF                   | 9.78            | 9.96  | 9.85                   |

## 6

## STI FORMING TAPS



| 公制螺纹                   |           | M(STI)                                |
|------------------------|-----------|---------------------------------------|
| size<br>D × P<br>mm mm | Precision | Min.-Max<br>(Threads Overlap Rveto:%) |
| ST M2×0.4              | RH2       | 2.31 ~ 2.33(100-80)                   |
| M2.5×0.45              | RH2       | 2.84 ~ 2.87(100-80)                   |
| M2.6×0.45              | RH2       | 2.94 ~ 2.97(100-80)                   |
| M3×0.5                 | RH3       | 3.39 ~ 3.43(100-80)                   |
| M4×0.7                 | RH4       | 4.54 ~ 4.58(100-85)                   |
| M5×0.8                 | RH4       | 5.61 ~ 5.66(100-85)                   |
| M6×1                   | RH4       | 6.75 ~ 6.81(100-85)                   |
| M8×1.25                | RH5       | 8.93 ~ 9.01(100-85)                   |
| M10×1.5                | RH5       | 11.11 ~ 11.17(100-90)                 |
| M10×1.25               | RH5       | 10.93 ~ 11.01(100-85)                 |
| M12×1.75               | RH5       | 13.28 ~ 13.35(100-90)                 |
| M12×1.5                | RH5       | 13.11 ~ 13.17(100-90)                 |
| M12×1.25               | RH4       | 12.93 ~ 13.01(100-85)                 |

## 7

## READS FOR THE AEROSPACE INDUSTRY

UNJC/UNJF

| Specification | Recommend<br>Drill Hole<br>Dia | 3B drill hole dia |       |
|---------------|--------------------------------|-------------------|-------|
|               |                                | MAX               | MIN   |
| NO.6-32UNJC   | 2.84                           | 2.74              | 2.93  |
| 6-40UNJF      | 2.97                           | 2.89              | 3.05  |
| 8-32UNJC      | 3.5                            | 3.4               | 3.59  |
| 8-36UNJF      | 3.57                           | 3.48              | 3.66  |
| 10-24UNJC     | 3.93                           | 3.8               | 4.06  |
| 10-32UNJF     | 4.16                           | 4.06              | 4.25  |
| 1/4-20UNJC    | 5.25                           | 5.12              | 5.38  |
| 1/4-28UNJF    | 5.57                           | 5.47              | 5.66  |
| 5/16-18UNJC   | 6.7                            | 6.57              | 6.83  |
| 5/16-24UNJF   | 7.01                           | 6.91              | 7.1   |
| 3/8-16UNJC    | 8.12                           | 7.98              | 8.25  |
| 3/8-24UNJF    | 8.59                           | 8.5               | 8.67  |
| 7/16-14UNJC   | 9.49                           | 9.35              | 9.63  |
| 7/16-20UNJF   | 9.98                           | 9.88              | 10.08 |
| 1/2-13UNJC    | 10.95                          | 10.8              | 11.09 |
| 1/2-20UNJF    | 11.57                          | 11.47             | 11.66 |

## TECHNICAL PERFORMANCE

General tapping speed varies depending on working conditions such as workpiece material, pilot hole shape, tap type, tap material, surface treatment, cutting fluid type, and tapping equipment/method. Please consider these factors carefully when selecting parameters.

The table below shows reference cutting speeds for various workpiece materials under general conditions. Please refer to the data in the table and your own cutting conditions to select the most appropriate cutting speed.

| Workpiece Material        | Symbol          | Tapping Speed for Various Tap Types (M/min) |                  |                  |             |               |
|---------------------------|-----------------|---------------------------------------------|------------------|------------------|-------------|---------------|
|                           |                 | Straight Flute Tap                          | Spiral Flute Tap | Spiral Point Tap | Carbide Tap | Roll Form Tap |
| Low Carbon Steel          | SS400.S10C~S25C | 6~10                                        | 8~15             | 10~20            | -           | 8~15          |
| Medium Carbon Steel       | S25C~S45C       | 5~9                                         | 6~12             | 8~14             | -           | 7~12          |
| High Carbon Steel         | S45C~S58C       | 5~8                                         | 5~10             | 8~12             | -           | -             |
| Alloy Steel               | SCM.SNCM        | 5~8                                         | 5~10             | 7~10             | -           | 5~10          |
| Quenched & Tempered Steel | 20~35HRC        | 3~6                                         | 3~5              | 4~7              | -           | -             |
| Stainless Steel           | SUS             | 3~7                                         | 3~8              | 4~9              | -           | 6~15          |
| Die Steel                 | SKD             | 5~9                                         | 5~8              | 6~10             | -           | -             |
| Cast Steel                | SC              | 6~10                                        | 6~10             | 8~13             | -           | -             |
| Gray Cast Iron            | FC              | 12~17                                       | 9~16             | 10~18            | 15~25       | -             |
| Ductile Cast Iron         | FCD             | 5~8                                         | 5~10             | 5~10             | 12~20       | -             |
| Copper                    | Cu              | 7~11                                        | 8~12             | 8~13             | 15~33       | 25~35         |
| Brass, Brass Castings     | Bs.BsC          | 10~20                                       | 11~22            | 13~25            | 23~33       | 25~35         |
| Phosphor Bronze           | PB.PBC          | 8~15                                        | 8~15             | 10~18            | 18~33       | 25~35         |
| Wrought Aluminum          | Al              | 15~20                                       | 15~25            | 20~25            | 23~40       | 25~35         |
| Aluminum Alloy Castings   | AC.ADC          | 10~20                                       | 11~22            | 12~24            | 15~25       | 15~25         |
| Magnesium Alloy Castings  | MC              | 7~15                                        | 7~15             | 10~20            | 12~20       | 15~25         |
| Zinc Alloy Castings       | ZDC             | 7~15                                        | 7~15             | 10~20            | 12~20       | 15~25         |
| Plastics, Resins          | -               | 10~15                                       | 11~17            | 12~18            | 12~25       | -             |
| Titanium Alloy            | 6Al-4V          | -                                           | 3~5              | 5~7              | -           | -             |
| Nickel-based Alloy        | -               | -                                           | 1~3              | 2~4              | -           | -             |

Note 1: Currently, the mainstream cutting fluids on the market are divided into water-soluble cutting fluids and oil-based cutting fluids.

Note 2: Water-soluble cutting fluid is recommended for aluminum alloy castings; oil-based cutting fluid is recommended for stainless steel.

Note 3: Both types are generally compatible with other materials.

