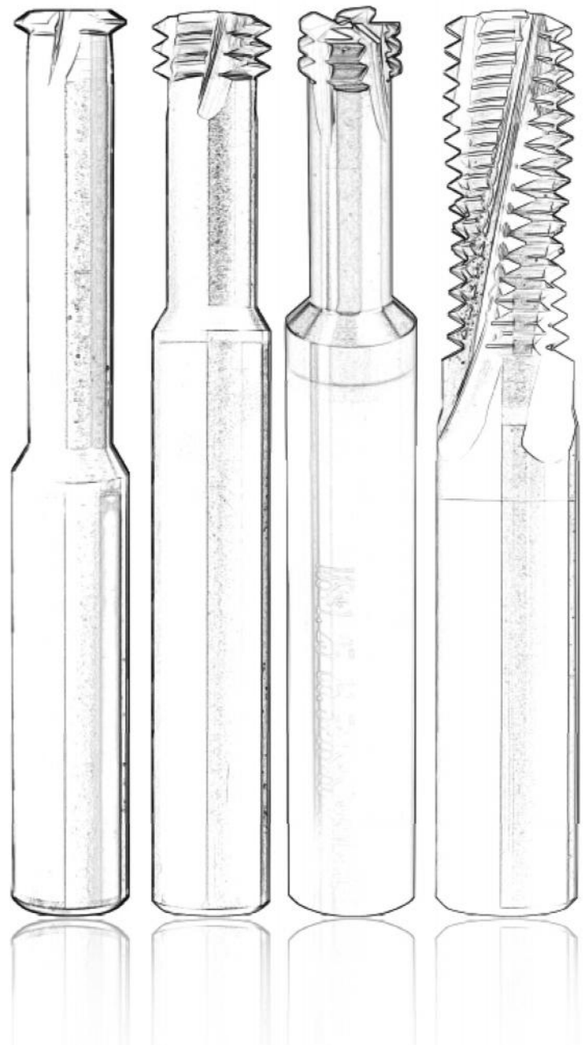
MSUTOOLS

# THREAD MILLS

## HIGH PERFORMANCE

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MSU

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## WORKPIECE

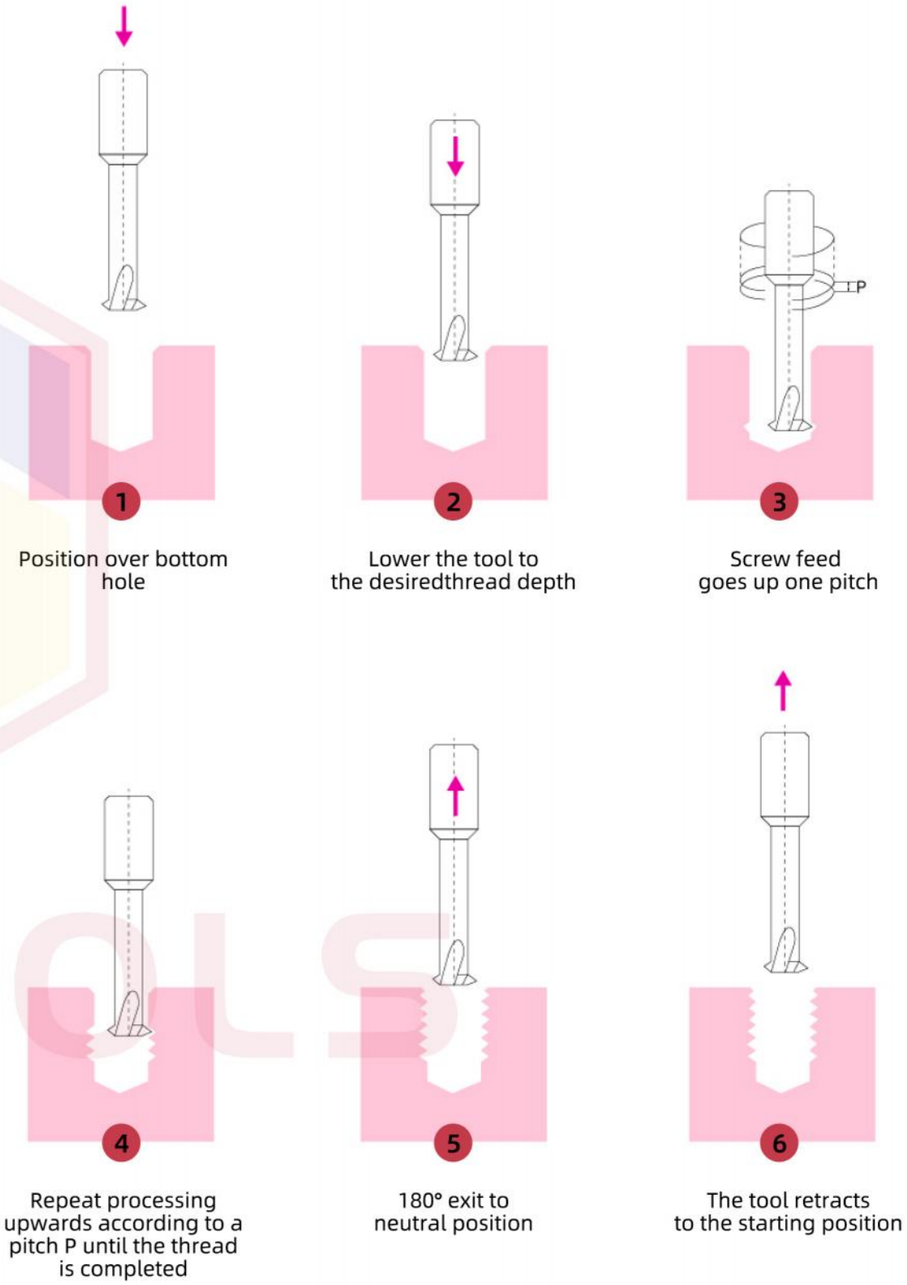
1. Suitable for processing carbon steel, 45 stee!
2. 20Cr S136,40Cr, mold steel,quenched steel, aluminum,etc

## FEATURES

1. Passivation treatment: Increase tool corrosion resistance and wear resistance.
2. Nano coating: Excellent wear resistance and high heat resistance.
3. Chip removal smoothly: Large Diameter Core to make the chip removal smoothly, no built-up and improve the tool with high efficiency
4. Plain chamfer shank: Easy operation

# TOOTH TOOL THREAD END MILL

## Process of single tooth thread milling cutter



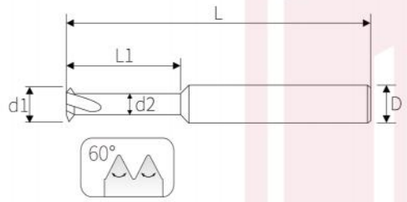
## Single tooth tungsten steel thread milling cutter（60°）

### Features

▶ There are not many thread workpieces suitable for processing proofing parts, and there are mamy thread specilicatio ns and models, lt can also process American th reads, The single-toot h thread has low processing resistance and strong versatility.

◎ Best ○ Good

| P | | | H | | | | K | M | N | | | | S | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Carbon steel | Alloy steel | Preharde-ned steel | Hardened steel | | | | Cast Iron | Stainlee steels | Aluminium alliys | Copper alloys | Plastic cement | Acrylic | High-Tempera-ture Alloy | Titanium alloy |
| | | | ~48HRC | ~55HRC | ~60HRC | ~65HRC | | | | | | | | |
| ◎ | ◎ | ◎ | ○ | | | | ◎ | ◎ | | | | | | |




Unit:mm

| Model number (mm) | d1 | d2 | L1 | D | L | F |
|---|---|---|---|---|---|---|
| M0.8*0.2 | 0.55 | 0.32 | 1.5 | 4.0 | 50 | 2 |
| M0.9*0.225 | 0.625 | 0.35 | 1.8 | 4.0 | 50 | 2 |
| M1.0*0.25 | 0.72 | 0.43 | 2.5 | 4.0 | 50 | 2 |
| M1.2*0.25 | 0.9 | 0.63 | 3.2 | 4.0 | 50 | 2 |
| M1.4*0.3 | 1.05 | 0.7 | 3.5 | 4.0 | 50 | 3 |
| M1.6*0.35 | 1.2 | 0.8 | 4.0 | 4.0 | 50 | 3 |
| M2.0*0.4 | 1.55 | 0.9 | 6.0 | 4.0 | 50 | 3 |
| M2.5*0.45 | 1.96 | 1.3 | 6.5 | 4.0 | 50 | 4 |
| M3.0*0.5 | 2.35 | 1.6 | 8.0 | 4.0 | 50 | 4 |
| M4.0*0.7 | 3.15 | 2.1 | 10 | 4.0 | 50 | 4 |
| M5.0*0.8 | 3.9 | 2.8 | 12 | 4.0 | 50 | 4 |
| M6.0*1.0 | 4.8 | 3.4 | 15 | 6.0 | 50 | 4 |
| M8.0*1.25 | 6.0 | 4.2 | 20 | 6.0 | 60 | 4 |
| M10*1.5 | 7.7 | 5.6 | 25 | 8.0 | 60 | 4 |
| M12*1.75 | 9.6 | 7.3 | 30 | 10 | 75 | 4 |
| M14*2.0 | 10 | 7.3 | 36 | 10 | 75 | 4 |
| M18*2.5 | 12 | 8.8 | 38 | 12 | 75 | 4 |
| M24*3.0 | 14 | 10.2 | 48 | 14 | 100 | 6 |
| M30*3.5 | 16 | 11.5 | 50 | 16 | 100 | 6 |



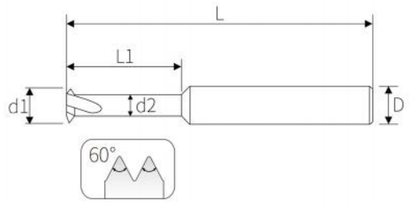
## Single Tooth Tungsten Steel Thread Milling Cutter-Titanium Alloy/High Temperature Alloy

### Features

▶ Suitable processing proofing pieces thread workpiece, thread specificatio ns and models, can also process American thread, The single-button teeth have low processing resistance, strong versatilityand easy to use
The use of superalloy, titanium alloy special coating, improve the tool resistance and high temperature melting problems, so as to achieve longevity

◎ Best ○ Good

| P | | | H | | | | K | M | N | | | | S | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Carbon steel | Alloy steel | Prehardened steel | Hardened steel | | | | Cast Iron | Stainlee steels | Aluminium alliys | Copper alloys | Plastic cement | Acrylic | High-Tempera-ture Alloy | Titanium alloy |
| | | | ~48HRC | ~55HRC | ~60HRC | ~65HRC | | | | | | | | |
| ○ | ◎ | ○ | ○ | | | | ○ | ◎ | | | | | ◎ | ◎ |




Unit:mm

| Model number (mm) | d1 | d2 | L1 | D | L | F |
|---|---|---|---|---|---|---|
| M1.6*0.35 | 1.2 | 0.8 | 4.0 | 4.0 | 50 | 3 |
| M2.0*0.4 | 1.55 | 0.9 | 6.0 | 4.0 | 50 | 3 |
| M2.5*0.45 | 1.96 | 1.3 | 6.5 | 4.0 | 50 | 4 |
| M3.0*0.5 | 2.35 | 1.6 | 8.0 | 4.0 | 50 | 4 |
| M4.0*0.7 | 3.15 | 2.1 | 10 | 4.0 | 50 | 4 |
| M5.0*0.8 | 3.9 | 2.8 | 12 | 4.0 | 50 | 4 |
| M6.0*1.0 | 4.8 | 3.4 | 15 | 6.0 | 50 | 4 |
| M8.0*1.25 | 6.0 | 4.2 | 20 | 6.0 | 60 | 4 |
| M10*1.5 | 7.7 | 5.6 | 25 | 8.0 | 60 | 4 |
| M12*1.75 | 9.6 | 7.3 | 30 | 10 | 75 | 4 |
| M14*2.0 | 10 | 7.3 | 36 | 10 | 75 | 4 |
| M18*2.5 | 12 | 8.8 | 38 | 12 | 75 | 4 |
| M24*3.0 | 14 | 10.2 | 48 | 14 | 100 | 6 |
| M30*3.5 | 16 | 11.5 | 50 | 16 | 100 | 6 |

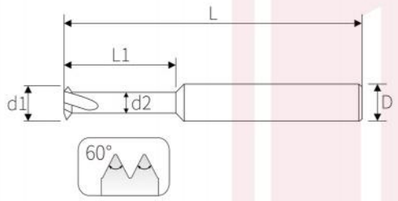
## Single tooth extended thread milling cutter（60°）

### Features

- Suitable for processing sample pieces with a small number of threaded holes and multiple thread s pecifications, making, them easy to use
  Single thread processing, has low resistance and can process deeper threaded holes

◎ Best ○ Good

| P | | | H | | | | K | M | N | | | | S | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Carbon steel | Alloy steel | Prehardened steel | Hardened steel | | | | Cast Iron | Stainlee steels | Aluminium alliys | Copper alloys | Plastic cement | Acrylic | High-Tempera-ture Alloy | Titanium alloy |
| | | | ~48HRC | ~55HRC | ~60HRC | ~65HRC | | | | | | | | |
| ◎ | ◎ | ◎ | ○ | | | | ◎ | ◎ | | | | | | |




Unit:mm

| Model number (mm) | d1 | d2 | L1 | D | L | F |
|---|---|---|---|---|---|---|
| M1.4*0.3 | 1.05 | 0.7 | 3.5 | 4.0 | 100 | 3 |
| M1.6*0.35 | 1.2 | 0.8 | 4.0 | 4.0 | 100 | 3 |
| M2.0*0.4 | 1.55 | 0.9 | 6.0 | 4.0 | 100 | 3 |
| M2.5*0.45 | 1.96 | 1.3 | 6.5 | 4.0 | 100 | 4 |
| M3.0*0.5 | 2.35 | 1.6 | 8.0 | 4.0 | 100 | 4 |
| M4.0*0.7 | 3.15 | 2.1 | 10 | 4.0 | 100 | 4 |
| M5.0*0.8 | 3.9 | 2.8 | 12 | 4.0 | 100 | 4 |
| M6.0*1.0 | 4.8 | 3.4 | 15 | 6.0 | 100 | 4 |
| M8.0*1.25 | 6.0 | 4.2 | 20 | 6.0 | 100 | 4 |
| M10*1.5 | 7.7 | 5.6 | 25 | 8.0 | 100 | 4 |
| M12*1.75 | 9.6 | 7.3 | 30 | 10 | 100 | 4 |
| M14*2.0 | 10 | 7.3 | 36 | 10 | 100 | 4 |
| M18*2.5 | 12 | 8.8 | 38 | 12 | 100 | 4 |
| M24*3.0 | 14 | 10.2 | 48 | 14 | 100 | 6 |
| M30*3.5 | 16 | 11.5 | 50 | 16 | 100 | 6 |

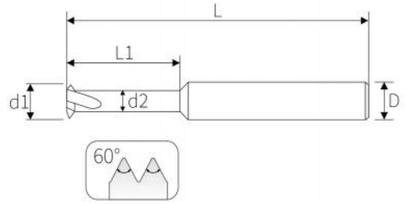
## Single tooth range tungsten steel thread milling cutter - for steel

### Features

- Suitable for processing sample pieces with few threaded workpieces, multiple thread specifications and models, and also capable of processing American threads
  Single bucke teeth have low processing, resistance, strong, universality,and comenient use

◎ Best ○ Good

| P | | | H | | | | K | M | N | | | | S | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Carbon steel | Alloy steel | Prehardened steel | Hardened steel | | | | Cast Iron | Stainlee steels | Aluminium alliys | Copper alloys | Plastic cement | Acrylic | High-Tempera-ture Alloy | Titanium alloy |
| | | | ~48HRC | ~55HRC | ~60HRC | ~65HRC | | | | | | | | |
| ◎ | ◎ | ◎ | ○ | | | | ◎ | ◎ | | | | | | |




Unit:mm

| Model number (mm) | d1 | d2 | L1 | D | L |
|---|---|---|---|---|---|
| 0.25-0.35 | 1.05 | 0.6 | 3.5 | 4.0 | 50 |
| 0.25-0.35 | 1.2 | 0.75 | 4.0 | 4.0 | 50 |
| 0.3-0.5 | 1.55 | 0.9 | 6.0 | 4.0 | 50 |
| 0.3-0.7 | 1.96 | 1.1 | 6.5 | 4.0 | 50 |
| 0.3-0.8 | 2.35 | 1.4 | 8.0 | 4.0 | 50 |
| 0.3-0.8 | 3.15 | 2.0 | 10 | 4.0 | 50 |
| 0.3-1.0 | 3.9 | 2.5 | 12 | 4.0 | 50 |
| 0.5-1.5 | 4.8 | 2.9 | 15 | 6.0 | 50 |
| 0.5-1.75 | 6.0 | 4.0 | 20 | 6.0 | 50 |
| 0.5-2.5 | 7.7 | 4.8 | 25 | 8.0 | 60 |
| 1.0-3.0 | 9.6 | 6.0 | 30 | 10 | 75 |
| 1.0-3.5 | 10 | 6.0 | 36 | 10 | 75 |
| 1.0-4.0 | 12 | 7.3 | 38 | 12 | 75 |
| 1.5-4.0 | 14 | 9.0 | 48 | 14 | 100 |
| 2.0-5.0 | 16 | 10 | 50 | 16 | 100 |

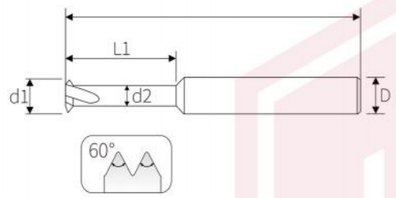
# Single Tooth Range Tungsten Steel Thread Milling Cutter - L1 Extended

## Features

▶ Suitable for processing sample pieces with few threaded workpieces, multiple thread specifications and models, and also capable of processing American threads Single bucke teeth have low processing resistance, strong universality, and comenient use Escape lengthening is particularly suitable for working, conditions with complex types ofdeep holes and threads

◎ Best ○ Good

| P | | | H | | | | K | M | N | | | | S | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Carbon steel | Alloy steel | Prehardened steel | Hardened steel | | | | Cast Iron | Stainlee steels | Aluminium alliys | Copper alloys | Plastic cement | Acrylic | High-Tempera-ture Alloy | Titanium alloy |
| | | | ~48HRC | ~55HRC | ~60HRC | ~65HRC | | | | | | | | |
| ◎ | ◎ | ◎ | ○ | | | | ◎ | ◎ | | | | | | |




Unit:mm

| Screw thread model number | | | Screw pitch(P) | | Size specification | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| M Coarse teeth | Denticle | UN,UNS,UNF,UNEF | mm | tpi | d1 | d2 | L1 | D | L | F |
| M5X0.8 | M5X0.5<br>M5X0.75 | No.10-56UNS,No.10-48UNS<br>No.40UNS | 0.5-0.8 | 32-56 | 3.9 | 2.8 | 16 | 4.0 | 50 | 4 |
| M6X1.0 | M6X0.5<br>M6X0.75 | No.12-56UNS,No.12-48UNS<br>1/4-40UNS,1/4-36UNS<br>1/4-32UNEF,1/4-28UNF<br>1/4-27UNS,1/4-24UNS | 0.5-1.0 | 24-56 | 4.85 | 3.5 | 20 | 6.0 | 60 | 5 |
| M8X1.25 | M7X0.5<br>M7X0.75<br>M7.5X1.0 | 5/16-48UNS,5/16-40UNS<br>5/16-36UNS, 5/16-36UNEF<br>5/16-28UN, 5/16-27UNS<br>5/16-24UNS, 5/16-20UNS | 0.5-1.25 | 20-48 | 5.9 | 4.2 | 25 | 6.0 | 60 | 5 |
| | M10X0.5<br>M11X0.75<br>M11X1.0 | 7/16-32UNS,7/16-28UNEF<br>7/16-27UNS,7/16-24UNS | 0.5-1.0 | 24-56 | 9.8 | 8.5 | 35 | 10 | 75 | 6 |
| M10X1.5 | M10X1.0<br>M10X1.25 | 3/8-24UNF,3/8-20NS<br>7/16-18UNS,7/16-24UNS | 1.0-1.50 | 13-24 | 7.9 | 5.8 | 32 | 8.0 | 75 | 6 |
| M12X1.75 | M12X1.0<br>M12X1.25<br>M12X1.5 | 1/2-24UNS,1/2-20UNS<br>1/2-18UNS,1/2-16UNS<br>1/2-14UNF | 1.0-1.75 | 14-24 | 9.9 | 7.6 | 38 | 10 | 75 | 6 |
| M16X2.0 | M13.5X1.0<br>M14X1.25<br>M14X1.5 | 9/16-24UNEF,9/16-18UNF<br>5/8-18UNF,3/4-16UNF<br>7/8-14UNF | 1.0-2.0 | 14-24 | 11.9 | 9.6 | 40 | 12 | 75 | 6 |
| M18X2.5<br>M20X2.5<br>M22X2.5<br>M24X3.0<br>M27X3.0 | | 9/16-12UNC,5/8-11UNC<br>3/4-10UNC,7/8-9UNC | 2.0-3.0 | 9-12 | 14 | 10.2 | 48 | 14 | 100 | 6 |
| M20X2.5<br>M22X2.5<br>M24X3.0<br>M27X3.0<br>M30X3.5<br>M33X3.5 | | 9/16-12UNC,5/8-11UNC<br>3/4-10UNC,1-8UNC | 2.0-3.5 | 8-12 | 16 | 11.5 | 50 | 16 | 100 | 6 |



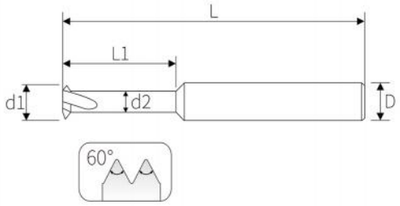
# Single Tooth Range ChampagneThread Milling Cutter-Titanium Alloy/High Temperature Alloy

## Features

▶ Suitable for processing sample pieces with few threaded workpieces, multiple thread specifications and models, and also capable of processing American threads Sinple buckle teeth have low processing resistance, strong universality, and convenient use The use of high-temperature alloy and titanium alloy specialized coatings improves the tool's resistance to chip sticking and high-temperature melting, thereby achieving an improved lifespan

◎ Best ○ Good

| P | | | H | | | | K | M | N | | | | S | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Carbon steel | Alloy steel | Prehardened steel | Hardened steel | | | | Cast Iron | Stainlee steels | Aluminium alliys | Copper alloys | Plastic cement | Acrylic | High-Tempera-ture Alloy | Titanium alloy |
| | | | ~48HRC | ~55HRC | ~60HRC | ~65HRC | | | | | | | | |
| ○ | ◎ | ○ | ○ | | | | ○ | ◎ | | | | | | |




Unit:mm

| Screw thread model number | | | Screw pitch(P) | | Size specification | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| M Coarse teeth | Denticle | UN,UNS,UNF,UNEF | mm | tpi | d1 | d2 | L1 | D | L | F |
| M5X0.8 | M5X0.5<br>M5X0.75 | No.10-56UNS,No.10-48UNS<br>No.40UNS | 0.5-0.8 | 32-56 | 3.9 | 2.8 | 16 | 4.0 | 50 | 4 |
| M6X1.0 | M6X0.5<br>M6X0.75 | No.12-56UNS,No.12-48UNS<br>1/4-40UNS,1/4-36UNS<br>1/4-32UNEF,1/4-28UNF<br>1/4-27UNS,1/4-24UNS | 0.5-1.0 | 24-56 | 4.85 | 3.5 | 20 | 6.0 | 60 | 5 |
| M8X1.25 | M7X0.5<br>M7X0.75<br>M7.5X1.0 | 5/16-48UNS,5/16-40UNS<br>5/16-36UNS, 5/16-36UNEF<br>5/16-28UN, 5/16-27UNS<br>5/16-24UNS, 5/16-20UNS | 0.5-1.25 | 20-48 | 5.9 | 4.2 | 25 | 6.0 | 60 | 5 |
| | M10X0.5<br>M11X0.75<br>M11X1.0 | 7/16-32UNS,7/16-28UNEF<br>7/16-27UNS,7/16-24UNS | 0.5-1.0 | 24-56 | 9.8 | 8.5 | 35 | 10 | 75 | 6 |
| M10X1.5 | M10X1.0<br>M10X1.25 | 3/8-24UNF,3/8-20NS<br>7/16-18UNS,7/16-24UNS | 1.0-1.50 | 13-24 | 7.9 | 5.8 | 32 | 8.0 | 75 | 6 |
| M12X1.75 | M12X1.0<br>M12X1.25<br>M12X1.5 | 1/2-24UNS,1/2-20UNS<br>1/2-18UNS,1/2-16UNS<br>1/2-14UNF | 1.0-1.75 | 14-24 | 9.9 | 7.6 | 38 | 10 | 75 | 6 |
| M16X2.0 | M13.5X1.0<br>M14X1.25<br>M14X1.5 | 9/16-24UNEF,9/16-18UNF<br>5/8-18UNF,3/4-16UNF<br>7/8-14UNF | 1.0-2.0 | 14-24 | 11.9 | 9.6 | 40 | 12 | 75 | 6 |
| M18X2.5<br>M20X2.5<br>M22X2.5<br>M24X3.0<br>M27X3.0 | | 9/16-12UNC,5/8-11UNC<br>3/4-10UNC,7/8-9UNC | 2.0-3.0 | 9-12 | 14 | 10.2 | 48 | 14 | 100 | 6 |
| M20X2.5<br>M22X2.5<br>M24X3.0<br>M27X3.0<br>M30X3.5<br>M33X3.5 | | 9/16-12UNC,5/8-11UNC<br>3/4-10UNC,1-8UNC | 2.0-3.5 | 8-12 | 16 | 11.5 | 50 | 16 | 100 | 6 |

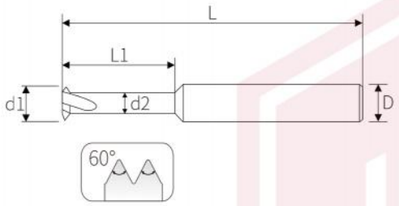
## Single Tooth Range ChampagneThread Milling Cutter-Titanium Alloy/High Temperature Alloy

### Features

▶ Suitable for processing sample pieces, with a imited number of threaded holes and a wide range of thread speciications, it is easy to use and has low resistance to single thread processing. It can process deeper threaded holes, The seven color DlC coating has the lowest friction coelficient and high resistance to fusion and corrosion of non-ferrous metals suitable for processing copper alloys, aluminum alloys, non-ferrous metals, acrylic, etc

◎ Best ○ Good

| P | | | H | | | | K | M | N | | | | S | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Carbon steel | Alloy steel | Prehardened steel | Hardened steel | | | | Cast Iron | Stainlee steels | Aluminium alliys | Copper alloys | Plastic cement | Acrylic | High-Tempera-ture Alloy | Titanium alloy |
| | | | ~48HRC | ~55HRC | ~60HRC | ~65HRC | | | | | | | | |
| | | | | | | | | | ◎ | ◎ | ◎ | ◎ | | |




Unit:mm

| Model number (mm) | Blade diameter (d1) | Escape diameter (d2) | Blade length (l2) | Shank diameter (D) | Total length (L) | Number blades (F) |
|---|---|---|---|---|---|---|
| P0.25 | 0.72 | 0.43 | 2.5 | 4.0 | 50 | 2 |
| P0.25 | 0.9 | 0.63 | 3.2 | 4.0 | 50 | 2 |
| P0.25-0.35 | 1.05 | 0.6 | 3.5 | 4.0 | 50 | 3 |
| P0.25-0.35 | 1.2 | 0.75 | 4.0 | 4.0 | 50 | 3 |
| P0.3-P0.5 | 1.55 | 0.9 | 6.0 | 4.0 | 50 | 3 |
| P0.3-P0.7 | 1.96 | 1.1 | 6.5 | 4.0 | 50 | 4 |
| P0.3-P0.8 | 2.35 | 1.4 | 8.0 | 4.0 | 50 | 4 |
| P0.3-P0.8 | 3.15 | 2.0 | 10 | 4.0 | 50 | 4 |
| P0.3-P1.0 | 3.9 | 2.5 | 12 | 4.0 | 50 | 4 |
| P0.5-P1.5 | 4.8 | 2.9 | 15 | 6.0 | 50 | 4 |
| P0.5-P1.75 | 6.0 | 4.0 | 20 | 6.0 | 50 | 4 |
| P0.5-P2.5 | 7.7 | 4.8 | 25 | 8.0 | 60 | 4 |
| P1.0-P3.0 | 9.6 | 6.0 | 30 | 10 | 75 | 4 |
| P1.0-P3.5 | 10 | 6.0 | 36 | 10 | 75 | 4 |
| P1.0-4.0 | 12 | 7.3 | 38 | 12 | 75 | 4 |
| P1.5-4.0 | 14 | 9.0 | 48 | 14 | 100 | 4 |
| P2.0-5.0 | 16 | 10 | 50 | 16 | 100 | 4 |

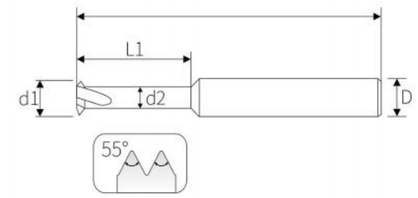
## Single Tooth 55 ° Inch Range Thread Milling Cutter

### Features

▶ Suitable for processing, sample pieces with few threaded workpieces, multiple thread specifications and models, and capable of prcessing British pipe threads
British taper pipe threads, Wyeth threads, and single thread threads have low machining, resistance and strong versatility in use

◎ Best ○ Good

| P | | | H | | | | K | M | N | | | | S | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Carbon steel | Alloy steel | Prehardened steel | Hardened steel | | | | Cast Iron | Stainlee steels | Aluminium alliys | Copper alloys | Plastic cement | Acrylic | High-Tempera-ture Alloy | Titanium alloy |
| | | | ~48HRC | ~55HRC | ~60HRC | ~65HRC | | | | | | | | |
| ◎ | ◎ | ◎ | ○ | | | | ◎ | ◎ | | | | | | ○ |




Unit:mm

| Model | Tooth pitch | Blade diameter (d1) | Angle | Escape diameter (d2) | Blade length (L1) | Shank diameter (D) | Total length (L) | Number blades (F) |
|---|---|---|---|---|---|---|---|---|
| W5/32 | P0.793 | 3.1 | 55° | 1.9 | 8 | 4.0 | 50 | 4 |
| W3/16-24 | P1.058 | 3.5 | 55° | 2.0 | 10 | 4.0 | 50 | 4 |
| W1/4-20 | P1.27 | 4.0 | 55° | 2.2 | 12 | 4.0 | 50 | 4 |
| W5/16-18,G1/16-28 G1/8-28 | P0.907-P1.411 | 6.0 | 55° | 4.5 | 14 | 6.0 | 50 | 4 |
| W3/8-16,W7/16-14 G1/4-19,G3/8-19 | P1.336-P1.814 | 8.0 | 55° | 5.9 | 22 | 8.0 | 60 | 4 |
| W7/16-14,G1/2-14 G1/4-19, G3/4-14 G3/8-19 | P1.336-P1.814 | 10 | 55° | 7.3 | 30 | 10 | 75 | 4 |
| W5/8-11,W3/4-10 G1/2-14, G3/4-14 G1-11 | P1.336-P2.54 | 12 | 55° | 8.2 | 38 | 12 | 75 | 4 |

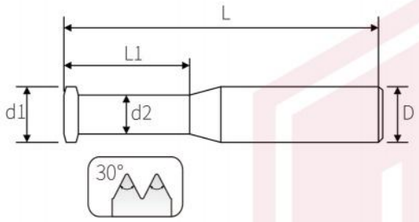
## 30° Trapezoidal Single Tooth Thread Milling Cutter

### Features

▶ Trapezoidal thread is the main transmission form of screw transmission, mainly used for the main screw transmission of machine tools and the screw transmission of tool holders

◎ Best ○ Good

| P | | | H | | | | K | M | N | | | | S | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Carbon steel | Alloy steel | Prehardened steel | Hardened steel | | | | Cast Iron | Stainlee steels | Aluminium alliys | Copper alloys | Plastic cement | Acrylic | High-Tempera-ture Alloy | Titanium alloy |
| | | | ~48HRC | ~55HRC | ~60HRC | ~65HRC | | | | | | | | |
| ◎ | ◎ | ◎ | ○ | | | | ◎ | ◎ | | | | | | ○ |




Unit:mm

| 30° Thread milling cutter | d1 | d2 | L1 | D | L | F |
|---|---|---|---|---|---|---|
| TR7X1.0 | 5.5 | 4.1 | 20 | 6.0 | 50 | 4 |
| TR8X1.0<br>TR9X1.5 | 6.0 | 4.0 | 20 | 6.0 | 50 | 4 |
| TR9X2, TR10X2<br>TR11X2 | 6.4 | 3.7 | 20 | 8.0 | 60 | 4 |
| TR12X2, TR14X2<br>TR16X2, TR18X2<br>TR20X2 | 9.4 | 6.5 | 35 | 10 | 75 | 4 |
| TR11X3, TR12X3<br>TR14X3 | 7.4 | 3.8 | 25 | 8.0 | 60 | 4 |
| TR14X3, TR22X3<br>TR24X3, TR26X3<br>TR28X3, TR30X3 | 10 | 6.0 | 35 | 10 | 75 | 4 |
| TR16X4, TR18X4<br>TR20X4 | 11 | 6.0 | 38 | 12 | 75 | 4 |
| TR22X5, TR24X5<br>TR26X5, TR28X5 | 14 | 7.8 | 50 | 14 | 100 | 4 |
| TR30X6, TR32X6<br>TR34X6, TR36X6<br>TR38X6, TR40X6<br>TR42X6 | 16 | 9.0 | 50 | 16 | 100 | 4 |

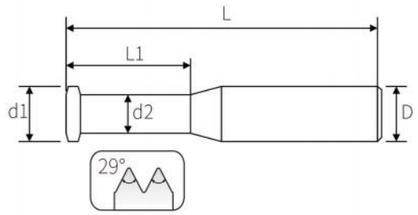
## 29° Acme Single Tooth Thread Milling Cutter

### Features

▶ Trapezoidal thread is the main transmission form of screw transmission, mainly used for the main screw transmission of machine tools and the screw transmission of tool holders

◎ Best ○ Good

| P | | | H | | | | K | M | N | | | | S | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Carbon steel | Alloy steel | Prehardened steel | Hardened steel | | | | Cast Iron | Stainlee steels | Aluminium alliys | Copper alloys | Plastic cement | Acrylic | High-Tempera-ture Alloy | Titanium alloy |
| | | | ~48HRC | ~55HRC | ~60HRC | ~65HRC | | | | | | | | |
| ◎ | ◎ | ◎ | ○ | | | | ◎ | ◎ | | | | | | ○ |




Unit:mm

| Model number | d1 | d2 | L1 | D | L | F |
|---|---|---|---|---|---|---|
| 1/4-16 | 4.7 | 2.6 | 15 | 6.0 | 50 | 4 |
| 5/16-14 | 6.0 | 3.6 | 20 | 6.0 | 50 | 4 |
| 3/8-12 7/16-12 | 7.2 | 4.5 | 25 | 8.0 | 60 | 4 |
| 1/2-10 | 10 | 6.6 | 35 | 10 | 75 | 4 |
| 5/8-8 | 12 | 7.5 | 35 | 12 | 75 | 4 |
| 3/4-6 7/8-6 | 12 | 6.5 | 35 | 12 | 75 | 4 |

MSUTOOLS

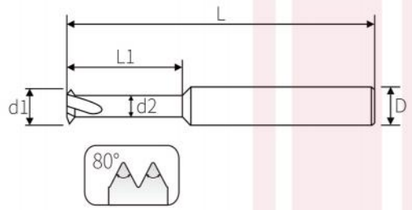
## PG German Standard Single Tooth Thread Milling Cutter

### Features

- Suitable for processing sample pieces with a small number of threaded holes and multiple thread specifications making them easy to use
  Single thread processing has low resistance and can process deeper threaded hole

◎ Best ○ Good

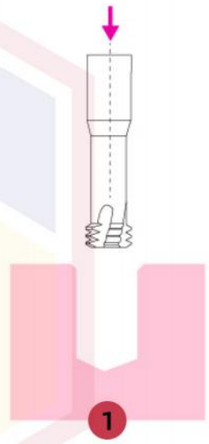
| P | | | H | | | | K | M | N | | | | S | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Carbon steel | Alloy steel | Prehardened steel | Hardened steel | | | | Cast Iron | Stainlee steels | Aluminium alliys | Copper alloys | Plastic cement | Acrylic | Superalloy | Titanium alloy |
| | | | ~48HRC | ~55HRC | ~60HRC | ~65HRC | | | | | | | | |
| ◎ | ◎ | ◎ | ○ | | | | ◎ | ◎ | | | | | | ○ |



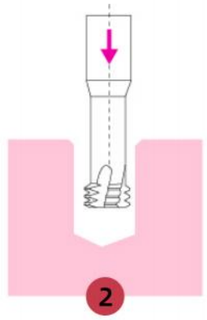

Unit:mm

| Model number | d1 | d2 | L1 | D | L | F |
|---|---|---|---|---|---|---|
| PG7 PG9 PG11 PG3.5 PG16 | 8 | 6 | 15 | 8.0 | 60 | 4 |
| PG9 PG11 PG3.5 PG6 | 10 | 7 | 20 | 10 | 75 | 4 |
| PG21 PG29 PG36 PG42 PG48 | 12 | 7 | 20 | 12 | 75 | 4 |

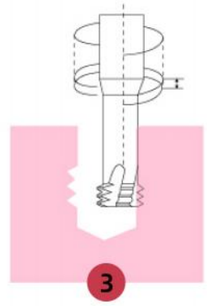
## Process Of Three-Tooth Thread Tilling Cutter



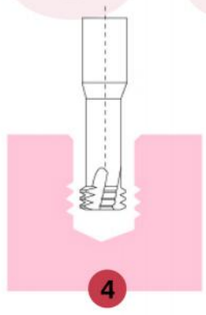
1 Position over bottom hole



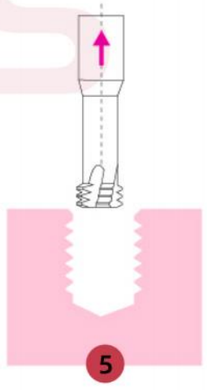
2 Lower the tool to the desired thread depth



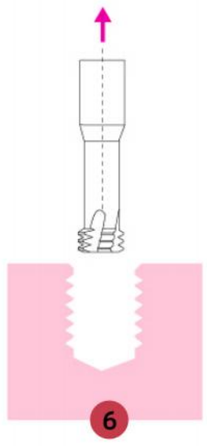
3 Screw feed goes up one pitch



4 Repeat processing upwards according to a pitch P until the thread is completed



5 180° exit to neutral position



6 The tool retracts to the starting position

MSUTOOLS

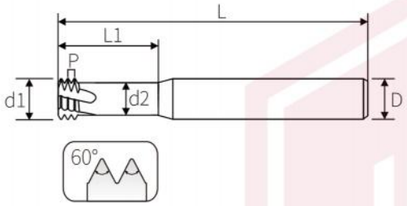
## Three Tooth Metric Thread Milling Cutter-2D-1

### Features

- Suitable for processing small aperture threads and workpieces with high hardness. The three thread thread has good steel properties,high strength, and is not easy to break,The nano layered structure in the middle of the gray black coating has high toughness and hich compressve stress
  Especially suitab le for processing carbon steel, 45 #f steel, 20Cr,5136, 40Cr, 42Cr, mold steel, quenched steel, etc

◎ Best ○ Good

| P | | | H | | | | K | M | N | | | | S | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Carbon steel | Alloy steel | Prehardened steel | Hardened steel | | | | Cast Iron | Stainlee steels | Aluminium alliys | Copper alloys | Plastic cement | Acrylic | High-Tempera-ture Alloy | Titanium alloy |
| | | | ~48HRC | ~55HRC | ~60HRC | ~65HRC | | | | | | | | |
| ◎ | ◎ | ◎ | ◎ | ○ | | | ◎ | ◎ | | | | | ○ | ◎ |




Unit:mm

| Dimension | P | d1 | d2 | L1 | D | L | F |
|---|---|---|---|---|---|---|---|
| M1.0 | 0.25 | 0.73 | 0.43 | 2.0 | 4.0 | 50 | 3 |
| M1.2 | 0.25 | 0.92 | 0.62 | 2.4 | 4.0 | 50 | 3 |
| M1.4 | 0.3 | 1.05 | 0.65 | 2.8 | 4.0 | 50 | 3 |
| M1.6 | 0.35 | 1.2 | 0.78 | 3.2 | 4.0 | 50 | 3 |
| M1.6 | 0.35 | 1.2 | 0.78 | 3.2 | 6.0 | 50 | 3 |
| M1.8 | 0.35 | 1.4 | 0.98 | 3.6 | 4.0 | 50 | 3 |
| M2.0 | 0.4 | 1.55 | 1.05 | 4.0 | 4.0 | 50 | 3 |
| M2.0 | 0.4 | 1.55 | 1.05 | 4.0 | 6.0 | 50 | 3 |
| M2.2 | 0.45 | 1.7 | 1.1 | 5.0 | 4.0 | 50 | 3 |
| M2.5 | 0.45 | 2.0 | 1.45 | 5.0 | 4.0 | 50 | 3 |
| M2.5 | 0.45 | 2.0 | 1.45 | 5.0 | 6.0 | 50 | 3 |
| M3.0 | 0.5 | 2.4 | 1.8 | 6.0 | 4.0 | 50 | 3 |
| M3.0 | 0.5 | 2.4 | 1.8 | 6.0 | 6.0 | 50 | 3 |
| M3.5 | 0.6 | 2.75 | 2.0 | 8.0 | 4.0 | 50 | 3 |
| M4.0 | 0.7 | 3.15 | 2.3 | 8.0 | 4.0 | 50 | 3 |
| M4.0 | 0.7 | 3.15 | 2.3 | 8.0 | 6.0 | 50 | 3 |
| M4.5 | 0.75 | 3.5 | 2.55 | 9.0 | 4.0 | 50 | 3 |
| M5.0 | 0.8 | 4.0 | 3.0 | 10 | 4.0 | 50 | 3 |
| M5.0 | 0.8 | 4.0 | 3.0 | 10 | 6.0 | 50 | 3 |
| M6.0 | 0.75 | 4.8 | 3.8 | 12 | 6.0 | 50 | 3 |
| M6.0 | 1.0 | 4.8 | 3.6 | 12 | 6.0 | 50 | 3 |
| M8.0 | 1.0 | 6.0 | 4.8 | 16 | 6.0 | 50 | 4 |
| M8.0 | 1.5 | 6.0 | 4.5 | 16 | 6.0 | 50 | 4 |
| M10 | 1.0 | 8.0 | 6.8 | 20 | 8.0 | 60 | 4 |
| M10 | 1.5 | 8.0 | 6.2 | 20 | 8.0 | 60 | 4 |
| M12 | 1.0 | 10 | 8.7 | 24 | 10 | 75 | 4 |
| M12 | 1.25 | 10 | 8.5 | 24 | 10 | 75 | 4 |
| M12 | 1.5 | 10 | 8.1 | 24 | 10 | 75 | 4 |
| M12 | 1.75 | 10 | 7.8 | 24 | 10 | 75 | 4 |



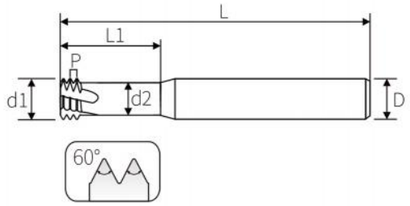
## Three Tooth Metric Thread Milling Cutter-2D-2

### Features

- Suitable for processing small aperture threads and workpieces with high hardness. The three thread thread has good steel properties,high strength, and is not easy to break,The nano layered structure in the middle of the gray black coating has high toughness and hich compressve stress
  Especially suitab le for processing carbon steel, 45 #f steel, 20Cr,5136, 40Cr, 42Cr, mold steel, quenched steel, etc

◎ Best ○ Good

| P | | | H | | | | K | M | N | | | | S | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Carbon steel | Alloy steel | Prehardened steel | Hardened steel | | | | Cast Iron | Stainlee steels | Aluminium alliys | Copper alloys | Plastic cement | Acrylic | High-Tempera-ture Alloy | Titanium alloy |
| | | | ~48HRC | ~55HRC | ~60HRC | ~65HRC | | | | | | | | |
| ◎ | ◎ | ◎ | ◎ | ○ | | | ◎ | ◎ | | | | | ○ | ◎ |




Unit:mm

| Dimension | P | d1 | d2 | L1 | D | L | F |
|---|---|---|---|---|---|---|---|
| M14 | 1.5 | 12 | 10.1 | 28 | 12 | 75 | 4 |
| M14 | 2.0 | 10 | 7.5 | 28 | 10 | 75 | 4 |
| M16 | 2.0 | 12 | 9.5 | 32 | 12 | 75 | 4 |
| M16 | 1.5 | 14 | 12.1 | 32 | 14 | 100 | 4 |
| M16 | 2.0 | 13.5 | 11 | 32 | 14 | 100 | 4 |
| M18 | 2.5 | 14.8 | 11.4 | 38 | 16 | 100 | 4 |
| M20 | 1.5 | 16 | 14.1 | 40 | 16 | 100 | 4 |
| M20 | 2.5 | 16 | 12.6 | 40 | 16 | 100 | 6 |
| M24 | 3.0 | 16 | 12 | 48 | 16 | 100 | 6 |

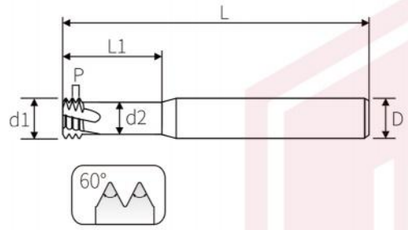
## Three Tooth Metric Thread Milling Cutter-3D

### Features

- Suitable for processing smal aperture threads and workpieces with high hardness, good rigidity and wear resistance of three threaded threads,and more stable thread size
  Adopting AlT isiN base co ating, cont aining various co mposite elements such as aluminum, titanium, silicon, nitrogen, etc, with higheraluminum content and higher
  The lub ricatio n effect is part icu larlysuitab le for processing, general steel parts such as stain less stee.

◎ Best ○ Good

| P | | | H | | | | K | M | N | | | | S | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Carbon steel | Alloy steel | Prehardened steel | Hardened steel | | | | Cast Iron | Stainlee steels | Aluminium alliys | Copper alloys | Plastic cement | Acrylic | High-Tempera-ture Alloy | Titanium alloy |
| | | | ~48HRC | ~55HRC | ~60HRC | ~65HRC | | | | | | | | |
| ◎ | ◎ | ◎ | ◎ | ○ | | | ◎ | ◎ | | | | | ○ | ◎ |




Unit:mm

| Dimension | P | d1 | d2 | l1 | D | L | F |
|---|---|---|---|---|---|---|---|
| M1.0 | 0.25 | 0.73 | 0.43 | 3.0 | 4.0 | 50 | 3 |
| M1.2 | 0.25 | 0.92 | 0.62 | 3.6 | 4.0 | 50 | 3 |
| M1.4 | 0.3 | 1.05 | 0.65 | 4.2 | 4.0 | 50 | 3 |
| M1.6 | 0.35 | 1.2 | 0.78 | 4.8 | 4.0 | 50 | 3 |
| M1.6 | 0.35 | 1.2 | 0.78 | 4.8 | 6.0 | 50 | 3 |
| M2.0 | 0.4 | 1.55 | 1.05 | 6.0 | 4.0 | 50 | 3 |
| M2.0 | 0.4 | 1.55 | 1.05 | 6.0 | 6.0 | 50 | 3 |
| M2.5 | 0.45 | 2.0 | 1.45 | 7.5 | 4.0 | 50 | 3 |
| M2.5 | 0.45 | 2.0 | 1.45 | 7.5 | 6.0 | 50 | 3 |
| M3.0 | 0.5 | 2.4 | 1.8 | 9.0 | 4.0 | 50 | 3 |
| M3.0 | 0.5 | 2.4 | 1.8 | 9.0 | 6.0 | 50 | 3 |
| M4.0 | 0.7 | 3.15 | 2.3 | 12 | 4.0 | 50 | 3 |
| M4.0 | 0.7 | 3.15 | 2.3 | 12 | 6.0 | 50 | 3 |
| M5.0 | 0.8 | 4.0 | 3.0 | 15 | 4.0 | 50 | 3 |
| M5.0 | 0.8 | 4.0 | 3.0 | 15 | 6.0 | 50 | 3 |
| M6.0 | 1.0 | 4.8 | 3.6 | 18 | 6.0 | 50 | 3 |
| M8.0 | 1.25 | 6.0 | 4.5 | 24 | 6.0 | 50 | 4 |
| M10 | 1.5 | 8.0 | 6.2 | 30 | 8.0 | 60 | 4 |
| M12 | 1.75 | 10 | 7.8 | 36 | 10 | 75 | 4 |



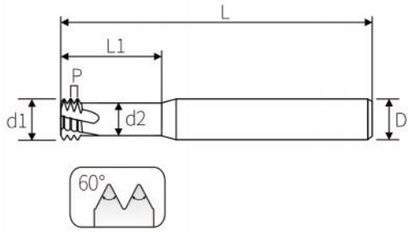
## Three Tooth Metric Thread Milling Cutter-4D

### Features

- Suitable for processing small aperture threads and workpieces with high hardness, good rigidity and wear resist ance of three threaded threads,and more stable thread size
  Adopting AlTisiN base coating, containing various composite elements such as aluminum, titanilum, silicon, nitrogen, etc., with higher aluminum content and higher,The lubrication eflect is particularly suitable for processing general steel parts such as stain less steel.

◎ Best ○ Good

| P | | | H | | | | K | M | N | | | | S | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Carbon steel | Alloy steel | Prehardened steel | Hardened steel | | | | Cast Iron | Stainlee steels | Aluminium alliys | Copper alloys | Plastic cement | Acrylic | Superalloy | Titanium alloy |
| | | | ~48HRC | ~55HRC | ~60HRC | ~65HRC | | | | | | | | |
| ◎ | ◎ | ◎ | ◎ | ○ | | | ◎ | ◎ | | | | | ○ | ◎ |




Unit:mm

| Dimension | P | d1 | d2 | l1 | D | L | F |
|---|---|---|---|---|---|---|---|
| M2.0 | 0.4 | 1.55 | 1.05 | 8.0 | 4.0 | 50 | 3 |
| M2.5 | 0.45 | 2.0 | 1.45 | 10 | 4.0 | 50 | 3 |
| M3.0 | 0.5 | 2.4 | 1.8 | 12 | 4.0 | 50 | 3 |
| M4.0 | 0.7 | 3.15 | 2.3 | 16 | 4.0 | 50 | 3 |
| M5.0 | 0.8 | 4.0 | 3.0 | 20 | 4.0 | 50 | 3 |

MSUTOOLS

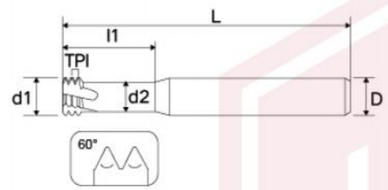
# Three Teeth Metric Thread Mills-Titanium Alloy/High Temperature Alloy-1

## Features

- Suitable for processing smal aperture threads and workpieces with high hardness, good rigidity and wear resistance of three threaded threads,and more stable thread size
  Adopting AlT isiN base co ating, cont aining various co mposite elements such as aluminum, titanium, silicon, nitrogen, etc, with higheraluminum content and higher
  The lub ricatio n effect is part icu larlysuitab le for processing, general steel parts such as stain less stee.

◎ Best ○ Good

| P | | | H | | | | K | M | N | | | | S | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Carbon steel | Alloy steel | Prehardened steel | Hardened steel | | | | Cast Iron | Stainlee steels | Aluminium alliys | Copper alloys | Plastic cement | Acrylic | Superalloy | Titanium alloy |
| | | | ~48HRC | ~55HRC | ~60HRC | ~65HRC | | | | | | | | |
| ○ | ◎ | ○ | ○ | | | | ○ | ◎ | | | | | ◎ | ◎ |




Unit:mm

| Dimension | P | d1 | d2 | L1 | D | L | F |
|---|---|---|---|---|---|---|---|
| M1.0 | 0.25 | 0.73 | 0.43 | 2.0 | 4.0 | 50 | 3 |
| M1.2 | 0.25 | 0.92 | 0.62 | 2.4 | 4.0 | 50 | 3 |
| M1.4 | 0.3 | 1.05 | 0.65 | 2.8 | 4.0 | 50 | 3 |
| M1.6 | 0.35 | 1.2 | 0.78 | 3.2 | 6.0 | 50 | 3 |
| M1.8 | 0.35 | 1.4 | 0.98 | 3.6 | 4.0 | 50 | 3 |
| M2.0 | 0.4 | 1.55 | 1.05 | 4.0 | 4.0 | 50 | 3 |
| M2.0 | 0.4 | 1.55 | 1.05 | 4.0 | 6.0 | 50 | 3 |
| M2.2 | 0.45 | 1.7 | 1.1 | 5.0 | 4.0 | 50 | 3 |
| M2.5 | 0.45 | 2.0 | 1.45 | 5.0 | 4.0 | 50 | 3 |
| M3.0 | 0.45 | 2.0 | 1.45 | 5.0 | 6.0 | 50 | 3 |
| M3.0 | 0.5 | 2.4 | 1.8 | 6.0 | 4.0 | 50 | 3 |
| M5.0 | 0.5 | 2.4 | 1.8 | 6.0 | 6.0 | 50 | 3 |
| M3.5 | 0.6 | 2.75 | 2.0 | 8.0 | 4.0 | 50 | 3 |
| M4.0 | 0.7 | 3.15 | 2.3 | 8.0 | 4.0 | 50 | 3 |
| M4.0 | 0.7 | 3.15 | 2.3 | 8.0 | 6.0 | 50 | 3 |
| M4.5 | 0.75 | 3.5 | 2.55 | 9.0 | 4.0 | 50 | 3 |
| M5.0 | 0.8 | 4.0 | 3.0 | 10 | 4.0 | 50 | 3 |
| M5.0 | 0.8 | 4.0 | 3.0 | 10 | 6.0 | 50 | 3 |
| M6.0 | 1.0 | 4.8 | 3.6 | 12 | 6.0 | 50 | 3 |
| M8.0 | 1.0 | 6.0 | 4.8 | 16 | 6.0 | 50 | 4 |
| M8.0 | 1.25 | 6.0 | 4.5 | 16 | 6.0 | 50 | 4 |
| M10 | 1.0 | 8.0 | 6.8 | 20 | 8.0 | 60 | 4 |
| M10 | 1.5 | 8.0 | 6.2 | 20 | 8.0 | 60 | 4 |
| M12 | 1.0 | 10 | 8.7 | 24 | 10 | 75 | 4 |
| M12 | 1.5 | 10 | 8.1 | 24 | 10 | 75 | 4 |
| M12 | 1.75 | 10 | 7.8 | 24 | 10 | 75 | 4 |
| M14 | 1.5 | 12 | 10.1 | 28 | 12 | 75 | 4 |
| M14 | 2.0 | 10 | 7.5 | 28 | 10 | 75 | 4 |



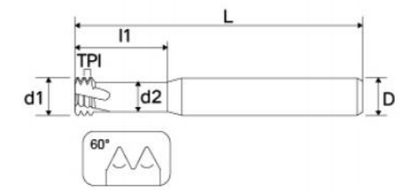
# Three Teeth Metric Thread Mills-Titanium Alloy/High Temperature Alloy-2

## Features

- Suitable for processing smal aperture threads and workpieces with high hardness, good rigidity and wear resistance of three threaded threads,and more stable thread size
  Adopting AlT isiN base co ating, cont aining various co mposite elements such as aluminum, titanium, silicon, nitrogen, etc, with higheraluminum content and higher
  The lub ricatio n effect is part icu larlysuitab le for processing, general steel parts such as stain less stee.

◎ Best ○ Good

| P | | | H | | | | K | M | N | | | | S | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Carbon steel | Alloy steel | Prehardened steel | Hardened steel | | | | Cast Iron | Stainlee steels | Aluminium alliys | Copper alloys | Plastic cement | Acrylic | Superalloy | Titanium alloy |
| | | | ~48HRC | ~55HRC | ~60HRC | ~65HRC | | | | | | | | |
| ○ | ◎ | ○ | ○ | | | | ○ | ◎ | | | | | ◎ | ◎ |




Unit:mm

| Dimension | P | d1 | d2 | L1 | D | L | F |
|---|---|---|---|---|---|---|---|
| M16 | 2.0 | 12 | 9.5 | 32 | 12 | 75 | 4 |
| M16 | 1.5 | 14 | 12.1 | 32 | 14 | 100 | 4 |
| M16 | 2.0 | 13.5 | 11 | 32 | 14 | 100 | 4 |
| M20 | 1.5 | 16 | 14.1 | 40 | 16 | 100 | 4 |
| M20 | 2.5 | 16 | 12.6 | 40 | 16 | 100 | 6 |
| M24 | 3.0 | 16 | 12 | 48 | 16 | 100 | 6 |

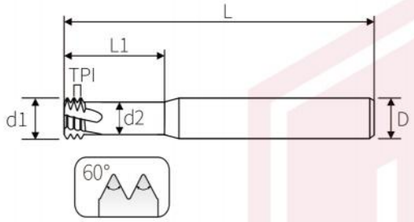
## Three Teeth Metric Thread Mills-Titanium Alloy/High Temperature Alloy-3D

### Features

- Suitable for processing small aperture threads and workpieces with high hardness, good rigidity and wear resistance of three threaded threads,and more stable threadsize
  The use of high-temmperature alloy and titanium alloy specialized coatings improves the tool's resistance to chip sticking and high-temperature melting, thereby achieving an improved lifespan

◎ Best ○ Good

| P | | | H | | | | K | M | N | | | | S | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Carbon steel | Alloy steel | Prehardened steel | Hardened steel | | | | Cast Iron | Stainlee steels | Aluminium alliys | Copper alloys | Plastic cement | Acrylic | High-Tempera-ture Alloy | Titanium alloy |
| | | | ~48HRC | ~55HRC | ~60HRC | ~65HRC | | | | | | | | |
| ○ | ◎ | ○ | ○ | | | | ○ | ◎ | | | | | ◎ | ◎ |




Unit:mm

| Dimension | P | d1 | d2 | L1 | D | L | F |
|---|---|---|---|---|---|---|---|
| M1.0 | 0.25 | 0.73 | 0.43 | 3.0 | 4.0 | 50 | 3 |
| M1.2 | 0.25 | 0.92 | 0.62 | 3.6 | 4.0 | 50 | 3 |
| M1.4 | 0.3 | 1.05 | 0.65 | 4.2 | 4.0 | 50 | 3 |
| M1.6 | 0.35 | 1.2 | 0.78 | 4.8 | 4.0 | 50 | 3 |
| M1.6 | 0.35 | 1.2 | 0.78 | 4.8 | 6.0 | 50 | 3 |
| M2.0 | 0.4 | 1.55 | 1.05 | 6.0 | 4.0 | 50 | 3 |
| M2.0 | 0.4 | 1.55 | 1.05 | 6.0 | 6.0 | 50 | 3 |
| M2.5 | 0.45 | 2.0 | 1.45 | 7.5 | 4.0 | 50 | 3 |
| M2.5 | 0.45 | 2.0 | 1.45 | 7.5 | 6.0 | 50 | 3 |
| M3.0 | 0.5 | 2.4 | 1.8 | 9.0 | 4.0 | 50 | 3 |
| M3.0 | 0.5 | 2.4 | 1.8 | 9.0 | 6.0 | 50 | 3 |
| M4.0 | 0.7 | 3.15 | 2.3 | 12 | 4.0 | 50 | 3 |
| M4.0 | 0.7 | 3.15 | 2.3 | 12 | 6.0 | 50 | 3 |
| M5.0 | 0.8 | 4.0 | 3.0 | 15 | 4.0 | 50 | 3 |
| M5.0 | 0.8 | 4.0 | 3.0 | 15 | 6.0 | 50 | 3 |
| M6.0 | 1.0 | 4.8 | 3.6 | 18 | 6.0 | 50 | 3 |
| M8.0 | 1.25 | 6.0 | 4.5 | 24 | 6.0 | 50 | 4 |
| M10 | 1.5 | 8.0 | 6.2 | 30 | 8.0 | 60 | 4 |
| M12 | 1.75 | 10 | 7.8 | 36 | 10 | 75 | 4 |

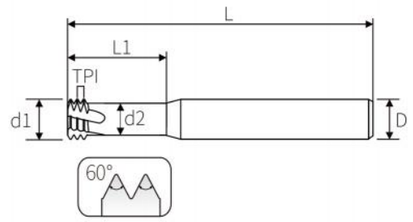
## Three Tooth Metric Thread Mills - Aerospace Special

### Features

- Suitable for processing small aperture threads and workpieces with high hardness, good rigidity and wear resistance of three threaded threads, and more stable thread size
  The use of high-temperature alloy and titanium alloy specialized coatings improves the tool's resistance to chip sticking and high-temperature melting, thereby achieving an improved lifespan

◎ Best ○ Good

| P | | | H | | | | K | M | N | | | | S | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Carbon steel | Alloy steel | Prehardened steel | Hardened steel | | | | Cast Iron | Stainlee steels | Aluminium alliys | Copper alloys | Plastic cement | Acrylic | High-Tempera-ture Alloy | Titanium alloy |
| | | | ~48HRC | ~55HRC | ~60HRC | ~65HRC | | | | | | | | |
| ○ | ◎ | ○ | ○ | | | | ○ | ◎ | | | | | ◎ | ◎ |




Unit:mm

| Dimension | P | d1 | d2 | L1 | D | L |
|---|---|---|---|---|---|---|
| MJ2.0 | 0.4 | 1.55 | 1.05 | 6.0 | 4.0 | 50 |
| MJ2.5 | 0.45 | 2.0 | 1.45 | 7.5 | 4.0 | 50 |
| MJ3.0 | 0.5 | 2.4 | 1.8 | 9.0 | 4.0 | 50 |
| MJ4.0 | 0.7 | 3.15 | 2.3 | 12 | 4.0 | 50 |
| MJ5.0 | 0.8 | 4.0 | 3.0 | 15 | 4.0 | 50 |
| MJ6.0 | 1.0 | 4.8 | 3.6 | 18 | 6.0 | 50 |
| MJ8.0 | 1.25 | 6.0 | 4.5 | 24 | 6.0 | 50 |
| MJ10 | 1.5 | 8.0 | 6.2 | 30 | 8.0 | 60 |
| MJ12 | 1.75 | 10 | 7.8 | 36 | 10 | 75 |

MSUTOOLS

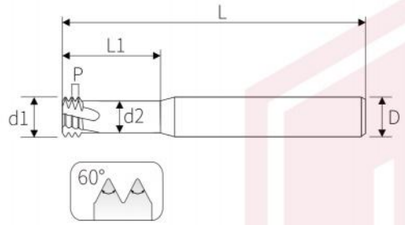
## Three Tooth Metric Thread Mills - Bronze Coating

### Features

- Suitable for processing small aperture threads and workpieces with high hardness. The three thread thread has good steel properties, high strength, and is not easy to break

◎ Best ○ Good

| P | | | H | | | | K | M | N | | | | S | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Carbon steel | Alloy steel | Prehardened steel | Hardened steel | | | | Cast Iron | Stainlee steels | Aluminium alliys | Copper alloys | Plastic cement | Acrylic | High-Tempera-ture Alloy | Titanium alloy |
| | | | ~48HRC | ~55HRC | ~60HRC | ~65HRC | | | | | | | | |
| ◎ | ○ | ◎ | ◎ | | | | ◎ | ○ | | | | | | |




Unit:mm

| Dimension | Tooth pitch (P) | Blade diameter (d1) | Escape diameter (d2) | Blade length (L1) | Shank diameter (D) | Total length (L) | Number Blades (F) |
|---|---|---|---|---|---|---|---|
| M1.0 | 0.25 | 0.73 | 2.0 | 3.0 | 4.0 | 50 | 3 |
| M1.2 | 0.25 | 0.92 | 2.4 | 3.6 | 4.0 | 50 | 3 |
| M1.4 | 0.3 | 1.05 | 2.8 | 4.2 | 4.0 | 50 | 3 |
| M1.6 | 0.35 | 1.2 | 3.2 | 4.8 | 4.0 | 50 | 3 |
| M2.0 | 0.4 | 1.55 | 4.0 | 6.0 | 4.0 | 50 | 3 |
| M2.5 | 0.45 | 2.0 | 5.0 | 7.5 | 4.0 | 50 | 3 |
| M3.0 | 0.5 | 2.4 | 6.0 | 9.0 | 4.0 | 50 | 3 |
| M4.0 | 0.7 | 3.15 | 8.0 | 12 | 4.0 | 50 | 3 |
| M5.0 | 0.8 | 4.0 | 10 | 15 | 4.0 | 50 | 3 |
| M6.0 | 1.0 | 4.8 | 12 | 18 | 6.0 | 50 | 3 |
| M8.0 | 1.25 | 6.0 | 16 | 24 | 6.0 | 50 | 4 |
| M10 | 1.5 | 8.0 | 20 | 30 | 8.0 | 60 | 4 |
| M12 | 1.75 | 10 | 24 | 36 | 10 | 75 | 4 |
| M14 | 2.0 | 10 | 10.1 | 28 | 10 | 75 | 4 |

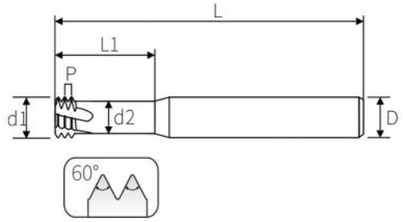
## Three Tooth Metric Thread Milling Cutter-Colorful Aluminum

### Features

- The seven color DlC coating, has the lowest friction coefficient and high resistance to fusion and corrosion of non-ferrous metals.
  Suitable for processing copper alloys, aluminum alloys, non-ferrous metals, acrylic, etc

◎ Best ○ Good

| P | | | H | | | | K | M | N | | | | S | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Carbon steel | Alloy steel | Prehardened steel | Hardened steel | | | | Cast Iron | Stainlee steels | Aluminium alliys | Copper alloys | Plastic cement | Acrylic | High-Tempera-ture Alloy | Titanium alloy |
| | | | ~48HRC | ~55HRC | ~60HRC | ~65HRC | | | | | | | | |
| | | | | | | | | | ◎ | ◎ | ◎ | ◎ | | |




Unit:mm

| Dimension | Tooth pitch (P) | Blade diameter (d1) | Escape diameter (d2) | Blade length (L1) | Shank diameter (D) | Total length (L) | Number Blades (F) |
|---|---|---|---|---|---|---|---|
| M1.0 | 0.25 | 0.73 | 0.43 | 3.0 | 4.0 | 50 | 3 |
| M1.2 | 0.25 | 0.92 | 0.62 | 3.6 | 4.0 | 50 | 3 |
| M1.4 | 0.3 | 1.05 | 0.65 | 4.2 | 4.0 | 50 | 3 |
| M1.6 | 0.35 | 1.2 | 0.78 | 4.8 | 4.0 | 50 | 3 |
| M2.0 | 0.4 | 1.55 | 1.05 | 6.0 | 4.0 | 50 | 3 |
| M2.5 | 0.45 | 2.0 | 1.45 | 7.5 | 4.0 | 50 | 3 |
| M3.0 | 0.5 | 2.4 | 1.8 | 9.0 | 4.0 | 50 | 3 |
| M4.0 | 0.7 | 3.15 | 2.3 | 12 | 4.0 | 50 | 3 |
| M5.0 | 0.8 | 4.0 | 3.0 | 15 | 4.0 | 50 | 3 |
| M6.0 | 1.0 | 4.8 | 3.6 | 12 | 4.0 | 50 | 3 |
| M6.0 | 1.0 | 4.8 | 3.6 | 18 | 6.0 | 50 | 3 |
| M8.0 | 1.25 | 6.0 | 4.5 | 16 | 6.0 | 50 | 4 |
| M8.0 | 1.25 | 6.0 | 4.5 | 24 | 6.0 | 50 | 4 |
| M10 | 1.5 | 8.0 | 6.2 | 20 | 8.0 | 60 | 4 |
| M10 | 1.5 | 8.0 | 6.2 | 30 | 8.0 | 60 | 4 |
| M12 | 1.75 | 10 | 7.8 | 36 | 10 | 75 | 4 |
| M14 | 2.0 | 10 | 7.5 | 28 | 10 | 75 | 4 |

MSUTOOLS

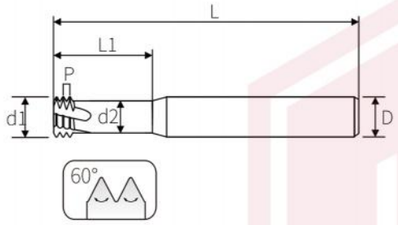
## Extended Metric Three-tooth Thread Milling Cutter（60°）

### Features

- Suitable for processing small aperture threads and workpieces with high hardness. The three thread thread has good steel properties,high strength, and is not easy to break

◎ Best ○ Good

| P | | | H | | | | K | M | N | | | | S | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Carbon steel | Alloy steel | Prehardened steel | Hardened steel | | | | Cast Iron | Stainlee steels | Aluminium alliys | Copper alloys | Plastic cement | Acrylic | High-Tempera-ture Alloy | Titanium alloy |
| | | | ~48HRC | ~55HRC | ~60HRC | ~65HRC | | | | | | | | |
| ◎ | ◎ | ◎ | ◎ | ○ | | | ◎ | ◎ | | | | | ○ | ◎ |




Unit:mm

| Dimension | Tooth pitch (P) | Blade diameter (d1) | Escape diameter (d2) | Blade length (L1) | Shank diameter (D) | Total length (L) | Number Blades (F) |
|---|---|---|---|---|---|---|---|
| M1.6 | 0.35 | 1.2 | 0.78 | 3.2 | 6.0 | 100 | 3 |
| M2.0 | 0.4 | 1.55 | 1.05 | 6.0 | 6.0 | 75 | 3 |
| M2.0 | 0.4 | 1.55 | 1.05 | 4.0 | 6.0 | 100 | 3 |
| M2.5 | 0.45 | 2.0 | 1.45 | 7.5 | 6.0 | 75 | 3 |
| M2.5 | 0.45 | 2.0 | 1.45 | 5.0 | 6.0 | 100 | 3 |
| M3.0 | 0.5 | 2.4 | 1.8 | 9.0 | 6.0 | 75 | 3 |
| M3.0 | 0.5 | 2.4 | 1.8 | 6.0 | 6.0 | 100 | 3 |
| M4.0 | 0.7 | 3.15 | 2.3 | 12 | 6.0 | 75 | 3 |
| M4.0 | 0.7 | 3.15 | 2.3 | 8.0 | 6.0 | 100 | 3 |
| M5.0 | 0.8 | 4.0 | 3.0 | 15 | 6.0 | 75 | 3 |
| M5.0 | 0.8 | 4.0 | 3.0 | 10 | 6.0 | 100 | 3 |
| M6.0 | 1.0 | 4.8 | 3.6 | 18 | 6.0 | 75 | 3 |
| M6.0 | 1.0 | 4.8 | 3.6 | 12 | 6.0 | 100 | 3 |
| M8.0 | 1.25 | 6.0 | 4.5 | 24 | 6.0 | 75 | 4 |
| M8.0 | 1.25 | 6.0 | 4.5 | 16 | 6.0 | 100 | 3 |
| M10 | 1.5 | 8.0 | 6.2 | 30 | 8.0 | 75 | 4 |
| M10 | 1.5 | 8.0 | 6.2 | 20 | 8.0 | 100 | 3 |
| M12 | 1.75 | 10 | 7.8 | 24 | 10 | 100 | 4 |
| M14 | 2.0 | 10 | 7.5 | 28 | 10 | 100 | 4 |



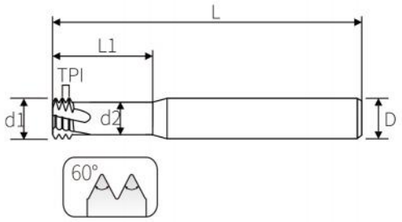
## Three Tooth American Thread Milling Cutter

### Features

- Suitable for processing small aperture threads and workpieces with high hardness, The three thread thread has good steel properties, high strength, and is not easy to break

◎ Best ○ Good

| P | | | H | | | | K | M | N | | | | S | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Carbon steel | Alloy steel | Prehardened steel | Hardened steel | | | | Cast Iron | Stainlee steels | Aluminium alliys | Copper alloys | Plastic cement | Acrylic | High-Tempera-ture Alloy | Titanium alloy |
| | | | ~48HRC | ~55HRC | ~60HRC | ~65HRC | | | | | | | | |
| ◎ | ◎ | ◎ | ◎ | ○ | | | ◎ | ◎ | | | | | ○ | ◎ |




### UNF American three-tooth thread milling cutter

Unit:mm

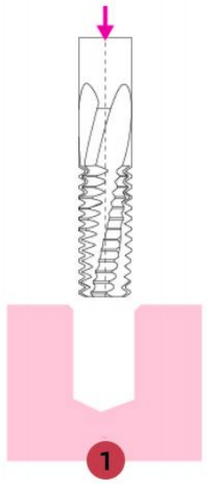
| Dimension | Cutting diameter (d1) | Wall diameter (d2) | Wall length (L1) | Shank diameter (D) | Overall length (L) | Blade number (F) |
|---|---|---|---|---|---|---|
| NO.1-72 | 1.45 | 1.0 | 3.9 | 4.0 | 50 | 3 |
| NO.3-56 | 1.95 | 1.4 | 5.3 | 4.0 | 50 | 3 |
| NO.4-48 | 2.25 | 1.6 | 6.0 | 4.0 | 50 | 3 |
| NO.6-40 | 2.75 | 1.9 | 7.2 | 4.0 | 50 | 3 |
| NO.8-36 | 3.3 | 2.4 | 8.7 | 4.0 | 50 | 3 |
| NO.10-32 | 3.9 | 2.9 | 10 | 4.0 | 50 | 3 |
| 1/4-28 | 5.3 | 4.2 | 12 | 6.0 | 50 | 3 |
| 7/16-20 | 9.5 | 7.9 | 24 | 10 | 75 | 4 |

### UNC American three-tooth thread milling cutter

Unit:mm

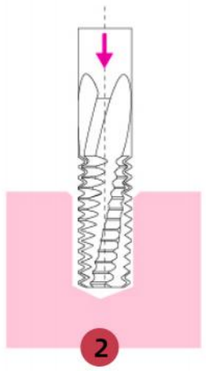
| Dimension | Cutting diameter (d1) | Wall diameter (d2) | Wall length (L1) | Shank diameter (D) | Overall length (L) | Blade number (F) |
|---|---|---|---|---|---|---|
| NO.1-64 | 1.4 | 0.9 | 4.0 | 4.0 | 50 | 3 |
| NO.2-56 | 1.65 | 1.1 | 5.0 | 4.0 | 50 | 3 |
| NO.3-48 | 1.95 | 1.3 | 5.0 | 4.0 | 50 | 3 |
| NO.4-40 | 2.15 | 1.3 | 6.0 | 4.0 | 50 | 3 |
| NO.5-40 | 2.45 | 1.6 | 7.2 | 4.0 | 50 | 3 |
| NO.6-32 | 2.65 | 1.6 | 7.5 | 4.0 | 50 | 3 |
| NO.8-32 | 3.2 | 2.2 | 9.0 | 4.0 | 50 | 3 |
| NO.10-24 | 3.7 | 2.4 | 10 | 4.0 | 50 | 3 |
| 1/4-20 | 4.9 | 3.3 | 12 | 6.0 | 50 | 3 |
| 5/16-18 | 6.4 | 4.7 | 18 | 8.0 | 60 | 4 |
| 3/8-16 | 7.8 | 5.85 | 20 | 8.0 | 60 | 4 |
| 7/16-14 | 9.2 | 7.0 | 24 | 10 | 75 | 4 |
| 1/2-13 | 10 | 7.5 | 24 | 10 | 75 | 4 |
| 9/16-12 | 12 | 9.4 | 28 | 12 | 75 | 4 |

## Process Of Full Thread Thread Milling Cutter



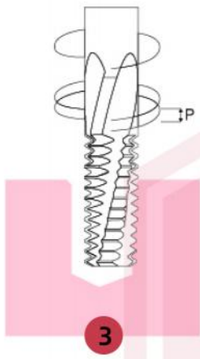
1

Position over bottom hole



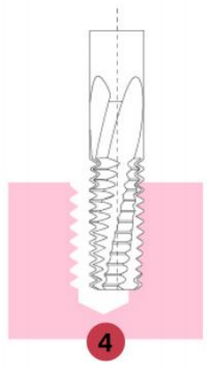
2

Lower the tool to the desiredthread depth



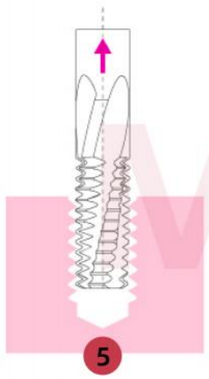

3

Screw feed goes up one pitch



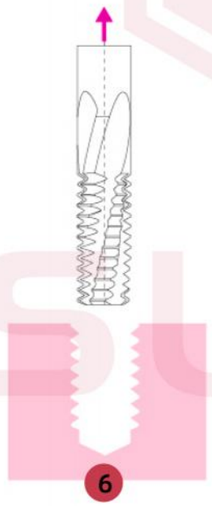
4

Repeat processing upwards according to a pitch P until the thread is completed



5

180° exit to neutral position



6

The tool retracts to the starting position



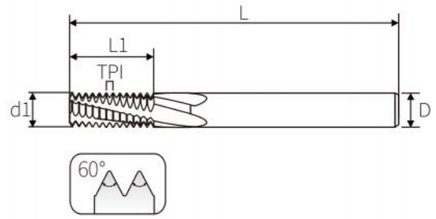
## Solid Carbide Thread Milling Cutter(Metric)ISO

### Features

- Suitable for mass production of the same specification, with multiple thread specifications and convenient use. Workpieces with a depth of less than 2 diameters have high processing efficiency

◎ Best ○ Good

| P | | | H | | | | K | M | N | | | | S | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Carbon steel | Alloy steel | Prehardened steel | Hardened steel | | | | Cast Iron | Stainlee steels | Aluminium allys | Copper alloys | Plastic cement | Acrylic | High-Tempera-ture Alloy | Titanium alloy |
| | | | ~48HRC | ~55HRC | ~60HRC | ~65HRC | | | | | | | | |
| ◎ | ◎ | ◎ | ◎ | | | | ◎ | ◎ | ○ | ○ | | | ○ | ◎ |




Unit:mm

| Dimension | Screw pitch (P) | Blade diameter (d1) | Wall length (L1) | Shank diameter (D) | Total length (L) | Blade number (F) |
|---|---|---|---|---|---|---|
| M2 | 0.4 | 1.55 | 4.0 | 4.0 | 50 | 3 |
| M2.5 | 0.45 | 2.0 | 5.0 | 4.0 | 50 | 3 |
| M3 | 0.5 | 2.4 | 6.0 | 4.0 | 50 | 4 |
| M4 | 0.7 | 3.15 | 8.0 | 4.0 | 50 | 4 |
| M5 | 0.5 | 4.0 | 10 | 4.0 | 50 | 3 |
| M5 | 0.75 | 4.0 | 10 | 4.0 | 50 | 3 |
| M5 | 0.8 | 4.0 | 10 | 4.0 | 50 | 4 |
| M6 | 0.75 | 4.8 | 12 | 6.0 | 60 | 3 |
| M6 | 1.0 | 4.8 | 12 | 6.0 | 60 | 4 |
| M8 | 0.5 | 6.0 | 16 | 6.0 | 60 | 3 |
| M8 | 0.75 | 6.0 | 16 | 6.0 | 60 | 3 |
| M8 | 1.0 | 6.0 | 16 | 6.0 | 60 | 3 |
| M8 | 1.25 | 6.0 | 16 | 6.0 | 60 | 4 |
| M10 | 1.0 | 8.0 | 20 | 8.0 | 60 | 4 |
| M10 | 1.25 | 8.0 | 20 | 8.0 | 60 | 4 |
| M10 | 1.5 | 8.0 | 20 | 8.0 | 60 | 4 |
| M12 | 0.5 | 10 | 24 | 10 | 75 | 4 |
| M12 | 0.75 | 10 | 24 | 10 | 75 | 4 |
| M12 | 1.0 | 10 | 24 | 10 | 75 | 4 |
| M12 | 1.25 | 10 | 24 | 10 | 75 | 4 |
| M12 | 1.5 | 10 | 24 | 10 | 75 | 4 |
| M12 | 1.75 | 10 | 24 | 10 | 75 | 4 |
| M14 | 1.0 | 12 | 28 | 12 | 75 | 4 |
| M14 | 1.5 | 12 | 28 | 12 | 75 | 4 |
| M14 | 2.0 | 11.6 | 28 | 12 | 75 | 4 |
| M16 | 1.5 | 14 | 32 | 14 | 100 | 4 |
| M16 | 2.0 | 13 | 32 | 14 | 100 | 4 |
| M18 | 2.5 | 14.8 | 38 | 16 | 100 | 4 |
| M20 | 1.5 | 16 | 38 | 16 | 100 | 4 |
| M20 | 2.5 | 16 | 42 | 16 | 100 | 4 |
| M24 | 3.0 | 16 | 42 | 16 | 100 | 4 |

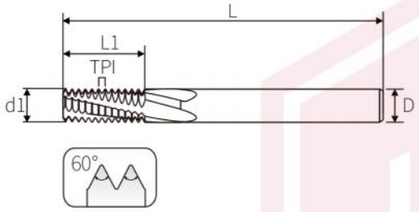
## Single Tooth Tungsten Steel Range Thread Milling Cutter

### Features

- Suitable for mass production of the same specification, with multiple thread specifications and convenient use. Workpieces with a depth of less than 2 diameters have high processing efficiency

◎ Best ○ Good

| P | | | H | | | | K | M | N | | | | S | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Carbon steel | Alloy steel | Prehardened steel | Hardened steel | | | | Cast Iron | Stainlee steels | Aluminium alliys | Copper alloys | Plastic cement | Acrylic | High-Tempera-ture Alloy | Titanium alloy |
| | | | ~48HRC | ~55HRC | ~60HRC | ~65HRC | | | | | | | | |
| ◎ | ◎ | ◎ | ◎ | | | | ◎ | ◎ | ○ | ○ | | | ○ | ◎ |




Unit:mm

| Coarse teeth (UNC) | Denticle (UNF) | Extra fine teeth (UNEF) | Pitch of teeth (TPI) | Cutting diameter (d1) | Flute length (L1) | Shank diameter (D) | Overall length (L) | Number of fiute (F) |
|---|---|---|---|---|---|---|---|---|
| | 10-32 | | 32 | 3.9 | 10 | 6.0 | 50 | 4 |
| | | 5/16-32 3/8-32 | 32 | 6.8 | 18 | 8.0 | 60 | 4 |
| | 1/4-28 | 7/16-28 1/2-28 | 28 | 5.3 | 12 | 6.0 | 60 | 4 |
| | 5/16-24 | 9-16-24 5/8-24 | 24 | 6.5 | 18 | 8.0 | 60 | 4 |
| 1/4-20 | 7/16-20 1/2-20 | 3/4-20 7/8-20 1″ -20 | 20 | 4.85 | 12 | 6.0 | 60 | 4 |
| | 7/16-20 1/2-20 | 3/4-20 7/8-20 1″ -20 | 20 | 9.5 | 24 | 10 | 75 | 4 |
| 5/16-18 | 9/16-18 5/8-18 | | 18 | 6.4 | 18 | 8.0 | 60 | 4 |
| | 9/16-18 5/8-18 | | 18 | 10 | 24 | 10 | 75 | 4 |
| 3/8-16 | 3/4-16 | | 16 | 7.8 | 21 | 8.0 | 60 | 4 |
| | 3/4-16 | | 16 | 12 | 28 | 12 | 75 | 4 |
| 7/16-14 | 7/8-14 | | 14 | 8.8 | 24 | 10 | 75 | 4 |
| 1/2-13 | | | 13 | 10 | 24 | 10 | 75 | 4 |
| | 1″ -12 1″ -1/8-12 | | 12 | 12 | 28 | 12 | 75 | 4 |
| 9/16-12 | 1″ -1/4-12 1″ -1/2-12 | | 12 | 12 | 28 | 12 | 75 | 4 |
| | 1″ -3/8-12 | | 12 | 12 | 28 | 12 | 75 | 4 |
| 5/8-11 | | | 11 | 12 | 28 | 12 | 75 | 4 |
| 3/4-10 | | | 10 | 16 | 38 | 16 | 100 | 4 |



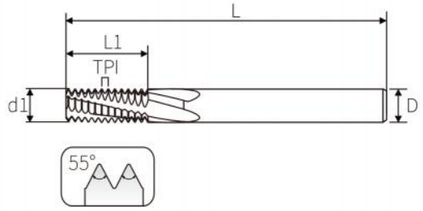
## BSP (G) British Standard Pipe Thread Milling Cutter

### Features

- BSP (G) straight pipe thread, processed with aluminum alloy, stainless steel, and titanium alloy, with good effect and high efficiency

◎ Best ○ Good

| P | | | H | | | | K | M | N | | | | S | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Carbon steel | Alloy steel | Prehardened steel | Hardened steel | | | | Cast Iron | Stainlee steels | Aluminium alliys | Copper alloys | Plastic cement | Acrylic | High-Tempera-ture Alloy | Titanium alloy |
| | | | ~48HRC | ~55HRC | ~60HRC | ~65HRC | | | | | | | | |
| ◎ | ◎ | ◎ | ◎ | | | | ◎ | ◎ | ○ | ○ | | | ○ | ◎ |




Unit:mm

| Dimension | Screw pitch (P) | Cutting diameter (d1) | Flute length (L1) | Shank diameter (D) | Overall length (L) | Number of fiute (F) |
|---|---|---|---|---|---|---|
| 1/16 | 28 | 6.0 | 14 | 6.0 | 60 | 4 |
| 1/8 | 28 | 8.0 | 14 | 8.0 | 60 | 4 |
| 1/4 | 19 | 8.0 | 18 | 8.0 | 60 | 4 |
| 1/4 | 19 | 10 | 20 | 10 | 75 | 4 |
| 1/4 | 19 | 10 | 24 | 10 | 75 | 4 |
| 3/8 | 19 | 12 | 25 | 12 | 75 | 4 |
| 3/8 | 19 | 12 | 28 | 12 | 75 | 4 |
| 1/2 | 14 | 12 | 20 | 12 | 75 | 4 |
| 1/2 | 14 | 12 | 28 | 12 | 75 | 4 |
| 3/4 | 14 | 16 | 30 | 16 | 100 | 4 |
| 1″ | 11 | 16 | 32 | 16 | 100 | 4 |
| 1″ | 11 | 16 | 38 | 16 | 100 | 4 |
| 1″ | 11 | 20 | 42 | 20 | 100 | 5 |

MSUTOOLS

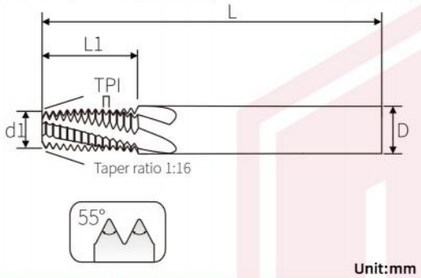
## BSPT (RC) British Standard Taper Sealed Pipe Thread Milling Cutter

### Features

▶ BSPT (RC) taper pipe thread, processed with aluminum alloy, stainless steel, and titanium alloy with good effect and high efficiency

◎ Best ○ Good

| P | | | H | | | | K | M | N | | | | S | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Carbon steel | Alloy steel | Prehardened steel | Hardened steel | | | | Cast Iron | Stainlee steels | Aluminium alliys | Copper alloys | Plastic cement | Acrylic | High-Tempera-ture Alloy | Titanium alloy |
| | | | ~48HRC | ~55HRC | ~60HRC | ~65HRC | | | | | | | | |
| ◎ | ◎ | ◎ | ◎ | | | | ◎ | ◎ | ○ | ○ | | | ○ | ◎ |




Unit:mm

| Dimension | Tooth pitch (TPI) | Blade diameter (d1) | Blade length (L1) | Shank diameter (D) | Total length (L) | Number blades (F) |
|---|---|---|---|---|---|---|
| 1/16 | 28 | 5.3 | 9.9 | 6.0 | 60 | 4 |
| 1/8 | 28 | 7.3 | 9.9 | 8.0 | 60 | 4 |
| 1/4 | 19 | 7.0 | 14 | 8.0 | 60 | 4 |
| 1/4 | 19 | 9.0 | 15 | 10 | 75 | 4 |
| 3/8 | 19 | 11.0 | 14 | 12 | 75 | 4 |
| 1/2 | 14 | 10.8 | 19 | 12 | 75 | 4 |
| 3/4 | 14 | 14.6 | 21 | 16 | 100 | 4 |
| 1″ | 11 | 14.3 | 27 | 16 | 100 | 4 |
| 1″ | 11 | 17.38 | 42 | 20 | 100 | 5 |

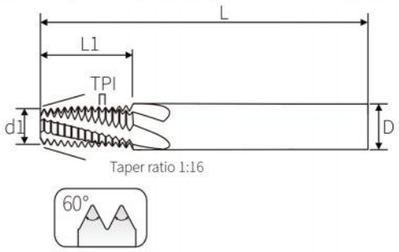
## NPT NPTF American Thread Milling Cutter

### Features

▶ NPT general sealing thread, NPTF dry sealing thread, processing material: stainless steel, titanium alloy, with good effect and high efficiency.

◎ Best ○ Good

| P | | | H | | | | K | M | N | | | | S | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Carbon steel | Alloy steel | Prehardened steel | Hardened steel | | | | Cast Iron | Stainlee steels | Aluminium alliys | Copper alloys | Plastic cement | Acrylic | High-Tempera-ture Alloy | Titanium alloy |
| | | | ~48HRC | ~55HRC | ~60HRC | ~65HRC | | | | | | | | |
| ◎ | ◎ | ◎ | ◎ | | | | ◎ | ◎ | ○ | ○ | | | ○ | ◎ |




### NPT American standard taper pipe thread milling cutter

Unit:mm

| Dimension | Screw pitch (TPI) | Cutting diameter (d1) | Flute length (l1) | Shank diameter (D) | Overall length (L) | Number of fiute (F) |
|---|---|---|---|---|---|---|
| 1/16 | 27 | 5.4 | 9.4 | 6.0 | 60 | 4 |
| 1/8 | 27 | 7.4 | 9.4 | 8.0 | 60 | 4 |
| 1/4 | 18 | 7.1 | 14.1 | 8.0 | 60 | 4 |
| 1/4 | 18 | 9.1 | 14.1 | 10 | 75 | 4 |
| 3/8 | 18 | 11.1 | 14.1 | 12 | 75 | 4 |
| 1/2 | 14 | 10.8 | 18.1 | 12 | 75 | 4 |
| 3/4 | 14 | 14.8 | 18.1 | 16 | 100 | 4 |
| 1″ | 11.5 | 14.6 | 22 | 16 | 100 | 4 |
| 1″ | 11.5 | 17.38 | 42 | 20 | 100 | 5 |

### NPTF American standard taper sealed pipe thread milling cutte

Unit:mm

| Dimension | Screw pitch (TPI) | Cutting diameter (d1) | Flute length (l1) | Shank diameter (D) | Overall length (L) | Number of fiute (F) |
|---|---|---|---|---|---|---|
| 1/16 | 27 | 5.4 | 9.4 | 6.0 | 60 | 4 |
| 1/8 | 27 | 7.4 | 9.4 | 8.0 | 60 | 4 |
| 1/4 | 18 | 7.1 | 14.1 | 8.0 | 60 | 4 |
| 1/4 | 18 | 9.1 | 14.1 | 10 | 75 | 4 |
| 3/8 | 18 | 11.1 | 14.1 | 12 | 75 | 4 |
| 1/2 | 14 | 10.8 | 18.1 | 12 | 75 | 4 |
| 3/4 | 14 | 14.8 | 18.1 | 16 | 100 | 4 |
| 1″ | 11.5 | 14.6 | 22 | 16 | 100 | 4 |
| 1″ | 11.5 | 17.38 | 42 | 20 | 100 | 5 |

MSUTOOLS

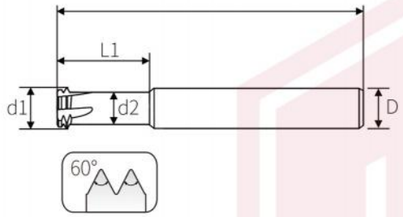
## Super Hard Left-handed Two-tooth Thread Milling Cutter (can be processed>50°HRC)

### Features

- The first row of short teeth is used for initial machining, and the second row of teeth is finel machined to complete the thread. Tool lelt rotation design,spindle needs to be reversed Let-handed cutting reduces the cutting force and increases the cutting force of the tool. Suitable for processing, high hardness materials such as quenched steel mold steel above 48HRC

◎ Best ○ Good

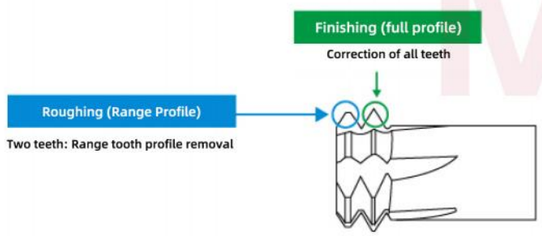
| P | | | H | | | | K | M | N | | | | S | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Carbon steel | Alloy steel | Prehardened steel | Hardened steel | | | | Cast Iron | Stainlee steels | Aluminium alliys | Copper alloys | Plastic cement | Acrylic | High-Tempera-ture Alloy | Titanium alloy |
| | | | ~48HRC | ~55HRC | ~60HRC | ~65HRC | | | | | | | | |
| | | | ◎ | ◎ | ◎ | | | | | | | | | |




Unit:mm

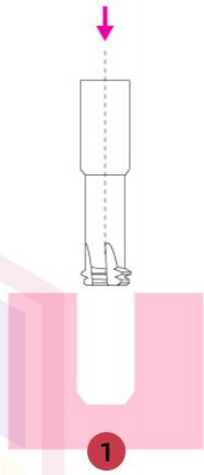
| Dimension | P | d1 | d2 | L1 | D | L | F |
|---|---|---|---|---|---|---|---|
| M1.6 | 0.35 | 1.2 | 0.78 | 3.2 | 6.0 | 50 | 3 |
| M2.0 | 0.4 | 1.55 | 1.05 | 4.0 | 6.0 | 50 | 4 |
| M2.5 | 0.45 | 2.0 | 1.45 | 5.0 | 6.0 | 50 | 4 |
| M3.0 | 0.5 | 2.4 | 1.8 | 6.0 | 6.0 | 50 | 4 |
| M4.0 | 0.7 | 3.15 | 2.3 | 8.0 | 6.0 | 50 | 4 |
| M5.0 | 0.8 | 4.05 | 3.05 | 10 | 6.0 | 50 | 4 |
| M6.0 | 1.0 | 4.8 | 3.6 | 12 | 6.0 | 50 | 5 |
| M8.0 | 1.25 | 6.5 | 5.0 | 16 | 8.0 | 60 | 6 |
| M10 | 1.5 | 8.2 | 6.4 | 20 | 10 | 75 | 6 |
| M12 | 1.75 | 9.6 | 7.5 | 24 | 10 | 75 | 6 |

**Working principle of metric superhard two-row thread milling cutter:**

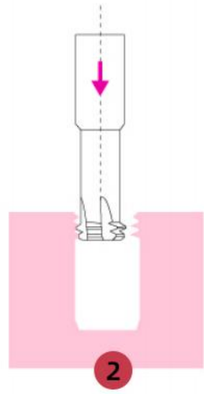


Machining direction from top to bottom of thread (spindle needs to be reversed) M04 code

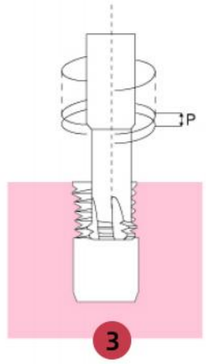
## Process Of Metric Super Hard Two-row Thread Milling Cutter



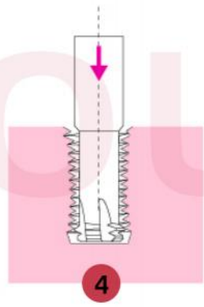

The starting point is positioned at the center of the hole



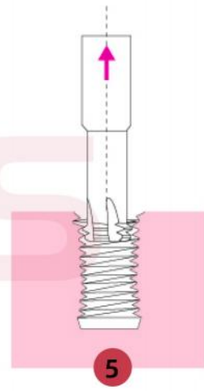

Left-handed right cut spiral feed



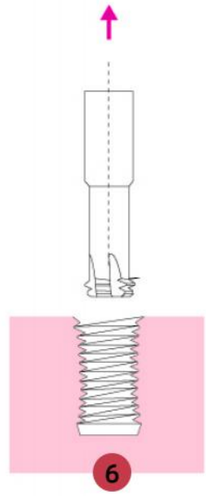

Spiral processing goes down one pitch P




Repeatedly spiral down according to a pitch




180° exit to neutral position




The tool retracts to the starting position

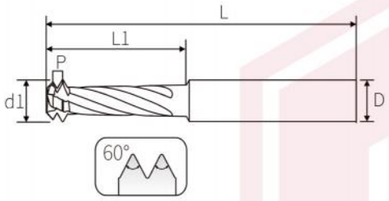
# Tungsten Steel Free Bottom Hole Multi-Function Thread Milling Cutter

## Features

▶ No need for pre drilling, no need for bottom hole drilling, thread milling cutter can complete bottom hole, thread, and chamfer milling processing in one go Paired with a colorful DLC coating , it greatly improves efficiency and subverts traditional processing when processing non-ferrous metals such as copper and aluminum alloys

◎ Best ○ Good

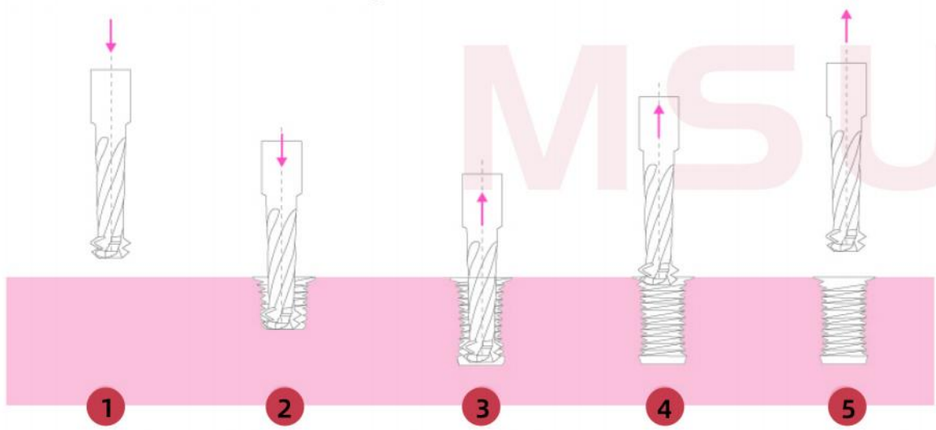
| P | | | H | | | | K | M | N | | | | S | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Carbon steel | Alloy steel | Prehardened steel | Hardened steel | | | | Cast Iron | Stainlee steels | Aluminium alliys | Copper alloys | Plastic cement | Acrylic | High-Tempera-ture Alloy | Titanium alloy |
| | | | ~48HRC | ~55HRC | ~60HRC | ~65HRC | | | | | | | | |
| | | | | | | | | | ◎ | ◎ | ◎ | ◎ | | |




Unit:mm

| Dimension | Screw pitch (TPI) | Cutting diameter (d1) | Wall length (l1) | Shank diameter (D) | Overall length (L) | Blade number (F) |
|---|---|---|---|---|---|---|
| M1.6 | 0.35 | 1.15 | 5.0 | 4.0 | 50 | 2 |
| M2.0 | 0.4 | 1.5 | 6.5 | 4.0 | 50 | 2 |
| M2.5 | 0.45 | 1.9 | 7.0 | 4.0 | 50 | 2 |
| M3.0 | 0.5 | 2.4 | 9.0 | 6.0 | 50 | 3 |
| M4.0 | 0.7 | 3.2 | 11 | 6.0 | 50 | 3 |
| M5.0 | 0.8 | 3.9 | 12 | 6.0 | 50 | 3 |
| M6.0 | 1.0 | 4.7 | 14 | 6.0 | 50 | 3 |
| M8.0 | 1.25 | 6.5 | 18 | 8.0 | 60 | 4 |
| M10 | 1.5 | 7.8 | 23 | 8.0 | 60 | 4 |
| M12 | 1.75 | 9.6 | 26 | 10 | 75 | 4 |

Process of multifunctional thread milling cutter for aluminum without bottom hole:



1 Move to the start of the spiral

2 Hole and thread machining by helical interpolation from top to bottom

3 Hole and thread machining by helical interpolation from top to bottom

4 Chamfer

5 Return to starting point

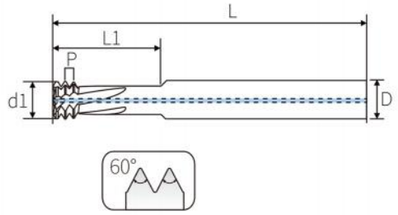
# Tungsten Steel Free Bottom Hole Multi-function Thread Milling Cutter For Stee

## Features

▶ No need for pre driling, no need for bottom hole driling, thread miling cutter can complete bottom hole and thread milling processing in one go
The use of high hardness coatings greatly improves the cutting force and lifespan of the cutting tool when processing steel parts,overturning traditional processing

◎ Best ○ Good

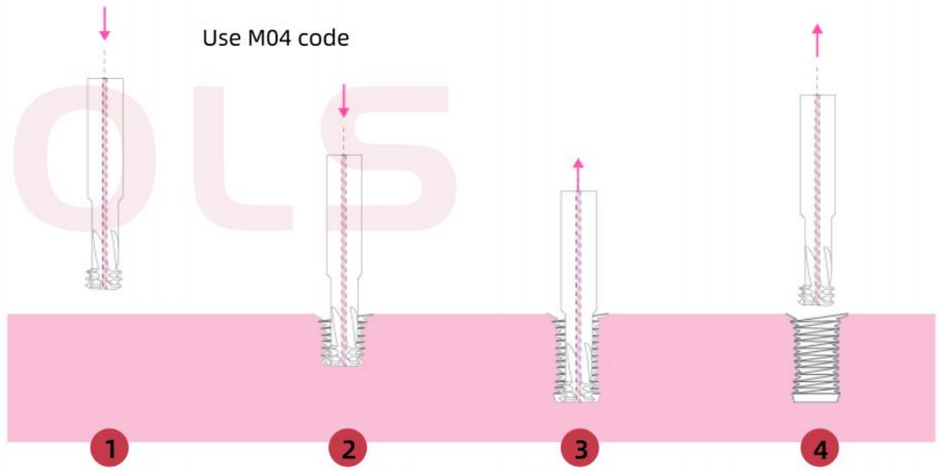
| P | | | H | | | | K | M | N | | | | S | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Carbon steel | Alloy steel | Prehardened steel | Hardened steel | | | | Cast Iron | Stainlee steels | Aluminium alliys | Copper alloys | Plastic cement | Acrylic | High-Tempera-ture Alloy | Titanium alloy |
| | | | ~48HRC | ~55HRC | ~60HRC | ~65HRC | | | | | | | | |
| ◎ | ◎ | ◎ | | | | | | ○ | | | | | | |




Unit:mm

| Dimension | Screw pitch (P) | Cutting diameter (d1) | Wall length (l1) | Shank diameter (D) | Overall length (L) | Blade number (F) | Internal cooling External cooling |
|---|---|---|---|---|---|---|---|
| M3.0 | 0.5 | 2.4 | 7.0 | 6.0 | 50 | 4 | External cooling |
| M4.0 | 0.7 | 3.2 | 9.0 | 6.0 | 50 | 4 | External cooling |
| M5.0 | 0.8 | 3.9 | 12 | 6.0 | 50 | 4 | External cooling |
| M6.0 | 1.0 | 4.7 | 14 | 6.0 | 50 | 4 | External cooling |
| M8.0 | 1.25 | 6.2 | 18 | 8.0 | 60 | 4 | Internal cooling |
| M10 | 1.5 | 7.5 | 23 | 8.0 | 60 | 4 | Internal cooling |
| M12 | 1.75 | 9.0 | 26 | 10 | 75 | 4 | Internal cooling |

Process of multifunctional thread milling cutter for aluminum without bottom hole:




1 Move to the start of the spiral

2 Spiral interpolation processing Bottom hole and thread

3 After thread processing is completed Move to the center of the hole and then retract the tool

4 Return to the starting point

MSUTOOLS

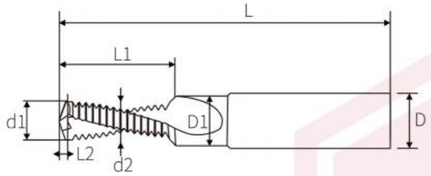
# Tungsten Steel Drilling And Milling Thread Milling Cutter

## Features

- Suitable for mass production of the same specification,a three in one drilling, and milling, thread milling cutter can achieve bottom hole processing,chamfering, and internal thread processing with one cutter
  It is possible to red uce non machining time and improve production efficiency without changing, the cutting tools. Suitable for non-ferrous metals such as copper alloys and aluminum alloys

◎ Best ○ Good

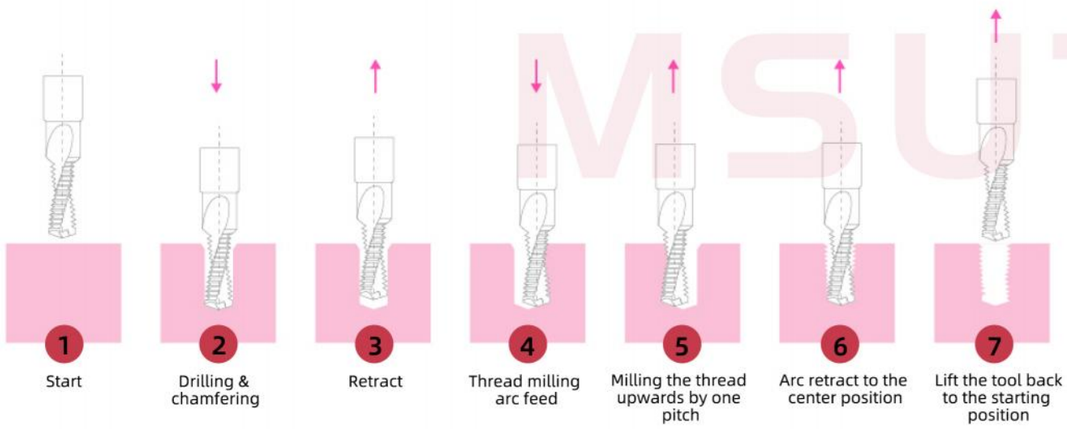
| P | | | H | | | | K | M | N | | | | S | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Carbon steel | Alloy steel | Prehardened steel | Hardened steel | | | | Cast Iron | Stainlee steels | Aluminium alliys | Copper alloys | Plastic cement | Acrylic | High-Tempera-ture Alloy | Titanium alloy |
| | | | ~48HRC | ~55HRC | ~60HRC | ~65HRC | | | | | | | | |
| | | | | | | | ◎ | | ○ | ○ | | | | |




Unit:mm

| Dimension | Outside diameter of thread (d2) | Bit diameter (d1) | Wall length (L1) | Bit length (L2) | Neck diameter (D1) | Shank diameter (D) | Overall length (L) | Blade number (F) |
|---|---|---|---|---|---|---|---|---|
| M6*1.0 | 4.8 | 5.0 | 12 | 1.0 | 7.0 | 8.0 | 60 | 2 |
| M8*1.25 | 6.5 | 6.8 | 15 | 1.3 | 9.0 | 10 | 75 | 2 |
| M10*1.5 | 8.2 | 8.5 | 20 | 1.5 | 11 | 12 | 75 | 2 |
| M12*1.75 | 9.9 | 10.3 | 24 | 1.8 | 13.5 | 14 | 75 | 2 |

Three-in-one drilling and milling thread milling cutter:





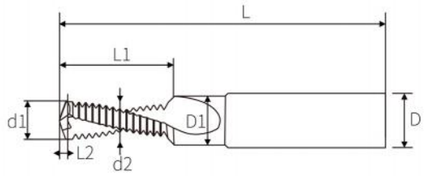

# Tungsten Steel Drilling And Milling Thread Milling Cutter-DLC

## Features

- Suitable for mass production of the same specification, a three in one driling and miling, thread miling, cutter can achieve bottom hole processing, chamfering, and internal thread processing with one cutter
  It is possible to reduce non machining time and improve production efficiency without changing the cutting tools. Suitable for non-ferrous metals such as copper alloys and aluminum alloys

◎ Best ○ Good

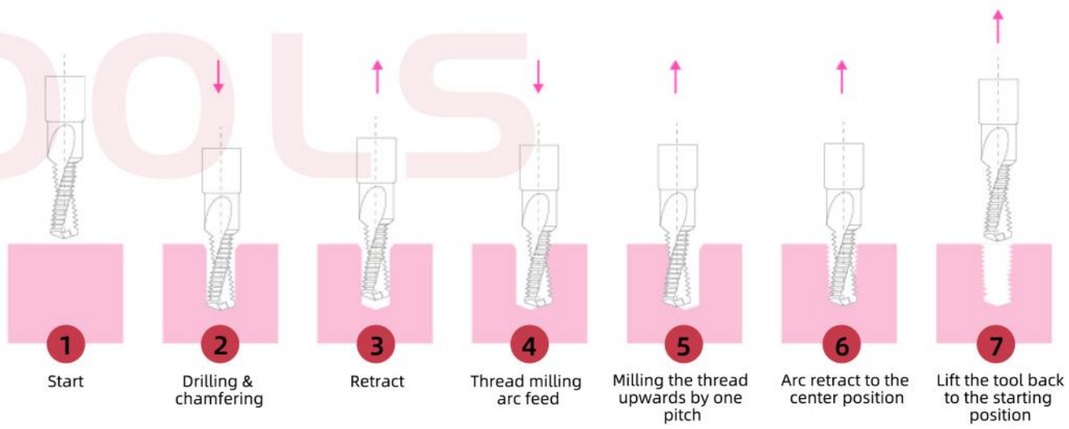
| P | | | H | | | | K | M | N | | | | S | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Carbon steel | Alloy steel | Prehardened steel | Hardened steel | | | | Cast Iron | Stainlee steels | Aluminium alliys | Copper alloys | Plastic cement | Acrylic | High-Tempera-ture Alloy | Titanium alloy |
| | | | ~48HRC | ~55HRC | ~60HRC | ~65HRC | | | | | | | | |
| | | | | | | | ◎ | | ○ | ○ | | | | |




Unit:mm

| Dimension | Outside diameter of thread (d2) | Bit diameter (d1) | Wall length (L1) | Bit length (L2) | Neck diameter (D1) | Shank diameter (D) | Overall length (L) | Blade number (F) |
|---|---|---|---|---|---|---|---|---|
| M6*1.0 | 4.8 | 5.0 | 12 | 1.0 | 7.0 | 8.0 | 60 | 2 |
| M8*1.25 | 6.5 | 6.8 | 15 | 1.3 | 9.0 | 10 | 75 | 2 |
| M10*1.5 | 8.2 | 8.5 | 20 | 1.5 | 11 | 12 | 75 | 2 |
| M12*1.75 | 9.9 | 10.3 | 24 | 1.8 | 13.5 | 14 | 75 | 2 |

Three-in-one drilling and milling thread milling cutter:



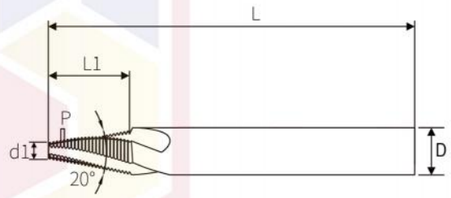
# Taper Medical Bone Plate Thread Milling Cutter

## Features

- Special thread milling cutter for titanium alloy bone plate material processing, with high smoothness, smooth cutting, stable size, and durable wear resistance,The unique taper spiral groove makes the tool more durable

◎ Best ○ Good

| P | | | H | | | | K | M | N | | | | S | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Carbon steel | Alloy steel | Prehardened steel | Hardened steel | | | | Cast Iron | Stainlee steels | Aluminium alliys | Copper alloys | Plastic cement | Acrylic | High-Tempera-ture Alloy | Titanium alloy |
| | | | ~48HRC | ~55HRC | ~60HRC | ~65HRC | | | | | | | | |
| | | | | | | | | | | | | | | ◎ |




### Taper medical bone plate thread milling cutter (60°)

Unit:mm

| Tooth pitch (P) | Tooth angle | Blade diameter (d1) | Angler | Blade length (L1) | Shank diameter (D) | Total length (L) |
|---|---|---|---|---|---|---|
| 0.3 | 60° | 1.9 | 20° | 6.0 | 6.0 | 60 |
| 0.4 | 60° | 2.3 | 20° | 10 | 6.0 | 60 |
| 0.5 | 60° | 2.9 | 20° | 9.0 | 6.0 | 60 |
| 0.6 | 60° | 3.0 | 20° | 14 | 8.0 | 60 |

### Taper medical bone plate thread milling cutter (55°)

Unit:mm

| Tooth pitch (P) | Tooth angle | Blade diameter (d1) | Angler | Blade length (L1) | Shank diameter (D) | Total length (L) |
|---|---|---|---|---|---|---|
| 0.3 | 55° | 1.9 | 20° | 6.0 | 6.0 | 60 |
| 0.4 | 55° | 2.3 | 20° | 10 | 6.0 | 60 |
| 0.5 | 55° | 2.9 | 20° | 9.0 | 6.0 | 60 |
| 0.6 | 55° | 3.0 | 20° | 14 | 8.0 | 60 |

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