



广东优能特五金科技有限公司

GUANGDONG UNT CUTTING TOOLS CO., LTD.

# HSS END MILLS DRILL TAPS REAMER

## 高速钢铁刀 钻头 丝攻 铰刀



[www.unt-tools.com](http://www.unt-tools.com)

Available are various endmill configurations including Finishers, roughers, ball nose, reamer, dovetail, chamfering, T-slot, counterborers and corner rounding tools.

各种铣刀类型，包括精加工，粗加工，球头刀，铰刀，燕尾刀，倒角刀，T槽，沉孔刀和圆角刀。

# INTRODUCTION

## 公司简介

### 广东优能特五金科技有限公司

优能特是一家CNC铣削刀具的大型制造商。

优能特在中国东莞拥有一个9,000平方米的工业园区，进口了35台澳大利亚ANCA数控磨床，5台Walter数控磨床、55个工程师和35个销售员。

我们建立了ISO9001质量控制体系，使用优质稳定的德国硬质合金棒，SWISS SOERLIKON新涂层技术以提高抗氧化性和热硬度。我们进口德国ZOLLER数字测量仪器等精密测试设备，以确保稳定的尺寸精度和优良的表面质量。

我们已经成为知名品牌工具的OEM合作伙伴15年，我们的仓库1500 SQM拥有数百万库存，可在24小时内发货给立铣刀。

优能特切削刀具已分布在欧洲，亚洲，北美和许多其他城市，热销产品包括高性能硬质合金立铣刀EMC /X5070系列，HRC55硬质合金立铣刀，EMF金刚石涂层刀具，螺纹和丝锥，冷却液钻头，超微型立铣刀，用于不锈钢的EMD等，以及各种定制尺寸的CNC铣削工具。

我们拥有提供全方位服务的设计和工程人员，以及Markets销售人员，可以根据您的特定规格构建自定义工具的多层次结构。

我们的目标是帮助每个客户获得最大的利益，建立世界一流的优质切削刀具品牌。

选择好的工具，选择“优能特”精密工具！

### Guangdong UNT Cutting Tools Co., Ltd.

UNT' is a big manufacturer of CNC Milling tools.

UNT' owned an industrial park 9,000 SQM in Dongguan China, imported Australian ANCA CNC grinding machines 35 sets, Walter CNC Cutter Grinders 5 sets, and 55 engineer design teams and 30 salesmen.

We established an ISO9001 quality control system, use high-quality and stable German Carbide Rods, SWISS OERLIKON new coating technologies, to improve the oxidation resistance and hot hardness. We import Germany ZOLLER Digital Measuring Instruments, such as precision testing equipment, to ensure stable dimensional accuracy and fine surface quality.

We have been an OEM Partner for Well-known brand tools for 15 years, Our warehouse 1500 SQM with millions of in-stock, ready to shipping end mills in 24 hours.

UNT Cutting tools have been distributed in Europe, Asia, North America, and many other cities, Hot sales products include High-performance Carbide end mills EMC/X5070 series, HRC55 Carbide end mills, EMF Diamond Coated Tools, Thread & tap, Coolant drills, Super-micro end mills, EMD for Stainless steels, etc, and all kinds of custom-sized CNC Milling tools.

We have a full-service design and engineering staff, and Markets sales to build a multilevel of variations of custom tools to your specific specifications.

Our aim is to help every customer achieve maximum benefits, to build a world-class quality cutting tool brand.

Choose the good Tools, Choose "UNT" Precision Tools.



# HSS End Mills, Drill, Taps, Reamer

高速钢铁刀 钻头 丝攻 铰刀

- ▶ Suitable for general-purpose operation slotting, drilling, profiling.  
适用于一般用途的槽铣、钻孔、仿形加工



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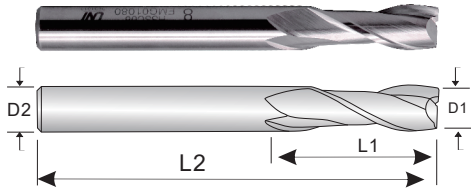
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|                | EMG07      |    | HSS Co8 公制二刃球头铣刀/粗皮铣刀<br>HSS Co8, 2 flute Ball end mills/Roughing cutter, Regular Length (Metric)   | 5          |
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## HSS Co8 公制二刃普长平底铣刀

## HSS Co8, 2 flute Square end mills (Metric)

- ★ 这类铣刀按右螺旋、右切削标准制作
- ★ 用于铣槽、钻削和铣型腔及一般用

- These end mills are furnished as regular with right-hand cutting and right-hand helical flutes.
- These are designed for slotting, drilling, pocketing and general purpose operation.



## EMG01 SERIES

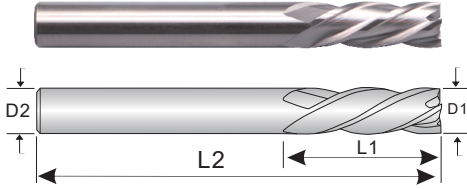
| 优能特订货代码     | 刀径             | 柄径              | 刃长                 | 全长             | 刃数     |
|-------------|----------------|-----------------|--------------------|----------------|--------|
| UNT EDP NO. | Mill Dia<br>D1 | Shank Dia<br>D2 | Flute length<br>L1 | O. A. L.<br>L2 | Flutes |
| EMG01010    | 1.0            | 6               | 2.5                | 55             | 2      |
| EMG01015    | 1.5            | 6               | 4                  | 55             | 2      |
| EMG01020    | 2.0            | 6               | 6                  | 55             | 2      |
| EMG01025    | 2.5            | 6               | 7                  | 55             | 2      |
| EMG01030    | 3.0            | 6               | 10                 | 55             | 2      |
| EMG01035    | 3.5            | 6               | 12                 | 55             | 2      |
| EMG01040    | 4.0            | 6               | 12                 | 55             | 2      |
| EMG01045    | 4.5            | 6               | 15                 | 60             | 2      |
| EMG01050    | 5.0            | 6               | 15                 | 60             | 2      |
| EMG01055    | 5.5            | 6               | 15                 | 60             | 2      |
| EMG01060    | 6.0            | 6               | 15                 | 60             | 2      |
| EMG01065    | 6.5            | 8               | 15                 | 65             | 2      |
| EMG01070    | 7.0            | 8               | 20                 | 70             | 2      |
| EMG01075    | 7.5            | 8               | 20                 | 70             | 2      |
| EMG01080    | 8.0            | 8               | 20                 | 70             | 2      |
| EMG01085    | 8.5            | 10              | 25                 | 80             | 2      |
| EMG01090    | 9.0            | 10              | 25                 | 80             | 2      |
| EMG01095    | 9.5            | 10              | 25                 | 80             | 2      |
| EMG01100    | 10.0           | 10              | 25                 | 80             | 2      |
| EMG01105    | 10.5           | 12              | 30                 | 90             | 2      |
| EMG01110    | 11.0           | 12              | 30                 | 90             | 2      |
| EMG01115    | 11.5           | 12              | 30                 | 90             | 2      |
| EMG01120    | 12.0           | 12              | 30                 | 90             | 2      |
| EMG01125    | 12.2           | 12              | 35                 | 95             | 2      |
| EMG01130    | 13.0           | 12              | 35                 | 95             | 2      |
| EMG01135    | 13.5           | 12              | 35                 | 95             | 2      |
| EMG01140    | 14.0           | 12              | 35                 | 95             | 2      |
| EMG01150    | 15.0           | 16              | 40                 | 105            | 2      |
| EMG01160    | 16.0           | 16              | 40                 | 105            | 2      |
| EMG01170    | 17.0           | 16              | 40                 | 105            | 2      |
| EMG01180    | 18.0           | 16              | 40                 | 105            | 2      |
| EMG01190    | 19.0           | 20              | 45                 | 115            | 2      |
| EMG01200    | 20.0           | 20              | 45                 | 115            | 2      |
| EMG01210    | 24.0           | 20              | 45                 | 115            | 2      |
| EMG01220    | 22.0           | 20              | 45                 | 115            | 2      |
| EMG01230    | 23.0           | 25              | 50                 | 125            | 2      |
| EMG01240    | 24.0           | 25              | 50                 | 125            | 2      |
| EMG01250    | 25.0           | 20              | 50                 | 120            | 2      |
| EMG01251    | 25.0           | 25              | 50                 | 125            | 2      |
| EMG01280    | 28.0           | 25              | 55                 | 125            | 2      |
| EMG01300    | 30.0           | 25              | 55                 | 125            | 2      |
| EMG01320    | 32.0           | 32              | 60                 | 145            | 2      |

| MILL DIA.<br>TOLERANCE (mm)<br>刃径公差 (mm) | SHANK DIA.<br>TOLERANCE<br>柄径公差 |
|--|---------------------------------|
| 0<br>-0.035                              | H6                              |

**HSS Co8 公制四刃普长平底铣刀**
**HSS Co8, 4 flute Square end mills (Metric)**

- ★ 这类铣刀按右螺旋、右切削标准制作
- ★ 用于铣槽、钻削和铣型腔及一般用

- These end mills are furnished as regular with right-hand cutting and right-hand helical flutes.
- These are designed for slotting, drilling, pocketing and general purpose operation.


**EMG02 SERIES**

| 优能特订货代码     | 刀径             | 柄径              | 刃长                 | 全长             | 刃数     |
|-------------|----------------|-----------------|--------------------|----------------|--------|
| UNT EDP NO. | Mill Dia<br>D1 | Shank Dia<br>D2 | Flute length<br>L1 | O. A. L.<br>L2 | Flutes |
| EMG02010    | 1.0            | 6               | 2.5                | 55             | 4      |
| EMG02020    | 2.0            | 6               | 6                  | 55             | 4      |
| EMG02030    | 3.0            | 6               | 10                 | 55             | 4      |
| EMG02040    | 4.0            | 6               | 12                 | 55             | 4      |
| EMG02050    | 5.0            | 6               | 15                 | 60             | 4      |
| EMG02060    | 6.0            | 6               | 15                 | 60             | 4      |
| EMG02080    | 8.0            | 8               | 20                 | 70             | 4      |
| EMG02100    | 10.0           | 10              | 25                 | 80             | 4      |
| EMG02120    | 12.0           | 12              | 30                 | 90             | 4      |
| EMG02140    | 14.0           | 12              | 35                 | 95             | 4      |
| EMG02150    | 15.0           | 16              | 40                 | 105            | 4      |
| EMG02160    | 16.0           | 16              | 40                 | 105            | 4      |
| EMG02170    | 17.0           | 16              | 40                 | 105            | 4      |
| EMG02180    | 18.0           | 16              | 40                 | 105            | 4      |
| EMG02190    | 19.0           | 20              | 45                 | 115            | 4      |
| EMG02200    | 20.0           | 20              | 45                 | 115            | 4      |
| EMG02210    | 21.0           | 20              | 45                 | 115            | 4      |
| EMG02220    | 22.0           | 20              | 45                 | 115            | 4      |
| EMG02230    | 23.0           | 25              | 50                 | 125            | 4      |
| EMG02240    | 24.0           | 25              | 50                 | 125            | 4      |
| EMG02250    | 25.0           | 20              | 50                 | 120            | 4      |
| EMG02251    | 25.0           | 25              | 50                 | 125            | 4      |
| EMG02280    | 28.0           | 25              | 55                 | 125            | 4      |
| EMG02300    | 30.0           | 25              | 55                 | 125            | 4      |
| EMG02320    | 32.0           | 32              | 60                 | 145            | 4      |

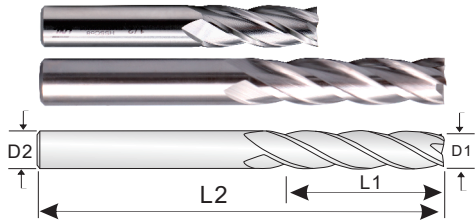
| MILL DIA.<br>TOLERANCE (mm)<br>刃径公差 (mm) | SHANK DIA.<br>TOLERANCE<br>柄径公差 |
|--|---------------------------------|
| 0<br>-0.035                              | H6                              |

## HSS Co8 英制四刃普长/加长平底铣刀

## HSS Co8, 4 flute Square end mills, Regular/ Long Length (Inch)

- ★ 这类铣刀按右螺旋、右切削标准制作
- ★ 用于铣槽、钻削和铣型腔及一般用

- These end mills are furnished as regular with right-hand cutting and right-hand helical flutes.
- These are designed for slotting, drilling, pocketing and general purpose operation.

EMG03 普长  
SERIES

| 优能特订货代码     | 刀径             | 柄径              | 刃长                 | 全长             | 刃数     |
|-------------|----------------|-----------------|--------------------|----------------|--------|
| UNT EDP NO. | Mill Dia<br>D1 | Shank Dia<br>D2 | Flute length<br>L1 | O. A. L.<br>L2 | Flutes |
| EMG031601   | 11/16"         | 1/4"            | 3/16"              | 2"             | 4      |
| EMG033203   | 3/32"          | 1/4"            | 9/32"              | 2-7/64"        | 4      |
| EMG030801   | 1/8"           | 1/4"            | 3/8"               | 2-3/16"        | 4      |
| EMG033205   | 5/32"          | 1/4"            | 7/16"              | 2-1/4"         | 4      |
| EMG031603   | 3/16"          | 1/4"            | 1/2"               | 2-1/4"         | 4      |
| EMG030401   | 1/4"           | 1/4"            | 5/8"               | 2-7/16"        | 4      |
| EMG031605   | 5/16"          | 3/8"            | 3/4"               | 2-1/2"         | 4      |
| EMG030803   | 3/8"           | 3/8"            | 3/4"               | 2-1/2"         | 4      |
| EMG031607   | 7/16"          | 1/2"            | 1-1/4"             | 3-1/4"         | 4      |
| EMG030201   | 1/2"           | 1/2"            | 1-1/4"             | 3-1/4"         | 4      |
| EMG031609   | 9/16"          | 1/2"            | 1-3/8"             | 3-3/8"         | 4      |
| EMG030805   | 5/8"           | 5/8"            | 1-5/8"             | 3-3/4"         | 4      |
| EMG030403   | 3/4"           | 3/4"            | 1-5/8"             | 3-7/8"         | 4      |
| EMG030143   | 1"             | 3/4"            | 1-7/8"             | 4-1/8"         | 4      |
| EMG030101   | 1"             | 1"              | 2"                 | 4-1/2"         | 4      |
| EMG030141   | 1-1/4"         | 1-1/4"          | 2"                 | 4-1/2"         | 4      |
| EMG030121   | 1-1/2"         | 1-1/4"          | 2"                 | 4-1/2"         | 4      |

EMG05 加长  
SERIES

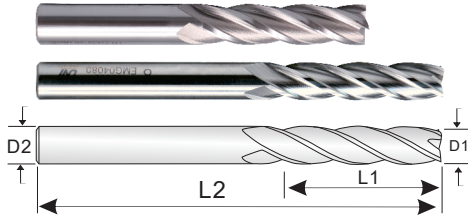
| 优能特订货代码     | 刀径             | 柄径              | 刃长                 | 全长             | 刃数     |
|-------------|----------------|-----------------|--------------------|----------------|--------|
| UNT EDP NO. | Mill Dia<br>D1 | Shank Dia<br>D2 | Flute length<br>L1 | O. A. L.<br>L2 | Flutes |
| EMG050801   | 1/8"           | 1/4"            | 1"                 | 2-15/16"       | 4      |
| EMG053205   | 5/32"          | 1/4"            | 1"                 | 2-3/4"         | 4      |
| EMG051603   | 3/16"          | 1/4"            | 1"                 | 2-3/4"         | 4      |
| EMG050401   | 1/4"           | 1/4"            | 1-1/4"             | 3-1/16"        | 4      |
| EMG051605   | 5/16"          | 3/8"            | 1-3/8"             | 3-1/8"         | 4      |
| EMG050803   | 3/8"           | 3/8"            | 1-1/2"             | 3-1/4"         | 4      |
| EMG050201   | 1/2"           | 1/2"            | 2"                 | 4"             | 4      |
| EMG050805   | 5/8"           | 5/8"            | 2-1/2"             | 4-5/8"         | 4      |
| EMG050403   | 3/4"           | 3/4"            | 3"                 | 5-1/4"         | 4      |
| EMG050143   | 1"             | 3/4"            | 4"                 | 6-1/2"         | 4      |
| EMG050101   | 1"             | 1"              | 4"                 | 6-1/2"         | 4      |

| MILL DIA.<br>TOLERANCE (mm)<br>刃径公差 (mm) | SHANK DIA.<br>TOLERANCE<br>柄径公差 |
|--|---------------------------------|
| 0<br>-0.035                              | H6                              |

**HSS Co8 公制四刃加长/特加长平底铣刀**
**HSS Co8, 4 flute Square end mills, Long/ Extra Long Length (Metric)**

- ★ 这类铣刀按右螺旋、右切削标准制作
- ★ 用于铣槽、钻削和铣型腔及一般用

- These end mills are furnished as regular with right-hand cutting and right-hand helical flutes.
- These are designed for slotting, drilling, pocketing and general purpose operation.


**EMG04 SERIES**

| 优能特订货代码     | 刀径          | 柄径           | 刃长              | 全长          | 刃数     |
|-------------|-------------|--------------|-----------------|-------------|--------|
| UNT EDP NO. | Mill Dia D1 | Shank Dia D2 | Flute length L1 | O. A. L. L2 | Flutes |
| EMG04030    | 3           | 6            | 15              | 60          | 4      |
| EMG04040    | 4           | 6            | 20              | 65          | 4      |
| EMG04050    | 5           | 6            | 25              | 70          | 4      |
| EMG04060    | 6           | 6            | 25              | 70          | 4      |
| EMG04080    | 8           | 8            | 35              | 85          | 4      |
| EMG04100    | 1           | 10           | 45              | 100         | 4      |
| EMG04120    | 12          | 12           | 55              | 115         | 4      |
| EMG04140    | 14          | 12           | 55              | 115         | 4      |
| EMG04160    | 16          | 16           | 65              | 130         | 4      |
| EMG04180    | 18          | 16           | 65              | 130         | 4      |
| EMG04200    | 20          | 20           | 75              | 145         | 4      |
| EMG04220    | 22          | 20           | 75              | 145         | 4      |
| EMG04240    | 24          | 25           | 75              | 145         | 4      |
| EMG04250    | 25          | 20           | 90              | 155         | 4      |
| EMG04251    | 25          | 25           | 90              | 165         | 4      |
| EMG04260    | 26          | 25           | 87              | 165         | 4      |
| EMG04280    | 28          | 25           | 90              | 165         | 4      |
| EMG04300    | 30          | 25           | 90              | 165         | 4      |
| EMG04320    | 32          | 32           | 95              | 180         | 4      |

**EMG06 SERIES**

| 优能特订货代码     | 刀径          | 柄径           | 刃长              | 全长          | 刃数     |
|-------------|-------------|--------------|-----------------|-------------|--------|
| UNT EDP NO. | Mill Dia D1 | Shank Dia D2 | Flute length L1 | O. A. L. L2 | Flutes |
| EMG06160160 | 16          | 16           | 100             | 160         | 4      |
| EMG06180180 | 18          | 18           | 100             | 180         | 4      |
| EMG06200180 | 20          | 20           | 100             | 180         | 4      |
| EMG06200200 | 20          | 20           | 120             | 200         | 4      |
| EMG06200230 | 20          | 20           | 150             | 120         | 4      |
| EMG06250180 | 25          | 25           | 100             | 180         | 4      |
| EMG06250220 | 25          | 25           | 120             | 220         | 4      |
| EMG06250250 | 25          | 25           | 150             | 250         | 4      |
| EMG06320230 | 32          | 32           | 150             | 230         | 4      |
| EMG06320280 | 32          | 32           | 200             | 280         | 4      |

| MILL DIA. TOLERANCE (mm)<br>刃径公差 (mm) | SHANK DIA. TOLERANCE<br>柄径公差 |
|---------------------------------------|------------------------------|
| 0<br>-0.035                           | H6                           |

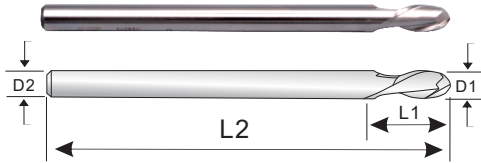


## HSS Co8 公制二刃球头铣刀

## HSS Co8, 2 flute Ball end mills (Metric)

- ★ 2刃球刀用于铣削圆形底部的槽，带和特殊轮廓等
- ★ 铣槽加工，排屑性能好
- ★ 普通用途的粗皮刀，具有高的金属切除率，用于各种材料工件的加工
- ★ 推荐铣削铜，铝，工具钢，铸铁和切削钢等材料

- Ball End Mills are designed for milling of radius bottom slot, fillet, and special contour.
- Excellent chips ejection ability in slotting.
- The General-purpose rougher is designed for high production metal removal in a wide range of workpiece material.
- Can milling of copper, aluminum, tool steel, cast iron, and cutting steel grade, etc.

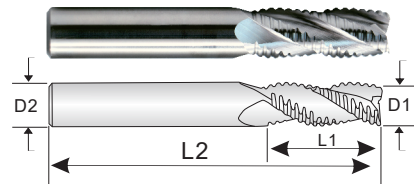


## EMG07 SERIES

| 优能特订货代码     | 刃径             | 半径          | 柄径              | 刃长                 | 全长             | 刃数     |
|-------------|----------------|-------------|-----------------|--------------------|----------------|--------|
| UNT EDP NO. | Mill Dia<br>D1 | Radius<br>R | Shank Dia<br>D2 | Flute length<br>L1 | O. A. L.<br>L2 | Flutes |
| EMD07010    | 1              | R0.5        | 6               | 2.5                | 50             | 2      |
| EMG07015    | 1.5            | R0.75       | 6               | 4                  | 50             | 2      |
| EMG07020    | 2              | R1.0        | 6               | 5                  | 50             | 2      |
| EMG07025    | 2.5            | R1.25       | 6               | 6                  | 60             | 2      |
| EMG07030    | 3              | R1.5        | 6               | 8                  | 60             | 2      |
| EMG07040    | 4              | R2.0        | 6               | 8                  | 70             | 2      |
| EMG07050    | 5              | R2.5        | 6               | 10                 | 80             | 2      |
| EMG07060    | 6              | R3.0        | 6               | 12                 | 90             | 2      |
| EMG07080    | 8              | R4.0        | 8               | 14                 | 100            | 2      |
| EMG07100    | 10             | R5.0        | 10              | 18                 | 100            | 2      |
| EMG07120    | 12             | R6.0        | 12              | 22                 | 110            | 2      |
| EMG07160    | 16             | R8.0        | 16              | 30                 | 140            | 2      |
| EMG07200    | 20             | R10.0       | 20              | 38                 | 160            | 2      |

## HSS Co8 四刃粗皮铣刀

## HSS Co8, 4 Flute Roughing Cutter - Regular Length



## EMG08 SERIES

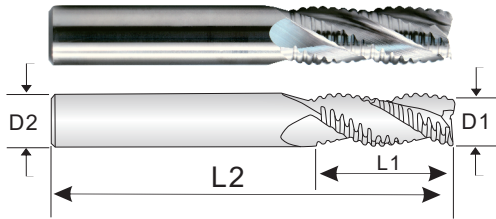
| 优能特订货代码     | 刃径             | 柄径              | 刃长                 | 全长             | 刃数     |
|-------------|----------------|-----------------|--------------------|----------------|--------|
| UNT EDP NO. | Mill Dia<br>D1 | Shank Dia<br>D2 | Flute length<br>L1 | O. A. L.<br>L2 | Flutes |
| EMG08060    | 6              | 8               | 15                 | 60             | 4      |
| EMG08080    | 8              | 10              | 20                 | 65             | 4      |
| EMG08100    | 10             | 12              | 25                 | 75             | 4      |
| EMG08120    | 12             | 12              | 30                 | 80             | 4      |
| EMG08140    | 14             | 16              | 35                 | 90             | 4      |
| EMG08160    | 16             | 14              | 40                 | 105            | 4      |
| EMG08180    | 18             | 20              | 40                 | 110            | 4      |
| EMG08200    | 20             | 20              | 45                 | 120            | 4      |
| EMG08220    | 22             | 20              | 45                 | 145            | 4      |
| EMG08250    | 25             | 25              | 50                 | 125            | 4      |
| EMG08280    | 28             | 25              | 55                 | 125            | 4      |
| EMG08300    | 30             | 25              | 55                 | 125            | 4      |
| EMG08320    | 32             | 32              | 60                 | 145            | 4      |

| MILL DIA.<br>TOLERANCE (mm)<br>刃径公差 (mm) | SHANK DIA.<br>TOLERANCE<br>柄径公差 |
|--|---------------------------------|
| 0<br>-0.035                              | H6                              |

**HSS Co8英制普长/加长粗皮铣刀 公制加长粗皮铣刀**
**HSS Co8, Roughing cutter, Regular/Long Length Length (Inch/Metric)**

- ★ 普通用途的粗皮刀，具有高的金属去除率，用于各种材料工件的加工
- ★ 推荐铣削铜，铝，工具钢，铸铁和切削钢等材料

- The General purpose rougher is designed for high production metal removal in wide range of work piece material.
- Can milling of copper, aluminum, tool steel, cast iron, and cutting steel grade, etc.


**EMG09 英制粗皮铣刀**

| 优能特订货代码     | 刀径             | 柄径              | 刃长                 | 全长             | 刃数     |
|-------------|----------------|-----------------|--------------------|----------------|--------|
| UNT EDP NO. | Mill dia<br>D1 | Shank dia<br>D2 | Flute length<br>L1 | O. A. L.<br>L2 | Flutes |
| EMG090401   | 1/4"           | 3/8"            | 5/8"               | 2-7/16"        | 4      |
| EMG091605   | 5/16"          | 3/8"            | 3/4"               | 2-1/2"         | 4      |
| EMG090803   | 3/8"           | 3/8"            | 3/4"               | 2-1/2"         | 4      |
| EMG090201   | 1/2"           | 1/2"            | 1-1/4"             | 3-1/4"         | 4      |
| EMG090805   | 5/8"           | 5/8"            | 1-5/8"             | 3-3/4"         | 4      |
| EMG090403   | 3/4"           | 3/4"            | 1-5/8"             | 3-3/4"         | 4      |
| EMG090143   | 1"             | 3/4"            | 2"                 | 4-1/4"         | 4      |
| EMG090101   | 1"             | 1"              | 2"                 | 4-1/2"         | 4      |
| EMG090141   | 1-1/4"         | 1-1/4"          | 2"                 | 4-1/2"         | 4      |

**EMG10 加长粗皮铣刀**

| 优能特订货代码     | 刀径             | 柄径              | 刃长                 | 全长             | 刃数     |
|-------------|----------------|-----------------|--------------------|----------------|--------|
| UNT EDP NO. | Mill Dia<br>D1 | Shank Dia<br>D2 | Flute length<br>L1 | O. A. L.<br>L2 | Flutes |
| EMG10100    | 10             | 10              | 45                 | 95             | 4      |
| EMG10120    | 12             | 12              | 53                 | 110            | 4      |
| EMG10140    | 14             | 12              | 53                 | 110            | 4      |
| EMG10160    | 16             | 16              | 63                 | 123            | 4      |
| EMG10180    | 18             | 16              | 63                 | 123            | 4      |
| EMG10200    | 20             | 20              | 75                 | 141            | 4      |
| EMG10250    | 25             | 25              | 90                 | 166            | 4      |
| EMG10320    | 32             | 32              | 106                | 186            | 4      |

**EMG11 加长粗皮铣刀**

| 优能特订货代码   | 刀径             | 柄径              | 刃长                 | 全长             | 刃数     |
|-----------|----------------|-----------------|--------------------|----------------|--------|
| EDP NO.   | Mill Dia<br>D1 | Shank Dia<br>D2 | Flute length<br>L1 | O. A. L.<br>L2 | Flutes |
| EMG110201 | 1/2"           | 1/2"            | 2"                 | 4"             | 4      |
| EMG110805 | 5/8"           | 5/8"            | 2-1/2"             | 4-5/8"         | 4      |
| EMG110403 | 3/4"           | 3/4"            | 3"                 | 5-1/4"         | 4      |
| EMG110143 | 1"             | 3/4"            | 4"                 | 6-1/4"         | 4      |
| EMG110101 | 1"             | 1"              | 2"                 | 4-1/2"         | 4      |
| EMG110141 | 1-1/4"         | 1-1/4"          | 4"                 | 6-1/2"         | 4      |

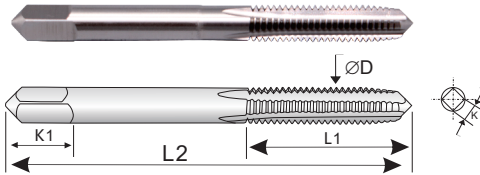
| MILL DIA.<br>TOLERANCE (mm)<br>刀径公差 (mm) |             | SHANK DIA.<br>TOLERANCE<br>柄径公差 |
|--|-------------|---------------------------------|
| DIAMETER直径                               | TOLERANCE公差 |                                 |
| ~Ø6以下                                    | -0.015~0    | H6                              |
| Ø6超过                                     | -0.020~0    |                                 |

## 锋钢公英制三支套装丝攻

## HSS Hand Taps (3 pcs/set), Inch/Metric

- ★ 适用于碳钢和合金钢的盲孔和通孔加工，优异的排屑
- ★ 标准丝锥可用在广泛的范围中。

- Suitable for tapping Blind & Through holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.
- Standard taps for a variety of application.



## EMG13 SERIES

| 优能特订货代码     | 刃径             | 牙距          |
|-------------|----------------|-------------|
| UNT EDP NO. | Mill Dia<br>D1 | Tooth pitch |
| EMG13020    | M2             | 0.4         |
| EMG13025    | M2.5           | 0.45        |
| EMG13025    | M2.6           | 0.45        |
| EMG13030    | M3             | 0.5         |
| EMG13040    | M4             | 0.7         |
| EMG13050    | M5             | 0.8         |
| EMG13060    | M6             | 1           |
| EMG13080    | M8             | 1.25        |
| EMG13100    | M10            | 1.5         |
| EMG13120    | M12            | 1.75        |
| EMG13140    | M14            | 2           |
| EMG13160    | M16            | 2           |
| EMG13180    | M18            | 2.5         |
| EMG13200    | M20            | M20         |
| EMG13220    | M22            | M22         |
| EMG13240    | M24            | M24         |
| EMG130801   | 1/8"           | 1/8"        |
| EMG133205   | 5/32"          | 5/32"       |
| EMG131603   | 3/16"          | 3/16"       |
| EMG130401   | 1/4"           | 1/4"        |
| EMG131605   | 5/16"          | 5/16"       |
| EMG130803   | 3/8"           | 3/8"        |
| EMG130201   | 1/2"           | 1/2"        |

## EMG14 SERIES

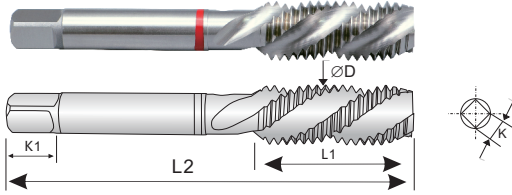
| 优能特订货代码     | 刃径             | 牙距          |
|-------------|----------------|-------------|
| UNT EDP NO. | Mill Dia<br>D1 | Tooth pitch |
| EMG14020    | M2             | 0.4         |
| EMG14023    | M2.3           | 0.4         |
| EMG14025    | M2.5           | 0.45        |
| EMG14026    | M2.6           | 0.45        |
| EMG14030    | M3             | 0.5         |
| EMG14040    | M4             | 0.7         |
| EMG14050    | M5             | 0.8         |
| EMG14060    | M6             | 1           |
| EMG14080    | M8             | 1.25        |
| EMG14100    | M10            | 1.5         |
| EMG14120    | M12            | 1.75        |
| EMG14140    | M14            | 2           |
| EMG14160    | M16            | 2           |
| EMG140801   | 1/8"           | W40         |
| EMG143205   | 5/32"          | W32         |
| EMG141603   | 3/16"          | W24         |
| EMG140401   | 1/4"           | W20         |
| EMG141605   | 5/16"          | W18         |
| EMG140803   | 3/8"           | W16         |
| EMG140201   | 1/2"           | W12         |

| MILL DIA.<br>TOLERANCE (mm)<br>刃径公差 (mm) | SHANK DIA.<br>TOLERANCE<br>柄径公差 |
|--|---------------------------------|
| 0<br>-0.035                              | H6                              |

**多用途螺旋槽丝攻** **Spiral Flute Taps for Multi Purpose**

- ★ 适用于碳钢和合金钢的盲孔和通孔加工，优异的排屑
- ★ 标准丝锥可用在广泛的范围中。

- Suitable for tapping Blind & Through holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.
- Standard taps for a variety of application.



**EMG15 SERIES**

| 优能特订货代码     | 直径X牙距         | 精度        | 全长          | 螺纹长              | 柄径           |
|-------------|---------------|-----------|-------------|------------------|--------------|
| UNT EDP NO. | Size pitch D1 | Tap Limit | O. A. L. L2 | Thread length D2 | Shank Dia L1 |
| EMG15020    | M2*0.4        | Yh1       | 40          | 9.5              | 3            |
| EMG15022    | M2.2*0.45     | YH1       | 42          | 9.5              | 3            |
| EMG15023    | M2.3*0.4      | YH1       | 42          | 9.5              | 3            |
| EMG15025    | M2.5*0.45     | YH1       | 44          | 9.5              | 3            |
| EMG15026    | M2.6*0.45     | YH1       | 44          | 9.5              | 3            |
| EMG15030    | M3*0.5        | YH2       | 46          | 11               | 4            |
| EMG15040    | M4*0.7        | YH2       | 52          | 13               | 5            |
| EMG15050    | M5*0.8        | YH2       | 60          | 16               | 5.5          |
| EMG15060    | M6*1.0        | YH2       | 62          | 19               | 6            |
| EMG15080    | M8*1.25       | YH2       | 70          | 22               | 6.2          |
| EMG15100    | M10*1.5       | YH2       | 75          | 24               | 7            |
| EMG15120    | M12*1.75      | YH2       | 82          | 29               | 8.5          |
| EMG15140    | M14*2.0       | YH2       | 88          | 30               | 10.5         |
| EMG15160    | M16*2.0       | YH2       | 95          | 32               | 12.5         |
| EMG15180    | M18*2.5       | YH3       | 100         | 37               | 14           |
| EMG15200    | M20*2.5       | YH3       | 105         | 37               | 15           |
| EMG15220    | M22*2.5       | YH3       | 115         | 38               | 17           |
| EMG15240    | M24*3.0       | YH3       | 120         | 45               | 19           |
| EMG15300    | M30*3.5       | YH4       | 135         | 48               | 23           |

●: 优(Excellent) ○: 良(Good)

| 低碳钢              | 中碳钢                 | 高碳钢               | 合金钢         | 硬化钢            | 不锈钢             | 工具钢        | 铸钢         | 铸铁        | 高强度铸铁                  |
|------------------|---------------------|-------------------|-------------|----------------|-----------------|------------|------------|-----------|------------------------|
| Low Carbon Steel | Meduim Carbon Steel | High Carbon Steel | Alloy Steel | Hardened Steel | Stainless Steel | Tool Steel | Cast Steel | Cast Iron | High Tension Cast Iron |
| ~C0.25           | C0.25~C0.45         | C0.45~            | SCM         | HRC25~45       | SUS             | SKD        | SC         | FC        | FCD                    |
| ●                | ●                   | ●                 | ●           | ●              | ●               | ●          | ●          | ●         | ○                      |

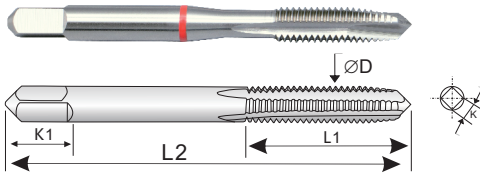
| 铜      | 黄铜    | 铸铜            | 铝轧              | 铸铝                     | 铸镁                | 铸锌                 | 钛合金      | 镍合金      | 热固性塑料                 | 热塑性塑料          |
|--------|-------|---------------|-----------------|------------------------|-------------------|--------------------|----------|----------|-----------------------|----------------|
| Copper | Brass | Brass Casting | Aluminum Rolled | Aluminum Alloy Casting | Magnesium Casting | Zinc Alloy Casting | Ti Alloy | Ni Alloy | Thermosetting plastic | Thermo plastic |
| Cu     | Bs    | PB            | AL              | AC ADC                 | MC                | ZDC                |          |          |                       |                |
| ●      | ●     | ●             | ●               | ●                      | ●                 | ●                  | ○        | ○        | ○                     | ○              |

|                                       |                              |
|---------------------------------------|------------------------------|
| MILL DIA. TOLERANCE (mm)<br>刃径公差 (mm) | SHANK DIA. TOLERANCE<br>柄径公差 |
| 0<br>-0.035                           | H6                           |

**多用途先端丝锥** **Straight Flute Taps for Multi Purpose**

★ 标准丝锥可用在广泛的范围中。

• Standard taps for a variety of application.



**EMG16 SERIES**

| 优能特订货代码     | 直径X牙距         | 精度        | 全长          | 螺纹长              | 柄径           |
|-------------|---------------|-----------|-------------|------------------|--------------|
| UNT EDP NO. | Size pitch D1 | Tap Limit | O. A. L. L2 | Thread length D2 | Shank Dia L1 |
| EMG16020    | M2*04         | Yh2       | 40          | 9.5              | 3            |
| EMG16022    | M2.2*0.45     | YH2       | 42          | 9.5              | 3            |
| EMG16023    | M2.6*0.4      | YH2       | 42          | 9.5              | 3            |
| EMG16025    | M2.5*0.45     | YH2       | 44          | 9.5              | 3            |
| EMG16026    | M2.6*0.45     | YH2       | 44          | 9.5              | 3            |
| EMG16030    | M3*0.5        | YH2       | 46          | 11               | 4            |
| EMG16040    | M4*0.7        | YH2       | 52          | 13               | 5            |
| EMG16050    | M5*0.8        | YH2       | 60          | 16               | 5.5          |
| EMG16060    | M6*1.0        | YH2       | 62          | 19               | 6            |
| EMG16080    | M8*1.25       | YH3       | 70          | 22               | 6.2          |
| EMG16100    | M10*1.5       | YH4       | 75          | 24               | 7            |
| EMG16120    | M12*1.75      | YH4       | 80          | 29               | 8.5          |
| EMG16140    | M14*2.0       | YH4       | 88          | 30               | 10.5         |
| EMG16160    | M16*2.0       | YH4       | 95          | 32               | 12.5         |
| EMG16200    | M20*2.5       | YH4       | 105         | 37               | 15           |
| EMG16240    | M24*3.0       | YH4       | 120         | 45               | 19           |
| EMG16300    | M30*3.5       | YH5       | 135         | 48               | 23           |

●: 优(Excellent) ○: 良(Good)

| 低碳钢              | 中碳钢                 | 高碳钢               | 合金钢         | 硬化钢            | 不锈钢             | 工具钢        | 铸钢         | 铸铁        | 高强度铸铁                  |
|------------------|---------------------|-------------------|-------------|----------------|-----------------|------------|------------|-----------|------------------------|
| Low Carbon Steel | Meduim Carbon Steel | High Carbon Steel | Alloy Steel | Hardened Steel | Stainless Steel | Tool Steel | Cast Steel | Cast Iron | High Tension Cast Iron |
| ~C0.25           | C0.25~C0.45         | C0.45~            | SCM         | HRC25~45       | SUS             | SKD        | SC         | FC        | FCD                    |
| ●                | ●                   | ●                 | ●           | ●              | ●               | ●          | ●          | ●         | ○                      |

| 铜      | 黄铜    | 铸铜            | 铝轧              | 铸铝                     | 铸镁                | 铸锌                 | 钛合金      | 镍合金      | 热固性塑料                 | 热塑性塑料          |
|--------|-------|---------------|-----------------|------------------------|-------------------|--------------------|----------|----------|-----------------------|----------------|
| Copper | Brass | Brass Casting | Aluminum Rolled | Aluminum Alloy Casting | Magnesium Casting | Zinc Alloy Casting | Ti Alloy | Ni Alloy | Thermosetting plastic | Thermo plastic |
| Cu     | Bs    | PB            | AL              | AC ADC                 | MC                | ZDC                |          |          |                       |                |
| ●      | ●     | ●             | ●               | ●                      | ●                 | ●                  | ○        | ○        | ○                     | ○              |

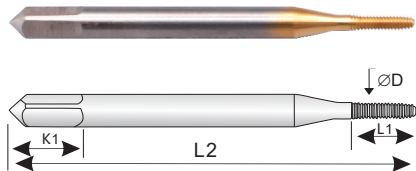
|                                       |                              |
|---------------------------------------|------------------------------|
| MILL DIA. TOLERANCE (mm)<br>刃径公差 (mm) | SHANK DIA. TOLERANCE<br>柄径公差 |
| 0<br>-0.035                           | H6                           |

VP-NRT 钛处理长牙型挤压丝锥 (铁合金)

Vp-NRT Titanium treatment Fluteless s Taps with Long tooth. (Iron Alloy)

- ★ 超细钨钢材料具有极高的耐磨性和强度
- ★ 适用于HRc40硬度以内的材料倒角、定位加工等

- Ultra-fine Tungsten steel material has extremely high wear resistance and strength
- suitable for Tapping in the chamfering, Positioning. wide apply to HRc40 Hardness Material.



EMG17 SERIES

| 优能特订货代码     | 规格         | 精度        | 食付  | 全长             | 螺纹长                 | 柄径              |
|-------------|------------|-----------|-----|----------------|---------------------|-----------------|
| UNT EDP NO. | Size pitch | Tap Limit | Lcf | O. A. L.<br>L2 | Thread length<br>L1 | Shank Dia<br>D2 |
| EMG17010    | M1*0.25    | RH4       | 4P  | 30             | 7                   | 3               |
| EMG170102   | M1*0.25    | RH4       | 2P  | 30             | 7                   | 3               |
| EMG17012    | M1.2*0.25  | RH4       | 4P  | 32             | 8                   | 3               |
| EMG170122   | M1.2*0.25  | RH4       | 2P  | 32             | 8                   | 3               |
| EMG17014    | M1.4*0.3   | RH4       | 4P  | 34             | 9                   | 3               |
| EMG170142   | M1.4*0.3   | RH4       | 2P  | 34             | 9                   | 3               |
| EMG17016    | M1.6*0.35  | RH4       | 4P  | 36             | 10                  | 3               |
| EMG170162   | M1.6*0.35  | RH4       | 2P  | 36             | 10                  | 3               |
| EMG17017    | M1.7*0.35  | RH4       | 4P  | 36             | 11                  | 3               |
| EMG170172   | M1.7*0.35  | RH4       | 2P  | 36             | 11                  | 3               |
| EMG17020    | M2*0.4     | RH4       | 4P  | 40             | 12                  | 3               |
| EMG170202   | M2*0.4     | RH4       | 2P  | 40             | 12                  | 3               |
| EMG17023    | M2.3*0.4   | RH4       | 4P  | 42             | 13                  | 3               |
| EMG170232   | M2.3*0.4   | RH4       | 2P  | 42             | 13                  | 3               |
| EMG17025    | M2.5*0.45  | RH5       | 4P  | 44             | 14                  | 3               |
| EMG170252   | M2.5*0.45  | RH5       | 2P  | 44             | 14                  | 3               |
| EMG17026    | M2.6*0.45  | RH5       | 4P  | 44             | 14                  | 3               |
| EMG170262   | M2.6*0.45  | RH5       | 2P  | 44             | 14                  | 3               |
| EMG17030    | M3*0.5     | RH6       | 4P  | 46             | 9                   | 3               |
| EMG170302   | M3*0.5     | RH6       | 2P  | 46             | 9                   | 3               |
| EMG17035    | M3.5*0.6   | RH6       | 4P  | 48             | 9                   | 4               |
| EMG170352   | M3.5*0.6   | RH6       | 2P  | 48             | 9                   | 4               |
| EMG17040    | M4*0.7     | RH7       | 4P  | 52             | 10                  | 5               |
| EMG170402   | M4*0.7     | RH7       | 2P  | 52             | 10                  | 5               |
| EMG17050    | M5*0.8     | RH7       | 4P  | 60             | 11                  | 5.5             |
| EMG170502   | M5*0.8     | RH7       | 2P  | 60             | 11                  | 5.5             |
| EMG17060    | M6*1       | RH7       | 4P  | 62             | 12                  | 6               |
| EMG170602   | M6*1       | RH7       | 2P  | 62             | 12                  | 6               |

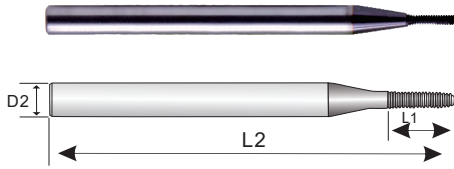
|  |                                 |
|--|---------------------------------|
| MILL DIA.<br>TOLERANCE (mm)<br>刃径公差 (mm) | SHANK DIA.<br>TOLERANCE<br>柄径公差 |
| 0<br>-0.035                              | H6                              |

## 短牙型/短切削锥型挤压丝锥

## Short tooth type/short cutting Tapered Fluteless Tap

- ★ 超细钨钢材料具有极高的耐磨性和强度
- ★ 适用于HRc40硬度以内的材料倒角、定位加工等

- Ultra-fine Tungsten steel material has extremely high wear resistance and strength
- suitable for Tapping in the chamfering, Positioning. wide apply to HRc40 Hardness Material.



## EMG18 IT-NRT

| 优能特订货代码     | 规格         | 精度        | 食付  | 全长          | 螺纹长              | 柄径           |
|-------------|------------|-----------|-----|-------------|------------------|--------------|
| UNT EDP NO. | Size pitch | Tap Limit | Lcf | O. A. L. L2 | Thread length L1 | Shank Dia D2 |
| EMG18010    | M1*0.25    | RH4       | 42P | 30          | 3.5              | 3            |
| EMG18012    | M1.2*0.25  | RH4       | 2P  | 32          | 3.5              | 3            |
| EMG18014    | M1.4*0.3   | RH4       | 2P  | 34          | 5                | 3            |
| EMG18016    | M1.6*0.35  | RH4       | 2P  | 36          | 7                | 3            |
| EMG18017    | M1.7*0.35  | RH4       | 2P  | 36          | 8                | 3            |
| EMG18020    | M2*0.4     | RH4       | 2P  | 40          | 8                | 3            |
| EMG18023    | M2.3*0.4   | RH4       | 2P  | 42          | 9                | 3            |
| EMG18025    | M2.5*0.45  | RH4       | 2P  | 44          | 9                | 3            |
| EMG18026    | M2.6*0.45  | RH4       | 2P  | 44          | 9                | 3            |
| EMG18030    | M3*0.5     | RH5       | 2P  | 46          | 9                | 4            |

## EMG19 IT-NRT

| 优能特订货代码     | 规格         | 精度        | 切削锥长 | 全长          | 螺纹长              | 径长 | 柄径           | 四角部长 | 四角部宽 | 形状类型 |
|-------------|------------|-----------|------|-------------|------------------|----|--------------|------|------|------|
| UNT EDP NO. | Size pitch | Tap Limit | Lcf  | O. A. L. L2 | Thread length L1 | L1 | Shank Dia D2 | LK   | K    | Tyca |
| EMG19010    | M1*0.25    | RH4       | 1P   | 30          | 3.5              |    | 3            | 5    | 2.5  | 1    |
| EMG19012    | M1.2*0.25  | RH4       | 1P   | 32          | 3.5              |    | 3            | 5    | 2.5  | 1    |
| EMG19014    | M1.4*0.3   | RH4       | 1P   | 34          | 5                |    | 3            | 5    | 2    | 1    |
| EMG19017    | M1.7*0.35  | RH4       | 1P   | 36          | 8                |    | 3            | 5    | 2.5  | 1    |
| EMG19020    | M2*0.4     | RH4       | 1P   | 40          | 8                |    | 3            | 5    | 2.5  | 1    |
| EMG19025    | M2.5*0.45  | RH4       | 1P   | 44          | 9                |    | 3            | 5    | 2.5  | 2    |
| EMG19026    | M2.6*0.45  | RH4       | 1P   | 44          | 9                |    | 3            | 5    | 2.5  | 2    |
| EMG19030    | M3*0.5     | RH5       | 1P   | 46          | 9                | 18 | 4            | 6    | 3.2  | 3    |
| EMG19035    | M3.5*0.6   | RH4       | 1P   | 48          | 9                | 18 | 4            | 6    | 3.2  | 3    |
| EMG19040    | M4*0.7     | RH6       | 1P   | 52          | 10               | 20 | 5            | 7    | 4    | 3    |
| EMG19050    | M5*0.8     | RH6       | 1P   | 60          | 11               | 22 | 5.5          | 7    | 4.5  | 3    |
| EMG19060    | M6*1       | RH7       | 1P   | 62          | 12               | 24 | 6            | 7    | 4.5  | 3    |

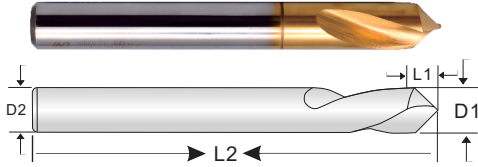
| MILL DIA. TOLERANCE (mm)<br>刃径公差 (mm) | SHANK DIA. TOLERANCE<br>柄径公差 |
|---------------------------------------|------------------------------|
| 0<br>-0.035                           | H6                           |

HSS Co8 高钴钢90度定点钻/倒角刀

HSS Co8 NC Spotting Drillss, Hole Chamfer Milling tools.

- ★ 应用: 用于在NC / CNC机床上的高速精密中心孔加工
- ★ 高的转速可与其他刀具结合使用

- Application: For accurate and fast spotting on NC/CNC machines.
- Can be used at higher speed and feeds, compatible with other tooling.



EMG20.21

| 不涂层订货代码            | 不镀钛订货代码              | 刃径          | 柄径           | 刃长              | 全长          |
|--------------------|----------------------|-------------|--------------|-----------------|-------------|
| Non-Coated EDP NO. | AlTiN Coated EDP NO. | Mill Dia D1 | Shank Dia D2 | Flute length L1 | O. A. L. L2 |
| EMG20030           | EMG21030             | 3           | 3            | 12              | 46          |
| EMG20040           | EMG21040             | 4           | 4            | 12              | 55          |
| EMG20050           | EMG21050             | 5           | 5            | 15              | 60          |
| EMG20060           | EMG21060             | 6           | 6            | 20              | 66          |
| EMG20080           | EMG21080             | 8           | 8            | 25              | 79          |
| EMG20100           | EMG21100             | 10          | 10           | 25              | 89          |
| EMG20120           | EMG21120             | 12          | 12           | 30              | 102         |
| EMG20140           | EMG21140             | 14          | 14           | 35              | 110         |
| EMG20160           | EMG21160             | 16          | 16           | 35              | 115         |
| EMG20180           | EMG21180             | 18          | 18           | 40              | 125         |
| EMG20200           | EMG21200             | 20          | 20           | 40              | 131         |
| EMG20250           | EMG21250             | 25          | 25           | 65              | 150         |

EMG22.23

| 不涂层订货代码            | 不镀钛订货代码              | 刃径          | 柄径           | 刃长              | 全长          |
|--------------------|----------------------|-------------|--------------|-----------------|-------------|
| Non-Coated EDP NO. | AlTiN Coated EDP NO. | Mill Dia D1 | Shank Dia D2 | Flute length L1 | O. A. L. L2 |
| EMG22030           | EMG23030             | 3           | 3            | 17              | 120         |
| EMG22040           | EMG23040             | 4           | 4            | 20              | 120         |
| EMG22050           | EMG23050             | 5           | 5            | 23              | 120         |
| EMG22060           | EMG23060             | 6           | 6            | 25              | 150         |
| EMG22080           | EMG23080             | 8           | 8            | 28              | 150         |
| EMG22100           | EMG23100             | 10          | 10           | 35              | 150         |
| EMG22120           | EMG23120             | 12          | 12           | 40              | 150         |
| EMG22160           | EMG23160             | 16          | 16           | 45              | 200         |
| EMG22200           | EMG23200             | 20          | 20           | 55              | 250         |

|                                       |                              |
|---------------------------------------|------------------------------|
| MILL DIA. TOLERANCE (mm)<br>刃径公差 (mm) | SHANK DIA. TOLERANCE<br>柄径公差 |
| 0<br>-0.035                           | H6                           |



## HSS Co8高速钢手用铰刀/机用铰刀-左向螺旋槽 HSS Co8 Hand Reamers/NC Machine Reamers-LH Spiral Flute

- ★ 设计用于转塔车床，螺丝机，钻床和所有类型的机床设备
- ★ 可提供直柄或莫氏锥柄
- ★ 用于难以打孔的材料
- ★ 高速钢材料：HSS M2，M35级
- ★ 刀柄类型：直柄/平行柄
- ★ 可用尺寸公制：2mm至20mm，英制：1/16“至2”英寸

- Design for use in turret lathes, screw machines, drill presses and all type of machine tool equipment
- Available with Straight Shank or Morse Taper Shank
- Use for difficult to ream materials
- Material Made of High Speed Steel: HSS M2, M35 Grade
- Shank Type: Straight/Parallel Shank
- Size Available Metric : 2mm to 20mm Imperial: 1/16" to 2" inches



### EMG24 SERIES

| 优能特订货代码     | 刃径             | 刃长                 | 全长             |
|-------------|----------------|--------------------|----------------|
| UNT EDP NO. | Mill Dia<br>D1 | Flute length<br>L1 | O. A. L.<br>L2 |
| EMG.24.025  | 2.5            | 29                 | 58             |
| EMG.24.030  | 3              | 31                 | 62             |
| EMG.24.035  | 3.5            | 35                 | 70             |
| EMG.24.040  | 4              | 38                 | 76             |
| EMG.24.045  | 4.5            | 40                 | 80             |
| EMG.24.050  | 5              | 43                 | 86             |
| EMG.24.055  | 5.5            | 45                 | 90             |
| EMG.24.060  | 6              | 45                 | 90             |
| EMG.24.070  | 7              | 50                 | 100            |
| EMG.24.080  | 8              | 58                 | 115            |
| EMG.24.090  | 9              | 60                 | 120            |
| EMG.24.100  | 10             | 65                 | 130            |
| EMG.24.120  | 12             | 70                 | 140            |
| EMG.24.140  | 14             | 80                 | 160            |
| EMG.24.160  | 16             | 85                 | 170            |
| EMG.24.6405 | 5/64           | 25                 | 50             |
| EMG.24.6407 | 7/64           | 31                 | 62             |
| EMG.24.0801 | 1/8            | 33                 | 66             |
| EMG.24.6409 | 9/64           | 35                 | 70             |
| EMG.24.3205 | 5/32           | 38                 | 76             |
| EMG.24.1603 | 3/16           | 44                 | 88             |
| EMG.24.3207 | 7/32           | 45                 | 90             |
| EMG.24.0401 | 1/4            | 50                 | 100            |
| EMG.24.1605 | 5/16           | 58                 | 115            |
| EMG.24.0803 | 3/8            | 66                 | 132            |
| EMG.24.0201 | 1/2            | 75                 | 150            |
| EMG.24.0805 | 5/8            | 85                 | 170            |

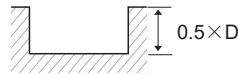
### EMG25 SERIES

| 优能特订货代码     | 刃径             | 刃长                 | 全长             |
|-------------|----------------|--------------------|----------------|
| UNT EDP NO. | Mill Dia<br>D1 | Flute length<br>L1 | O. A. L.<br>L2 |
| EMG.25.020  | 2              | 12                 | 50             |
| EMG.25.030  | 3              | 17                 | 65             |
| EMG.25.040  | 4              | 19                 | 76             |
| EMG.25.050  | 5              | 22                 | 88             |
| EMG.25.060  | 6              | 25                 | 100            |
| EMG.25.070  | 7              | 30                 | 105            |
| EMG.25.080  | 8              | 33                 | 115            |
| EMG.25.090  | 9              | 35                 | 125            |
| EMG.25.100  | 10             | 38                 | 135            |
| EMG.25.120  | 12             | 43                 | 150            |
| EMG.25.140  | 14             | 45                 | 160            |
| EMG.25.160  | 16             | 50                 | 170            |
| EMG.25.180  | 18             | 55                 | 180            |
| EMG.25.200  | 20             | 60                 | 200            |
| EMG.25.220  | 22             | 70                 | 210            |
| EMG.25.250  | 25             | 80                 | 230            |
| EMG.25.3203 | 3/32           | 15                 | 60             |
| EMG.25.6405 | 7/64           | 15                 | 60             |
| EMG.25.0801 | 1/8            | 17                 | 65             |
| EMG.25.6407 | 7/64           | 17                 | 65             |
| EMG.25.6409 | 9/64           | 18                 | 70             |
| EMG.25.6411 | 11/64          | 19                 | 76             |
| EMG.25.3205 | 1/6            | 19                 | 76             |
| EMG.25.1603 | 3/16           | 22                 | 88             |
| EMG.25.3207 | 7/32           | 23                 | 90             |
| EMG.25.0401 | 1/4            | 28                 | 100            |
| EMG.25.3209 | 9/32           | 30                 | 105            |
| EMG.25.1605 | 5/16           | 33                 | 115            |
| EMG.25.0803 | 3/8            | 38                 | 133            |
| EMG.25.1607 | 7/16           | 40                 | 140            |
| EMG.25.0201 | 1/2            | 45                 | 150            |
| EMG.25.0805 | 5/8            | 55                 | 175            |
| EMG.25.0403 | 3/4            | 60                 | 200            |

| MILL DIA.<br>TOLERANCE (mm)<br>刃径公差 (mm) | SHANK DIA.<br>TOLERANCE<br>柄径公差 |
|--|---------------------------------|
| 0<br>-0.035                              | H6                              |

**EMG01/02** SERIES

| MATERIAL<br>硬化铜      | CARBON STEELS<br>ALLOY STEELS<br>TOOL STEELS<br>碳钢, 合金钢, 工具钢 |      | CARBON STEELS<br>ALLOY STEELS<br>TOOL STEELS<br>碳钢, 合金钢, 工具钢 |      | CARBON STEELS<br>ALLOY STEELS<br>TOOL STEELS<br>碳钢, 合金钢, 工具钢 |      | CARBON STEELS<br>ALLOY STEELS<br>TOOL STEELS<br>碳钢, 合金钢, 工具钢 |      | ALUMINUM<br>ALUMINUM ALLOYS<br>铝、铝合金 |      |
|----------------------|--|------|--|------|--|------|--|------|--------------------------------------|------|
|                      | ~500N/mm <sup>2</sup>  |      | ~500N/mm <sup>2</sup>  |      | ~500N/mm <sup>2</sup>  |      | 1000~500N/mm <sup>2</sup>                                    |      |                                      |      |
| HARDNESS<br>STRENGTH |  |      | ~Hrc20   |      | ~HRc20~HRc30   |      | ~HRc30~HRc40   |      |                                      |      |
| DIAMETER             | RPM  | FEED | RPM  | FEED | RPM  | FEED | RPM  | FEED | RPM                                  | FEED |
| 2                    | 5600   | 40   | 4500   | 30   | 4000   | 30   | 2200   | 15   | 12000                                | 160  |
| 3                    | 3500   | 55   | 3200   | 45   | 2500   | 40   | 1600   | 20   | 11000                                | 250  |
| 4                    | 2800   | 70   | 2200   | 55   | 1800   | 45   | 1100   | 30   | 8000                                 | 290  |
| 5                    | 2200   | 90   | 1800   | 70   | 1600   | 60   | 900  | 35   | 6300                                 | 310  |
| 6                    | 1800   | 90   | 1600   | 80   | 1200   | 60   | 800  | 40   | 5600                                 | 310  |
| 8                    | 1400   | 100  | 1100   | 90   | 900  | 70   | 560  | 45   | 4000                                 | 390  |
| 10                   | 1100   | 100  | 900  | 90   | 800  | 80   | 450  | 45   | 3100                                 | 400  |
| 12                   | 900  | 110  | 800  | 100  | 630  | 80   | 400  | 50   | 2500                                 | 380  |
| 14                   | 800  | 110  | 700  | 90   | 560  | 80   | 350  | 50   | 2200                                 | 350  |
| 16                   | 700  | 110  | 560  | 90   | 450  | 70   | 280  | 45   | 2000                                 | 350  |
| 18                   | 630  | 100  | 500  | 90   | 400  | 70   | 250  | 45   | 1800                                 | 350  |
| 20                   | 560  | 100  | 450  | 90   | 400  | 70   | 220  | 45   | 1600                                 | 320  |
| 22                   | 500  | 100  | 450  | 90   | 350  | 70   | 220  | 45   | 1400                                 | 300  |
| 25                   | 450  | 90   | 400  | 80   | 310  | 60   | 180  | 35   | 1200                                 | 280  |
| 28                   | 400  | 80   | 350  | 70   | 280  | 55   | 160  | 30   | 1100                                 | 270  |
| 30                   | 350  | 70   | 310  | 60   | 250  | 50   | 160  | 30   | 1100                                 | 270  |
| 32                   | 350  | 70   | 280  | 55   | 220  | 45   | 140  | 30   | 1000                                 | 240  |
| 26                   | 310  | 60   | 250  | 50   | 200  | 40   | 120  | 25   | 900                                  | 220  |
| 40                   | 280  | 60   | 220  | 50   | 180  | 40   | 110  | 25   | 800                                  | 200  |

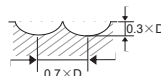


\* The FEED, in long extra long types, should be reduced by around 50%  
进给量, 对长和特长型应该大约减少50%

RPM=REVOLUTION PER MIN  
转速/分钟  
FEED=mm/min

**EMG07** SERIES

| MATERIAL<br>硬化铜      | CARBON STEELS<br>ALLOY STEELS<br>TOOL STEELS<br>碳钢, 合金钢, 工具钢 |      | CARBON STEELS<br>ALLOY STEELS<br>TOOL STEELS<br>碳钢, 合金钢, 工具钢 |      | CARBON STEELS<br>ALLOY STEELS<br>TOOL STEELS<br>碳钢, 合金钢, 工具钢 |      | CARBON STEELS<br>ALLOY STEELS<br>TOOL STEELS<br>碳钢, 合金钢, 工具钢 |      | ALUMINUM<br>ALUMINUM ALLOYS<br>铝、铝合金 |      |
|----------------------|--|------|--|------|--|------|--|------|--------------------------------------|------|
|                      | ~500N/mm <sup>2</sup>  |      | ~500N/mm <sup>2</sup>  |      | ~500N/mm <sup>2</sup>  |      | 1000~500N/mm <sup>2</sup>                                    |      |                                      |      |
| HARDNESS<br>STRENGTH |  |      | ~Hrc20   |      | ~HRc20~HRc30   |      | ~HRc30~HRc40   |      |                                      |      |
| DIAMETER             | RPM  | FEED | RPM  | FEED | RPM  | FEED | RPM  | FEED | RPM                                  | FEED |
| R1.5×3.0             | 4500   | 95   | 400  | 70   | 200  | 30   | 1400   | 20   | 11000                                | 230  |
| R1.5×4.0             | 6200   | 115  | 500  | 80   | 1400   | 35   | 1000   | 25   | 8000                                 | 260  |
| R1.5×6.0             | 2200   | 135  | 600  | 90   | 1000   | 45   | 700  | 25   | 5600                                 | 280  |
| R1.5×8.0             | 1600   | 160  | 800  | 105  | 700  | 50   | 500  | 30   | 4000                                 | 350  |
| R1.5×10.0            | 1300   | 180  | 1000   | 120  | 560  | 60   | 400  | 35   | 3200                                 | 360  |
| R1.5×12.0            | 1000   | 170  | 1200   | 105  | 450  | 55   | 320  | 35   | 2500                                 | 340  |
| R1.5×16.0            | 800  | 150  | 1700   | 100  | 350  | 55   | 250  | 35   | 2000                                 | 300  |
| R1.5×20.0            | 600  | 140  | 2400   | 85   | 300  | 50   | 200  | 35   | 1600                                 | 280  |
| R1.5×25.0            | 500  | 130  | 3400   | 70   | 220  | 40   | 160  | 30   | 1300                                 | 250  |

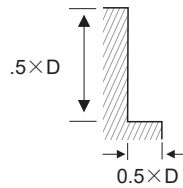


\* The FEED, in long extra long types, should be reduced by around 50%  
进给量, 对长和特长型应该大约减少50%

RPM=REVOLUTION PER MIN  
转速/分钟  
FEED=mm/min

**EMG08** SERIES

| MATERIAL<br>硬化钢      | CARBON STEELS<br>ALLOY STEELS<br>TOOL STEELS<br>碳钢, 合金钢, 工具钢 |      | CARBON STEELS<br>ALLOY STEELS<br>TOOL STEELS<br>碳钢, 合金钢, 工具钢 |      | CARBON STEELS<br>ALLOY STEELS<br>TOOL STEELS<br>碳钢, 合金钢, 工具钢 |      | CARBON STEELS<br>ALLOY STEELS<br>TOOL STEELS<br>碳钢, 合金钢, 工具钢 |      | ALUMINUM<br>ALUMINUM ALLOYS<br>铝、铝合金 |      |
|----------------------|--|------|--|------|--|------|--|------|--------------------------------------|------|
|                      | ~500N/mm <sup>2</sup>  |      | ~500N/mm <sup>2</sup>  |      | ~500N/mm <sup>2</sup>  |      | 1000~500N/mm <sup>2</sup>                                    |      |                                      |      |
| HARDNESS<br>STRENGTH |  |      | ~Hrc20   |      | ~Hrc20~Hrc30   |      | ~Hrc30~Hrc40   |      |                                      |      |
| DIAMETER             | RPM  | FEED | RPM  | FEED | RPM  | FEED | RPM  | FEED | RPM                                  | FEED |
| 6                    | 1800   | 480  | 1600   | 60   | 1200   | 55   | 800  | 30   | 4500                                 | 200  |
| 8                    | 1400   | 105  | 1100   | 75   | 900  | 65   | 560  | 35   | 3100                                 | 230  |
| 10                   | 1100   | 150  | 900  | 120  | 800  | 110  | 450  | 6    | 2500                                 | 350  |
| 12                   | 900  | 180  | 800  | 140  | 630  | 110  | 400  | 70   | 2000                                 | 400  |
| 14                   | 800  | 180  | 700  | 140  | 560  | 110  | 350  | 70   | 1800                                 | 420  |
| 16                   | 700  | 180  | 560  | 140  | 450  | 110  | 280  | 70   | 1600                                 | 450  |
| 18                   | 630  | 180  | 500  | 140  | 400  | 110  | 250  | 70   | 1400                                 | 470  |
| 20                   | 560  | 180  | 450  | 140  | 400  | 110  | 220  | 70   | 1200                                 | 500  |
| 22                   | 500  | 220  | 450  | 170  | 350  | 140  | 220  | 85   | 1100                                 | 470  |
| 25                   | 450  | 220  | 400  | 170  | 310  | 140  | 180  | 85   | 1000                                 | 450  |
| 28                   | 400  | 210  | 350  | 160  | 280  | 130  | 160  | 85   | 900                                  | 510  |
| 30                   | 350  | 210  | 310  | 160  | 250  | 130  | 160  | 85   | 900                                  | 530  |
| 32                   | 350  | 210  | 280  | 160  | 220  | 130  | 140  | 85   | 800                                  | 500  |
| 36                   | 310  | 210  | 250  | 160  | 200  | 130  | 120  | 85   | 700                                  | 470  |
| 40                   | 280  | 200  | 220  | 150  | 180  | 120  | 110  | 80   | 630                                  | 450  |
| 50                   | 220  | 200  | 180  | 170  | 160  | 140  | 90   | 80   | 500                                  | 370  |



\* The FEED, in long extra long types, should be reduced by around 50%  
进给量, 对长和特长型应该大约减少50%

RPM=REVOLUTION PER MIN  
转速/分钟  
FEED=mm/min



## **HSS ENDMILLS, TAPS AND NC-SPOTTING DRILLS**

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For machining general steel, stainless steel  
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