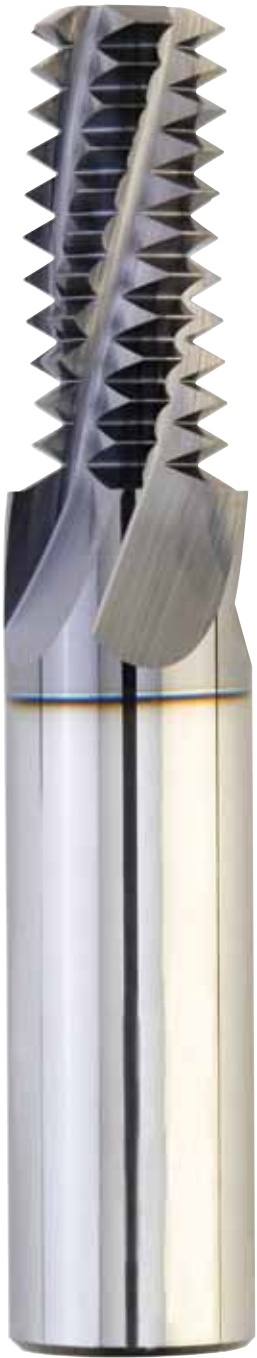




**MORSE**  
**CUTTING TOOLS**

HIGH PERFORMANCE SOLUTIONS



# Morse Thread Mills

## Performance for Profit

Solid Carbide  
ALTiN coated  
Made in the U.S.A.

**MORSE**  
HIGH PERFORMANCE  
SOLUTIONS



Phone: 800-255-1701  
Fax: 800-338-4857

# Thread Milling Features & Benefits

**ALTiN Coated 10% Micrograin Carbide** \* Enhanced Wear Resistance \* Longer Tool Life

**Helical Flutes** \* Reduced Cutting Forces \* Improved Thread Quality \* Increased Tool Life



**Reduced Tool Inventory \* One Thread Mill Can Produce:**

Internal & External Threads \* Left Hand & Right Hand Threads  
Multiple Thread Diameters of the Same Pitch \* Through Hole and Blind Hole Threads

**Requires Less Power** \* Produce Coarse Pitches and Large Diameters on Lower H.P. Machines

**Precision Threading** \*

Control Pitch Diameter Precisely Via Programming  
Precise Thread Depth Control & Positional Accuracy  
Produce Full Threads to Within One Pitch of a Shoulder or Blind Hole Bottom

**Tough Threading Applications** \*

Harder, Difficult-to-Machine & Gummy Materials that Cause Problems for Taps

**Easily Removed If Broken** \* No Need for EDM Burn-Out

## FRACTIONAL & MACHINE SCREW

List No. 5900

Solid Carbide  
ALTiN Coated

SIZE	SHANK DIA.	CUTTING DIA.	LENGTH OF CUT	OAL	NO. OF FLUTES	EDP NO.
6-32	1/8	.100	.218	2	3	98600
8-36	1/8	.115	.250	2	3	98601
8-32	1/8	.115	.250	2	3	98602
10-24	3/16	.120	.312	2	3	98603
10-32	3/16	.120	.312	2	3	98604
1/4-20	3/16	.180	.500	2-1/2	3	98605
1/4-28	3/16	.180	.500	2-1/2	3	98606
5/16-18	1/4	.240	.625	2-1/2	3	98607
5/16-24	1/4	.240	.625	2-1/2	3	98608
3/8-16	5/16	.290	.750	3	4	98609
3/8-24	5/16	.290	.750	3	4	98610
7/16-14	3/8	.340	.875	3	4	98611
7/16-20	3/8	.340	.875	3	4	98612
1/2-13	3/8	.350	.875	3-1/2	4	98613
1/2-20	3/8	.350	.875	3-1/2	4	98614
9/16-12	1/2	.370	.875	3-1/2	4	98615
9/16-18	1/2	.370	.875	3-1/2	4	98616
5/8-11	1/2	.470	1.250	3-1/2	5	98617
5/8-18	1/2	.470	1.250	3-1/2	5	98618
3/4-10	1/2	.495	1.250	3-1/2	5	98619
3/4-16	1/2	.495	1.250	3-1/2	5	98620
7/8-9	5/8	.620	1.250	3-1/2	5	98621
7/8-14	5/8	.620	1.250	3-1/2	5	98622
1-8	3/4	.620	1.375	4	5	98623
1-12	3/4	.620	1.375	4	5	98624

## METRIC

List No. 5901

Solid Carbide  
ALTiN Coated

SIZE	SHANK DIA.	CUTTING DIA.	LENGTH OF CUT	OAL	NO. OF FLUTES	EDP NO.
M4 x 0.7	1/8	.120	.250	2	3	98625
M4.5 x 0.75	1/8	.120	.250	2	3	98626
M5 x 0.8	3/16	.120	.312	2	3	98627
M6 x 1	3/16	.170	.500	2-1/2	3	98628
M8 x 0.75	1/4	.235	.625	2-1/2	3	98629
M8 x 1	1/4	.235	.625	2-1/2	3	98630
M8 x 1.25	1/4	.235	.625	2-1/2	3	98631
M10 x 1.25	5/16	.300	.750	3	4	98632
M10 x 1.5	5/16	.300	.750	3	4	98633
M12 x 1	3/8	.360	.875	3-1/2	4	98634
M12 x 1.25	3/8	.360	.875	3-1/2	4	98635
M12 x 1.75	3/8	.360	.875	3-1/2	4	98636
M14 x 1.5	3/8	.360	.875	3-1/2	4	98637
M16 x 2	1/2	.470	1.250	3-1/2	5	98638
M18 x 2.5	1/2	.470	1.250	3-1/2	5	98639
M20 x 3	5/8	.470	1.250	3-1/2	5	98640

## PIPE THREAD

List No. 5902

Solid Carbide  
ALTiN Coated

SIZE	SHANK DIA.	CUTTING DIA.	LENGTH OF CUT	OAL	NO. OF FLUTES	EDP NO.
<b>NPT</b>						
1/16-27	1/4	.245	.437	2-1/2	3	98641
1/8-27	5/16	.310	.437	2-1/2	4	98642
1/4-18	3/8	.370	.625	3	4	98656
3/8-18	3/8	.370	.625	3	4	98657
1/2-14	1/2	.495	.875	3-1/2	4	98645
3/4-14	1/2	.495	.875	3-1/2	4	98646
1-11-1/2	3/4	.620	1.125	4	5	98647
<b>NPTF</b>						
1/16-27	1/4	.245	.437	2-1/2	3	98648
1/8-27	5/16	.310	.437	2-1/2	4	98649
1/4-18	3/8	.370	.625	3	4	98658
3/8-18	3/8	.370	.625	3	4	98659
1/2-14	1/2	.495	.875	3-1/2	4	98652
3/4-14	1/2	.495	.875	3-1/2	4	98653
1-11-1/2	3/4	.620	1.125	4	5	98654



## 6 PIECE SET

List No. 5900

Sizes: 6-32, 10-24, 1/4"-20, 5/16"-18, 3/8"-16, 1/2"-13 in Plastic Case

EDP No. 98655

Solid Carbide  
ALTiN Coated

With just 6 thread mills you can produce 13 different thread sizes: 6-32, 8-32, 10-32, 10-24, 5/16"-24, 3/8"-24, 1/4"-20, 1/2"-20, 5/16"-18, 9/16"-18, 3/8"-16, 3/4"-16, 1/2"-13

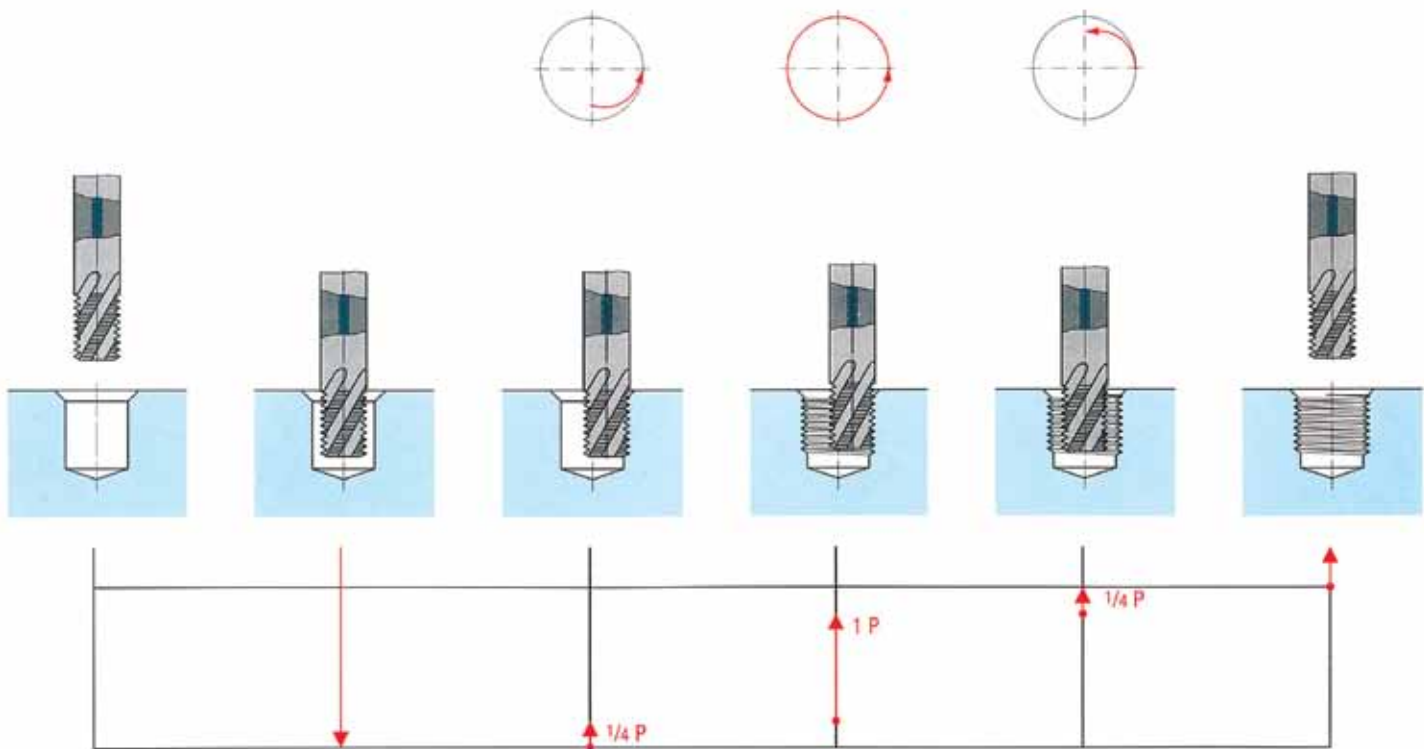
With the same thread mill you can produce:

- both left hand & right hand threads
- both internal & external threads

# Thread Milling Feed & Speeds

Material	Speed SFM	Feed Rate (inches/tooth)						
		Tool Diameter						
		1/8	3/16	1/4	5/16	3/8	1/2	5/8
Aluminum	800-1400	.0005-.001	.001-.0015	.0015-.0025	.002-.003	.003-.0045	.0035-.0055	.005-.007
Magnesium	800-1400	.0005-.001	.001-.0015	.0015-.0025	.002-.003	.003-.0045	.0035-.0055	.005-.007
Brass	600-800	.0005-.001	.001-.0015	.0015-.0025	.002-.003	.003-.0045	.0035-.0045	.005-.006
Bronze	500-600	.0005-.001	.001-.0015	.0015-.0025	.002-.003	.003-.0045	.0035-.0045	.005-.006
Hard Bronze	200-300	.0004-.0008	.0007-.0012	.001-.002	.001-.002	.0015-.0025	.002-.003	.003-.004
Low Alloy Steels < 25 Rc	350-500	.0005-.001	.001-.0015	.0015-.0025	.002-.003	.0025-.0035	.003-.004	.004-.005
High Alloy Steels > 25 Rc	250-400	.0003-.0006	.0005-.001	.0008-.0015	.001-.002	.0015-.0025	.002-.003	.003-.004
Stainless Steel	150-250	.0004-.0008	.0006-.001	.001-.0015	.0015-.002	.0015-.003	.002-.0035	.003-.004
Cast Iron - Soft	250-350	.0004-.0008	.0007-.0013	.0007-.0013	.0015-.002	.002-.003	.002-.004	.003-.005
Cast Iron - Hard	200-300	.0003-.0006	.0005-.001	.0008-.0015	.001-.002	.0015-.0025	.002-.003	.003-.004
Titanium	80-150	.0003-.0006	.0005-.001	.0008-.0015	.001-.002	.0015-.0025	.0015-.0025	.0025-.0035
Inconel	60-100	.0003-.0006	.0005-.001	.0008-.0015	.001-.002	.0015-.0025	.0015-.0025	.002-.003

**Positioning**
**Moving sideways to the starting point**
**Thread milling**
**Thread milling**
**Backing out**
**Retracting tool to positioning level**



31695 Stephenson Hwy.

Madison Heights, MI 48071-1672

Phone: 248.588.2220 Fax: 248.588.2230

Phone: 800.255.1701 Fax: 800.338.4857

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