



Smart Solutions on the Cutting Edge

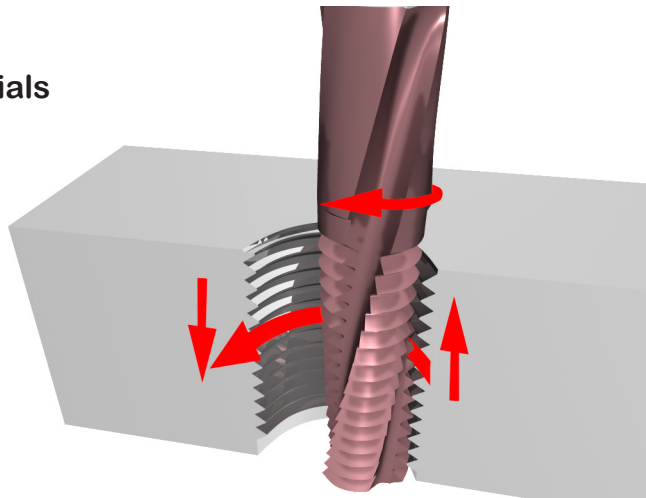


**WhizThrill**

Solid Thread Mills By WhizCut

## Why one should choose Thread Milling versus Thread Tapping

- Smoother cutting with short chips
- Improves surface finish in many materials
- Better chipflow
- Increased tool life
- Straighter thread
- Less Toolbreakage



## Why WhizThrill

- Micrograin Carbide
- Special TiAlCN PVD coating for best surface finish and maximum tool life
- Close tolerances on thread profile

Thread Milling is not a difficult operation to do when one has the right support. For this reason WhizCut offers a program, free of charge to all customers, that will help you program the machine. The WhizThrill aid is a very user friendly excel based program that recommends the programming for your CNC machine. It is available in 18 different languages. The program is updated regularly, so make sure you have the latest version. Get the latest version free of charge from your local distributor.

### WhizThrill

Internal Thread Milling in Machining Center

Fanuc

M - Metric

Steel, Low Carbon, < 0,25% C, < 400 N/mm<sup>2</sup>

D = thread diameter (mm) 24  
P = pitch (mm) 3  
L = thread length (mm) 36  
S = safety distance (mm) 2

N1616C40 3.0ISO AC

d = cutter diameter (mm) 16  
l = length of cutting edge (mm) 40,5  
z = number of flutes 3  
V = cutting speed (m/min) 158  
Fz = feed/tooth (mm/tooth) 0,050  
Number of passes, radial (max 3) 1  
Number of passes, axial 1  
N = spindle speed (rpm) 3 143  
FD = feed at thread diameter (mm/min) 467  
Fd = feed in center of mill (mm/min) 156  
T = time to mill the thread (seconds) 14

### CNC program for Fanuc

```

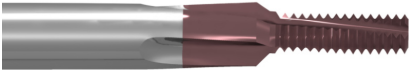
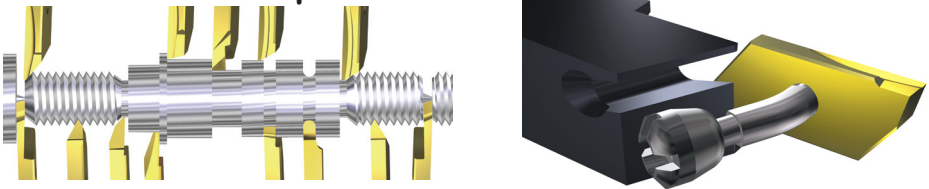
S3143 M3
G00 G91 Z-38.
G01 G41 X2. Y-2. F156
G03 X2. Y2. Z0.375 I0. J2.
G03 X0. Y0. Z3. I-4. J0.
G03 X-2. Y2. Z0.375 I-2. J0.
G01 G40 X-2. Y-2.
G00 Z34.25
                    
```

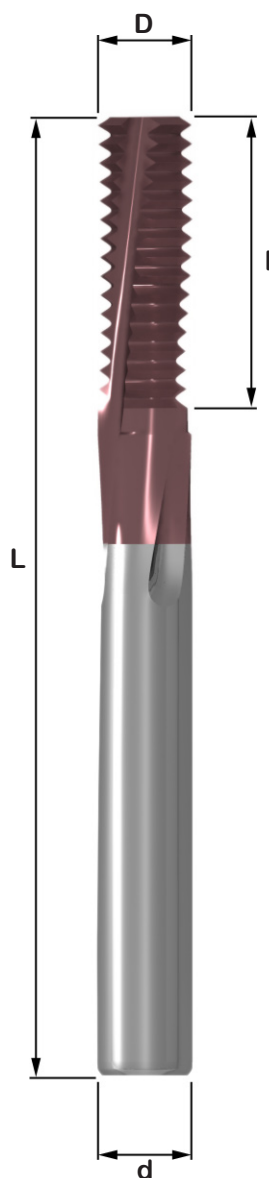
### WhizCut®

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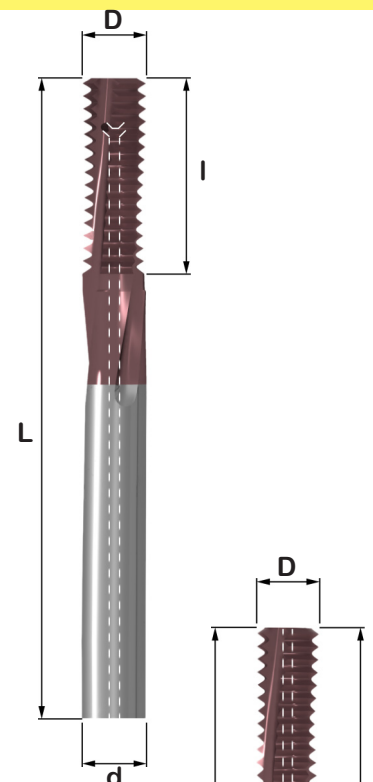


| Pitch mm | M coarse     | M fine | Part Number          | d mm | D mm | Cutting edges | l mm  | L mm | Price Group |
|----------|--------------|--------|----------------------|------|------|---------------|-------|------|-------------|
| 0,5      | M3 (1,5xD)   | ≥ M4   | U03023C5 0.5ISO A9   | 3    | 2,3  | 3             | 5,25  | 39   | T4          |
| 0,5      | M3 (2,25xD)  | ≥ M4   | U03023C7 0.5ISO A9   | 3    | 2,3  | 3             | 7,25  | 39   | T6          |
| 0,5      |              | ≥ M5   | U06038C10 0.5ISO A9  | 6    | 3,8  | 3             | 10,25 | 64   | T9          |
| 0,7      | M4 (1,5xD)   |        | U0303C7 0.7ISO A9    | 3    | 3    | 3             | 7,35  | 39   | T4          |
| 0,7      | M4 (2,25xD)  |        | U0303C10 0.7ISO A9   | 3    | 3    | 3             | 10,15 | 39   | T6          |
| 0,75     |              | ≥ M6   | U06045C10 0.75ISO A9 | 6    | 4,5  | 3             | 10,12 | 64   | T7          |
| 0,75     |              | ≥ M6   | U06045C16 0.75ISO A9 | 6    | 4,5  | 3             | 16,12 | 64   | T9          |
| 0,8      | M5 (1,5xD)   |        | U04038C9 0.8ISO A9   | 4    | 3,8  | 3             | 9,2   | 51   | T5          |
| 0,8      | M5 (2,25xD)  |        | U04038C12 0.8ISO A9  | 4    | 3,8  | 3             | 12,4  | 51   | T7          |
| 1        | M6 (1,5xD)   | ≥ M8   | U06045C10 1.0ISO A9  | 6    | 4,5  | 3             | 10,5  | 64   | T7          |
| 1        | M6 (2,25xD)  | ≥ M8   | U06045C14 1.0ISO A9  | 6    | 4,5  | 3             | 14,5  | 64   | T9          |
| 1        | M6 (3xD)     | ≥ M8   | U06045C19 1.0ISO A9  | 6    | 4,5  | 3             | 19,5  | 64   | T11         |
| 1        |              | ≥ M8   | U0606C12 1.0ISO A9   | 6    | 6    | 3             | 12,5  | 64   | T7          |
| 1        |              | ≥ M10  | U0808D16 1.0ISO A9   | 8    | 8    | 4             | 16,5  | 64   | T10         |
| 1,25     | M8 (1,5xD)   | ≥ M10  | U0606C14 1.25ISO A9  | 6    | 6    | 3             | 14,38 | 64   | T7          |
| 1,25     | M8 (2,25xD)  | ≥ M10  | U0606C19 1.25ISO A9  | 6    | 6    | 3             | 19,38 | 64   | T9          |
| 1,25     | M8 (3xD)     | ≥ M10  | U0606C25 1.25ISO A9  | 6    | 6    | 3             | 25,62 | 76   | T11         |
| 1,5      | M10 (1,5xD)  | ≥ M12  | U08075C17 1.5ISO A9  | 8    | 7,5  | 3             | 17,25 | 64   | T10         |
| 1,5      | M10 (2,25xD) | ≥ M12  | U08075C24 1.5ISO A9  | 8    | 7,5  | 3             | 24,75 | 76   | T13         |
| 1,5      | M10 (3xD)    | ≥ M12  | U08075C32 1.5ISO A9  | 8    | 7,5  | 3             | 32,25 | 76   | T16         |
| 1,5      |              | ≥ M14  | U1010D21 1.5ISO A9   | 10   | 10   | 4             | 21,75 | 76   | T14         |
| 1,5      |              | ≥ M16  | U1212D27 1.5ISO A9   | 12   | 12   | 4             | 27,75 | 83   | T17         |
| 1,5      |              | ≥ M20  | U1616F33 1.5ISO A9   | 16   | 16   | 6             | 33,75 | 100  | T22         |
| 1,75     | M12 (1,5xD)  |        | U0808C20 1.75ISO A9  | 8    | 8    | 3             | 20,13 | 64   | T10         |
| 1,75     | M12 (2,25xD) |        | U0808C28 1.75ISO A9  | 8    | 8    | 3             | 28,88 | 76   | T13         |
| 1,75     | M12 (1,5xD)  |        | U1009C20 1.75ISO A9  | 10   | 9    | 3             | 20,13 | 76   | T14         |
| 1,75     | M12 (2,25xD) |        | U1009C28 1.75ISO A9  | 10   | 9    | 3             | 28,88 | 100  | T17         |
| 1,75     | M12 (3xD)    |        | U1009C37 1.75ISO A9  | 10   | 9    | 3             | 37,62 | 100  | T19         |
| 2        | M14 (1,5xD)  | ≥ M18  | U1010C27 2.0ISO A9   | 10   | 10   | 3             | 27    | 76   | T14         |
| 2        | M14 (2,25xD) | ≥ M18  | U1010C39 2.0ISO A9   | 10   | 10   | 3             | 39    | 100  | T17         |
| 2        | M16 (1,5xD)  | ≥ M18  | U1212D27 2.0ISO A9   | 12   | 12   | 4             | 27    | 83   | T17         |
| 2        | M16 (2,25xD) | ≥ M18  | U1212D39 2.0ISO A9   | 12   | 12   | 4             | 39    | 100  | T20         |
| 2        | M16 (3xD)    | ≥ M18  | U1212C51 2.0ISO A9   | 12   | 12   | 3             | 51    | 100  | T21         |
| 2        |              | ≥ M20  | U1616E37 2.0ISO A9   | 16   | 16   | 5             | 37    | 100  | T22         |
| 2        |              | ≥ M24  | U2020F41 2.0ISO A9   | 20   | 20   | 6             | 41    | 100  | T24         |
| 2        |              | ≥ M30  | U2525F55 2.0ISO A9   | 25   | 25   | 6             | 55    | 130  | T29         |
| 2,5      | M18 (1,5xD)  |        | U1212C31 2.5ISO A9   | 12   | 12   | 3             | 31,25 | 100  | T19         |
| 2,5      | M18 (2,25xD) |        | U1212C43 2.5ISO A9   | 12   | 12   | 3             | 43,75 | 100  | T21         |
| 2,5      | M20 (1,5xD)  |        | U1414D33 2.5ISO A9   | 14   | 14   | 4             | 33,75 | 89   | T21         |
| 2,5      | M20 (2,25xD) |        | U1414D48 2.5ISO A9   | 14   | 14   | 4             | 48,75 | 100  | T22         |
| 2,5      | M20 (3xD)    |        | U1615C63 2.5ISO A9   | 16   | 15   | 3             | 63,75 | 120  | T23         |
| 3        | M24 (1,5xD)  |        | U1616C40 3.0ISO A9   | 16   | 16   | 3             | 40,5  | 100  | T22         |
| 3        | M24 (2,25xD) | ≥ M30  | U1616C58 3.0ISO A9   | 16   | 16   | 3             | 58,5  | 120  | T23         |
| 3        |              | ≥ M30  | U2020D43 3.0ISO A9   | 20   | 20   | 4             | 43,5  | 100  | T24         |
| 3        |              | ≥ M30  | U2525D58 3.0ISO A9   | 25   | 25   | 4             | 58,5  | 130  | T28         |
| 3,5      | M30 (1,5xD)  | ≥ M33  | U2020C50 3.5ISO A9   | 20   | 20   | 3             | 50,75 | 120  | T25         |
| 3,5      | M30 (2,25xD) | ≥ M42  | U2020C71 3.5ISO A9   | 20   | 20   | 3             | 71,75 | 150  | T27         |
| 4        | M36 (1,5xD)  | ≥ M42  | U2525C58 4.0ISO A9   | 25   | 25   | 3             | 58    | 130  | T28         |
| 4        | M36 (2,25xD) |        | U2525C86 4.0ISO A9   | 25   | 25   | 3             | 86    | 150  | T30         |

## Metric with Internal coolant

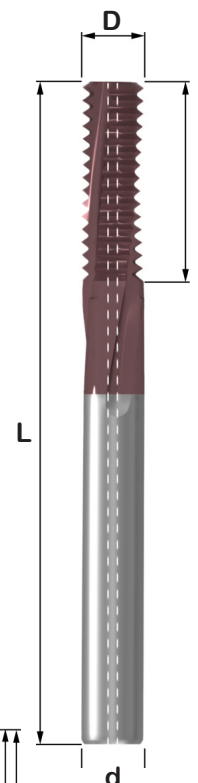
**WhizThrill**

| Pitch<br>mm | M<br>coarse  | M<br>fine | Part Number          | d<br>mm | D<br>mm | Cutting<br>edges | l<br>mm | L<br>mm | Price<br>Group |
|-------------|--------------|-----------|----------------------|---------|---------|------------------|---------|---------|----------------|
| 1,25        | M8 (1,5xD)   | ≥ M10     | UC0606C14 1.25ISO A9 | 6       | 6       | 3                | 14,38   | 64      | T8             |
| 1,25        | M8 (2,25xD)  | ≥ M10     | UC0606C19 1.25ISO A9 | 6       | 6       | 3                | 19,38   | 64      | T10            |
| 1,25        | M8 (3xD)     | ≥ M10     | UC0606C25 1.25ISO A9 | 6       | 6       | 3                | 25,62   | 76      | T12            |
| 1,5         | M10 (1,5xD)  | ≥ M12     | UC08075C17 1.5ISO A9 | 8       | 7,5     | 3                | 17,25   | 76      | T12            |
| 1,5         | M10 (2,25xD) | ≥ M12     | UC08075C24 1.5ISO A9 | 8       | 7,5     | 3                | 24,75   | 76      | T15            |
| 1,5         | M10 (3xD)    | ≥ M12     | UC08075C32 1.5ISO A9 | 8       | 7,5     | 3                | 32,25   | 76      | T17            |
| 1,75        | M12 (1,5xD)  |           | UC0808C20 1.75ISO A9 | 8       | 8       | 3                | 20,13   | 76      | T12            |
| 1,75        | M12 (2,25xD) |           | UC0808C28 1.75ISO A9 | 8       | 8       | 3                | 28,88   | 76      | T15            |
| 1,75        | M12 (1,5xD)  |           | UC1009C20 1.75ISO A9 | 10      | 9       | 3                | 20,13   | 100     | T16            |
| 1,75        | M12 (2,25xD) |           | UC1009C28 1.75ISO A9 | 10      | 9       | 3                | 28,88   | 100     | T19            |
| 1,75        | M12 (3xD)    |           | UC1009C37 1.75ISO A9 | 10      | 9       | 3                | 37,62   | 100     | T20            |
| 2           | M14 (1,5xD)  | ≥ M18     | UC1010C27 2.0ISO A9  | 10      | 10      | 3                | 27      | 100     | T16            |
| 2           | M14 (2,25xD) | ≥ M18     | UC1010C39 2.0ISO A9  | 10      | 10      | 3                | 39      | 100     | T19            |
| 2           | M16 (1,5xD)  | ≥ M18     | UC1212D27 2.0ISO A9  | 12      | 12      | 4                | 27      | 100     | T19            |
| 2           | M16 (2,25xD) | ≥ M18     | UC1212D39 2.0ISO A9  | 12      | 12      | 4                | 39      | 100     | T22            |
| 2           | M16 (3xD)    | ≥ M18     | UC1212C51 2.0ISO A9  | 12      | 12      | 3                | 51      | 100     | T21            |
| 2,5         | M20 (2,25xD) |           | UC1414D48 2.5ISO A9  | 14      | 14      | 4                | 48,75   | 100     | T24            |
| 3           | M24 (2,25xD) | ≥ M30     | UC1616C58 3.0ISO A9  | 16      | 16      | 3                | 58,5    | 120     | T26            |
| 3,5         | M30 (2,25xD) |           | UC2020C71 3.5ISO A9  | 20      | 20      | 3                | 71,75   | 150     | T29            |



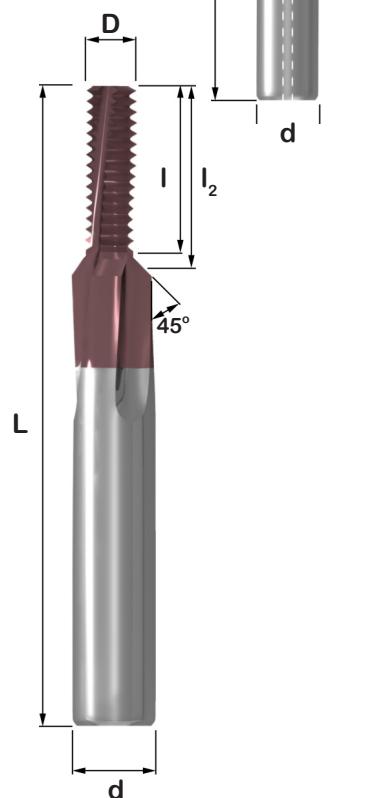
## Metric with Radial coolant

| Pitch<br>mm | M<br>coarse  | M<br>fine | Part Number          | d<br>mm | D<br>mm | Cutting<br>edges | l<br>mm | L<br>mm | Price<br>Group |
|-------------|--------------|-----------|----------------------|---------|---------|------------------|---------|---------|----------------|
| 1,25        | M8 (2,25xD)  | ≥ M10     | UT0606C19 1.25ISO A9 | 6       | 6       | 3                | 19,38   | 64      | T12            |
| 1,5         | M10 (2,25xD) | ≥ M12     | UT08075C24 1.5ISO A9 | 8       | 7,5     | 3                | 24,75   | 76      | T16            |
| 1,75        | M12 (2,25xD) |           | UT0808C28 1.75ISO A9 | 8       | 8       | 3                | 28,88   | 76      | T16            |
| 1,75        | M12 (2,25xD) |           | UT1009C28 1.75ISO A9 | 10      | 9       | 3                | 28,88   | 100     | T20            |
| 2           | M14 (2,25xD) | ≥ M18     | UT1010C39 2.0ISO A9  | 10      | 10      | 3                | 39      | 100     | T20            |
| 2           | M16 (2,25xD) | ≥ M18     | UT1212D39 2.0ISO A9  | 12      | 12      | 4                | 39      | 100     | T21            |



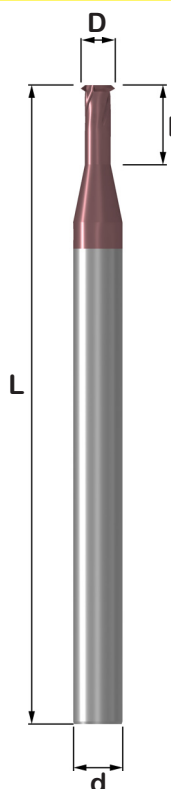
## Metric with chamfer

| Pitch<br>mm | M<br>Coarse  | Part Number          | d<br>mm | D<br>mm | Cutting<br>Edges | l<br>mm | l <sub>2</sub><br>mm | L<br>mm | Price<br>group |
|-------------|--------------|----------------------|---------|---------|------------------|---------|----------------------|---------|----------------|
| 0,5         | M3 (1,5xD)   | UF06023C5 0.5ISO A9  | 6       | 2,3     | 3                | 5,25    | 5,9                  | 64      | T7             |
| 0,5         | M3 (2,25xD)  | UF06023C7 0.5ISO A9  | 6       | 2,3     | 3                | 7,25    | 7,9                  | 64      | T9             |
| 0,5         | M3 (3xD)     | UF06023C9 0.5ISO A9  | 6       | 2,3     | 3                | 9,75    | 10,4                 | 64      | T11            |
| 0,7         | M4 (1,5xD)   | UF0603C7 0.7ISO A9   | 6       | 3       | 3                | 7,35    | 8,3                  | 64      | T7             |
| 0,7         | M4 (2,25xD)  | UF0603C10 0.7ISO A9  | 6       | 3       | 3                | 10,15   | 11,1                 | 64      | T9             |
| 0,7         | M4 (3xD)     | UF0603C12 0.7ISO A9  | 6       | 3       | 3                | 12,95   | 13,9                 | 64      | T11            |
| 0,8         | M5 (1,5xD)   | UF06038C9 0.8ISO A9  | 6       | 3,8     | 3                | 9,2     | 10,3                 | 64      | T7             |
| 0,8         | M5 (2,25xD)  | UF06038C12 0.8ISO A9 | 6       | 3,8     | 3                | 12,4    | 13,5                 | 64      | T9             |
| 0,8         | M5 (3xD)     | UF06038C16 0.8ISO A9 | 6       | 3,8     | 3                | 16,4    | 17,5                 | 64      | T11            |
| 1           | M6 (1,5xD)   | UF08045C10 1.0ISO A9 | 8       | 4,5     | 3                | 10,5    | 12                   | 64      | T9             |
| 1           | M6 (2,25xD)  | UF08045C14 1.0ISO A9 | 8       | 4,5     | 3                | 14,5    | 16                   | 64      | T12            |
| 1,25        | M8 (1,5xD)   | UF1006C14 1.25ISO A9 | 10      | 6       | 3                | 14,38   | 16,51                | 76      | T12            |
| 1,25        | M8 (2,25xD)  | UF1006C19 1.25ISO A9 | 10      | 6       | 3                | 19,38   | 21,51                | 76      | T15            |
| 1,5         | M10 (1,5xD)  | UF12075C17 1.5ISO A9 | 12      | 7,5     | 3                | 17,25   | 19,5                 | 83      | T14            |
| 1,5         | M10 (2,25xD) | UF12075C24 1.5ISO A9 | 12      | 7,5     | 3                | 24,75   | 27                   | 83      | T17            |
| 1,75        | M12 (1,5xD)  | UF1409C20 1.75ISO A9 | 14      | 9       | 3                | 20,13   | 23,01                | 89      | T18            |
| 1,75        | M12 (2,25xD) | UF1409C28 1.75ISO A9 | 14      | 9       | 3                | 28,88   | 31,76                | 89      | T20            |

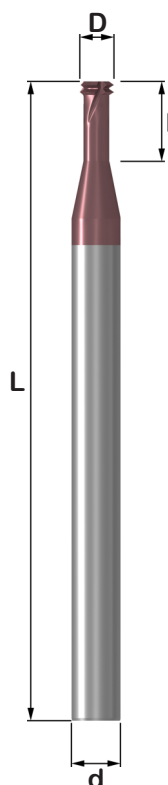




## Micro Partial Profile 60°



| M coarse | M fine  | UNC UNF        | Part Number         | d mm | D mm | Cutting edges | I mm | L mm | Price Group |
|----------|---------|----------------|---------------------|------|------|---------------|------|------|-------------|
| M2-M2,2  | M1,8-M2 | No.2 (1,5xD)   | US03015C3.8 P60 A9  | 3    | 1,5  | 3             | 3,8  | 39   | T1          |
| M2-M2,2  | M1,8-M2 | No.2 (2,25xD)  | US03015C5.4 P60 A9  | 3    | 1,5  | 3             | 5,4  | 39   | T1          |
| M2,5     | M2,2    | No.3 (1,5xD)   | US03019C4.3 P60 A9  | 3    | 1,9  | 3             | 4,3  | 39   | T1          |
| M2,5     | M2,2    | No.3 (2,25xD)  | US03019C6.2 P60 A9  | 3    | 1,9  | 3             | 6,2  | 39   | T1          |
|          | M2,5    | No.4 (1,5xD)   | US03021C4.9 P60 A9  | 3    | 2,1  | 3             | 4,9  | 39   | T1          |
|          | M2,5    | No.4 (2,25xD)  | US03021C7.1 P60 A9  | 3    | 2,1  | 3             | 7,1  | 39   | T1          |
| M3       |         | No.5 (1,5xD)   | US03023C5.4 P60 A9  | 3    | 2,3  | 3             | 5,4  | 39   | T1          |
| M3       |         | No.5 (2,25xD)  | US03023C7.8 P60 A9  | 3    | 2,3  | 3             | 7,8  | 39   | T1          |
| M3,5     | M3      | No.6 (1,5xD)   | US03026C6.1 P60 A9  | 3    | 2,6  | 3             | 6,1  | 39   | T1          |
| M3,5     | M3      | No.6 (2,25xD)  | US03026C8.7 P60 A9  | 3    | 2,6  | 3             | 8,7  | 39   | T1          |
| M4       | M3,5-M4 | No.8 (1,5xD)   | US0303C7.1 P60 AC9  | 3    | 3    | 3             | 7,1  | 39   | T1          |
| M4       | M3,5-M4 | No.8 (2,25xD)  | US0303C10.2 P60 A9  | 3    | 3    | 3             | 10,2 | 39   | T1          |
| M4,5     | M4,5    | No.10 (1,5xD)  | US04036C8.3 P60 A9  | 4    | 3,6  | 3             | 8,3  | 51   | T2          |
| M4,5     | M4,5    | No.10 (2,25xD) | US04036C12.0 P60 A9 | 4    | 3,6  | 3             | 12   | 51   | T2          |
| M5-M6    | M5-M6   | No.12 (1,5xD)  | US0404C10.0 P60 A9  | 4    | 4    | 3             | 10   | 51   | T2          |
| M5-M6    | M5-M6   | No.12 (2,25xD) | US0404C14.5 P60 A9  | 4    | 4    | 3             | 14,5 | 51   | T2          |



## Micro Metrical

| Pitch mm | M Coarse      |  | Part Number          | d mm | D mm | Cutting Edges | I mm | L mm | Price group |
|----------|---------------|--|----------------------|------|------|---------------|------|------|-------------|
| 0,4      | M2 (1,5xD)    |  | UM03015C3 0.4ISO A9  | 3    | 1,5  | 3             | 3,4  | 39   | T1          |
| 0,4      | M2 (2,25xD)   |  | UM03015C5 0.4ISO A9  | 3    | 1,5  | 3             | 5    | 39   | T1          |
| 0,45     | M2.2 (1,5xD)  |  | UM03016C3 0.45ISO A9 | 3    | 1,6  | 3             | 3,8  | 39   | T1          |
| 0,45     | M2.2 (2,25xD) |  | UM03016C5 0.45ISO A9 | 3    | 1,6  | 3             | 5,4  | 39   | T1          |
| 0,45     | M2.5 (1,5xD)  |  | UM03019C4 0.45ISO A9 | 3    | 1,9  | 3             | 4,2  | 39   | T1          |
| 0,45     | M2.5 (2,25xD) |  | UM03019C6 0.45ISO A9 | 3    | 1,9  | 3             | 6,1  | 39   | T1          |
| 0,5      | M3 (1,5xD)    |  | UM03023C5 0.5ISO A9  | 3    | 2,3  | 3             | 5    | 39   | T1          |
| 0,5      | M3 (2,25xD)   |  | UM03023C7 0.5ISO A9  | 3    | 2,3  | 3             | 7,3  | 39   | T1          |
| 0,6      | M3.5 (1,5xD)  |  | UM03026C6 0.6ISO A9  | 3    | 2,6  | 3             | 6    | 39   | T1          |
| 0,6      | M3.5 (2,25xD) |  | UM03026C8 0.6ISO A9  | 3    | 2,6  | 3             | 8,5  | 39   | T1          |
| 0,7      | M4 (1,5xD)    |  | UM0303C7 0.7ISO A9   | 3    | 3    | 3             | 7    | 39   | T1          |
| 0,7      | M4 (2,25xD)   |  | UM0303C10 0.7ISO A9  | 3    | 3    | 3             | 10   | 39   | T1          |
| 0,8      | M5 (1,5xD)    |  | UM04038C9 0.8ISO A9  | 4    | 3,8  | 3             | 9    | 51   | T2          |
| 0,8      | M5 (2,25xD)   |  | UM04038C12 0.8ISO A9 | 4    | 3,8  | 3             | 12,1 | 51   | T2          |
| 1        | M6 (1,5xD)    |  | UM06045C10 1.0ISO A9 | 6    | 4,5  | 3             | 10   | 64   | T3          |
| 1        | M6 (2,25xD)   |  | UM06045C14 1.0ISO A9 | 6    | 4,5  | 3             | 14,5 | 64   | T3          |
| 1,25     | M8 (1,5xD)    |  | UM0606C14 1.25ISO A9 | 6    | 6    | 3             | 14   | 64   | T3          |
| 1,25     | M8 (2,25xD)   |  | UM0606C19 1.25ISO A9 | 6    | 6    | 3             | 19,3 | 64   | T3          |

## Metric External

**WhizThrill**

| Pitch<br>mm | Part Number        | d<br>mm | D<br>mm | Cutting<br>edges | l<br>mm | L<br>mm | Price<br>Group |
|-------------|--------------------|---------|---------|------------------|---------|---------|----------------|
| 1           | E1010D20 1.0ISO A9 | 10      | 10      | 4                | 20,5    | 76      | T17            |
| 1,5         | E1212D24 1.5ISO A9 | 12      | 12      | 4                | 24,75   | 83      | T20            |
| 2           | E1616D32 2.0ISO A9 | 16      | 16      | 4                | 33      | 100     | T23            |

## Whitworth pipe Thread

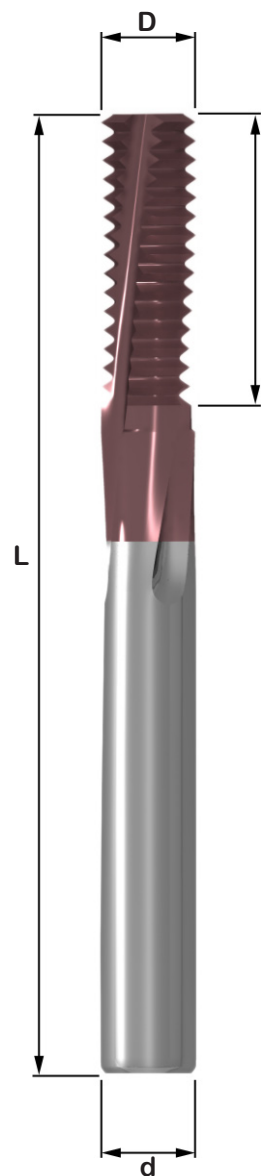
| Pitch<br>TPI | Norm        | Internal/External Part<br>Number | d<br>mm | D<br>mm | Cutting<br>edges | l<br>mm | L<br>mm | Price<br>Group |
|--------------|-------------|----------------------------------|---------|---------|------------------|---------|---------|----------------|
| 28           | G 1/8       | X0606C9 28W A9                   | 6       | 6       | 3                | 9,53    | 64      | T7             |
| 19           | G 1/4 - 3/8 | X0808C14 19W A9                  | 8       | 8       | 3                | 14,04   | 64      | T10            |
| 19           | G 1/4 - 3/8 | X1010D20 19W A9                  | 10      | 10      | 4                | 20,72   | 76      | T14            |
| 14           | G 1/2 - 7/8 | X1212D19 14W A9                  | 12      | 12      | 4                | 19,05   | 83      | T17            |
| 14           | G 1/2 - 7/8 | X1212D26 14W A9                  | 12      | 12      | 4                | 26,31   | 83      | T20            |
| 14           | G 1/2 - 7/8 | X1616E26 14W A9                  | 16      | 16      | 5                | 26,31   | 100     | T22            |
| 11           | G 1 - 1 1/2 | X1212C24 11W A9                  | 12      | 12      | 3                | 24,25   | 83      | T17            |
| 11           | G 1 - 3     | X1616D38 11W A9                  | 16      | 16      | 4                | 38,1    | 100     | T22            |
| 11           | G $\geq 1$  | X2020E47 11W A9                  | 20      | 20      | 5                | 47,34   | 120     | T24            |

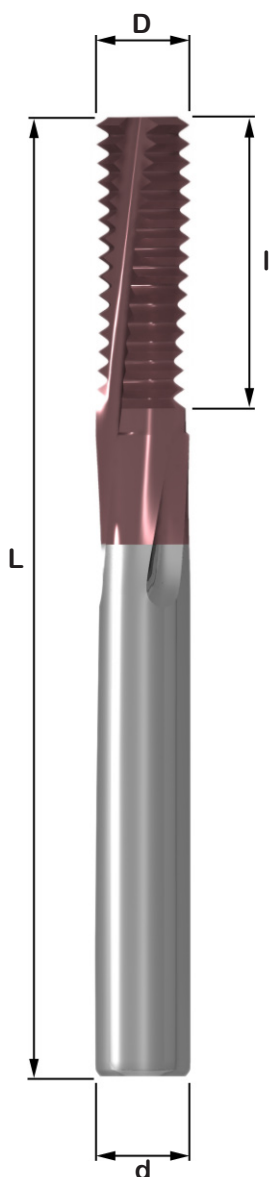
## BSPT Pipe Thread

| Pitch<br>TPI | Norm         | Internal/External Part<br>Number | d<br>mm | D<br>mm | Cutting<br>edges | l<br>mm | L<br>mm | Price<br>Group |
|--------------|--------------|----------------------------------|---------|---------|------------------|---------|---------|----------------|
| 28           | RC 1/8       | X0606C9 28BSPT A9                | 6       | 6       | 3                | 9,53    | 64      | T9             |
| 19           | RC 1/4 - 3/8 | X0808C14 19BSPT A9               | 8       | 8       | 3                | 14,04   | 64      | T13            |
| 14           | RC 1/2 - 7/8 | X1212D19 14BSPT A9               | 12      | 12      | 4                | 19,05   | 83      | T20            |
| 11           | RC 1 - 2     | X1616D28 11BSPT A9               | 16      | 16      | 4                | 28,86   | 100     | T23            |

## Steel Conduit Thread

| Pitch<br>TPI | Norm       | Internal/External Part<br>Number | d<br>mm | D<br>mm | Cutting<br>edges | l<br>mm | L<br>mm | Price<br>Group |
|--------------|------------|----------------------------------|---------|---------|------------------|---------|---------|----------------|
| 20           | Pg 7       | X0808C19 20PG A9                 | 8       | 8       | 3                | 19,69   | 64      | T13            |
| 18           | Pg 9 - 16  | X1010C26 18PG A9                 | 10      | 10      | 3                | 26,11   | 76      | T17            |
| 16           | Pg 21 - 48 | X1212D29 16PG A9                 | 12      | 12      | 4                | 29,37   | 83      | T20            |





| Pitch<br>TPI | UNC               | UNF           | Part Number       | d<br>mm | D<br>mm | Cutting<br>Edges | l<br>mm | L<br>mm | Price<br>group |
|--------------|-------------------|---------------|-------------------|---------|---------|------------------|---------|---------|----------------|
| 44           |                   | No.5 (1,5xD)  | U03024C5 44UN A9  | 3       | 2,4     | 3                | 5,48    | 39      | T4             |
| 40           | No.5 (2,25xD)     | No.6 (1,5xD)  | U03023C7 40UN A9  | 3       | 2,3     | 3                | 7,94    | 39      | T6             |
| 36           |                   | No.8 (1,5xD)  | U04031C7 36UN A9  | 4       | 3,1     | 3                | 7,41    | 51      | T5             |
| 32           | No.6 (2,25xD)     |               | U03025C9 32UN A9  | 3       | 2,5     | 3                | 9,13    | 39      | T6             |
| 32           | No.8 (2,25xD)     | No.10 (1,5xD) | U0303C10 32UN A9  | 3       | 3       | 3                | 10,72   | 39      | T6             |
| 28           |                   | No.12 (1,5xD) | U0604C11 28UN A9  | 6       | 4       | 3                | 11,34   | 64      | T7             |
| 28           |                   | 1/4 (1,5xD)   | U0605C11 28UN A9  | 6       | 5       | 3                | 11,34   | 64      | T7             |
| 24           | No.10-12 (2,25xD) |               | U04038C14 24UN A9 | 4       | 3,8     | 3                | 14,29   | 51      | T7             |
| 24           |                   | 5/16 (1,5xD)  | U0606C14 24UN A9  | 6       | 6       | 3                | 14,29   | 64      | T7             |
| 24           |                   | 3/8 (1,5xD)   | U08076C21 24UN A9 | 8       | 7,6     | 3                | 20,96   | 64      | T10            |
| 20           | 1/4 (1,5xD)       |               | U06045C12 20UN A9 | 6       | 4,5     | 3                | 12,07   | 64      | T7             |
| 20           | 1/4 (2,25xD)      |               | U06045C15 20UN A9 | 6       | 4,5     | 3                | 15,88   | 64      | T9             |
| 20           |                   | 7/16 (1,5xD)  | U0808C21 20UN A9  | 8       | 8       | 3                | 20,96   | 76      | T10            |
| 20           |                   | 1/2 (1,5xD)   | U1010D21 20UN A9  | 10      | 10      | 4                | 20,96   | 76      | T14            |
| 20           |                   |               | U1212E27 20UN A9  | 12      | 12      | 5                | 27,31   | 83      | T17            |
| 18           | 5/16 (1,5xD)      |               | U06058C14 18UN A9 | 6       | 5,8     | 3                | 14,82   | 64      | T7             |
| 18           | 5/16 (2,25xD)     |               | U06058C20 18UN A9 | 6       | 5,8     | 3                | 20,46   | 64      | T9             |
| 18           |                   | 9/16 (1,5xD)  | U1010D26 18UN A9  | 10      | 10      | 4                | 26,11   | 76      | T14            |
| 18           |                   | 5/8 (1,5xD)   | U1212D26 18UN A9  | 12      | 12      | 4                | 26,11   | 83      | T17            |
| 16           | 3/8 (1,5xD)       |               | U0606C16 16UN A9  | 6       | 6       | 3                | 16,67   | 64      | T7             |
| 16           | 3/8 (2,25xD)      |               | U0606C23 16UN A9  | 6       | 6       | 3                | 23,02   | 76      | T9             |
| 16           | 3/8 (1,5xD)       |               | U0807C16 16UN A9  | 8       | 7       | 3                | 16,67   | 64      | T10            |
| 16           | 3/8 (2,25xD)      |               | U0807C23 16UN A9  | 8       | 7       | 3                | 23,02   | 76      | T13            |
| 16           |                   | 3/4 (1,5xD)   | U1212D31 16UN A9  | 12      | 12      | 4                | 30,95   | 100     | T17            |
| 16           |                   |               | U1616E34 16UN A9  | 16      | 16      | 5                | 34,13   | 100     | T22            |
| 14           | 7/16 (1,5xD)      |               | U0808C20 14UN A9  | 8       | 8       | 3                | 20,87   | 76      | T10            |
| 14           | 7/16 (2,25xD)     |               | U0808C28 14UN A9  | 8       | 8       | 3                | 28,12   | 76      | T13            |
| 14           |                   | 7/8 (1,5xD)   | U1616E37 14UN A9  | 16      | 16      | 5                | 37,2    | 100     | T22            |
| 13           | 1/2 (1,5xD)       |               | U0808C22 13UN A9  | 8       | 8       | 3                | 22,47   | 76      | T10            |
| 13           | 1/2 (2,25xD)      |               | U0808C32 13UN A9  | 8       | 8       | 3                | 32,24   | 76      | T13            |
| 13           | 1/2 (1,5xD)       |               | U10093C22 13UN A9 | 10      | 9,3     | 3                | 22,47   | 100     | T14            |
| 13           | 1/2 (2,25xD)      |               | U10093C32 13UN A9 | 10      | 9,3     | 3                | 32,24   | 100     | T17            |
| 12           | 9/16 (1,5xD)      |               | U1010C26 12UN A9  | 10      | 10      | 3                | 26,46   | 76      | T14            |
| 12           | 9/16 (2,25xD)     |               | U1010C34 12UN A9  | 10      | 10      | 3                | 34,94   | 100     | T17            |
| 12           |                   | 1-1,5         | U1616E41 12UN A9  | 16      | 16      | 5                | 41,28   | 100     | T22            |
| 11           | 5/8 (1,5xD)       |               | U1010C28 11UN A9  | 10      | 10      | 3                | 28,86   | 76      | T14            |
| 11           | 5/8 (2,25xD)      |               | U1010C40 11UN A9  | 10      | 10      | 3                | 40,41   | 100     | T17            |
| 11           | 5/8 (1,5xD)       |               | U12115C28 11UN A9 | 12      | 11,5    | 3                | 28,86   | 83      | T17            |
| 11           | 5/8 (2,25xD)      |               | U12115C40 11UN A9 | 12      | 11,5    | 3                | 40,41   | 100     | T20            |
| 10           | 3/4 (1,5xD)       |               | U1212C34 10UN A9  | 12      | 12      | 3                | 34,29   | 100     | T17            |
| 10           | 3/4 (2,25xD)      |               | U1212C47 10UN A9  | 12      | 12      | 3                | 46,99   | 100     | T20            |
| 10           | 3/4 (1,5xD)       |               | U1414D34 10UN A9  | 14      | 14      | 4                | 34,29   | 89      | T21            |
| 10           | 3/4 (2,25xD)      |               | U1414D47 10UN A9  | 14      | 14      | 4                | 46,99   | 100     | T22            |
| 9            | 7/8 (1,5xD)       |               | U1616C38 9UN A9   | 16      | 16      | 3                | 38,1    | 100     | T22            |
| 9            | 7/8 (2,25xD)      |               | U1616C55 9UN A9   | 16      | 16      | 3                | 55,03   | 120     | T23            |
| 8            | 1 (1,5xD)         |               | U1616C42 8UN A9   | 16      | 16      | 3                | 42,87   | 100     | T22            |
| 8            | 1 (2,25xD)        |               | U1616C61 8UN A9   | 16      | 16      | 3                | 61,92   | 120     | T23            |
| 8            |                   |               | U2020D46 8UN A9   | 20      | 20      | 4                | 46,04   | 120     | T24            |
| 7            | 11/8-11/4 (1,5xD) |               | U2020C52 7UN A9   | 20      | 20      | 3                | 52,61   | 120     | T25            |
| 6            | 13/8-11/2 (1,5xD) |               | U2525C61 6UN A9   | 25      | 25      | 3                | 61,38   | 130     | T28            |



## NPT

**WhizThrill**

| Pitch<br>TPI | Norm       | Internal/External Part<br>Number | d<br>mm | D<br>mm | Cutting<br>edges | l<br>mm | L<br>mm | Price<br>Group |
|--------------|------------|----------------------------------|---------|---------|------------------|---------|---------|----------------|
| 27           | 1/16 - 1/8 | X0606C9 27NPT A9                 | 6       | 6       | 3                | 9,88    | 64      | T9             |
| 18           | 1/4 - 3/8  | X0808C14 18NPT A9                | 8       | 8       | 3                | 14,82   | 64      | T13            |
| 14           | 1/2 - 3/4  | X1212D20 14NPT A9                | 12      | 12      | 4                | 20,86   | 83      | T20            |
| 14           | 3/4        | X1616D20 14NPT A9                | 16      | 16      | 4                | 20,86   | 100     | T23            |
| 11,5         | 1/2        | X1616D27 11.5NPT A9              | 16      | 16      | 4                | 27,61   | 100     | T23            |
| 8            | ≥ 2 1/2    | X2020D39 8NPT A9                 | 20      | 20      | 4                | 39,69   | 100     | T26            |

## NPTF

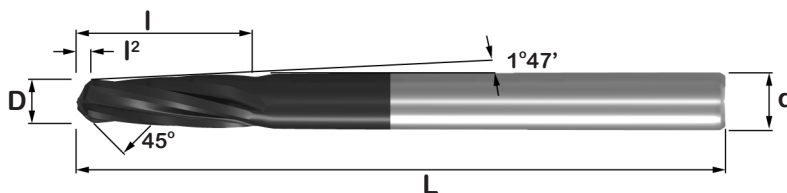
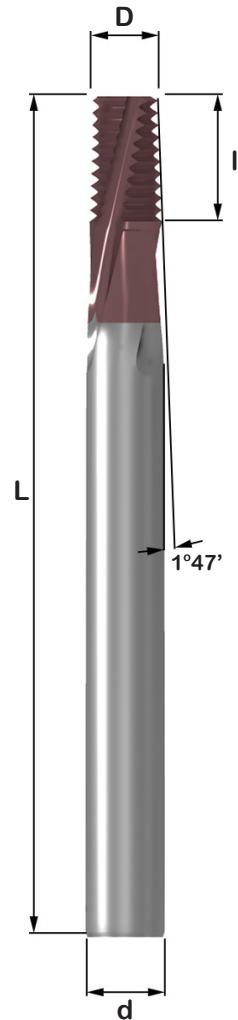
| Pitch<br>TPI | Norm       | Internal/External Part<br>Number | d<br>mm | D<br>mm | Cutting<br>edges | l<br>mm | L<br>mm | Price<br>Group |
|--------------|------------|----------------------------------|---------|---------|------------------|---------|---------|----------------|
| 27           | 1/16 - 1/8 | X0606C9 27NPTF A9                | 6       | 6       | 3                | 9,88    | 64      | T9             |
| 18           | 1/4 - 3/8  | X0808C14 18NPTF A9               | 8       | 8       | 3                | 14,82   | 64      | T13            |
| 14           | 1/2 - 3/4  | X1212D20 14NPTF A9               | 12      | 12      | 4                | 20,86   | 83      | T20            |
| 14           | 3/4        | X1616D27 11.5NPTF A9             | 16      | 16      | 4                | 20,86   | 100     | T23            |
| 11,5         | 1/2        | X2020D39 8NPTF A9                | 16      | 16      | 4                | 27,61   | 100     | T23            |
| 8            | ≥ 2 1/2    | X2020D39 8NPT A9                 | 20      | 20      | 4                | 39,69   | 100     | T26            |

## NPSF

| Pitch<br>TPI | Norm       | Internal/External Part<br>Number | d<br>mm | D<br>mm | Cutting<br>edges | l<br>mm | L<br>mm | Price<br>Group |
|--------------|------------|----------------------------------|---------|---------|------------------|---------|---------|----------------|
| 27           | 1/16 - 1/8 | X0606C11 27NPSF A9               | 6       | 6       | 3                | 11,76   | 64      | T9             |
| 18           | 1/4 - 3/8  | X0808C14 18NPSF A9               | 8       | 8       | 3                | 14,82   | 64      | T13            |
| 14           | 1/2 - 3/4  | X1212D20 14NPSF A9               | 12      | 12      | 4                | 20,86   | 83      | T20            |
| 11,5         | 1          | X1616D27 11.5NPSF A9             | 16      | 16      | 4                | 27,61   | 100     | T23            |

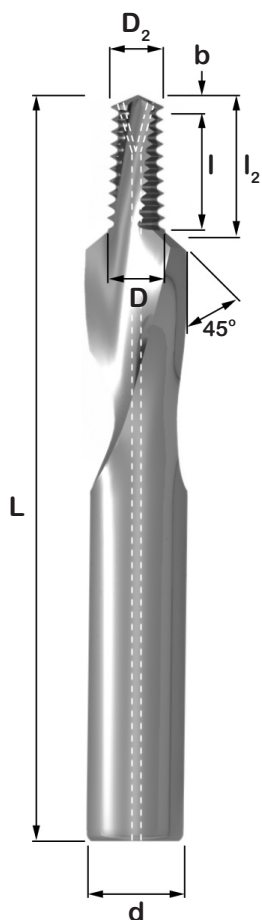
## Tapered End Mills of NPT/NPTF

| D<br>mm | d<br>mm | Part Number    | Cutting<br>edges | l<br>mm | l <sub>2</sub><br>mm | L<br>mm | Price<br>Group |
|---------|---------|----------------|------------------|---------|----------------------|---------|----------------|
| 5       | 6       | NPT0605D16 F9  | 4                | 16      | 1                    | 64      | T1             |
| 8,5     | 10      | NPT10085D24 F9 | 4                | 24      | 1,5                  | 76      | T5             |
| 14      | 16      | NPT1614D32 F9  | 4                | 32      | 2                    | 100     | T16            |
| 17      | 20      | NPT2017D48 F9  | 4                | 48      | 3                    | 120     | T22            |



# *All New Drill, Thread and Chamfer in one!*

Do you work in aluminium and have been tired of using many different tools? WhizCut now offers the UD line, which drills, threads and chamfers in one operation. This exceptional tool gives a superb result and saves both tool cost and time.



| Pitch<br>mm | M<br>coarse | Part Number           | d<br>mm | D<br>mm | D <sub>2</sub><br>mm | b<br>mm | Cutting<br>edges | I<br>mm | I <sub>2</sub><br>mm | L<br>mm | Price<br>Group |
|-------------|-------------|-----------------------|---------|---------|----------------------|---------|------------------|---------|----------------------|---------|----------------|
| 1           | M6(1,5xD)   | UD08047B10 1.0ISO MG  | 8       | 4,7     | 5                    | 1,9     | 2                | 10,5    | 13,6                 | 64      | T20            |
| 1,25        | M8(1,5xD)   | UD10065B14 1.25ISO MG | 10      | 6,5     | 6,8                  | 2,5     | 2                | 14,38   | 18,3                 | 76      | T21            |
| 1,5         | M10(1,5xD)  | UD12082B17 1.5ISO MG  | 12      | 8,2     | 8,5                  | 3,2     | 2                | 17,25   | 22,1                 | 83      | T22            |

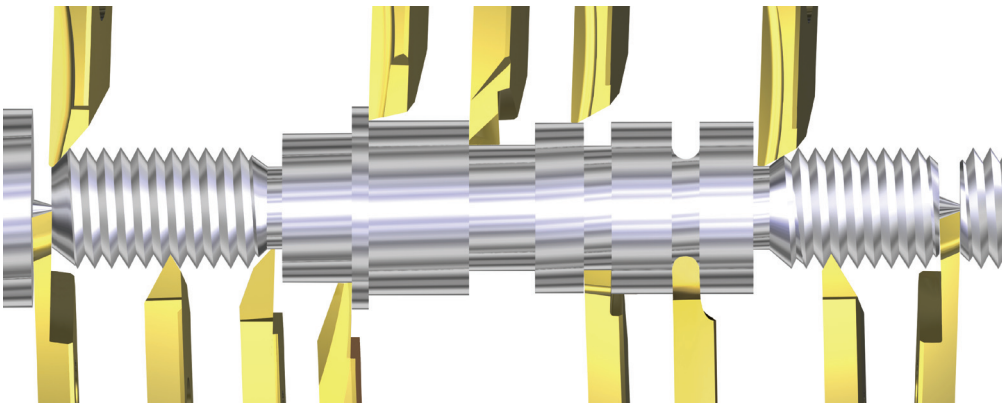
## Smart Solutions on the Cutting Edge

Demand on production for small parts around the world is continuously increasing. Higher expectations and more pressure are put on the producers of these parts. This is where WhizCut comes in.

At WhizCut we understand the day to day challenges the users of automatic lathes are up against. To assist these users WhizCut has developed many very useful products for all automatic lathes around the globe.

We try; to put it simple, to find new solutions for existing problems within the world of small part machining. Our company is based on these new products that will make your production faster, more precise and effective. No matter if your work is in external or internal cutting, we have the solutions to boost your production.

WhizCut is determined to continuing being one of the leading manufacturers for small part machining in the world.

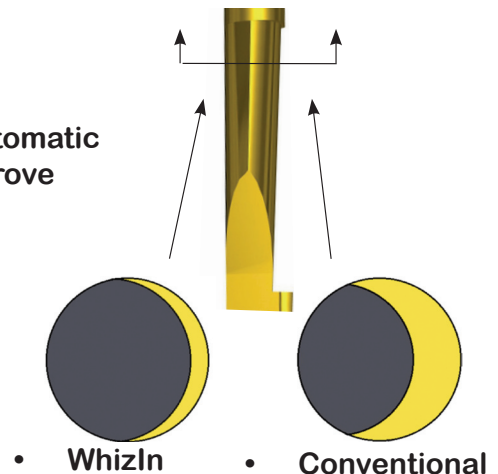


## The Products

WhizCut offers a complete external and internal range of toolholders and carbide inserts specially developed for automatic lathes. With this new technology WhizCut will help You improve productivity and reduce interruptions in production.

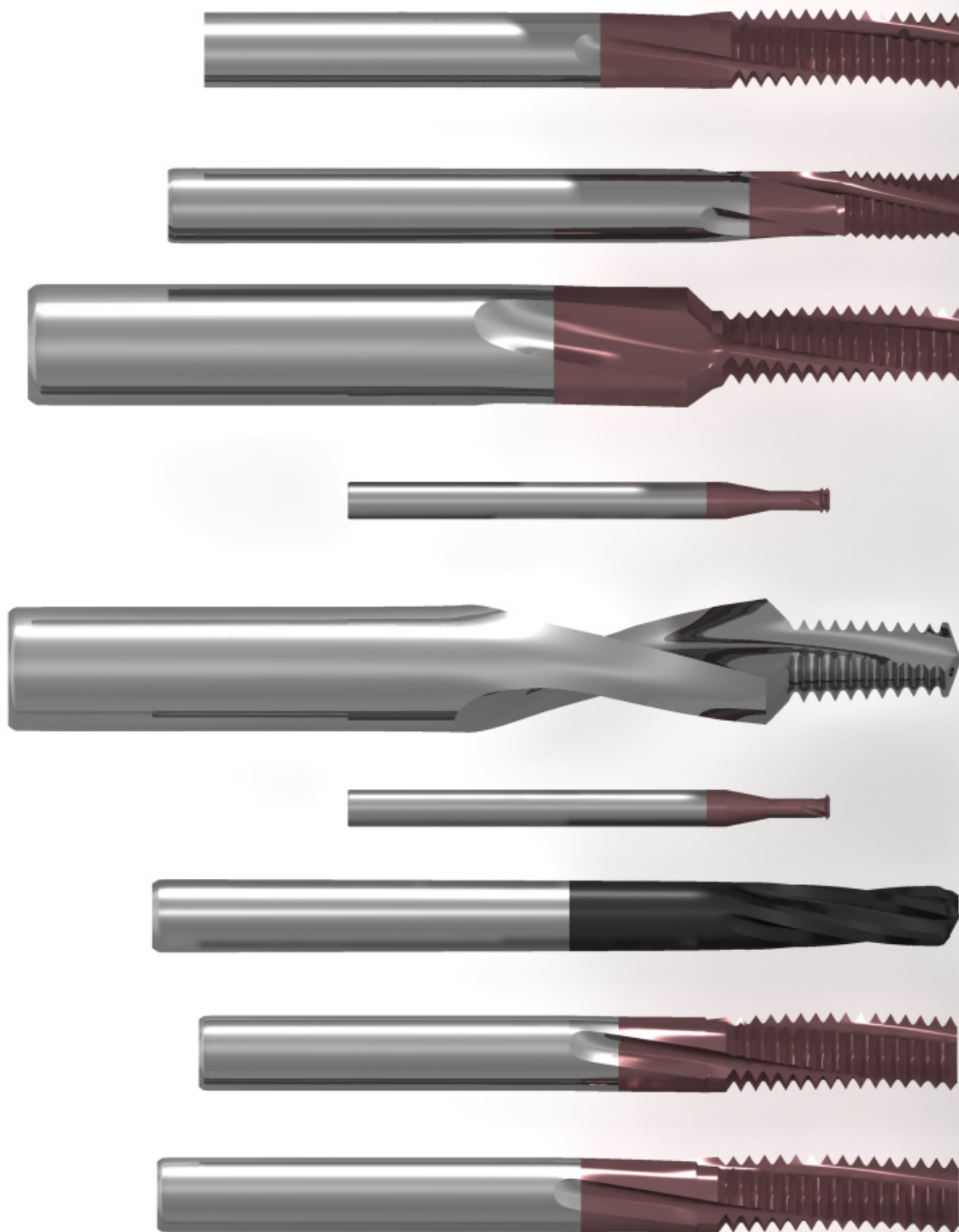
### WhizCut Special features

- Versatile with 2 clamping systems
- Inserts for all standard applications
- Up to 20° positive cutting rake
- Fully ground edge
- Micro grain Carbide
- PVD coated inserts
- Chip control
- Makes it possible to index the insert in the machine
- Unique back turning insert
- An internal tooling program with outstanding stability
- Wide range of internal boring bars
- Boring bar diameter starts at 1 mm
- Custom made external and internal inserts can be specially made to suit customer needs.
- Any type of stepdrill or special reamer can be ordered with fast turn around time.





## Solid Thread Mills By WhizCut



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