MACHINING **End Mills**

Single-Profile Thread Mills

Carbide material

Single-profile thread mills create very low sidecutting pressure and provide more control over pitch diameter and cut length during thread-milling tasks than helical-flute or straight-flute thread mills. They are suitable for threading applications with unfavorable length-to-diameter ratios and can create internal threads with a variety of pitch ranges, lengths, and diameters, eliminating the need to change tools when threading multiple holes of different sizes. For use in CNC machines that have helical interpolation capability.

Cutter Dia.	Pitch Range	Length of Cut	Overall Length	Shank Dia.	ltem No.			
AlTiN Finish, Micro 100								
UN, 2 Flutes								
0.1000 in	32-64	0.029 in	1½ in	¹∕₃ in	16R736			
0.1000 in	32-64	0.029 in	2 in	1∕≋ in	16R734			
0.0800 in	40-64	0.026 in	11/2 in	1⁄8 in	16R730			
0.0800 in	40-64	0.026 in	1½ in	¹∕₃ in	16R732			
0.0600 in	56-80	0.017 in	1½ in	1∕≋ in	16R726			
0.0600 in	56-80	0.017 in	1½ in	1∕≋ in	16R728			
UN, 3 Flut	es							
0.1400 in	24-56	0.038 in	2 in	3∕16 in	16R746			
0.1400 in	24-56	0.038 in	2 in	3∕16 in	16R748			
0.1200 in	32-56	0.030 in	2 in	3⁄16 in	16R740			
0.1200 in	32-56	0.030 in	2 in	3∕16 in	16R742			
0.1200 in	32-56	0.030 in	2 in	3∕16 in	16R744			
UN, 4 Flut	es							
0.3600 in	12-32	0.085 in	4 in	3∕≋ in	16R762			
0.2900 in	14-40	0.071 in	4 in	3∕≋ in	16R760			
0.2400 in	16-48	0.055 in	3½ in	5∕16 in	16R758			
0.1800 in	18-56	0.055 in	21/2 in	1⁄4 in	16R750			
0.1800 in	18-56	0.055 in	21/2 in	1⁄4 in	16R752			
0.1800 in	18-56	0.055 in	21/2 in	1⁄4 in	16R754			
1⁄4 in	14-48	0.065 in	21/2 in	1⁄4 in	16R756			
3⁄8 in	12-32	3⁄32 in	2.60 in	1⁄4 in	16R655			
UN, 5 Flutes								
1/2 in	11-32	1⁄8 in	2.61 in	5∕16 in	16R657			
UN, 6 Flutes								
3⁄4 in	7-16	5⁄32 in	2.65 in	⅔⁄≋ in	16R659			
UN, 7 Flut								
1 in	5-12	³∕16 in	3.20 in	1⁄2 in	16R653			

MICRO 100°

 $\mathbf{\Omega}$

SCT carbide tools

Bright (Uncoated) Finish

3 Flutes 4PEH2

Cutter	Pitch	Length	Overall	Shank	Item		
Dia.	Range	of Cut	Length	Dia.	No.		
Bright (Uncoated) Finish, Scientific Cutting Tools							
UN, 2 Flut							
0.0500 in	64-80	0.1000 in	1½ in	1⁄8 in	4PEG7		
0.0500 in	64-80	0.1500 in	1½ in	1∕≋ in	4PEG8		
0.0400 in	72-90	0.0900 in	1½ in	¹∕≋ in	4PEG5		
UN, 3 Flut							
0.3720 in	12-32	0.8500 in	3 in	3∕≋ in	4PEK2		
0.3720 in	12-32	1¼ in	3 in	3⁄8 in	4PEK3		
0.2900 in	14-40	0.6000 in	3 in	3∕8 in	4PEJ9		
0.2900 in	14-40	1 in	3 in	3⁄8 in	4PEK1		
0.2400 in	16-48	0.8000 in	2½ in	1⁄4 in	4PEJ8		
0.2400 in	16-48	1⁄2 in	21/2 in	1⁄4 in	4PEJ7		
0.1820 in	18-56	0.4000 in	21/2 in	1⁄4 in	4PEJ5		
0.1820 in	18-56	0.6500 in	2½ in	1⁄4 in	4PEJ6		
0.1380 in	24-56	0.4000 in	2 in	3⁄16 in	4PEJ3		
0.1380 in	24-56	0.6000 in	2 in	3⁄16 in	4PEJ4		
0.0980 in	32-64	0.4000 in	2 in	³ /16 in	4PEH9		
0.0980 in	32-64	1/4 in	2 in	3⁄16 in	4PEH8		
0.1200 in	32-56	0.3000 in	2 in	3⁄16 in	4PEJ1		
0.1200 in	32-56	1/2 in	2 in	³ /16 in	4PEJ2		
0.0800 in	40-64	0.1900 in	2 in	3⁄16 in	4PEH6		
0.0800 in	40-64	0.3000 in	2 in	3⁄16 in	4PEH7		
0.0720 in	48-72	0.1500 in	2 in	³ /16 in	4PEH4		
0.0720 in	48-72	1/4 in	2 in	3⁄16 in	4PEH5		
0.0590 in	56-80	0.2000 in	11/2 in	1/8 in	4PEH1		
0.0600 in	56-80	0.2000 in	2 in	3/16 in	4PEH3		
0.0590 in	56-80	1/8 in	11/2 in	1/8 in	4PEG9		
0.0600 in	56-80	1/8 in	2 in	3/16 in	4PEH2		
UN. 5 Flut	es						
0.4880 in	11-32	0.8500 in	3½ in	1/2 in	4XXP4		
0.4880 in	11-32	1.3500 in	3½ in	1/2 in	4XXP5		
UN. 6 Flutes							
0.7450 in	4-8	1½ in	5 in	3/4 in	4XXR1		
0.7450 in	4-8	21/2 in	5 in	3/4 in	4XXR2		
0.6950 in	9-24	1½ in	5 in	3/4 in	4XXP8		
0.6950 in	9-24	2½ in	5 in	3/4 in	4XXP9		
0.5950 in	10-32	11/4 in	4 in	5/8 in	4XXP6		
0.5950 in	10-32	2 in	4 in	5% in	4XXP7		

3 Flutes

4PER8

 $\mathbf{\Omega}$

Cutter	Pitch	Length	Overall	Shank	Item			
Dia.	Range	of Cut	Length	Dia.	No.			
TIAIN Finish, Scientific Cutting Tools								
UN, 2 Flut	es	0 1000 :	#17 in	17.1-	ADEKC			
0.0500 in	64-80	0.1000 in	11/2 in	1/8 in	4PEK6			
0.0500 in	64-80	0.1500 in	11/2 in	1/8 in	4PEK7			
0.0400 in	72-90	0.0900 in	1½ in	1/8 in	4PEK4			
0.0400 in	72-90	1⁄8 in	1½ in	1⁄8 in	4PEK5			
UN, 3 Flut				0.4.1				
0.2900 in	14-40	0.6000 in	3 in	3% in	4PEN8			
0.2900 in	14-40	1 in	3 in	3/8 in	4PEN9			
0.2400 in	16-48	0.8000 in	21/2 in	1/4 in	4PEN7			
0.2400 in	16-48	1/2 in	21/2 in	1⁄4 in	4PEN6			
0.1820 in	18-56	0.4000 in	21/2 in	1⁄4 in	4PEN4			
0.1380 in	24-56	0.4000 in	2 in	3⁄16 in	4PEN2			
0.1380 in	24-56	0.6000 in	2 in	3⁄16 in	4PEN3			
0.0980 in	32-64	0.4000 in	2 in	3∕16 in	4PEL8			
0.0980 in	32-64	1⁄4 in	2 in	3∕16 in	4PEL7			
0.1200 in	32-56	0.3000 in	2 in	³∕16 in	4PEL9			
0.1200 in	32-56	1⁄2 in	2 in	3∕16 in	4PEN1			
0.0800 in	40-64	0.1900 in	2 in	3∕16 in	4PEL5			
0.0800 in	40-64	0.3000 in	2 in	3⁄16 in	4PEL6			
0.0720 in	48-72	0.1500 in	2 in	3∕16 in	4PEL3			
0.0720 in	48-72	1⁄4 in	2 in	3∕16 in	4PEL4			
0.0590 in	56-80	0.2000 in	1½ in	1⁄8 in	4PEK9			
0.0600 in	56-80	0.2000 in	2 in	3∕16 in	4PEL2			
0.0590 in	56-80	1⁄8 in	11/2 in	1⁄8 in	4PEK8			
0.0600 in	56-80	1⁄8 in	2 in	3⁄16 in	4PEL1			
UN, 4 Flut	es							
0.3720 in	12-32	0.8500 in	3 in	3⁄8 in	4PEP1			
0.3720 in	12-32	1¼ in	3 in	3⁄8 in	4PEP2			
0.1820 in	18-56	0.6500 in	21/2 in	1/4 in	4PEN5			
UN, 5 Flut								
0.4880 in	11-32	0.8500 in	31/2 in	1/2 in	4XXR3			
0.4880 in	11-32	1.3500 in	31/2 in	1/2 in	4XXR4			
UN, 6 Flutes								
0.7450 in	4-8	1½ in	5 in	3⁄4 in	4XXR9			
0.7450 in	4-8	21/2 in	5 in	3/4 in	4XXT1			
0.6950 in	9-24	11/2 in	5 in	3⁄4 in	4XXR7			
0.6950 in	9-24	2½ in	5 in	3/4 in	4XXR8			
0.5950 in	10-32	11/4 in	4 in	5⁄8 in	4XXR5			
0.5950 in	10-32	2 in	4 in	5⁄8 in	4XXR6			

Straight-Flute Thread Mills (SCT

Carbide material

2176

Straight-flute thread mills are suitable for general purpose thread-milling applications and create internal threads of the same pitch in a range of hole diameters, eliminating the need to change tools when threading multiple holes of different sizes. They provide good strength but require a rigid machine setup. For use in CNC machines that have helical interpolation capability.

Thread		Length	Overall	Shank	Item		
Size	Cutter Dia.	of Cut	Length	Dia.	No.		
Bright (Uncoat							
Metric, 3 Flutes							
M3.5x.6	0.0900 in	0.2690 in	21/2 in	1⁄4 in	4PET1		
M3x.5	0.0900 in	0.2640 in	21/2 in	1⁄4 in	4PET3		
M4.5x.75	1⁄8 in	0.3370 in	21/2 in	1⁄4 in	4PEW5		
M4.5x0.75	1⁄8 in	0.2190 in	21/2 in	1⁄4 in	4PEX7		
M4x0.5	7⁄64 in	0.3230 in	21/2 in	1⁄4 in	4PEX9		
M5x0.7	0.1400 in	0.3970 in	21/2 in	1⁄4 in	4PFA6		
M5x0.8	0.1400 in	0.3910 in	21/2 in	1⁄4 in	4PFA8		
M6x0.5	0.1700 in	0.5200 in	21/2 in	1⁄4 in	4PFD1		
M6x0.75	0.1700 in	0.5430 in	21/2 in	1⁄4 in	4PFE1		
M6x1	0.1700 in	0.5280 in	21/2 in	1⁄4 in	4PFJ6		
M8x0.75	0.2350 in	0.6620 in	21/2 in	1⁄4 in	4PFL1		
M8x1	0.2350 in	0.6850 in	21/2 in	1⁄4 in	4PFP9		
M8x1.25	0.2350 in	0.6600 in	21/2 in	1/4 in	4PFP5		
Metric, 4 Flute	es						
M10x1.5	0.2900 in	0.7920 in	31/2 in	5∕16 in	4LLE6		
M12x1	0.4000 in	1.0790 in	31/2 in	1/2 in	4PDW7		
M12x1.25	0.3450 in	0.8070 in	31/2 in	3⁄8 in	4LLG4		
M12x1.5	0.3450 in	0.7920 in	31/2 in	3⁄8 in	4PDV7		
M14x1.25	0.4500 in	1.1030 in	3½ in	1/2 in	4PDX8		
M14x1.5	0.4500 in	1.0870 in	31/2 in	1/2 in	4PEF8		
M14x1.75	0.4500 in	1.1340 in	31/2 in	1/2 in	4PEG3		
M14x2	0.4500 in	1.1340 in	3½ in	1/2 in	4PEP9		
M16x2.5	0.4500 in	1.1220 in	31/2 in	1/2 in	4XYC1		
M24x1	0.7400 in	1.0620 in	6 in	3⁄4 in	4XYC3		
M24x2.5	0.7400 in	1.0760 in	6 in	3⁄4 in	4XYC4		
M24x3	0.7400 in	1.0580 in	6 in	3⁄4 in	4XYC6		
Metric, 6 Flutes							
M36x4	0.9900 in	1.0950 in	7½ in	1 in	4XYC7		
M40x6	0.9900 in	1.1920 in	7½ in	1 in	4PFA4		
NPT, 4 Flutes							
1⁄8"-27	0.2750 in	0.7580 in	3½ in	3% in	4XXU3		
1/4 in, 3/8"-18	0.3300 in	0.6930 in	31/2 in	3⁄8 in	4PEW7		
1/2 in, 3/4"-14	0.4300 in	1.1050 in	31/2 in	1/2 in	4PEZ1		
NPT. 5 Flutes							
21/2" up-8	0.6500 in	1.5600 in	4 in	3⁄4 in	4PFC7		
					-		

GRAINGER

Thread	0	Length	Overall	Shank	Item
Size NPTF, 4 Flutes	Cutter Dia.	of Cut	Length	Dia.	No.
1/8"-27	0.0000 in	0.7580 in	3½ in	⅔ in	4PEV8
1/ 1/ 10	0.2800 in				
1/4 in, 3/8"-18 1/2 in, 3/4"-14	0.3300 in	0.6930 in 1.0340 in	3½ in	3% in	4PEW8
1/2 III, 9/4 - 1/4	0.4400 in	1.0340 In	6 in	3⁄4 in	4XXV7
NPTF, 5 Flutes	0.0500 :	1 5000 14	4.1.	37 :	40500
2½" up-8	0.6500 in	1.5600 in	4 in	3⁄4 in	4PFC8
UN, 3 Flutes	0 1 400 :	0.0000 :	01/ :	1/ 1.	ADEDC
#10-24	0.1400 in	0.3920 in	21/2 in	1/4 in	4PER6
#10-28	0.1400 in	0.4090 in	21/2 in	1/4 in	4PER7
#10-32	0.1400 in	0.3880 in	21/2 in	1/4 in	4PER8
#10-48	0.1400 in	0.3830 in	21/2 in	1/4 in	4PER9
#6-32	0.0980 in	0.2630 in	21/2 in	1⁄4 in	4PEP4
#6-40	0.0980 in	0.2600 in	21/2 in	1/4 in	4PEP5
#8-24	_1⁄8 in	0.3500 in	21/2 in	1/4 in	4PER4
#8-32	7∕64 in	0.3250 in	2½ in	1⁄4 in	4LLE8
#8-36	7∕64 in	0.3450 in	21/2 in	1⁄4 in	4LLE9
1⁄4"-20	0.1700 in	0.5700 in	21/2 in	1⁄4 in	4PET5
1/4"-24	0.1700 in	0.5590 in	21/2 in	1⁄4 in	4PET6
1/4"-36	0.1700 in	0.5400 in	21/2 in	1⁄4 in	4PET9
1/4"-20	0.1870 in	0.5700 in	21/2 in	1/4 in	4PEU1
1/4"-24	0.1870 in	0.5590 in	2½ in	1/4 in	4PEU2
1/4"-32	0.1870 in	0.5450 in	21/2 in	1/4 in	4PEU4
1⁄4"-36	0.1870 in	0.5400 in	21/2 in	1/4 in	4PEU5
1/4"-40	0.1870 in	0.5600 in	21/2 in	1/4 in	4PEU6
1/4"-48	0.1870 in	0.5510 in	21/2 in	1/4 in	4PEU7
5/16-18	0.2350 in	0.6890 in	21/2 in	1/4 in	4PEV1
UN. 4 Flutes					
1/4 in, 3/8"-18	0.3870 in	0.6820 in	3½ in	7∕16 in	4XXV2
3⁄8"-16	0.2900 in	0.7750 in	3½ in	5/16 in	4PEV9
3⁄8"-20	0.2900 in	0.8200 in	3½ in	5/16 in	4PEW1
3/8"-24	0.2900 in	0.8090 in	3½ in	5/16 in	4PEW2
3/8"-27	0.2900 in	0.7940 in	31/2 in	5/16 in	4PEW3
3/8"-32	0.2900 in	0.7940 in	3½ in	5/16 in	4PEW4
3/8"-18	0.3870 in	0.6620 in	31/2 in	7/16 in	4XXV3
7/16"-14	0.3450 in	0.8160 in	31/2 in	3% in	4PEW9
7/16-14	0.3450 in	0.8000 in	31/2 in	3/8 in	4PEX1
7/16=-10	0.3450 in	0.8000 in	31/2 in	3/8 in	4PEX2
7/16"-24	0.3450 in	0.8090 in	31/2 in	3% in	4FEX2 4PEX3
7/16=24	0.3450 in	0.8090 in	31/2 in	3/8 in	4PEX4
1/2"-13	0.3450 in 0.4000 in	1.1080 in	31/2 in		4PEX4 4PEY3
1/2"-16				1/2 in	
1/2 -10	0.4000 in	1.0870 in	3½ in	1/2 in	4PEY4
1/2"-20 1/2"-24	0.4000 in	1.1200 in	3½ in	1/2 in	4PEY5
1/2 -24	0.4000 in	1.1000 in	3½ in	1/2 in	4PEY6
1/2"-28	0.4000 in	1.0870 in	3½ in	1/2 in	4PEY7
1/2"-32	0.4000 in	1.1060 in	31/2 in	1/2 in	4PEY8
9/16 "-12	0.4000 in	1.1170 in	3½ in	1/2 in	4PEY2
9⁄16 °-16	0.4500 in	1.0870 in	31/2 in	1/2 in	4PEZ6
9⁄16 ⁻²⁰	0.4500 in 0.4500 in	1.1200 in 1.1270 in	31/2 in 31/2 in	1/2 in 1/2 in	4PEZ8 4PEZ4
5⁄8"-11					

Thread	o	Length	Overall	Shank	ltem
Size	Cutter Dia.		Length	Dia.	No.
5%"-12 3⁄4"-10	0.4500 in 0.4500 in	1.1170 in 1.1400 in	31/2 in 31/2 in	1/2 in 1/2 in	4PEZ5 4PEZ3
1"-10				³ /4 in	4PEZ3 4XYC8
1'-10	0.7400 in 0.7400 in	1.0970 in 1.0800 in	6 in 6 in	3/4 in	4XYC9
1"-20	0.7400 in	1.0970 in	6 in	3/4 in	4XYD3
1"-20	0.7400 in	1.1350 in	6 in	⁹⁴ in	4XYD4
1"-8	0.7400 in	1.1180 in	6 in	3/4 in	4XYD5
UN, 6 Flutes	0.7400 11	1.1100 111	0 111	74 111	4/100
5%"-14	0.4900 in	1.1000 in	3½ in	½ in	4PFA1
5%"-16	0.4900 in	1.0870 in	31/2 in	1/2 in	4PFA2
3/4"-12	0.4900 in	1.1170 in	31/2 in	1/2 in	4PEZ9
7/8"-12	0.6200 in	1.1170 in	31/2 in	5% in	4PFA9
7/8"-14	0.6200 in	1.1000 in	3½ in	5% in	4PFC1
7⁄8"-16	0.6200 in	1.0870 in	31/2 in	5% in	4PFC2
7/8"-9	0.6200 in	1.1570 in	31/2 in	5% in	4PFC4
1"-8	0.6200 in	1.1770 in	31/2 in	5% in	4PFC3
1½ in	0.9900 in	1.1950 in	71/2 in	1 in	4XYD6
11/2"-12	0.9900 in	1.1660 in	7½ in	1 in	4XYD7
11/2"-16	0.9900 in	1.1220 in	71/2 in	1 in	4XYD8
11/2"-6	0.9900 in	1.1520 in	71⁄2 in	1 in	4XYD9
TiAIN Finish					
NPT, 4 Flutes					
1⁄16 in, 1⁄8⁼-27	0.2180 in	0.5340 in	21/2 in	1⁄4 in	4PFG9
NPT, 5 Flutes					
1 in to 2 -11-1/2	0.6500 in	1.6050 in	4 in	3⁄4 in	4PFR6
NPTF, 5 Flutes	0.0500.	4 5000 .		27.	40500
21/2" up-8	0.6500 in	1.5600 in	4 in	3⁄4 in	4PFR9
UN, 3 Flutes #4-40	0.0000 in	0.0100 in	2½ in	1/4 in	4PFD3
#6-32	0.0800 in 0.0980 in	0.2100 in 0.2630 in	21/2 in	1/4 in	4PFD3 4PFD4
UN. 4 Flutes	0.0960 111	0.2030 111	Z 72 III	74 III	42204
3%"-24	1/4 in	0.6870 in	21/2 in	1/4 in	4XXY2
3%"-28	1/4 in	0.6610 in	21/2 in	1/4 in	4XXY3
3%"-32	1/4 in	0.6720 in	$\frac{2}{2}\frac{1}{2}$ in	1/4 in	4XXY4
3⁄8"-36	1/4 in	0.6820 in	21/2 in	1/4 in	4XXY5
3⁄8"-40	1/4 in	0.6620 in	21/2 in	1/4 in	4XXY6
7/16"-16	0.3500 in	0.7830 in	6 in	3/4 in	4XXZ2
7/16"-20	0.3500 in	0.8230 in	6 in	3/4 in	4XXZ4
7/16"-24	0.3500 in	0.8560 in	6 in	3/4 in	4XXZ5
1/2"-12	0.4000 in	1.1170 in	31/2 in	1/2 in	4PFL3
5⁄8"-12	1⁄2 in	1.0420 in	6 in	3⁄4 in	4XYA3
5⁄8"-14	1⁄2 in	1.0370 in	6 in	3⁄4 in	4XYA4
5⁄8"-16	1⁄2 in	1.0330 in	6 in	3⁄4 in	4XYA5
1"-12	3⁄4 in	1.1760 in	6 in	3⁄4 in	4XYA6
1"-14	3⁄4 in	1.1520 in	6 in	3⁄4 in	4XYA7
1"-18	3⁄4 in	1.1170 in	6 in	3/4 in	4XYA8
1"-20	3⁄4 in	1.1060 in	6 in	3⁄4 in	4XYA9
UN, 6 Flutes	0.4000.	1 0070 :	01/ :	17 14	40500
5⁄8"-16	0.4900 in	1.0870 in	3½ in	1⁄2 in	4PFP3



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