



ALLIED MACHINE & ENGINEERING

Holemaking Solutions for Today's Manufacturing



Drilling



Boring



Reaming



Burnishing



Specials



AccuThread® T3

▶ *THREADING*

Solid Carbide Thread Mills

OTHER THREADING SOLUTIONS

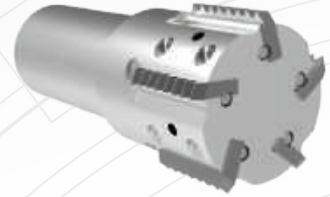
AccuThread® 856



Solid Carbide



Bolt-in Style Replaceable Inserts



Pin Style Replaceable Inserts



Solid Carbide



Coolant Through Solid Carbide

visit www.alliedmachine.com to see more



Hard Materials Just Got Easy

Allied Machine's thread milling program has developed into a comprehensive range of high precision tooling that offers outstanding productivity with exceptional levels of tool life and thread accuracy. The thread mill range covers both solid carbide and indexable replaceable insert tools offering an extensive range of thread forms.

The AccuThread T3 is built for machining hardened or hard-to-machine materials such as stainless steel, tool steel, and high-temp alloys. It is designed to machine only three threads at a time, reducing tool pressure and dramatically increasing the chances of tool survival.

AccuThread® T3 Contents

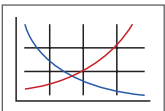
Reference Icons

The following icons will appear throughout the catalog to help you navigate between products.



Setup / Assembly Information

Detailed instructions and information regarding the corresponding part(s)



Recommended Cutting Data

Speed and feed recommendations for optimum and safe threading

Introduction Information

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Solid Carbide Thread Mills

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Online Tools

Insta-Code®

Find your thread mill. Create your program.


PC DOWNLOAD


ONLINE WEB APP



The all new software lets you choose the best thread mill product for your application and create the program code for your machine. Insta-Code is available as a PC download app (that can be used offline) and an online web app available 24/7 at www.alliedmachine.com/InstaCode.

Eliminate the wait. Get your program now.



Insta-Code also has a **Cycle Time Calculator**



Online Version



- Generates thread mill G-code programs
- Available online 24/7
- No log-in required
- No updates needed
- Easily share the program code
- Supported on all web browsers

Download Version



- Creates program code for multiple machine platforms
- Suggests a thread mill based on application details
- Provides estimated cycle time for improved production
- Available for use offline

Offline Version Updates



- Update your offline Insta-Code software
- Download the updated .zip file, then transfer to the offline computer. Click "check for update" in your Insta-Code software and navigate to the downloaded .zip file
- This allows you to keep all your saved programs

1

Download and open
Allied_Machine_Insta-Code.zip

2

Click on **setup.exe**
to install the program

3

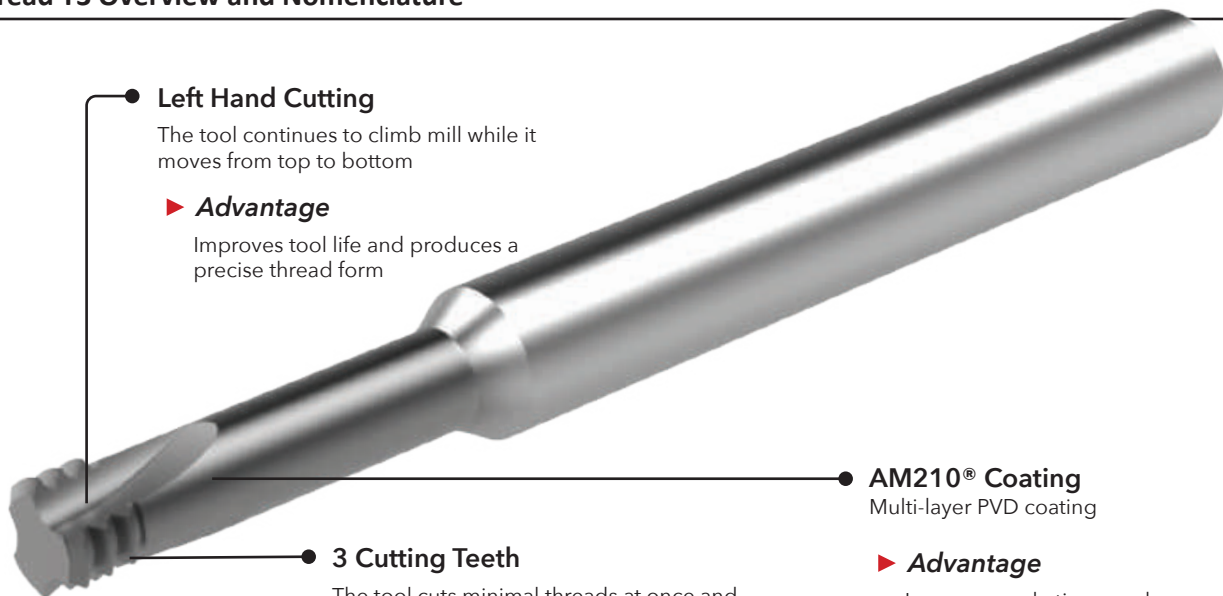
One click updates are
available for online computers

 Supported on all Windows OS

www.alliedmachine.com/InstaCode

A DRILLING
B BORING
C REAMING
D BURNISHING
E THREADING
X SPECIALS

AccuThread T3 Overview and Nomenclature



Left Hand Cutting
The tool continues to climb mill while it moves from top to bottom

► **Advantage**
Improves tool life and produces a precise thread form

AM210® Coating
Multi-layer PVD coating

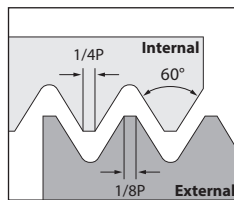
► **Advantage**
Improves cycle times and tool life

3 Cutting Teeth
The tool cuts minimal threads at once and reduces side deflection

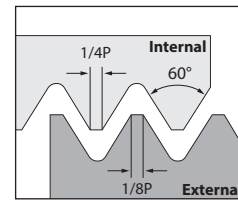
► **Advantage**
Cuts harder materials, and produces deeper threads than a standard thread mill

Additional Information

- Available in UN and ISO thread forms
- Available in imperial and metric shanks
- Available in 2xD and 3xD lengths



UN Thread Form



ISO Thread Form

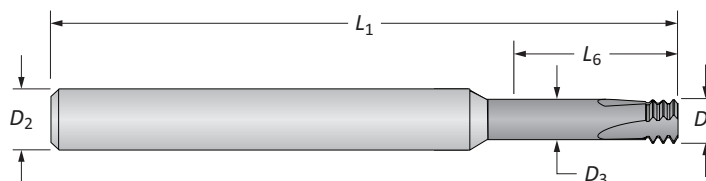
AccuThread T3 Solid Carbide Thread Mills

| | | | | | | |
|-----------|------------|-----------|----------|---|-----------|-----------|
| TM | 073 | 64 | M | - | 3T | 2X |
| 1 | 2 | 3 | 4 | | 5 | 6 |

| 1. Thread Mill | 2. Min Thread Diameter | 3. Pitch | 4. Shank | 5. Style | 6. Depth to Diameter Ratio |
|----------------|---|-------------------------------------|--------------------------------|--------------|----------------------------|
| TM = Standard | 250 = 1/4 (English) 45 = M4.5 (Metric) | 20 = UN 20 TPI 075 = Metric 0.75 | Blank = Imperial M = Metric | 3T = 3 tooth | 2X = 2xD 3X = 3xD |

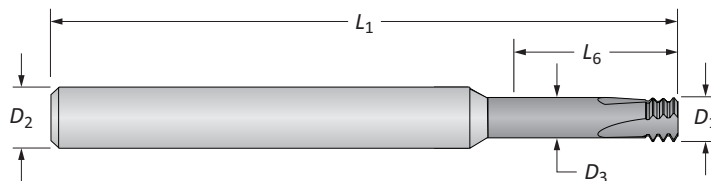
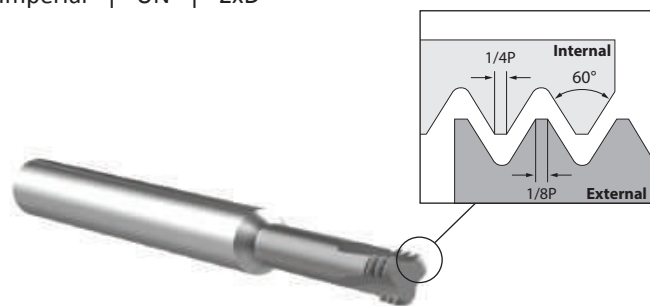
Reference Key

| Symbol | Attribute |
|--------|-------------------------|
| D_1 | Maximum cutter diameter |
| D_2 | Shank diameter |
| D_3 | Undercut diameter |
| L_1 | Overall length |
| L_6 | Length of cut |

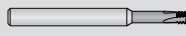


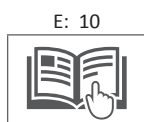
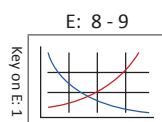
Solid Carbide Thread Mills

Imperial | UN | 2xD



UN | Non-Coolant

| TPI (Pitch) | Min Thread Ø | Flutes | Thread Mill | | | | | Part No.  AccuThread® T3 |
|----------------|-----------------|--------|-------------|-------|-------|-------|-------|---|
| | | | D_1 | D_3 | D_2 | L_6 | L_1 | |
| 64 | #1 | 3 | 0.055 | 0.035 | 0.250 | 0.150 | 2.500 | TM07364-3T2X |
| 56 | #2 | 3 | 0.065 | 0.042 | 0.250 | 0.170 | 2.500 | TM08656-3T2X |
| 48 | #3 | 3 | 0.075 | 0.049 | 0.250 | 0.200 | 2.500 | TM09948-3T2X |
| 40 | #4 | 3 | 0.085 | 0.054 | 0.250 | 0.250 | 2.500 | TM11240-3T2X |
| 36 | #8 | 3 | 0.130 | 0.095 | 0.250 | 0.350 | 2.500 | TM16436-3T2X |
| 32 | #6 | 3 | 0.100 | 0.061 | 0.250 | 0.280 | 2.500 | TM13832-3T2X |
| 32 | #8 | 3 | 0.126 | 0.087 | 0.250 | 0.370 | 2.500 | TM16432-3T2X |
| 32 | #10 | 3 | 0.145 | 0.106 | 0.250 | 0.410 | 2.500 | TM19032-3T2X |
| 28 | 1/4 | 3 | 0.197 | 0.153 | 0.250 | 0.570 | 2.500 | TM25028-3T2X |
| 24 | #10 | 3 | 0.138 | 0.086 | 0.250 | 0.420 | 2.500 | TM19024-3T2X |
| 24 | 5/16 | 3 | 0.260 | 0.208 | 0.312 | 0.670 | 2.500 | TM31224-3T2X |
| 20 | 1/4 | 3 | 0.187 | 0.125 | 0.250 | 0.550 | 2.500 | TM25020-3T2X |
| i 20 | 7/16 | 4 | 0.312 | 0.250 | 0.312 | 0.980 | 2.500 | TM43720-3T2X |
| 18 | 5/16 | 3 | 0.236 | 0.168 | 0.250 | 0.670 | 2.500 | TM31218-3T2X |
| 16 | 3/8 | 3 | 0.264 | 0.187 | 0.312 | 0.870 | 2.500 | TM37516-3T2X |
| 16 | 3/4 | 4 | 0.495 | 0.414 | 0.500 | 1.500 | 3.500 | TM75016-3T2X |
| 14 | 7/16 | 4 | 0.300 | 0.212 | 0.312 | 0.980 | 2.500 | TM43714-3T2X |
| 14 | 7/8 | 4 | 0.620 | 0.528 | 0.625 | 1.750 | 4.000 | TM87514-3T2X |
| 13 | 1/2 | 4 | 0.360 | 0.266 | 0.375 | 1.080 | 3.000 | TM50013-3T2X |
| 12 | 9/16 | 4 | 0.410 | 0.308 | 0.500 | 1.240 | 3.500 | TM56212-3T2X |
| 12 | 3/4 | 4 | 0.495 | 0.389 | 0.500 | 1.500 | 3.500 | TM75012-3T2X |
| 11 | 5/8 | 4 | 0.470 | 0.355 | 0.500 | 1.250 | 3.500 | TM62511-3T2X |
| 10 | 3/4 | 4 | 0.495 | 0.369 | 0.500 | 1.500 | 3.500 | TM75010-3T2X |
| 9 | 7/8 | 4 | 0.620 | 0.480 | 0.625 | 1.750 | 4.000 | TM87509-3T2X |
| 8 | 1 | 4 | 0.620 | 0.463 | 0.625 | 2.000 | 4.000 | TM10008-3T2X |

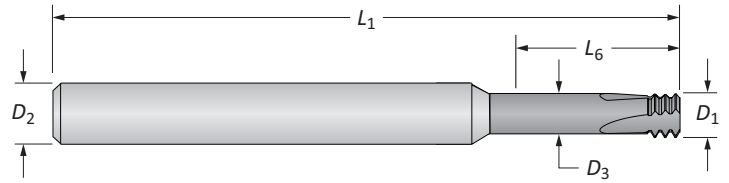
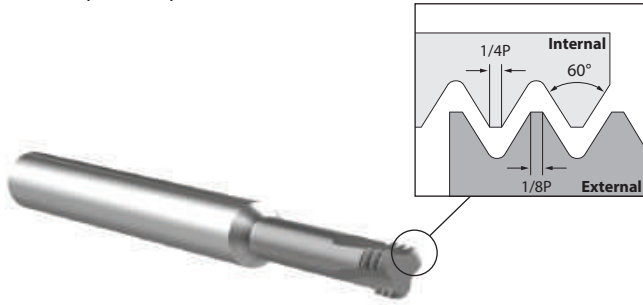


i = Imperial (in)
m = Metric (mm)




Solid Carbide Thread Mills

Metric | UN | 2xD



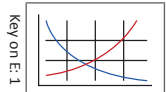
UN | Non-Coolant

| TPI (Pitch) | Min Thread ϕ | Flutes | Thread Mill | | | | | Part No.  AccuThread® T3 |
|----------------|----------------------|--------|-------------|-------|-------|-------|--------|---|
| | | | D_1 | D_3 | D_2 | L_6 | L_1 | |
| 64 | #1 | 3 | 1.40 | 0.89 | 6.00 | 3.81 | 63.00 | TM07364M-3T2X |
| 56 | #2 | 3 | 1.65 | 1.08 | 6.00 | 4.32 | 63.00 | TM08656M-3T2X |
| 48 | #3 | 3 | 1.91 | 1.24 | 6.00 | 5.08 | 63.00 | TM09948M-3T2X |
| 40 | #4 | 3 | 2.16 | 1.36 | 6.00 | 6.35 | 63.00 | TM11240M-3T2X |
| 36 | #8 | 3 | 3.30 | 2.42 | 6.00 | 8.89 | 63.00 | TM16436M-3T2X |
| 32 | #6 | 3 | 2.54 | 1.55 | 6.00 | 7.11 | 63.00 | TM13832M-3T2X |
| 32 | #8 | 3 | 3.20 | 2.21 | 6.00 | 9.40 | 63.00 | TM16432M-3T2X |
| 32 | #10 | 3 | 3.68 | 2.70 | 6.00 | 10.41 | 63.00 | TM19032M-3T2X |
| 28 | 1/4 | 3 | 5.00 | 3.88 | 6.00 | 14.48 | 63.00 | TM25028M-3T2X |
| 24 | #10 | 3 | 3.51 | 2.20 | 6.00 | 10.67 | 63.00 | TM19024M-3T2X |
| 24 | 5/16 | 3 | 6.60 | 5.30 | 8.00 | 17.02 | 64.00 | TM31224M-3T2X |
| M 20 | 1/4 | 3 | 4.75 | 3.18 | 6.00 | 13.97 | 63.00 | TM25020M-3T2X |
| 20 | 7/16 | 4 | 7.92 | 6.36 | 8.00 | 24.89 | 64.00 | TM43720M-3T2X |
| 18 | 5/16 | 3 | 5.94 | 4.26 | 6.00 | 17.02 | 63.00 | TM31218M-3T2X |
| 16 | 3/8 | 3 | 6.71 | 4.76 | 8.00 | 22.10 | 64.00 | TM37516M-3T2X |
| 16 | 3/4 | 4 | 11.94 | 9.88 | 12.00 | 38.10 | 88.90 | TM75016M-3T2X |
| 14 | 7/16 | 4 | 7.62 | 5.39 | 8.00 | 24.89 | 64.00 | TM43714M-3T2X |
| 14 | 7/8 | 4 | 15.75 | 13.42 | 16.00 | 44.45 | 100.00 | TM87514M-3T2X |
| 12 | 3/4 | 4 | 11.94 | 9.24 | 12.00 | 38.10 | 88.90 | TM75012M-3T2X |
| 11 | 5/8 | 4 | 11.94 | 9.01 | 12.00 | 31.75 | 88.90 | TM62511M-3T2X |
| 10 | 3/4 | 4 | 11.94 | 8.73 | 12.00 | 38.10 | 88.90 | TM75010M-3T2X |
| 9 | 7/8 | 4 | 15.75 | 12.20 | 16.00 | 44.45 | 100.00 | TM87509M-3T2X |
| 8 | 1 | 4 | 15.75 | 11.77 | 16.00 | 50.80 | 100.00 | TM10008M-3T2X |

M

E: 8-9

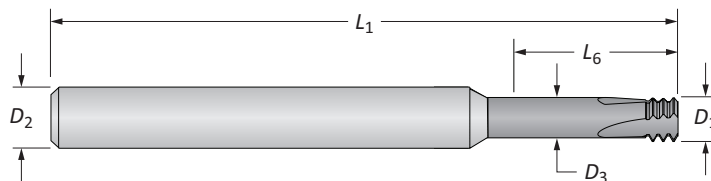
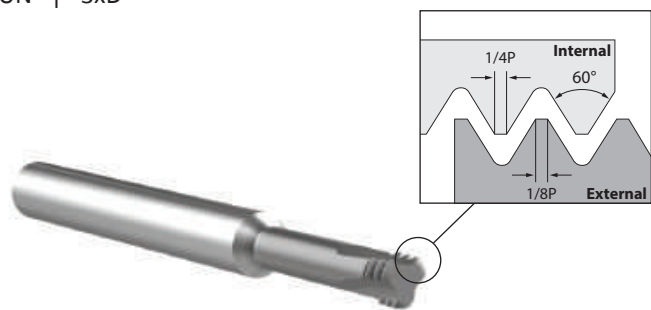
E: 10




I = Imperial (in)
 M = Metric (mm)

Solid Carbide Thread Mills

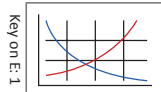
UN | 3xD



UN | Non-Coolant

| TPI (Pitch) | Min Thread Ø | Flutes | Thread Mill | | | | | Part No.  AccuThread® T3 |
|----------------|-----------------|--------|-------------|-------|-------|-------|--------|---|
| | | | D_1 | D_3 | D_2 | L_6 | L_1 | |
| 40 | #4 | 3 | 0.085 | 0.054 | 0.250 | 0.310 | 2.500 | TM11240-3T3X |
| 32 | #6 | 3 | 0.100 | 0.061 | 0.250 | 0.410 | 2.500 | TM13832-3T3X |
| 32 | #8 | 3 | 0.126 | 0.087 | 0.250 | 0.490 | 2.500 | TM16432-3T3X |
| 32 | #10 | 3 | 0.145 | 0.106 | 0.250 | 0.590 | 2.500 | TM19032-3T3X |
| 28 | 1/4 | 3 | 0.197 | 0.153 | 0.250 | 0.750 | 2.500 | TM25028-3T3X |
| 24 | #10 | 3 | 0.138 | 0.086 | 0.250 | 0.590 | 2.500 | TM19024-3T3X |
| 24 | 5/16 | 3 | 0.260 | 0.208 | 0.312 | 0.940 | 2.500 | TM31224-3T3X |
| 20 | 1/4 | 3 | 0.187 | 0.125 | 0.250 | 0.750 | 2.500 | TM25020-3T3X |
| 18 | 5/16 | 3 | 0.236 | 0.168 | 0.250 | 0.910 | 2.500 | TM31218-3T3X |
| 16 | 3/4 | 4 | 0.495 | 0.414 | 0.500 | 2.250 | 4.000 | TM75016-3T3X |
| 14 | 7/8 | 4 | 0.620 | 0.528 | 0.625 | 2.625 | 4.000 | TM87514-3T3X |
| 12 | 3/4 | 4 | 0.495 | 0.389 | 0.500 | 2.250 | 4.000 | TM75012-3T3X |
| 11 | 5/8 | 4 | 0.470 | 0.355 | 0.500 | 1.875 | 4.000 | TM62511-3T3X |
| 10 | 3/4 | 4 | 0.495 | 0.369 | 0.500 | 2.250 | 4.000 | TM75010-3T3X |
| 9 | 7/8 | 4 | 0.620 | 0.480 | 0.625 | 2.625 | 4.000 | TM87509-3T3X |
| 8 | 1 | 4 | 0.620 | 0.463 | 0.625 | 3.000 | 4.500 | TM10008-3T3X |
| 40 | #4 | 3 | 2.16 | 1.36 | 6.00 | 7.87 | 63.00 | TM11240M-3T3X |
| 32 | #6 | 3 | 2.54 | 1.55 | 6.00 | 10.41 | 63.00 | TM13832M-3T3X |
| 32 | #8 | 3 | 3.20 | 2.21 | 6.00 | 12.45 | 63.00 | TM16432M-3T3X |
| 32 | #10 | 3 | 3.68 | 2.70 | 6.00 | 14.99 | 63.00 | TM19032M-3T3X |
| 28 | 1/4 | 3 | 5.00 | 3.88 | 6.00 | 19.05 | 63.00 | TM25028M-3T3X |
| 24 | #10 | 3 | 3.51 | 2.20 | 6.00 | 14.99 | 63.00 | TM19024M-3T3X |
| 24 | 5/16 | 3 | 6.60 | 5.30 | 8.00 | 23.88 | 64.00 | TM31224M-3T3X |
| 20 | 1/4 | 3 | 4.75 | 3.18 | 6.00 | 19.05 | 63.00 | TM25020M-3T3X |
| 18 | 5/16 | 3 | 5.94 | 4.21 | 6.00 | 23.11 | 63.00 | TM31218M-3T3X |
| 16 | 3/4 | 4 | 11.94 | 9.88 | 12.00 | 57.15 | 88.90 | TM75016M-3T3X |
| 14 | 7/8 | 4 | 15.75 | 13.42 | 16.00 | 66.68 | 100.00 | TM87514M-3T3X |
| 12 | 3/4 | 4 | 11.94 | 9.24 | 12.00 | 57.15 | 88.90 | TM75012M-3T3X |
| 11 | 5/8 | 4 | 11.94 | 9.01 | 12.00 | 47.63 | 88.90 | TM62511M-3T3X |
| 10 | 3/4 | 4 | 11.94 | 8.73 | 12.00 | 57.15 | 88.90 | TM75010M-3T3X |
| 9 | 7/8 | 4 | 15.75 | 12.20 | 16.00 | 66.68 | 100.00 | TM87509M-3T3X |
| 8 | 1 | 4 | 15.75 | 11.77 | 16.00 | 76.20 | 114.30 | TM10008M-3T3X |

E: 8 - 9



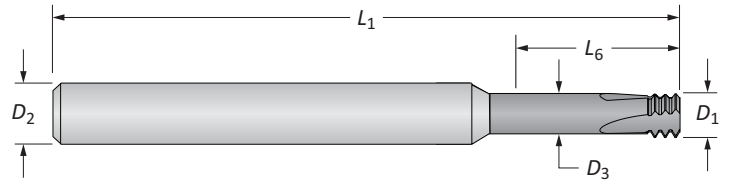
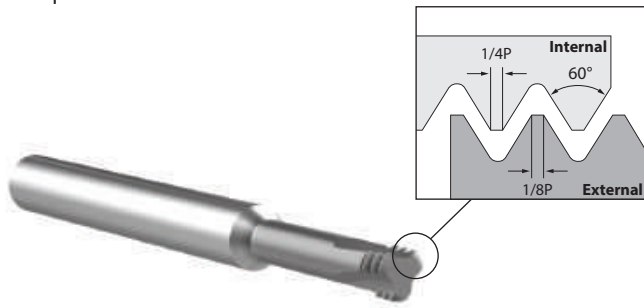
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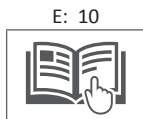
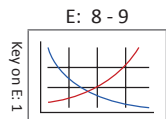
Solid Carbide Thread Mills

ISO | 2xD



ISO | Non-Coolant

| | Pitch | Min Thread ϕ | Flutes | Thread Mill | | | | | Part No. |
|------|-------|-------------------|--------|-------------|-------|-------|--------|---------------|----------------|
| | | | | D_1 | D_3 | D_2 | L_6 | L_1 | AccuThread® T3 |
| i | 0.35 | M1.8 | 3 | 0.053 | 0.033 | 0.250 | 0.170 | 2.500 | TM18035-3T2X |
| | 0.40 | M2 | 3 | 0.061 | 0.041 | 0.250 | 0.180 | 2.500 | TM20040-3T2X |
| | 0.45 | M2.5 | 3 | 0.077 | 0.055 | 0.250 | 0.220 | 2.500 | TM25045-3T2X |
| | 0.50 | M3 | 3 | 0.093 | 0.068 | 0.250 | 0.260 | 2.500 | TM30050-3T2X |
| | 0.60 | M3.5 | 3 | 0.108 | 0.078 | 0.250 | 0.300 | 2.500 | TM35060-3T2X |
| | 0.70 | M4 | 3 | 0.122 | 0.088 | 0.250 | 0.350 | 2.500 | TM40070-3T2X |
| | 0.75 | M4.5 | 3 | 0.133 | 0.095 | 0.250 | 0.430 | 2.500 | TM45075-3T2X |
| | 0.80 | M5 | 3 | 0.150 | 0.111 | 0.250 | 0.490 | 2.500 | TM50080-3T2X |
| | 1.00 | M6 | 3 | 0.183 | 0.134 | 0.250 | 0.550 | 2.500 | TM60100-3T2X |
| | 1.25 | M8 | 3 | 0.234 | 0.173 | 0.250 | 0.710 | 2.500 | TM80125-3T2X |
| | 1.50 | M10 | 4 | 0.307 | 0.234 | 0.312 | 0.910 | 2.500 | TM10150-3T2X |
| | 1.50 | M14 | 4 | 0.370 | 0.293 | 0.375 | 1.100 | 3.500 | TM14150-3T2X |
| | 1.50 | M18 | 4 | 0.495 | 0.418 | 0.500 | 1.420 | 3.500 | TM18150-3T2X |
| | 1.75 | M12 | 4 | 0.310 | 0.225 | 0.312 | 0.945 | 2.500 | TM12175-3T2X |
| 2.00 | M16 | 4 | 0.470 | 0.370 | 0.500 | 1.260 | 3.500 | TM16200-3T2X | |
| 2.50 | M20 | 4 | 0.590 | 0.466 | 0.625 | 1.570 | 4.000 | TM20250-3T2X | |
| 3.00 | M24 | 4 | 0.620 | 0.472 | 0.625 | 1.890 | 4.000 | TM24300-3T2X | |
| m | 0.35 | M1.8 | 3 | 1.35 | 0.84 | 6.00 | 4.32 | 63.00 | TM18035M-3T2X |
| | 0.40 | M2 | 3 | 1.55 | 1.04 | 6.00 | 4.60 | 63.00 | TM20040M-3T2X |
| | 0.45 | M2.5 | 3 | 1.96 | 1.38 | 6.00 | 5.60 | 63.00 | TM25045M-3T2X |
| | 0.50 | M3 | 3 | 2.36 | 1.73 | 6.00 | 6.60 | 63.00 | TM30050M-3T2X |
| | 0.60 | M3.5 | 3 | 2.74 | 1.99 | 6.00 | 7.60 | 63.00 | TM35060M-3T2X |
| | 0.70 | M4 | 3 | 3.10 | 2.22 | 6.00 | 8.90 | 63.00 | TM40070M-3T2X |
| | 0.75 | M4.5 | 3 | 3.38 | 2.41 | 6.00 | 10.92 | 63.00 | TM45075M-3T2X |
| | 0.80 | M5 | 3 | 3.81 | 2.81 | 6.00 | 12.40 | 63.00 | TM50080M-3T2X |
| | 1.00 | M6 | 3 | 4.65 | 3.41 | 6.00 | 14.00 | 63.00 | TM60100M-3T2X |
| | 1.25 | M8 | 3 | 5.94 | 4.40 | 6.00 | 18.00 | 63.00 | TM80125M-3T2X |
| | 1.50 | M10 | 4 | 7.80 | 5.95 | 8.00 | 23.10 | 64.00 | TM10150M-3T2X |
| | 1.50 | M14 | 4 | 9.40 | 7.45 | 10.00 | 27.94 | 88.90 | TM14150M-3T2X |
| | 1.50 | M18 | 4 | 11.94 | 9.98 | 12.00 | 36.07 | 88.90 | TM18150M-3T2X |
| | 1.75 | M12 | 4 | 7.92 | 5.78 | 8.00 | 24.00 | 64.00 | TM12175M-3T2X |
| 2.00 | M16 | 4 | 11.94 | 9.40 | 12.00 | 32.00 | 88.90 | TM16200M-3T2X | |
| 2.50 | M20 | 4 | 14.99 | 11.83 | 16.00 | 39.88 | 100.00 | TM20250M-3T2X | |
| 3.00 | M24 | 4 | 15.75 | 11.98 | 16.00 | 48.01 | 100.00 | TM24300M-3T2X | |

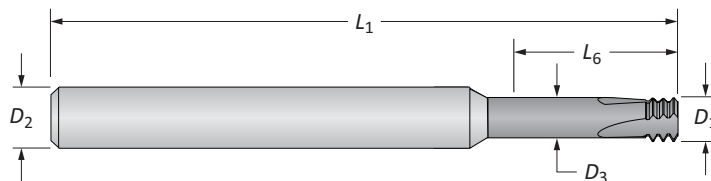
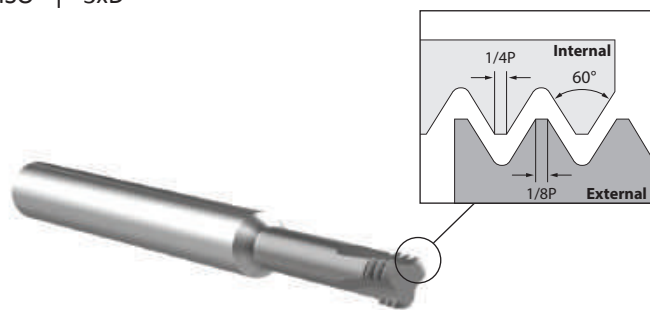


i = Imperial (in)
m = Metric (mm)

A DRILLING
B BORING
C REAMING
D BURNISHING
E THREADING
X SPECIALS

Solid Carbide Thread Mills

ISO | 3xD

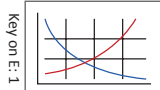


ISO | Non-Coolant

| Pitch | Min Thread Ø | Flutes | Thread Mill | | | | | Part No. |
|-------|--------------|--------|-------------|-------|-------|-------|--------|----------------------|
| | | | D_1 | D_3 | D_2 | L_6 | L_1 | |
| 0.45 | M2.5 | 3 | 0.077 | 0.055 | 0.250 | 0.300 | 2.500 | TM25045-3T3X |
| 0.50 | M3 | 3 | 0.093 | 0.068 | 0.250 | 0.370 | 2.500 | TM30050-3T3X |
| 0.60 | M3.5 | 3 | 0.108 | 0.078 | 0.250 | 0.450 | 2.500 | TM35060-3T3X |
| 0.70 | M4 | 3 | 0.122 | 0.088 | 0.250 | 0.490 | 2.500 | TM40070-3T3X |
| 0.80 | M5 | 3 | 0.150 | 0.111 | 0.250 | 0.630 | 2.500 | TM50080-3T3X |
| 1.00 | M6 | 3 | 0.183 | 0.134 | 0.250 | 0.790 | 2.500 | TM60100-3T3X |
| 1.25 | M8 | 3 | 0.234 | 0.173 | 0.250 | 0.940 | 2.500 | TM80125-3T3X |
| 1.50 | M10 | 4 | 0.307 | 0.234 | 0.312 | 1.120 | 2.500 | TM10150-3T3X |
| 1.50 | M14 | 4 | 0.370 | 0.293 | 0.375 | 1.650 | 3.500 | TM14150-3T3X |
| 1.50 | M18 | 4 | 0.495 | 0.418 | 0.500 | 2.120 | 4.000 | TM18150-3T3X |
| 1.75 | M12 | 4 | 0.310 | 0.225 | 0.312 | 1.418 | 2.500 | TM12175-3T3X |
| 2.00 | M16 | 4 | 0.470 | 0.370 | 0.500 | 1.950 | 4.000 | TM16200-3T3X |
| 2.50 | M20 | 4 | 0.590 | 0.466 | 0.625 | 2.360 | 4.000 | TM20250-3T3X |
| 3.00 | M24 | 4 | 0.620 | 0.472 | 0.625 | 2.830 | 4.000 | TM24300-3T3X |
| 0.45 | M2.5 | 3 | 1.96 | 1.38 | 6.00 | 7.60 | 63.00 | TM25045M-3T3X |
| 0.50 | M3 | 3 | 2.36 | 1.73 | 6.00 | 9.40 | 63.00 | TM30050M-3T3X |
| 0.60 | M3.5 | 3 | 2.74 | 1.99 | 6.00 | 11.40 | 63.00 | TM35060M-3T3X |
| 0.70 | M4 | 3 | 3.10 | 2.22 | 6.00 | 12.40 | 63.00 | TM40070M-3T3X |
| 0.80 | M5 | 3 | 3.81 | 2.81 | 6.00 | 16.00 | 63.00 | TM50080M-3T3X |
| 1.00 | M6 | 3 | 4.65 | 3.41 | 6.00 | 20.10 | 63.00 | TM60100M-3T3X |
| 1.25 | M8 | 3 | 5.94 | 4.40 | 6.00 | 23.90 | 63.00 | TM80125M-3T3X |
| 1.50 | M10 | 4 | 7.80 | 5.95 | 8.00 | 28.40 | 64.00 | TM10150M-3T3X |
| 1.50 | M14 | 4 | 9.40 | 7.45 | 10.00 | 41.91 | 88.90 | TM14150M-3T3X |
| 1.50 | M18 | 4 | 11.94 | 9.98 | 12.00 | 53.85 | 88.90 | TM18150M-3T3X |
| 1.75 | M12 | 4 | 7.92 | 5.78 | 8.00 | 36.00 | 64.00 | TM12175M-3T3X |
| 2.00 | M16 | 4 | 11.94 | 9.40 | 12.00 | 49.53 | 88.90 | TM16200M-3T3X |
| 2.50 | M20 | 4 | 14.99 | 11.83 | 16.00 | 59.94 | 100.00 | TM20250M-3T3X |
| 3.00 | M24 | 4 | 15.75 | 11.98 | 16.00 | 71.88 | 100.00 | TM24300M-3T3X |

E: 8 - 9

E: 10



i = Imperial (in)
m = Metric (mm)

Recommended Cutting Data | Imperial (inch)

Solid Carbide | AccuThread® T3

| ISO | Material | Hardness (BHN) | Speed (SFM) | Chipload per Tooth (IPT) by Cutter Diameter | | | | | | |
|--|---|----------------|-------------|---|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | | | | 0.055" - 0.125" | 0.126" - 0.188" | 0.189" - 0.250" | 0.251" - 0.312" | 0.313" - 0.375" | 0.376" - 0.500" | 0.501" - 0.750" |
| P | Free-Machining Steel 1118, 1215, 12L14, etc. | 100 - 150 | 375 | 0.0008 | 0.0010 | 0.0014 | 0.0018 | 0.0020 | 0.0030 | 0.0035 |
| | | 150 - 200 | 275 | 0.0008 | 0.0010 | 0.0014 | 0.0018 | 0.0020 | 0.0030 | 0.0035 |
| | | 200 - 250 | 225 | 0.0008 | 0.0010 | 0.0014 | 0.0018 | 0.0020 | 0.0030 | 0.0035 |
| | Low-Carbon Steel 1010, 1020, 1025, 1522, 1144, etc. | 85 - 125 | 375 | 0.0008 | 0.0010 | 0.0014 | 0.0018 | 0.0020 | 0.0030 | 0.0035 |
| | | 125 - 175 | 275 | 0.0008 | 0.0010 | 0.0014 | 0.0018 | 0.0020 | 0.0030 | 0.0035 |
| | | 175 - 225 | 225 | 0.0008 | 0.0010 | 0.0014 | 0.0018 | 0.0020 | 0.0030 | 0.0035 |
| | | 225 - 275 | 200 | 0.0008 | 0.0010 | 0.0014 | 0.0018 | 0.0020 | 0.0030 | 0.0035 |
| | Medium-Carbon Steel 1030, 1040, 1050, 1527, 1140, 1151, etc. | 125 - 175 | 225 | 0.0008 | 0.0010 | 0.0012 | 0.0016 | 0.0020 | 0.0026 | 0.0031 |
| | | 175 - 225 | 200 | 0.0008 | 0.0010 | 0.0012 | 0.0016 | 0.0020 | 0.0026 | 0.0031 |
| | | 225 - 275 | 175 | 0.0008 | 0.0010 | 0.0012 | 0.0016 | 0.0020 | 0.0026 | 0.0031 |
| | | 275 - 325 | 150 | 0.0008 | 0.0010 | 0.0012 | 0.0016 | 0.0020 | 0.0026 | 0.0031 |
| | Alloy Steel 4140, 5140, 8640, etc. | 125 - 175 | 225 | 0.0008 | 0.0010 | 0.0012 | 0.0016 | 0.0020 | 0.0026 | 0.0031 |
| 175 - 225 | | 200 | 0.0008 | 0.0010 | 0.0012 | 0.0016 | 0.0020 | 0.0026 | 0.0031 | |
| 225 - 275 | | 175 | 0.0008 | 0.0010 | 0.0012 | 0.0016 | 0.0020 | 0.0026 | 0.0031 | |
| 275 - 325 | | 150 | 0.0008 | 0.0010 | 0.0012 | 0.0016 | 0.0020 | 0.0026 | 0.0031 | |
| 325 - 375 | | 125 | 0.0008 | 0.0010 | 0.0012 | 0.0016 | 0.0020 | 0.0026 | 0.0031 | |
| High-Strength Alloy 4340, 4330V, 300M, etc. | 225 - 300 | 175 | 0.0008 | 0.0010 | 0.0012 | 0.0016 | 0.0020 | 0.0026 | 0.0031 | |
| | 300 - 350 | 150 | 0.0008 | 0.0010 | 0.0012 | 0.0016 | 0.0020 | 0.0026 | 0.0031 | |
| | 350 - 400 | 125 | 0.0008 | 0.0010 | 0.0012 | 0.0016 | 0.0020 | 0.0026 | 0.0031 | |
| Structural Steel A36, A285, A516, etc. | 100 - 150 | 225 | 0.0008 | 0.0010 | 0.0014 | 0.0018 | 0.0020 | 0.0030 | 0.0035 | |
| | 150 - 250 | 200 | 0.0008 | 0.0010 | 0.0014 | 0.0018 | 0.0020 | 0.0030 | 0.0035 | |
| | 250 - 350 | 150 | 0.0008 | 0.0010 | 0.0014 | 0.0018 | 0.0020 | 0.0030 | 0.0035 | |
| Tool Steel H-13, H-21, A-4, O-2, S-3, etc. | 150 - 200 | 175 | 0.0008 | 0.0010 | 0.0012 | 0.0016 | 0.0020 | 0.0026 | 0.0031 | |
| | 200 - 250 | 125 | 0.0008 | 0.0010 | 0.0012 | 0.0016 | 0.0020 | 0.0026 | 0.0031 | |
| S | High-Temp Alloy Hastelloy B, Inconel 600, etc. | 140 - 220 | 100 | 0.0006 | 0.0008 | 0.0012 | 0.0016 | 0.0018 | 0.0020 | 0.0025 |
| | | 220 - 310 | 75 | 0.0006 | 0.0008 | 0.0012 | 0.0016 | 0.0018 | 0.0020 | 0.0025 |
| | Titanium Alloy | 140 - 220 | 100 | 0.0006 | 0.0008 | 0.0012 | 0.0016 | 0.0018 | 0.0020 | 0.0025 |
| | | 220 - 310 | 75 | 0.0006 | 0.0008 | 0.0012 | 0.0016 | 0.0018 | 0.0020 | 0.0025 |
| Aerospace Alloy S82 | 185 - 275 | 100 | 0.0006 | 0.0008 | 0.0012 | 0.0016 | 0.0018 | 0.0020 | 0.0025 | |
| | 275 - 350 | 75 | 0.0006 | 0.0008 | 0.0012 | 0.0016 | 0.0018 | 0.0020 | 0.0025 | |
| M | Stainless Steel 416, 420, etc. | 185 - 275 | 225 | 0.0008 | 0.0010 | 0.0012 | 0.0016 | 0.0018 | 0.0020 | 0.0025 |
| | | 275 - 350 | 200 | 0.0008 | 0.0010 | 0.0012 | 0.0016 | 0.0018 | 0.0020 | 0.0025 |
| | Stainless Steel 300 Series 304, 316, 17-4PH, etc. | 135 - 185 | 125 | 0.0008 | 0.0010 | 0.0012 | 0.0016 | 0.0018 | 0.0020 | 0.0025 |
| | | 185 - 275 | 75 | 0.0008 | 0.0010 | 0.0012 | 0.0016 | 0.0018 | 0.0020 | 0.0025 |
| | Super Duplex Stainless Steel | 135 - 185 | 125 | 0.0006 | 0.0008 | 0.0012 | 0.0016 | 0.0018 | 0.0020 | 0.0025 |
| 185 - 275 | | 75 | 0.0006 | 0.0008 | 0.0012 | 0.0016 | 0.0018 | 0.0020 | 0.0025 | |
| H | Hardened Steels | 450 - 500 | 175 | 0.0006 | 0.0008 | 0.0012 | 0.0016 | 0.0018 | 0.0020 | 0.0025 |
| | | 500 - 550 | 125 | 0.0006 | 0.0008 | 0.0012 | 0.0016 | 0.0018 | 0.0020 | 0.0025 |
| K | Cast Iron Grey, Ductile, Nodular | 120 - 150 | 275 | 0.0008 | 0.0010 | 0.0014 | 0.0018 | 0.0020 | 0.0030 | 0.0035 |
| | | 150 - 200 | 250 | 0.0008 | 0.0010 | 0.0014 | 0.0018 | 0.0020 | 0.0030 | 0.0035 |
| | | 200 - 220 | 225 | 0.0008 | 0.0010 | 0.0014 | 0.0018 | 0.0020 | 0.0030 | 0.0035 |
| | | 220 - 260 | 200 | 0.0008 | 0.0010 | 0.0014 | 0.0018 | 0.0020 | 0.0030 | 0.0035 |
| | | 260 - 320 | 200 | 0.0008 | 0.0010 | 0.0014 | 0.0018 | 0.0020 | 0.0030 | 0.0035 |
| N | Wrought Aluminum | 30 | 500 | 0.0010 | 0.0012 | 0.0018 | 0.0020 | 0.0030 | 0.0040 | 0.0048 |
| | | 180 | 450 | 0.0010 | 0.0012 | 0.0018 | 0.0020 | 0.0030 | 0.0040 | 0.0048 |
| | Cast Aluminum | 30 - 180 | 250 | 0.0010 | 0.0012 | 0.0018 | 0.0020 | 0.0030 | 0.0040 | 0.0048 |
| | Brass | 30 - 100 | 500 | 0.0010 | 0.0012 | 0.0018 | 0.0020 | 0.0030 | 0.0040 | 0.0048 |

NOTICE: Reduce feed and speed by 30% for tapered thread forms due to additional material removal

*Refer to recommended pass chart in the AMPC (Allied Master Product Catalog) on page E: 53 when referencing material machinability

**Uncoated thread mills are recommended for cast aluminum applications

Recommended Cutting Data | Metric (mm)

Solid Carbide | AccuThread® T3

| ISO | Material | Hardness (BHN) | Speed (M/min) | Chipload per Tooth (mm/tooth) by Cutter Diameter | | | | | | |
|---|---|----------------|---------------|--|-------------------|-------------------|-------------------|-------------------|--------------------|---------------------|
| | | | | 1.40 mm - 3.17 mm | 3.18 mm - 4.77 mm | 4.78 mm - 6.35 mm | 6.36 mm - 7.92 mm | 7.93 mm - 9.52 mm | 9.53 mm - 12.70 mm | 12.71 mm - 19.05 mm |
| P | Free-Machining Steel 1118, 1215, 12L14, etc. | 100 - 150 | 115 | 0.020 | 0.025 | 0.035 | 0.045 | 0.050 | 0.075 | 0.090 |
| | | 150 - 200 | 85 | 0.020 | 0.025 | 0.035 | 0.045 | 0.050 | 0.075 | 0.090 |
| | | 200 - 250 | 70 | 0.020 | 0.025 | 0.035 | 0.045 | 0.050 | 0.075 | 0.090 |
| | Low-Carbon Steel 1010, 1020, 1025, 1522, 1144, etc. | 85 - 125 | 115 | 0.020 | 0.025 | 0.035 | 0.045 | 0.050 | 0.075 | 0.090 |
| | | 125 - 175 | 85 | 0.020 | 0.025 | 0.035 | 0.045 | 0.050 | 0.075 | 0.090 |
| | | 175 - 225 | 70 | 0.020 | 0.025 | 0.035 | 0.045 | 0.050 | 0.075 | 0.090 |
| | Medium-Carbon Steel 1030, 1040, 1050, 1527, 1140, 1151, etc. | 225 - 275 | 60 | 0.020 | 0.025 | 0.035 | 0.045 | 0.050 | 0.075 | 0.090 |
| | | 125 - 175 | 70 | 0.020 | 0.025 | 0.030 | 0.040 | 0.050 | 0.065 | 0.080 |
| | | 175 - 225 | 60 | 0.020 | 0.025 | 0.030 | 0.040 | 0.050 | 0.065 | 0.080 |
| | Alloy Steel 4140, 5140, 8640, etc. | 225 - 275 | 50 | 0.020 | 0.025 | 0.030 | 0.040 | 0.050 | 0.065 | 0.080 |
| | | 275 - 325 | 45 | 0.020 | 0.025 | 0.030 | 0.040 | 0.050 | 0.065 | 0.080 |
| | | 325 - 375 | 38 | 0.020 | 0.025 | 0.030 | 0.040 | 0.050 | 0.065 | 0.080 |
| | | 275 - 325 | 45 | 0.020 | 0.025 | 0.030 | 0.040 | 0.050 | 0.065 | 0.080 |
| | High-Strength Alloy 4340, 4330V, 300M, etc. | 325 - 375 | 38 | 0.020 | 0.025 | 0.030 | 0.040 | 0.050 | 0.065 | 0.080 |
| | | 225 - 300 | 50 | 0.020 | 0.025 | 0.030 | 0.040 | 0.050 | 0.065 | 0.080 |
| | | 300 - 350 | 45 | 0.020 | 0.025 | 0.030 | 0.040 | 0.050 | 0.065 | 0.080 |
| | Structural Steel A36, A285, A516, etc. | 350 - 400 | 38 | 0.020 | 0.025 | 0.030 | 0.040 | 0.050 | 0.065 | 0.080 |
| | | 100 - 150 | 70 | 0.020 | 0.025 | 0.035 | 0.045 | 0.050 | 0.075 | 0.090 |
| 150 - 250 | | 60 | 0.020 | 0.025 | 0.035 | 0.045 | 0.050 | 0.075 | 0.090 | |
| Tool Steel H-13, H-21, A-4, O-2, S-3, etc. | 250 - 350 | 45 | 0.020 | 0.025 | 0.035 | 0.045 | 0.050 | 0.075 | 0.090 | |
| | 150 - 200 | 50 | 0.020 | 0.025 | 0.030 | 0.040 | 0.050 | 0.065 | 0.080 | |
| 200 - 250 | 38 | 0.020 | 0.025 | 0.030 | 0.040 | 0.050 | 0.065 | 0.080 | | |
| | 140 - 220 | 30 | 0.015 | 0.020 | 0.030 | 0.040 | 0.045 | 0.050 | 0.065 | |
| S | High-Temp Alloy Hastelloy B, Inconel 600, etc. | 220 - 310 | 23 | 0.015 | 0.020 | 0.030 | 0.040 | 0.045 | 0.050 | 0.065 |
| | | 140 - 220 | 30 | 0.015 | 0.020 | 0.030 | 0.040 | 0.045 | 0.050 | 0.065 |
| | Titanium Alloy | 220 - 310 | 23 | 0.015 | 0.020 | 0.030 | 0.040 | 0.045 | 0.050 | 0.065 |
| | | 140 - 220 | 30 | 0.015 | 0.020 | 0.030 | 0.040 | 0.045 | 0.050 | 0.065 |
| Aerospace Alloy S82 | 185 - 275 | 30 | 0.015 | 0.020 | 0.030 | 0.040 | 0.045 | 0.050 | 0.065 | |
| | 275 - 350 | 23 | 0.015 | 0.020 | 0.030 | 0.040 | 0.045 | 0.050 | 0.065 | |
| M | Stainless Steel 416, 420, etc. | 185 - 275 | 70 | 0.020 | 0.025 | 0.030 | 0.040 | 0.045 | 0.050 | 0.065 |
| | | 275 - 350 | 60 | 0.020 | 0.025 | 0.030 | 0.040 | 0.045 | 0.050 | 0.065 |
| | Stainless Steel 300 Series 304, 316, 17-4PH, etc. | 135 - 185 | 38 | 0.020 | 0.025 | 0.030 | 0.040 | 0.045 | 0.050 | 0.065 |
| | | 185 - 275 | 23 | 0.020 | 0.025 | 0.030 | 0.040 | 0.045 | 0.050 | 0.065 |
| | Super Duplex Stainless Steel | 135 - 185 | 38 | 0.015 | 0.020 | 0.030 | 0.040 | 0.045 | 0.050 | 0.065 |
| 185 - 275 | | 23 | 0.015 | 0.020 | 0.030 | 0.040 | 0.045 | 0.050 | 0.065 | |
| H | Hardened Steels | 450 - 500 | 50 | 0.015 | 0.020 | 0.030 | 0.040 | 0.045 | 0.050 | 0.065 |
| | | 500 - 550 | 38 | 0.015 | 0.020 | 0.030 | 0.040 | 0.045 | 0.050 | 0.065 |
| K | Cast Iron Grey, Ductile, Nodular | 120 - 150 | 85 | 0.020 | 0.025 | 0.035 | 0.045 | 0.050 | 0.075 | 0.090 |
| | | 150 - 200 | 75 | 0.020 | 0.025 | 0.035 | 0.045 | 0.050 | 0.075 | 0.090 |
| | | 200 - 220 | 70 | 0.020 | 0.025 | 0.035 | 0.045 | 0.050 | 0.075 | 0.090 |
| | | 220 - 260 | 60 | 0.020 | 0.025 | 0.035 | 0.045 | 0.050 | 0.075 | 0.090 |
| | | 260 - 320 | 60 | 0.020 | 0.025 | 0.035 | 0.045 | 0.050 | 0.075 | 0.090 |
| N | Wrought Aluminum | 30 | 150 | 0.025 | 0.030 | 0.045 | 0.050 | 0.075 | 0.100 | 0.120 |
| | | 180 | 135 | 0.025 | 0.030 | 0.045 | 0.050 | 0.075 | 0.100 | 0.120 |
| | Cast Aluminum | 30 - 180 | 75 | 0.025 | 0.030 | 0.045 | 0.050 | 0.075 | 0.100 | 0.120 |
| | | Brass | 30 - 100 | 150 | 0.025 | 0.030 | 0.045 | 0.050 | 0.075 | 0.100 |

NOTICE: Reduce feed and speed by 30% for tapered thread forms due to additional material removal

*Refer to recommended pass chart in the AMPC (Allied Master Product Catalog) on page E: 53 when referencing material machinability

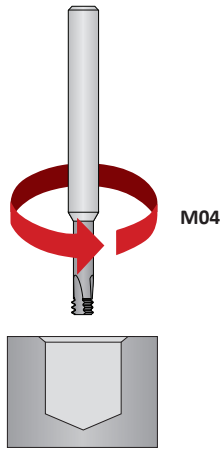
**Uncoated thread mills are recommended for cast aluminum applications

A
DRILLING
B
BORING
C
REAMING
D
BURNISHING
E
THREADING
X
SPECIALS

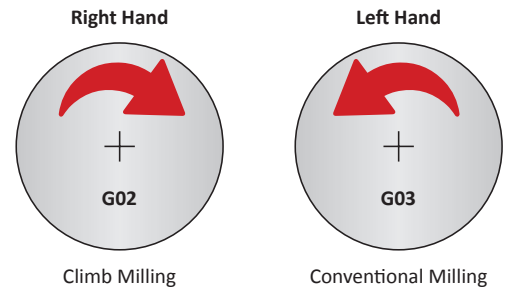
Technical Information

Spindle Rotation

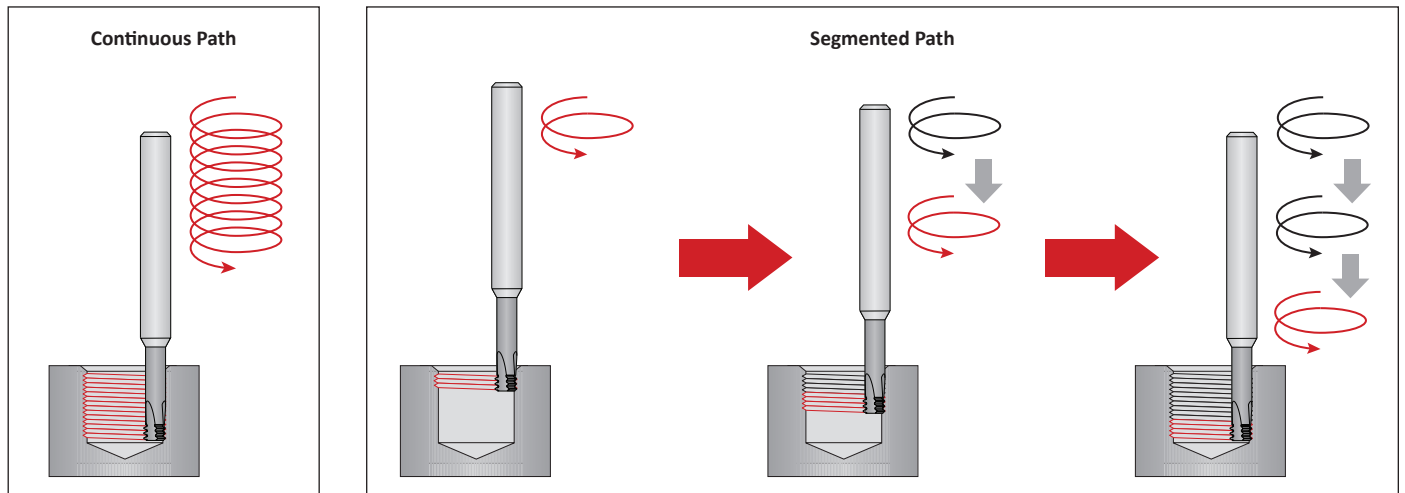
! Tools are left hand cutting. The left hand cut allows the tool to climb mill when creating a right hand thread with an AccuThread T3. Climb milling reduces deflection and heat generated during the cut.



Direction of Helical Interpolation



Programming Z-Axis Cutting Path



Start Point

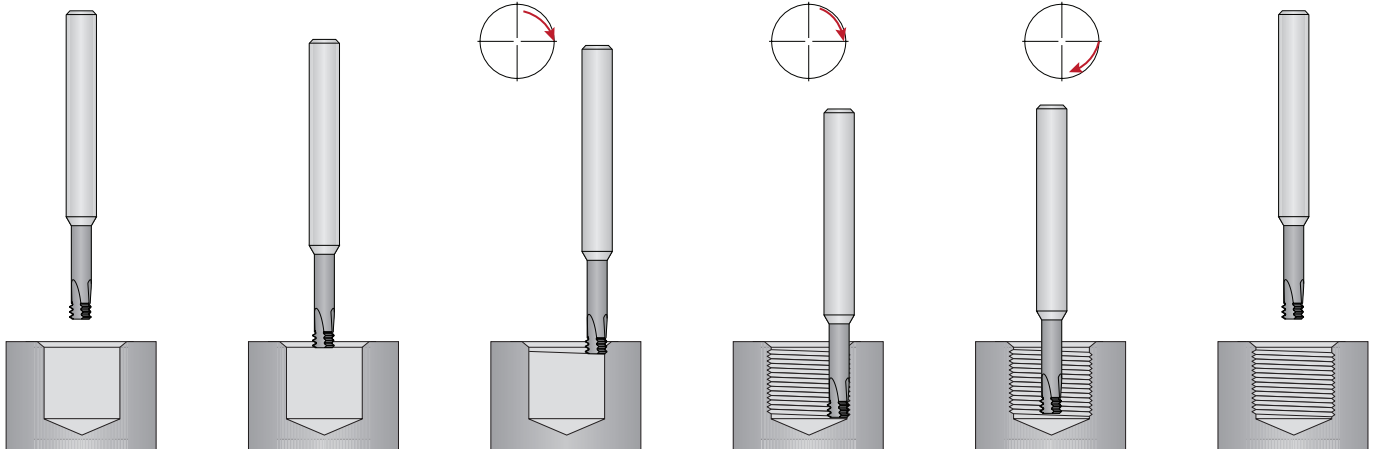
Center Location

Arc Entrance

Thread Milling

Arc Exit

End Point



Warranty Information



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