

CARBIDE



Being the best through innovation



THREAD MILLS

- 帶油孔和不帶油孔

在大多數及大尺寸的材料上可以高品質的螺紋銑加工，可以帶有倒角

WITH & WITHOUT COOLANT HOLES

THREADING MOST OF MATERIALS AND BIG SIZES IN HIGH QUALITY,
AVAILABLE WITH CHAMFER










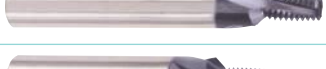
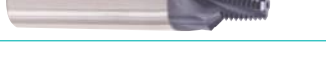
SELECTION GUIDE

带油孔和不带油孔 / with & without coolant Holes

在大多数及大尺寸的材料上可以高品质的螺纹铣加工，可以带有倒角

Threading Most of Materials and Big Sizes in High Quality, Available with Chamfer

SOLID CARBIDE THREAD MILL

项目 ITEM	型号 MODEL	规格 DESCRIPTION	页 PAGE
L1111 L1211		整体硬质合金内螺纹的ISO公制螺纹铣刀-DIN 13 SOLID CARBIDE THREAD MILL for ISO METRIC INTERNAL THREAD - DIN 13	515
L1112 L1212		整体硬质合金内螺纹的ISO公制细牙螺纹铣刀-DIN 13 SOLID CARBIDE THREAD MILL for ISO METRIC-FINE INTERNAL THREAD - DIN 13	516
L1113 L1213		整体硬质合金内螺纹的英制螺纹铣刀-ANSI B 1.1 SOLID CARBIDE THREAD MILL for UNC INTERNAL THREAD - ANSI B 1.1	517
L1114 L1214		整体硬质合金内螺纹的英制细牙螺纹铣刀-ANSI B 1.1 SOLID CARBIDE THREAD MILL for UNF INTERNAL THREAD - ANSI B 1.1	518
L4111 L4211		带有内冷却油孔的整体硬质合金内螺纹的ISO公制螺纹铣刀-DIN 13 SOLID CARBIDE THREAD MILL WITH COOLANT HOLE for ISO METRIC INTERNAL THREAD - DIN 13	519
L4112 L4212		带有内冷却油孔的整体硬质合金内螺纹的ISO公制细牙螺纹铣刀-DIN13 SOLID CARBIDE THREAD MILL WITH COOLANT HOLE for ISO METRIC-FINE INTERNAL THREAD - DIN 13	520
L4171 L4271		带有内冷却油孔和倒角的整体硬质合金内螺纹的ISO公制螺纹铣刀-DIN 13 SOLID CARBIDE THREAD MILL WITH COOLANT HOLE & CHAMFER for ISO METRIC INTERNAL THREAD - DIN 13	521
L4172 L4272		带有内冷却油孔和倒角的整体硬质合金内螺纹的ISO公制细牙螺纹铣刀-DIN 13 SOLID CARBIDE THREAD MILL WITH COOLANT HOLE & CHAMFER for ISO METRIC-FINE INTERNAL THREAD - DIN 13	522
L4173 L4273		带有内冷却油孔和倒角的整体硬质合金内螺纹的英制螺纹铣刀-ANSI B 1.1 SOLID CARBIDE THREAD MILL WITH COOLANT HOLE & CHAMFER for UNC INTERNAL THREAD - ANSI B 1.1	523
L4174 L4274		带有内冷却油孔和倒角的整体硬质合金内螺纹的英制细牙螺纹铣刀-ANSI B 1.1 SOLID CARBIDE THREAD MILL WITH COOLANT HOLE & CHAMFER for UNF INTERNAL THREAD - ANSI B 1.1	524
L4176 L4276		带有内冷却油孔和倒角的整体硬质合金NPT螺纹铣刀-ANSI B 1.20.1 SOLID CARBIDE THREAD MILL WITH COOLANT HOLE & CHAMFER for NPT THREAD - ANSI B 1.20.1	525
		螺纹铣削编程 PROGRAMMING OF THREAD MILLING	526
		推荐的切削速度 RECOMMENDED CUTTING SPEED	527

● 可用的应用程序 / Application Program Available

Programing of Thread Milling

Internal Thread Milling in Machining Center
Fanuc

English

M - Metric

D = thread diameter (mm) 16.0
P = pitch (mm) 2.00
L = thread length (mm) 30.0
S = safety distance (mm) 0.0

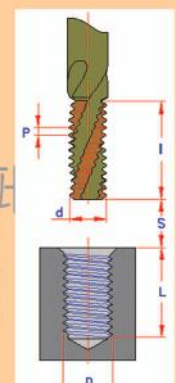
Steel, Low Carbon, < 0.25% C, < 400 N/mm2

M12120C3A.0 2.0P L1111600

Number of passes, axial 1
Number of passes, radial (max 2) 1

d = cutter diameter (mm) 12
l = length of cutting edge (mm) 34
z = number of flutes 4
V = cutting speed (m/min) 150
Fz = feed/tooth (mm/tooth) 0.070
N = spindle speed (rpm) 3279
FD = feed at thread diameter (mm/min) 3.114
Fd = feed in center of mill (mm/min) 2.79
T = time to mill the thread (seconds) 4

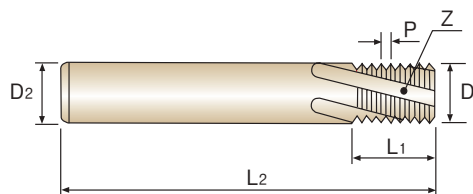
CNC program for Fanuc
G90 G00 G57 X0, Y0.
G43 H10 Z0, M3 S3979
G91 G00 Z-30.5
G41 D10 X0, Y-7
G03 X8.05 Y7, Z0.5 R7.068 F279
G03 X0, Y0, Z2, I-8.05 J0.
G03 X-8.05 Y7, Z0.5 R7.068
G00 G40 X0, Y-7.
G00 Z27.5
G90 G49 G00 Z200, M5
M30



M 整体硬质合金内螺纹的ISO公制螺纹铣刀-DIN 13 SOLID CARBIDE THREAD MILL for ISO METRIC INTERNAL THREAD - DIN 13

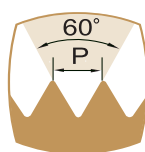
▶ 易切削螺纹用的材料如镍，钛及其合金的特殊材料

▶ Easy to cut threads even if exotic materials like Nickel, Titanium or their alloys.



- ▶ 原材料:整体硬质合金
- ▶ 柄部:DIN6535 HA
- ▶ 螺旋角度:15°
- ▶ 螺纹长度:2×D

- ▶ Material : Solid Carbide
- ▶ Shank : DIN6535 HA
- ▶ Spiral Angle : 15°
- ▶ Thread Length : 2×D



单位(Unit) : mm

型号 EDP No.		通称直径 Nominal Diameter [D]	牙距 Pitch	刃部直径 Cutter Diameter	柄径 Shank Diameter	螺纹长 Thread Length	全长 Over All Length	槽数 No. of Flute
UNCOATED	TiAIN		P	D1	D2	L1	L2	Z
L1111200	L1211200	M3	0.5	2.2	6	5	57	3
L1111240	L1211240	M4	0.7	2.9	6	7	57	3
L1111280	L1211280	M5	0.8	3.8	6	8	57	3
L1111310	L1211310	M6	1.0	4.5	6	13	57	3
L1111360	L1211360	M8	1.25	6.0	6	17.5	65	3
L1111420	L1211420	M10	1.5	7.5	8	21	72	4
L1111500	L1211500	M12	1.75	9.5	10	26.25	80	4
L1111540	L1211540	M14	2.0	10.0	10	30	83	4
L1111600	L1211600	M16	2.0	12.0	12	34	92	4
L1111650	L1211650	M18	2.5	14.0	14	37.5	92	5
L1111700	L1211700	M20	2.5	16.0	16	42.5	105	5

* 可以邀请其他的涂层方式。
 Other coatings are available on your request.

COMBO TAPS

SPIRAL POINT TAPS

SPIRAL FLUTE TAPS

STRAIGHT FLUTE TAPS

LONG SHANK TAPS

FLUTELRSS TAPS

SCREW THREAD INSERT TAPS

HAND TAPS

PIPE TAPS

CARBIDE TAPS

SKS21 HAND TAPS

SKS21 PIPE TAPS

THREAD MILLS

TECHNICAL DATA



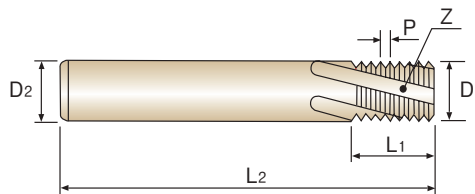
MF

整体硬质合金内螺纹的ISO公制细牙螺纹铣刀-DIN 13

SOLID CARBIDE THREAD MILL for ISO METRIC-FINE INTERNAL THREAD - DIN 13

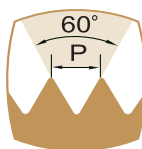
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- ▶ 柄部: DIN6535 HA
- ▶ 螺旋角度: 15°
- ▶ 螺纹长度: 1.5 × D

- ▶ Material : Solid Carbide
- ▶ Shank : DIN6535 HA
- ▶ Spiral Angle : 15°
- ▶ Thread Length : 1.5 × D



单位(Unit) : mm

型号		通称直径 Nominal Diameter [D]	牙距 Pitch P	刃部直径 Cutter Diameter D1	柄径 Shank Diameter D2	螺纹长 Thread Length L1	全长 Over All Length L2	槽数 No. of Flute Z
EDP No.								
UNCOATED	TiAIN							
L1112370	L1212370	M8	1.0	6.0	6	13	57	3
L1112380	L1212380	M8	0.75	6.0	6	12.75	57	3
L1112440	L1212440	M10	1.0	8.0	8	16	63	4
L1112510	L1212510	M12	1.5	9.5	10	19.5	72	4
L1112520	L1212520	M12	1.25	9.5	10	18.75	72	4
L1112530	L1212530	M12	1.0	9.5	10	19	72	4
L1112550	L1212550	M14	1.5	10.0	10	22.5	83	4
L1112570	L1212570	M14	1.0	10.0	10	22	83	4
L1112610	L1212610	M16	1.5	12.0	12	25.5	83	4
L1112620	L1212620	M16	1.0	12.0	12	25	83	4
L1112670	L1212670	M18	1.5	14.0	14	28.5	92	5
L1112680	L1212680	M18	1.0	14.0	14	28	92	5
L1112720	L1212720	M20	1.5	16.0	16	31.5	92	5
L1112730	L1212730	M20	1.0	16.0	16	31	92	5

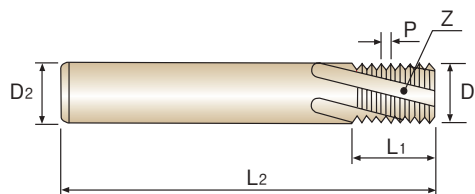
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Other coatings are available on your request.

UNC 整体硬质合金内螺纹的英制螺纹铣刀-ANSI B 1.1 SOLID CARBIDE THREAD MILL for UNC INTERNAL THREAD - ANSI B 1.1

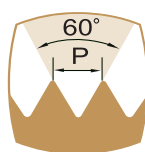
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- ▶ 柄部:DIN6535 HA
- ▶ 螺旋角度:15°
- ▶ 螺纹长度:2×D

- ▶ Material : Solid Carbide
- ▶ Shank : DIN6535 HA
- ▶ Spiral Angle : 15°
- ▶ Thread Length : 2×D



单位(Unit) : mm

型号 EDP No.		通称直径 Nominal Diameter [D]	牙距 T.P.I	刃部直径 Cutter Diameter D1	柄径 Shank Diameter D2	螺纹长 Thread Length L1	全长 Over All Length L2	槽数 No. of Flute Z
UNCOATED	TiAlN							
L1113400	L1213400	1/4"	20	4.5	6	14	57	3
L1113440	L1213440	5/16"	18	5.8	6	16.9	65	3
L1113480	L1213480	3/8"	16	7.0	8	20.6	72	4
L1113520	L1213520	7/16"	14	8.0	8	23.6	72	4
L1113560	L1213560	1/2"	13	9.5	10	27.4	80	4
L1113600	L1213600	9/16"	12	10.0	10	31.8	83	4
L1113640	L1213640	5/8"	11	12.0	12	34.6	92	4
L1113700	L1213700	3/4"	10	14.0	14	40.6	104	5

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- COMBO TAPS
- SPIRAL POINT TAPS
- SPIRAL FLUTE TAPS
- STRAIGHT FLUTE TAPS
- LONG SHANK TAPS
- FLUTELRSS TAPS
- SCREW THREAD INSERT TAPS
- HAND TAPS
- PIPE TAPS
- CARBIDE TAPS
- SKS21 HAND TAPS
- SKS21 PIPE TAPS
- THREAD MILLS
- TECHNICAL DATA



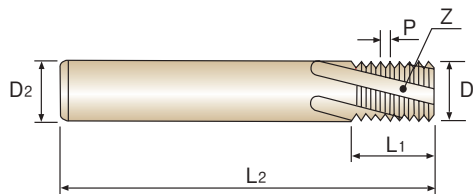
UNF

整体硬质合金内螺纹的英制细牙螺纹铣刀-ANSI B 1.1

SOLID CARBIDE THREAD MILL for UNF INTERNAL THREAD - ANSI B 1.1

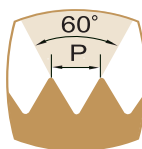
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- ▶ 螺旋角度: 15°
- ▶ 螺纹长度: 2 × D

- ▶ Material : Solid Carbide
- ▶ Shank : DIN6535 HA
- ▶ Spiral Angle : 15°
- ▶ Thread Length : 2 × D



单位(Unit) : mm

型号		通称直径 Nominal Diameter [D]	牙距 T.P.I	刃部直径 Cutter Diameter D1	柄径 Shank Diameter D2	螺纹长 Thread Length L1	全长 Over All Length L2	槽数 No. of Flute Z
EDP No.								
UNCOATED	TiAIN							
L1114420	L1214420	1/4"	28	5.0	6	13.6	57	3
L1114460	L1214460	5/16"	24	6.0	6	16.9	65	3
L1114500	L1214500	3/8"	24	8.0	8	20.1	72	4
L1114540	L1214540	7/16"	20	8.0	8	24.1	72	4
L1114580	L1214580	1/2"	20	10.0	10	26.7	80	4
L1114620	L1214620	9/16"	18	12.0	12	29.6	83	4
L1114660	L1214660	5/8"	18	12.0	12	33.9	92	4
L1114720	L1214720	3/4"	16	14.0	14	39.7	104	5

* 可以邀请其他的涂层方式.

Other coatings are available on your request.

COMBO
TAPSSPIRAL
POINT TAPSSPIRAL
FLUTE TAPSSTRAIGHT
FLUTE TAPSLONG SHANK
TAPSFLUTELRSS
TAPSSCREW
THREAD
INSERT TAPS

HAND TAPS

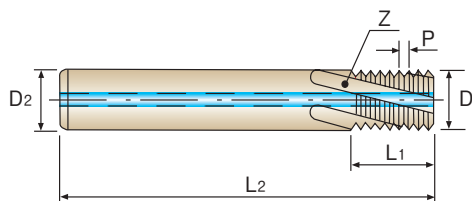
PIPE TAPS

CARBIDE
TAPSSKS21
HAND TAPSSKS21
PIPE TAPSTHREAD
MILLSTECHNICAL
DATA

M 带有内冷却油孔的整体硬质合金内螺纹的ISO公制螺纹铣刀-DIN 13 SOLID CARBIDE THREAD MILL WITH COOLANT HOLE for ISO METRIC INTERNAL THREAD - DIN 13

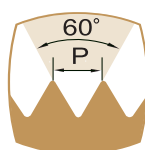
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- ▶ 螺旋角度:15°
- ▶ 螺纹长度:2×D

- ▶ Material : Solid Carbide
- ▶ Shank : DIN6535 HA
- ▶ Spiral Angle : 15°
- ▶ Thread Length : 2 × D



单位(Unit) : mm

型号 EDP No.		通称直径 Nominal Diameter [D]	牙距 Pitch	刃部直径 Cutter Diameter	柄径 Shank Diameter	螺纹长 Thread Length	全长 Over All Length	槽数 No. of Flute
UNCOATED	TiAIN		P	D1	D2	L1	L2	Z
L4111310	L4211310	M6	1.0	4.5	6	13.0	57	3
L4111360	L4211360	M8	1.25	6.0	6	17.5	65	3
L4111420	L4211420	M10	1.5	7.5	8	21.0	72	4
L4111500	L4211500	M12	1.75	9.5	10	26.25	80	4
L4111540	L4211540	M14	2.0	10.0	10	30.0	83	4
L4111600	L4211600	M16	2.0	12.0	12	34.0	92	4
L4111700	L4211700	M20	2.5	16.0	16	42.5	105	5

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- SPIRAL FLUTE TAPS
- STRAIGHT FLUTE TAPS
- LONG SHANK TAPS
- FLUTELRSS TAPS
- SCREW THREAD INSERT TAPS
- HAND TAPS
- PIPE TAPS
- CARBIDE TAPS
- SKS21 HAND TAPS
- SKS21 PIPE TAPS
- THREAD MILLS
- TECHNICAL DATA

HSS

CARBIDE



THREAD MILLS

L4112 SERIES

UNCOATED

L4212 SERIES

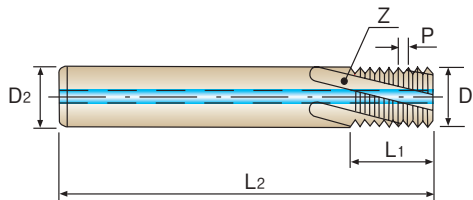
TiAIN

MF 带有内冷却油孔的整体硬质合金内螺纹的ISO公制细牙螺纹铣刀-DIN13

SOLID CARBIDE THREAD MILL WITH COOLANT HOLE for ISO METRIC-FINE INTERNAL THREAD - DIN 13

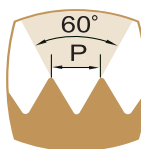
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- ▶ Material : Solid Carbide
- ▶ Shank : DIN6535 HA
- ▶ Spiral Angle : 15°
- ▶ Thread Length : 1.5 × D



单位(Unit) : mm

型号		通称直径	牙距	刃部直径	柄径	螺纹长	全长	槽数
EDP No.		Nominal Diameter [D]	Pitch	Cutter Diameter	Shank Diameter	Thread Length	Over All Length	No. of Flute
UNCOATED	TiAIN		P	D1	D2	L1	L2	Z
L4112370	L4212370	M8	1.0	6.0	6	13.0	57	3
L4112380	L4212380	M8	0.75	6.0	6	12.75	57	3
L4112440	L4212440	M10	1.0	8.0	8	16.0	63	4
L4112510	L4212510	M12	1.5	9.5	10	19.5	72	4
L4112520	L4212520	M12	1.25	9.5	10	18.75	72	4
L4112530	L4212530	M12	1.0	9.5	10	19.0	72	4
L4112550	L4212550	M14	1.5	10.0	10	22.5	83	4
L4112570	L4212570	M14	1.0	10.0	10	22.0	83	4
L4112610	L4212610	M16	1.5	12.0	12	25.5	83	4
L4112620	L4212620	M16	1.0	12.0	12	25.0	83	4
L4112670	L4212670	M18	1.5	14.0	14	28.5	92	5
L4112680	L4212680	M18	1.0	14.0	14	28.0	92	5
L4112720	L4212720	M20	1.5	16.0	16	31.5	92	5
L4112730	L4212730	M20	1.0	16.0	16	31.0	92	5

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SPIRAL POINT TAPS

SPIRAL FLUTE TAPS

STRAIGHT FLUTE TAPS

LONG SHANK TAPS

FLUTE LRSS TAPS

SCREW THREAD INSERT TAPS

HAND TAPS

PIPE TAPS

CARBIDE TAPS

SKS21 HAND TAPS

SKS21 PIPE TAPS

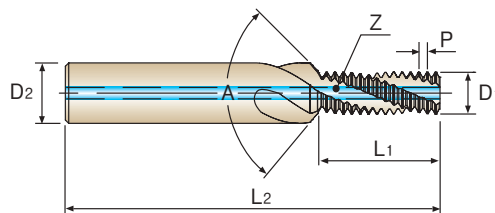
THREAD MILLS

TECHNICAL DATA

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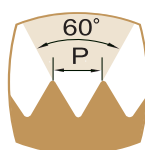
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▶ Easy to cut threads even if exotic materials like Nickel, Titanium or their alloys.



- ▶ 原材料:整体硬质合金
- ▶ 柄部:DIN6535 HA
- ▶ 螺旋角度:15°
- ▶ 螺纹长度:2×D

- ▶ Material : Solid Carbide
- ▶ Shank : DIN6535 HA
- ▶ Spiral Angle : 15°
- ▶ Thread Length : 2×D



单位(Unit) : mm

型号		通称直径 Nominal Diameter [D]	牙距 Pitch P	刃部直径 Cutter Diameter D1	柄径 Shank Diameter D2	螺纹长 Thread Length L1	全长 Over All Length L2	角度 Angle A	槽数 No. of Flute Z
EDP No.									
UNCOATED	TiAIN								
L4171310	L4271310	M6	1.0	4.8	8	12.4	62	90°	3
L4171360	L4271360	M8	1.25	6.5	10	16.8	74	90°	3
L4171420	L4271420	M10	1.5	8.2	12	20.15	80	90°	4
L4171500	L4271500	M12	1.75	9.9	14	25.25	90	90°	4
L4171540	L4271540	M14	2.0	11.6	16	28.85	100	90°	4
L4171600	L4271600	M16	2.0	13.6	18	32.85	102	90°	4

* 可以邀请其他的涂层方式。
 Other coatings are available on your request.

- COMBO TAPS
- SPIRAL POINT TAPS
- SPIRAL FLUTE TAPS
- STRAIGHT FLUTE TAPS
- LONG SHANK TAPS
- FLUTELRSS TAPS
- SCREW THREAD INSERT TAPS
- HAND TAPS
- PIPE TAPS
- CARBIDE TAPS
- SKS21 HAND TAPS
- SKS21 PIPE TAPS
- THREAD MILLS
- TECHNICAL DATA

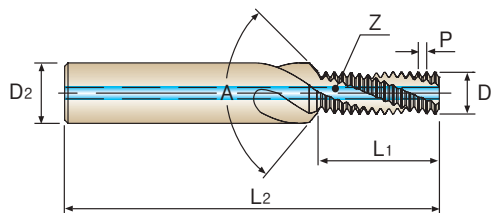


MF

带有内冷却油孔和倒角的整体硬质合金内螺纹的ISO公制细牙螺纹铣刀-DIN 13
SOLID CARBIDE THREAD MILL WITH COOLANT HOLE & CHAMFER for ISO METRIC-FINE INTERNAL THREAD - DIN 13

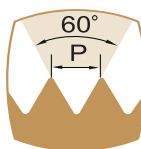
▶ 易切削螺纹用的材料如镍, 钛及其合金的特殊材料

▶ Easy to cut threads even if exotic materials like Nickel, Titanium or their alloys.



- ▶ 原材料: 整体硬质合金
- ▶ 柄部: DIN6535 HA
- ▶ 螺旋角度: 15°
- ▶ 螺纹长度: 1.5 × D

- ▶ Material : Solid Carbide
- ▶ Shank : DIN6535 HA
- ▶ Spiral Angle : 15°
- ▶ Thread Length : 1.5 × D



单位(Unit) : mm

型号		通称直径	牙距	刃部直径	柄径	螺纹长	全长	角度	槽数
EDP No.		Nominal Diameter [D]	Pitch	Cutter Diameter	Shank Diameter	Thread Length	Over All Length	Angle	No. of Flute
UNCOATED	TiAIN		P	D1	D2	L1	L2	A	Z
L4172370	L4272370	M8	1.0	6.7	10	12.4	74	90°	3
L4172430	L4272430	M10	1.25	8.3	12	15.9	80	90°	4
L4172440	L4272440	M10	1.0	8.7	12	15.4	80	90°	4
L4172510	L4272510	M12	1.5	10.0	14	18.65	90	90°	4
L4172520	L4272520	M12	1.25	10.3	14	18.3	80	90°	4
L4172530	L4272530	M12	1.0	10.7	14	18.4	90	90°	4
L4172550	L4272550	M14	1.5	12.0	16	21.65	100	90°	4
L4172610	L4272610	M16	1.5	14.0	18	24.65	102	90°	5

* 可以邀请其他的涂层方式.

Other coatings are available on your request.

COMBO TAPS

SPIRAL POINT TAPS

SPIRAL FLUTE TAPS

STRAIGHT FLUTE TAPS

LONG SHANK TAPS

FLUTELRSS TAPS

SCREW THREAD INSERT TAPS

HAND TAPS

PIPE TAPS

CARBIDE TAPS

SKS21 HAND TAPS

SKS21 PIPE TAPS

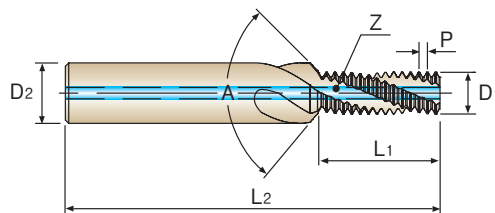
THREAD MILLS

TECHNICAL DATA

UNC 带有内冷却油孔和倒角的整体硬质合金内螺纹的英制螺纹铣刀-ANSI B 1.1 SOLID CARBIDE THREAD MILL WITH COOLANT HOLE & CHAMFER for UNC INTERNAL THREAD - ANSI B 1.1

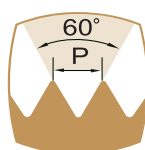
▶ 易切削螺纹用的材料如镍，钛及其合金的特殊材料

▶ Easy to cut threads even if exotic materials like Nickel, Titanium or their alloys.



- ▶ 原材料:整体硬质合金
- ▶ 柄部:DIN6535 HA
- ▶ 螺旋角度:15°
- ▶ 螺纹长度:2×D

- ▶ Material : Solid Carbide
- ▶ Shank : DIN6535 HA
- ▶ Spiral Angle : 15°
- ▶ Thread Length : 2×D



单位(Unit) : mm

型号 EDP No.		通称直径 Nominal Diameter [D]	牙距 T.P.I.	刃部直径 Cutter Diameter D1	柄径 Shank Diameter D2	螺纹长 Thread Length L1	全长 Over All Length L2	角度 Angle A	槽数 No. of Flute Z
UNCOATED	TiAIN								
L4173400	L4273400	1/4"	20	4.8	8	13.3	62	90°	3
L4173440	L4273440	5/16"	18	6.2	10	16.18	74	90°	3
L4173480	L4273480	3/8"	16	7.6	12	19.8	80	90°	4
L4173520	L4273520	7/16"	14	8.9	12	22.62	80	90°	4
L4173560	L4273560	1/2"	13	10.3	14	26.32	90	90°	4
L4173600	L4273600	9/16"	12	11.7	16	30.63	100	90°	4
L4173640	L4273640	5/8"	11	13.1	18	33.41	102	90°	4
L4173700	L4273700	3/4"	10	16.0	20	39.29	110	90°	5

* 可以邀请其他的涂层方式。
 Other coatings are available on your request.

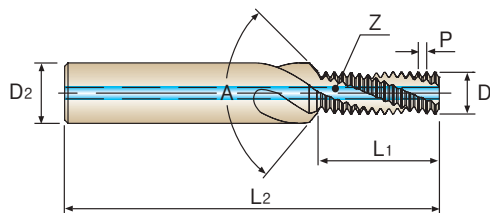
- COMBO TAPS
- SPIRAL POINT TAPS
- SPIRAL FLUTE TAPS
- STRAIGHT FLUTE TAPS
- LONG SHANK TAPS
- FLUTELRSS TAPS
- SCREW THREAD INSERT TAPS
- HAND TAPS
- PIPE TAPS
- CARBIDE TAPS
- SKS21 HAND TAPS
- SKS21 PIPE TAPS
- THREAD MILLS
- TECHNICAL DATA

UNF 带有内冷却油孔和倒角的整体硬质合金内螺纹的英制细牙螺纹铣刀-ANSI B 1.1

SOLID CARBIDE THREAD MILL WITH COOLANT HOLE & CHAMFER for UNF INTERNAL THREAD - ANSI B 1.1

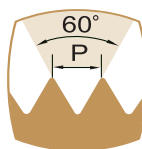
▶ 易切削螺纹用的材料如镍, 钛及其合金的特殊材料

▶ Easy to cut threads even if exotic materials like Nickel, Titanium or their alloys.



- ▶ 原材料: 整体硬质合金
- ▶ 柄部: DIN6535 HA
- ▶ 螺旋角度: 15°
- ▶ 螺纹长度: 2 × D

- ▶ Material : Solid Carbide
- ▶ Shank : DIN6535 HA
- ▶ Spiral Angle : 15°
- ▶ Thread Length : 2 × D



单位(Unit) : mm

型号		通称直径	牙距	刃部直径	柄径	螺纹长	全长	角度	槽数
EDP No.		Nominal Diameter [D]	T.P.I	Cutter Diameter	Shank Diameter	Thread Length	Over All Length	Angle	No. of Flute
UNCOATED	TiAIN	[D]		D1	D2	L1	L2	A	Z
L4174420	L4274420	1/4"	28	5.1	8	13.21	62	90°	3
L4174460	L4274460	5/16"	24	6.5	10	16.37	74	90°	3
L4174500	L4274500	3/8"	24	8.1	12	19.54	80	90°	4
L4174540	L4274540	7/16"	20	9.4	12	22.19	80	90°	4
L4174580	L4274580	1/2"	20	11.0	14	26	90	90°	4
L4174620	L4274620	9/16"	18	12.4	16	28.88	100	90°	4
L4174660	L4274660	5/8"	18	14.0	18	33.12	102	90°	5
L4174720	L4274720	3/4"	16	17.0	20	38.86	110	90°	5

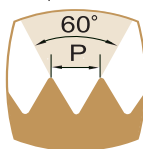
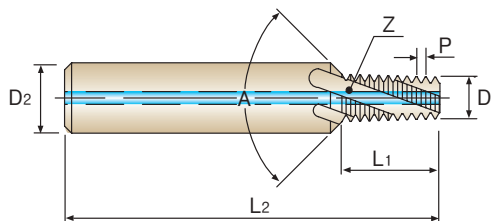
* 可以邀请其他的涂层方式.

Other coatings are available on your request.

NPT 带有内冷却油孔和倒角的整体硬质合金NPT螺纹铣刀-ANSI B 1.20.1 SOLID CARBIDE THREAD MILL WITH COOLANT HOLE & CHAMFER for NPT THREAD - ANSI B 1.20.1

▶ 易切削螺纹用的材料如镍，钛及其合金的特殊材料

▶ Easy to cut threads even if exotic materials like Nickel, Titanium or their alloys.



- ▶ 原材料:整体硬质合金
- ▶ 柄部:DIN6535 HA
- ▶ 螺旋角度:15°
- ▶ 螺纹长度:9×P

- ▶ Material : Solid Carbide
- ▶ Shank : DIN6535 HA
- ▶ Spiral Angle : 15°
- ▶ Thread Length : 9×P

单位(Unit) : mm

型号		通称直径 Nominal Diameter [D]	牙距 T.P.I	刃部直径 Cutter Diameter D1	柄径 Shank Diameter D2	螺纹长 Thread Length L1	全长 Over All Length L2	角度 Angle A	槽数 No. of Flute Z
EDP No.									
UNCOATED	TiAIN								
L4176020	L4276020	NPT1/16"	27	5.9	10	8.9	64	90°	3
L4176200	L4276200	NPT1/8"	27	7.8	12	8.9	70	90°	4
L4176400	L4276400	NPT1/4"	18	10.05	16	13.4	81	90°	4
L4176480	L4276480	NPT3/8"	18	13.45	18	13.4	81	90°	4

* 可以邀请其他的涂层方式。
 Other coatings are available on your request.

- COMBO TAPS
- SPIRAL POINT TAPS
- SPIRAL FLUTE TAPS
- STRAIGHT FLUTE TAPS
- LONG SHANK TAPS
- FLUTELRSS TAPS
- SCREW THREAD INSERT TAPS
- HAND TAPS
- PIPE TAPS
- CARBIDE TAPS
- SKS21 HAND TAPS
- SKS21 PIPE TAPS
- THREAD MILLS
- TECHNICAL DATA



螺纹铣削编程

PROGRAMMING OF THREAD MILLING

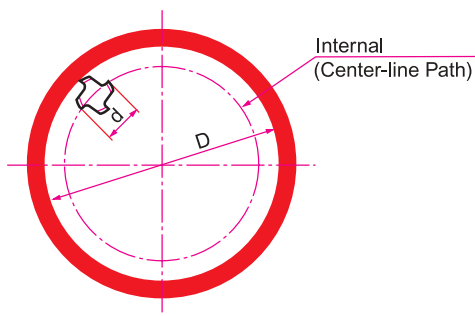
程序数据 / Program Data

螺纹铣的G代码 / G Codes for Thread Milling

G00	快速进给 Fast Feed Linear	G90	绝对命令 Absolute Command
G01	直线运动 Linear Movement	G91	增量命令 Incremental Command
G02	圆弧和螺旋插补 C.W Circular/Helical Interpolation C.W.	M03	顺时针旋转主轴 Clockwise Rotation of Spindle
G03	圆弧和螺旋插补 A.C.W Circular/Helical Interpolation A.C.W.	M05	主轴停止 Spindle Stop
G17	X, Y平面(垂直加工) X, Y Plane (Vertical Machining)	M08	冷却油开 Coolant On
G18	Z, X平面(水平加工) Z, X Plane (Horizontal Machining)	X	横向合作协调 Horizontal Co-ordinate
G19	Y, Z平面(使用90° 夹头) Y, Z Plane (Using 90° Head)	Y	横向合作协调 Horizontal Co-ordinate
G40	刀具半径补偿取消 Cutter Radius Compensation Cancel	Z	纵向合作协调 Vertical Co-ordinate
G41	刀具半径左补偿 Cutter Radius Compensation Left	I	沿着圆弧中心 X轴横向协调 X Co-ordinate to Center of Arc Travel
G42	刀具半径右补偿 Cutter Radius Compensation Right	J	沿着圆弧中心 Y轴横向协调 Y Co-ordinate to Center of Arc Travel
G43	刀具长度补偿 Tool Length Compensation Plus	S	主轴转速 Spindle Speed R.P.M.
G49	刀具长度补偿取消 Tool Length Compensation Cancel	F	进给 Feed mm/min

数控内螺纹铣削 / CNC Internal Thread Milling

G54	G90	G00	X...	Y...	Z2	T1	S...	M03
G91	G00	Z...(A3+2)						
G41	G01	D26	X...(A6)	Y...(A5)	F...			
G03	X...(A6)	Y...(A6)	Z...(A4)	I...(A6)	J0			
G03	X0	Y0	Z...(A2)	I0	J...(A1)			
G03	X...(A6)	Y...(A6)	Z...(A4)	I0	J...(A6)			
G00	G40	X...(A6)	Y...(A5)					
G00	Z...(A7)							
G90	G49	G00	Z200	M5				
M30								



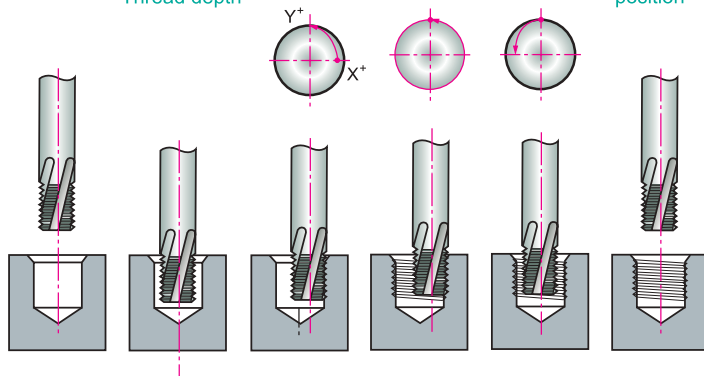
参数说明

Explanation of Parameters

- A1:** 1/2 公称螺纹直径 1/2D
1/2 Nominal Thread Diameter 1/2D
- A2:** 螺纹齿距
Thread Pitch
- A3:** 螺纹深度
Thread Depth
- A4:** 1/4P (增大铣削和右旋螺纹)
1/4P (for climb milling and right-hand thread)
- A5:** 从轮廓开始 Y0.5xP
Beginning of Contour in Y 0.5xP
- A6:** 圆弧停止 (A1-A5)
Arc Off (A1 - A5)
- A7:** A3+2-0.5P
A3+2-0.5P
- T1:** 刀具半径进行编程工具是正常的存储工具
Cutter radius to be programmed is normally included in the tool memory

起始位置 先进的刀具以充足螺纹的深度 切线的方式 螺纹铣削 圆弧停止 快速返回起始位置

Starting Position Advanced tool to full Thread depth Tangential Approach Thread Milling Arc off Rapid Back to start position





推荐的切削速度

RECOMMENDED CUTTING SPEED

单位(Unit) : mm

Materials	Cutting Speed (m/min)	Feed per Tooth (fz)	
		Cutter Diameter ≤ Ø8.0	Cutter Diameter > Ø8.0
低碳钢和中碳钢 Low Carbon Steels Medium Carbon Steels	80 - 120	0.02 - 0.04	0.04 - 0.10
高碳钢 High Carbon Steels	80 - 120	0.02 - 0.04	0.04 - 0.10
合金钢 Alloy Steels	80 - 120	0.02 - 0.04	0.04 - 0.10
热处理钢 Heat Treated Steels	60 - 100	0.02 - 0.04	0.04 - 0.10
不锈钢 Stainless Steels	40 - 80	0.01 - 0.02	0.02 - 0.06
铸铁 Cast Iron	50 - 100	0.02 - 0.04	0.04 - 0.10
铬镍合金钛合金 Chrome-Nickel Alloys Titanium Alloys	20 - 60	0.01 - 0.02	0.02 - 0.06
有色金属材料 Non Ferrous Materials	100 - 300	0.03 - 0.07	0.05 - 0.10

COMBO TAPS

SPIRAL POINT TAPS

SPIRAL FLUTE TAPS

STRAIGHT FLUTE TAPS

LONG SHANK TAPS

FLUTELRSS TAPS

SCREW THREAD INSERT TAPS

HAND TAPS

PIPE TAPS

CARBIDE TAPS

SKS21 HAND TAPS

SKS21 PIPE TAPS

THREAD MILLS

TECHNICAL DATA

计算速度和进给速度

TO CALCULATE SPEED & FEED RATES

计算刀具转速

Calculate R.P.M of cutter

$$N = \frac{1000 \times V}{d \times \pi}$$

计算每步的运转

Calculate Feed per Revolution

$$F_1 = fz \times Z \times N$$

最后计算工具中心线进给

Finally Calculate Feed at Tool Center Line

$$F_2 = \frac{F_1 \times (D - d)}{D}$$

N : 转速
R.P.M

V : 推荐的切削条件
Recommended Cutting Speed

d : 刀具的直径
Diameter of Cutter

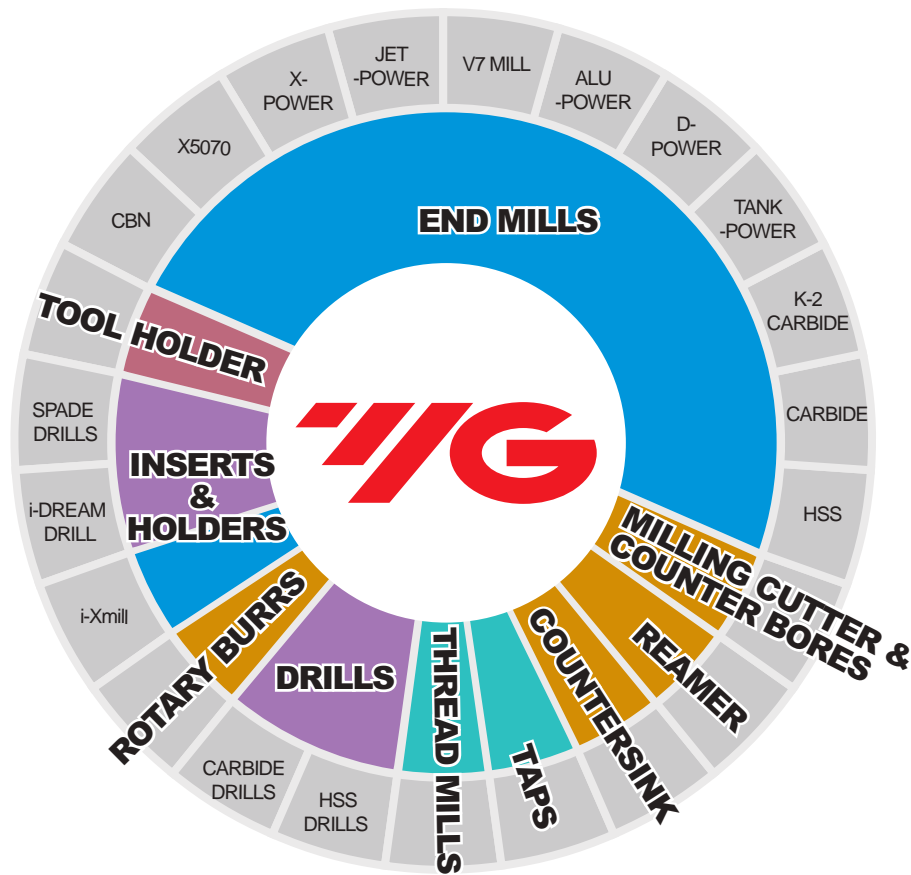
F₁ : 切削刃的进给
Feed at Cutting Edge

fz : 推荐的每步进给
Recommended Feed per Tooth

Z : 齿数
Number of Teeth

F₂ : 中心切削线的进给
Feed at Center Line of Cutting

D : 直径的主要组成部分
Major Diameter of Component



Challenge toward a Global Leader-

YG-1 Leads the World Market.