

# 丝锥选型基准表 TAP SELECTION CHART



盲孔 Blind Hole

| 名称<br>Type   | 丝锥记号<br>Symbol | 登记页码<br>Page No. | 表面处理<br>Surface Treatment | 切削锥(牙数)<br>Chamber Length<br>(Number of Threads) | 攻丝深度<br>(D:丝锥大径)<br>Effective Tapping length<br>(D:Thread dia.) |       |       | 加工材料 Work Material                     |                               |                             |                    |  |
|--|----------------|------------------|---------------------------|--|---|-------|-------|--|-------------------------------|-----------------------------|--------------------|--|
|  |                |                  |                           |  | <1.5D   | <2.5D | >2.5D | 低碳素钢<br>Low Carbon Steel<br>Mild Steel | 中碳钢<br>Medium Carbon<br>Steel | 高碳钢<br>High Carbon<br>Steel | 合金钢<br>Alloy Steel |  |
|  |                |                  |                           |  |   |       |       | C<br>~0.25%                            | C0.25%<br>~0.45%              | C<br>0.45%~                 | SCM                |  |
| A 丝锥·A 丝锥(立铣刀柄)<br>A-TAP·A-TAP (Endmill Shank)                               | A-SFT          | 569~576          | V                         | 2.5  | ○   | ○     |       | ○                                      | ○                             | ○                           | ○                  |  |
| A 丝锥<br>A-TAP  | A-SFT          | 576              | V                         | 1.5  | ○   | ○     |       | ○                                      | ○                             | ○                           | ○                  |  |
| A 丝锥长柄型丝锥·A 丝锥长柄型(立铣刀柄)<br>A-TAP Long Shank·A-TAP Long Shank (Endmill Shank) | A-LT-SFT       | 577~580          | V                         | 2.5  | ○   | ○     |       | ○                                      | ○                             | ○                           | ○                  |  |
| 一般用<br>General Application   | EX-SFT         | 581~591          |                           | 2.5  | ○   | ○     |       | ○                                      | ○                             | ○                           | ○                  |  |
| 一般用长柄型<br>Long Shank-General Application                                     | EX-LT-SFT      | 592~598          |                           | 2.5  | ○   | ○     |       | ○                                      | ○                             | ○                           | ○                  |  |
| 一般用氧化处理<br>General Application (with OX)                                     | EX-H-SFT       | 599~600          | 氧化<br>OX                  | 2.5  | ○   | ○     |       | ○                                      | ○                             | ○                           | ○                  |  |
| 一般用氧化处理长柄型<br>Long Shank-General Application (with OX)                       | EX-LT-H-SFT    | 601~602          | 氧化<br>OX                  | 2.5  | ○   | ○     |       | ○                                      | ○                             | ○                           | ○                  |  |
| 短切削锥型<br>Short Chamfer type  | EX-SC-SFT      | 603~605          |                           | 1.5  | ○   | ○     |       | ○                                      | ○                             | ○                           | ○                  |  |
| 长柄短切削锥型<br>Short Chamfer type·Long Shank                                     | LT-SC-SFT      | 606              |                           | 1.5  | ○   | ○     |       | ○                                      | ○                             | ○                           | ○                  |  |
| 高强度钢用<br>For High Strength Steels  | VP-SFT         | 607              | V                         | 2.5  | ○   | ○     | ○     |  | ○                             | ○                           | ○                  |  |
| V 涂层<br>V coated   | V-SFT          | 608              | V                         | 2.5  | ○   | ○     |       | ○                                      | ○                             | ○                           | ○                  |  |
| V 涂层长柄型<br>V coated·Long Shank   | V-LT-SFT       | 609              | V                         | 2.5  | ○   | ○     |       | ○                                      | ○                             | ○                           | ○                  |  |
| 大型部件加工用(卧式加工机用)<br>For Machining Large Parts (For Horizontal Machines)       | HXL-SFT        | 610              | 氧化<br>OX                  | 2.5  | ○   |       |       | ○                                      | ○                             | ○                           | ○                  |  |
| 大型部件加工用(立式加工机用)<br>For Machining Large Parts (For Vertical Machines)         | VXL-SFT        | 611              | 氧化<br>OX                  | 2.5  | ○   | ○     |       | ○                                      | ○                             | ○                           | ○                  |  |
| TiN 涂层<br>TiN coated   | TIN-SFT        | 612              | TiN                       | 2.5  | ○   | ○     |       | ○                                      | ○                             | ○                           | ○                  |  |
| TiN 涂层长柄型<br>TiN coated·Long Shank   | TIN-LT-SFT     | 613              | TiN                       | 2.5  | ○   | ○     |       | ○                                      | ○                             | ○                           | ○                  |  |
| 难加工材料<br>For Difficult to Machine Materials                                  | CPM-SFT        | 614              |                           | 3  | ○   | ○     |       | ○                                      | ○                             | ○                           | ○                  |  |
| 难加工材料用长柄型<br>Long Shank-for Difficult to Machine Materials                   | CPM-LT-SFT     | 615              |                           | 3  | ○   | ○     |       | ○                                      | ○                             | ○                           | ○                  |  |
| 不锈钢加工用(适用水溶性切削油剂)<br>For Stainless Steels (with water-soluble)               | CC-SUS-SFT     | 616              | CrN                       | 2.5  | ○   | ○     |       | ○                                      | ○                             | ○                           | ○                  |  |
| 不锈钢<br>For Stainless Steels  | EX-SUS-SFT     | 617~620          | 氧化<br>OX                  | 2.5  | ○   | ○     |       | ○                                      | ○                             | ○                           | ○                  |  |
| 不锈钢长柄型<br>Long Shank-for Stainless Steels                                    | EX-LT-SUS-SFT  | 621~622          | 氧化<br>OX                  | 2.5  | ○   | ○     |       | ○                                      | ○                             | ○                           | ○                  |  |
| 不锈钢·深孔用<br>For Stainless Steels·Deep Holes                                   | SUS-DH-SFT     | 623              | 氧化<br>OX                  | 2.5  | ○   | ○     | ○     |  | ○                             | ○                           | ○                  |  |
| 不锈钢·深孔用长柄<br>Long Shank·for Stainless Steels·Deep Holes                      | LT-SUS-DH-SFT  | 624              | 氧化<br>OX                  | 2.5  | ○   | ○     | ○     |  | ○                             | ○                           | ○                  |  |
| 软钢·深孔用<br>For Mild Steels and Deep Holes                                     | MS-DH-SFT      | 625~626          | 氧化<br>OX                  | 2.5  | ○   | ○     | ○     | ○                                      |                               | ○                           | ○                  |  |
| 软钢·深孔用长柄<br>Long Shank-for Mild Steels and Deep Holes                        | LT-MS-DH-SFT   | 627              | 氧化<br>OX                  | 2.5  | ○   | ○     | ○     | ○                                      |                               | ○                           | ○                  |  |
| 非铁合金·深孔用<br>For Non-Ferrous Metals and Deep Holes                            | EX-B-DH-SFT    | 628              |                           | 2.5  | ○   | ○     | ○     |  | ○                             | ○                           | ○                  |  |
| 小螺旋角<br>Low Spiral   | LW-SFT         | 629              |                           | 2.5  | ○   | ○     |       | ○                                      | ○                             | ○                           | ○                  |  |
| 带内冷油孔<br>With Internal Coolant Supply  | OIL-SFT        | 630              | 氧化<br>OX                  | 2.5  | ○   | ○     |       | ○                                      | ○                             | ○                           | ○                  |  |
| 铝用<br>For Aluminium  | EX-AL-SFT      | 631              |                           | 2.5  | ○   | ○     |       | ○                                      | ○                             | ○                           | ○                  |  |
| 平行管螺纹丝锥<br>Carbide Spiral Fluted   | OT-SFT         | 632              |                           | 1.5  | ○   | ○     | ○     |  | ○                             | ○                           | ○                  |  |
|  |                |                  |                           | 2.5  | ○   | ○     | ○     |  | ○                             | ○                           | ○                  |  |
| A-TAP 硬质合金<br>A-TAP Carbide  | A-CSF          | 633              | FX                        | 1.5  | ○   | ○     | ○     |  | ○                             | ○                           | ○                  |  |
| 高碳钢用<br>For High Carbon Steels   | EX-HC-SFT      | 634              |                           | 3  | ○   | ○     |       | ○                                      | ○                             | ○                           | ○                  |  |
| 铜用<br>For Copper   | CU-SFT         | 635              | CrN                       | 2.5  | ○   | ○     |       | ○                                      | ○                             | ○                           | ○                  |  |
| 钛合金用<br>For Titanium Alloys  | V-TI-SFT       | 636              | V                         | 2.5  | ○   | ○     |       | ○                                      | ○                             | ○                           | ○                  |  |
| 镍基超耐热合金用 HR 涂层<br>HR coated for Nickel Alloys                                | WHR-NI-SFT     | 637              | HR                        | 2.5  | ○   | ○     |       | ○                                      | ○                             | ○                           | ○                  |  |
| 镍基超耐热合金用<br>For Nickel Alloys  | NI-SFT         | 638              |                           | 2.5  | ○   | ○     |       | ○                                      | ○                             | ○                           | ○                  |  |

OX: with OX TiN: TiN coating V: V coating WX: WX (TiAlN) coating FX: FX (TiAlN) coating CrN: CrN coating N: with Nitride

- 此表是丝锥在一般条件下的选择标准, 根据使用条件的不同而改变。
- 使用标准精度的丝锥加工出的螺纹偏小, 或加工电镀前螺纹时, 可使用中径加大型丝锥。

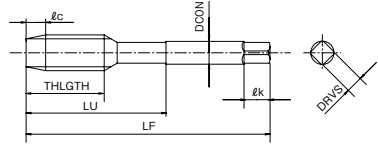
- These recommendations are general, and may be altered depending on tapping conditions.
- Oversized taps are appropriate when a standard tap produces a thread that is too small, or when tapping before plating.



# 软钢·深孔用长柄

LONG SHANK · FOR MILD STEELS AND DEEP HOLES

## LT-MS-DH-SFT



### 螺纹种类：M

| 商品号<br>EDP NO. | 螺纹尺寸<br>Thread Size | 精度标记<br>Grade | 精度<br>TAP Limit | 切削刃长<br>$\phi c$ | 全长<br>LF | 螺纹长<br>THLGTH | 颈长<br>LU | 柄径<br>DCON | 槽数<br>NOF | 突顶尖<br>External Center | 库存<br>Stock | 重量<br>(g) |
|----------------|---------------------|---------------|-----------------|------------------|----------|---------------|----------|------------|-----------|------------------------|-------------|-----------|
| 13980          | M 3 × 0.5           |               |                 |                  | 120      | 9             | 59       | 4          | 2         | —                      | —           | 10        |
| 13982          | M 4 × 0.7           |               |                 |                  | 120      | 10            | 60       | 5          | —         | 有                      | —           | 13        |
| 13984          | M 5 × 0.8           |               |                 |                  | 120      | 11            | 61       | 5.5        | —         | 有                      | —           | 18        |
| 13986          | M 6 × 1             |               |                 |                  | 120      | 12            | 62       | 6          | —         | 有                      | —           | 21        |
| 13988          | M 8 × 1.25          |               |                 |                  | 150      | 13            | 63       | 6.2        | —         | —                      | —           | 36        |
| 13990          | M10 × 1.5           | STD           | OH2             | 2.5P             | 150      | 15            | 65       | 7          | —         | —                      | ●           | 47        |
| 13992          | M10 × 1.25          |               |                 |                  | 150      | 15            | 65       | 7          | —         | —                      | —           | 46        |
| 13994          | M12 × 1.75          |               |                 |                  | 150      | 18            | 68       | 8.5        | —         | —                      | —           | 68        |
| 13996          | M12 × 1.5           |               |                 |                  | 150      | 18            | 68       | 8.5        | —         | —                      | —           | 69        |
| 13998          | M12 × 1.25          |               |                 |                  | 150      | 18            | 68       | 8.5        | —         | —                      | —           | 69        |
| 18772          | M14 × 2             |               |                 |                  | 150      | 20            | 70       | 10.5       | —         | —                      | —           | 97        |

■ 突顶尖长·柄部四方部尺寸  $\phi k$ , DRVS 请参考 P.963.

1. 精度栏 是适合加工2级内螺纹的丝锥的推荐精度。(参照 P.817)
2. 2002年7月前生产品中 M3 为突顶尖。
3. 丝锥精度不能够保证内螺纹的精度。
4. 切削剂请参考 P.958.

单位:mm Unit:mm

| 商品号<br>EDP NO. | 螺纹尺寸<br>Thread Size | 精度标记<br>Grade | 精度<br>TAP Limit | 切削刃长<br>$\phi c$ | 全长<br>LF | 螺纹长<br>THLGTH | 颈长<br>LU | 柄径<br>DCON | 槽数<br>NOF | 突顶尖<br>External Center | 库存<br>Stock | 重量<br>(g) |
|----------------|---------------------|---------------|-----------------|------------------|----------|---------------|----------|------------|-----------|------------------------|-------------|-----------|
| 18776          | M14 × 1.5           |               |                 |                  | 150      | 20            | 70       | 10.5       | —         | —                      | —           | 100       |
| 18779          | M16 × 2             | STD           | OH2             |                  | 150      | 20            | 70       | 12.5       | 3         | —                      | —           | 136       |
| 18783          | M16 × 1.5           |               |                 |                  | 150      | 20            | 70       | 12.5       | —         | —                      | —           | 134       |
| 18786          | M18 × 2.5           | STD           | OH3             |                  | 150      | 25            | 75       | 14         | —         | —                      | —           | 166       |
| 18789          | M18 × 1.5           | STD           | OH2             |                  | 150      | 25            | 75       | 14         | —         | —                      | —           | 172       |
| 18792          | M20 × 2.5           | STD           | OH3             | 2.5P             | 150      | 25            | 75       | 15         | —         | —                      | ●           | 195       |
| 18795          | M20 × 1.5           | STD           | OH2             |                  | 150      | 25            | 75       | 15         | —         | —                      | —           | 200       |
| 18799          | M22 × 2.5           | STD           | OH3             |                  | 200      | 25            | 75       | 17         | —         | —                      | —           | 333       |
| 18802          | M22 × 1.5           | STD           | OH2             |                  | 200      | 25            | 75       | 17         | —         | —                      | —           | 327       |
| 18805          | M24 × 3             | STD           | OH3             |                  | 200      | 30            | 80       | 19         | —         | —                      | —           | 412       |
| 18808          | M24 × 1.5           | STD           | OH2             |                  | 200      | 30            | 80       | 19         | —         | —                      | —           | 416       |

■ Please see p.963 for length of external center and shank square length  $\phi k$  and width DRVS.

1. The recommended TAP Limit corresponds to JIS class 2 internal thread standard. (see p.817)
2. Taps of M3 or less produced before July 2002 have external center.
3. TAP Limit does not guarantee thread limit for the internal thread after tapping.
4. Cutting fluid and Paste : Please refer to p.958.

钻头  
DRILL

丝锥  
TAP

SPECIFICATION CHARTS  
形状尺寸表

量规  
GAGE

板牙  
ROUND DIE

滚丝工具  
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INDEX

THREAD MILL  
螺纹铣刀

FLUTELESS TAP  
挤压丝锥

SPIRAL FLUTED TAP  
螺旋槽丝锥

SPIRAL POINTED TAP  
刃倾角丝锥

HAND TAP  
直槽丝锥

TAPER PIPE THREADS (UK)  
锥管螺纹用丝锥(英式)

PARALLEL PIPE THREADS (UK)  
平行管螺纹用丝锥(英式)

TAPER PIPE THREADS (ANSI)  
锥管螺纹用丝锥(美式)

PARALLEL PIPE THREADS (ANSI)  
平行管螺纹用丝锥(美式)

INSERT SCREW THREAD TAP  
嵌套螺纹用丝锥

NUT TAP  
螺母丝锥

MACHINING CENTER TAP  
加工中心用丝锥

DRILL TAP  
钻攻一体丝锥

| 加工材料<br>Work Material | 低碳钢<br>Soft Carbon Steel | 中碳钢<br>Medium Carbon Steel | 高碳钢<br>High Carbon Steel | 合金钢<br>Alloy Steel | 调质钢<br>Hardened Steel | 不锈钢<br>Stainless Steel | 工具钢<br>Tool Steel | 铸钢<br>Cast Steel | 铸铁<br>Cast Iron | 球墨铸铁<br>Ductile Cast Iron | 铜<br>Copper | 黄铜<br>Brass | 青铜<br>Bronze | 变形铝<br>合金<br>Aluminum Rolled | 铝合金<br>铸件<br>Aluminum Alloy Casting | 镁合金<br>铸件<br>Magnesium Alloy Casting | 锌合金<br>铸件<br>Zinc Alloy Casting | 钛合金<br>Titanium Alloy | 镍基合金<br>Nickel Alloy | 热硬化性塑料<br>Thermo Setting Plastic | 热可塑性塑料<br>Thermo Plastic |  |   |
|-----------------------|--------------------------|----------------------------|--------------------------|--------------------|-----------------------|------------------------|-------------------|------------------|-----------------|---------------------------|-------------|-------------|--------------|------------------------------|-------------------------------------|--------------------------------------|---------------------------------|-----------------------|----------------------|----------------------------------|--------------------------|--|---|
| 商品记号<br>Abbreviation  | C                        | C0.25%~0.45%               | C                        | SCM                | 25~35 HRC             | 35~45 HRC              | 45~50 HRC         | 50~60 HRC        | SUS             | SKD                       | SC          | FC          | FCD          | Cu                           | Bs                                  | BsC                                  | PB                              | AL                    | ACADC                | MC                               | ZDC                      |  |   |
| LT-MS-DH-SFT          | ○                        | ○                          | ○                        | ○                  |                       |                        |                   |                  |                 |                           | ◎           |             |              |                              |                                     |                                      |                                 |                       |                      |                                  |                          |  | ○ |

●=标准库存品 ●=Standard stock item. □=特定代理店库存品 □=Stocked by specific distributors. Contact us for price & availability.