



# 再见了，烂牙！ 追加锥管螺纹

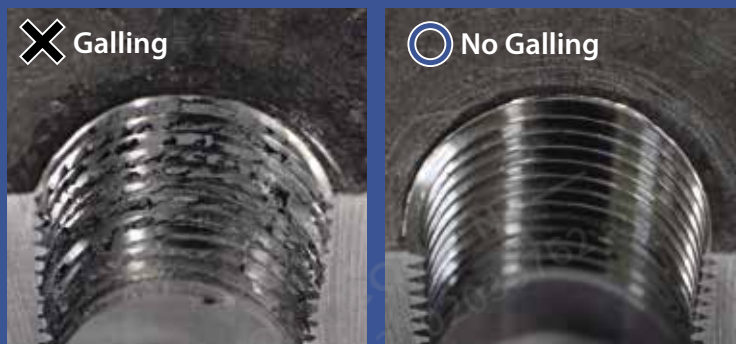
Newly expanded taper pipe tap lineup to help you achieve the perfect thread with no galling!

“即使是锥管螺纹，有没有一把丝锥能够加工出无烂牙的螺纹？”  
为了回应客户的需求，我们追加了 A 丝锥管用型丝锥。

封面的内螺纹照片，是分别使用以往型与 A 丝锥在加工 SS400 时的对比图。

Manufacturers have demanded for “a reliable tap for taper pipe threads free of galling.”  
We have answered such a calling with the new A-Tap series taper pipe tap lineup.

The images below features a comparison of hole quality between a conventional taper pipe tap and the A-Tap series taper pipe tap in SS400.



加工 SS400 的照片  
Image to process taper pipe thread in SS400 material

## 刃倾角丝锥 通孔用 Spiral Pointed Tap for Through Holes

### 公制螺纹 Metric Screw Thread

A-POT ..... 39

铣刀柄型 ..... 51  
End Mill Shank

A-LT-POT 长柄型 ..... 47  
Long Shank

铣刀柄型 ..... 52  
End Mill Shank

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## DIN 规格

### DIN Standard

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## 攻丝刀柄

Tap Holder

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### 标记种类 Guide for Icons

#### 1 材质 Tool Materials

CPM 粉末高速钢  
Powder Metallurgy HSS (CPM)

HSSE 高钒高速钢  
High Vanadium HSS

#### 2 表面处理 Surface Treatment

V 涂层  
(复合多层涂层)  
V (Composite multi-layered) Coating

#### 3 柄部 Shank

SHANK  
h7 表示柄部精度  
Tolerance for Shank Diameter

#### 4 螺旋角 Helix Angle

45° 表示丝锥螺旋角  
Helix angle of flute for taps

#### 5 切削条件 Cutting Conditions

SPEED FEED 表示切削条件表所在页码  
Indicates page number for cutting conditions

■ A-SFT・A-LT-SFT・A-OIL-SFT (～ M24、2.5P)

切削速度 (m/min) Cutting Speed		0	10	20	30	40	50	60	70
中・高碳素钢 Medium Carbon Steel High Carbon Steel	S45C		5-15	15-50			50-75		
合金钢 Alloy Steel	SCM		5-10	10-15	15-30				
一般构造用钢 Mild Steel	SS400		5-20 <sup>(*)</sup>						
不锈钢 Stainless Steel	SUS304 SUS420		5-10	10-15					
铝 Aluminum	AC ADC		5-50						
球墨铸铁 Ductile Cast Iron	FCD		5-50						

■ A-SFT (～ M24、短切削锥型1.5P・1P Short Chamfer) ・A-SFT HL・A-LT-SFT HL

切削速度 (m/min) Cutting Speed		0	10	20	30	40	50	60	70
中・高碳素钢 Medium Carbon Steel High Carbon Steel	S45C		3-15		15-30				
合金钢 Alloy Steel	SCM		3-8 <sup>(*)</sup>						
一般构造用钢 Mild Steel	SS400		3-20 <sup>(*)</sup>						
不锈钢 Stainless Steel	SUS304 SUS420		3-8 <sup>(*)</sup>						
铝 Aluminum	AC ADC		3-30						
球墨铸铁 Ductile Cast Iron	FCD		3-15						

■ A-SFT (M27 ～、2.5P) ・A-SFT(U) ・A-SPT(G)

切削速度 (m/min) Cutting Speed		0	10	20	30	40	50	60	70
中・高碳素钢 Medium Carbon Steel High Carbon Steel	S45C		3-8	8-15					
合金钢 Alloy Steel	SCM		3-8	8-15					
一般构造用钢 Mild Steel	SS400		3-15 <sup>(*)</sup>						
不锈钢 Stainless Steel	SUS304 SUS420		3-8						
铝 Aluminum	AC ADC		3-20						
球墨铸铁 Ductile Cast Iron	FCD		3-15						

■ A-SFT・A-LT-SFT (铣刀柄型 End Mill Shank)

切削速度 (m/min) Cutting Speed		0	10	20	30	40	50	60	70
中・高碳素钢 Medium Carbon Steel High Carbon Steel	S45C		5-15	15-50			50-75		
合金钢 Alloy Steel	SCM		5-10	10-15	15-30				
一般构造用钢 Mild Steel	SS400		5-20 <sup>(*)</sup>						
不锈钢 Stainless Steel	SUS304 SUS420		5-10	10-15					
铝 Aluminum	AC ADC		5-50						
球墨铸铁 Ductile Cast Iron	FCD		5-75						

推荐范围 Advisable      可加工范围 Possible



### ■ A-TPT·A-S-TPT·A-SPT(Rp·NPS)

切削速度(m/min) Cutting Speed		0	10	20	30	40	50	60	70
中·高碳素钢 Medium Carbon Steel High Carbon Steel	S45C		2-5	5-10					
合金钢 Alloy Steel	SCM		2-5 <sup>(*)</sup>						
一般构造用钢 Mild Steel	SS400		2-5	5-10					
不锈钢 Stainless Steel	SUS304 SUS420		2-5						
铝 Aluminum	AC ADC		2-5	5-10					
球墨铸铁 Ductile Cast Iron	FCD		2-5						

### ■ A-POT·A-LT-POT

切削速度(m/min) Cutting Speed		0	10	20	30	40	50	60	70
中·高碳素钢 Medium Carbon Steel High Carbon Steel	S45C		5-15	15-50	15-50	15-50	50-75	50-75	50-75
合金钢 Alloy Steel	SCM		5-10	10-30	10-30	30-50	30-50		
一般构造用钢 Mild Steel	SS400		5-15	15-50	15-50	15-50	50-75	50-75	50-75
不锈钢 Stainless Steel	SUS304 SUS420		5-15	15-30	15-30				
铝 Aluminum	AC ADC			5-50	5-50	5-50	5-50		
球墨铸铁 Ductile Cast Iron	FCD			5-50	5-50	5-50	5-50		

### ■ A-POT·A-LT-POT (铣刀柄型 End Mill Shank)

切削速度(m/min) Cutting Speed		0	10	20	30	40	50	60	70
中·高碳素钢 Medium Carbon Steel High Carbon Steel	S45C		5-15	15-75	15-75	15-75	15-75	15-75	15-75
合金钢 Alloy Steel	SCM		5-10	10-30	10-30	30-50	30-50		
一般构造用钢 Mild Steel	SS400		5-15	15-50	15-50	15-50	50-75	50-75	50-75
不锈钢 Stainless Steel	SUS304 SUS420		5-15	15-30	15-30				
铝 Aluminum	AC ADC			5-50	5-50	5-50	5-50		
球墨铸铁 Ductile Cast Iron	FCD			5-75	5-75	5-75	5-75		

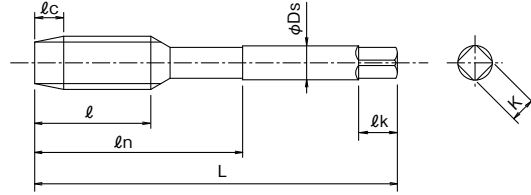
推荐范围 Advisable  
可加工范围 Possible

1. 切削速度请确认好实际加工情况进行选定。
2. 这张切削条件基准表是使用水溶性切削油剂的情况
3. 根据切削油剂的情况，有可能不能发挥十足的性能
4. 虽然铣刀柄产品可对应筒夹刀柄，铣刀刀柄等，但需使用弹簧夹头。  
(\*请注意加工范围。

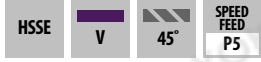
1. Cutting speed should be adjusted according to the machining conditions.
2. The indicated speeds and feeds are for tapping with water-soluble oil.
3. Depending on the coolant condition, it may not show a good results.
4. Although taps with end mill shank are compatible with a collet holder, milling holder and etc., use a holder with a detent.  
(\*Please set cutting speed carefully.



# A-SPT



■ 切削锥长 ( $l_c$ ) 2.5P、1.5P  
Chamfer Length



螺纹种类: Rp 螺纹部精度ISO 适用

单位:mm Unit:mm

商品号 EDP No.	尺寸 Thread Size	切削锥部 $l_c$	全长 L	螺纹部长度 $l$	颈长 $l_n$	柄径 Ds	槽数 Flutes	推荐底孔径 Recommended drill hole dia.	库存 Stock
8327701	Rp $\frac{1}{16}$ - 28	2.5P	90	14	36	8	3	*	○
8327711		1.5P							
8327702	Rp $\frac{1}{8}$ - 28	2.5P	90	15	37	8	3	*	
8327712		1.5P							
8327703	Rp $\frac{1}{4}$ - 19	2.5P	100	19	49	11	3	*	
8327713		1.5P							
8327704	Rp $\frac{3}{8}$ - 19	2.5P	100	21	50	14	4	*	
8327714		1.5P							
8327705	Rp $\frac{1}{2}$ - 14	2.5P	125	26	60	18	4	*	
8327715		1.5P							
8327707	Rp $\frac{3}{4}$ - 14	2.5P	140	28	74	23	4	*	
8327717		1.5P							
8327709	Rp 1 - 11	2.5P	160	33	80	26	4	*	
8327719		1.5P							

螺纹种类: G

单位:mm Unit:mm

商品号 EDP NO.	尺寸 Thread Size	切削锥部 $l_c$	精度标识 Grade	精度 TAP Limit	全长 L	螺纹部长度 $l$	颈长 $l_n$	柄径 Ds	槽数 Flutes	推荐底孔径 Recommended drill hole dia.	库存 Stock
8327400	G $\frac{1}{16}$ - 28	2.5P	STD	OH3	90	14	36	8	3	6.7	○
8327401	G $\frac{1}{8}$ - 28	2.5P	STD	OH3	90	15	32	8	3	8.7	
8327402	G $\frac{1}{4}$ - 19	2.5P	STD	OH3	100	19	35	11	3	11.7	
8327403	G $\frac{3}{8}$ - 19	2.5P	STD	OH3	100	21	44	14	4	15.2	
8327404	G $\frac{1}{2}$ - 14	2.5P	STD	OH3.5	125	26	55	18	4	19	
8327405	G $\frac{5}{8}$ - 14	2.5P	STD	OH3.5	125	26	60	19	4	21	
8327406	G $\frac{3}{4}$ - 14	2.5P	STD	OH3.5	140	28	69	23	4	24.5	
8327407	G $\frac{7}{8}$ - 14	2.5P	STD	OH3.5	150	29	75	24	4	28	
8327408	G 1 - 11	2.5P	STD	OH4	160	33	80	26	4	30.5	

■ 标记的说明请参照 p.2.

■ 柄部四方部尺寸  $l_k$ , K 请参见 p.56.

\* 推荐底孔径请参考 p.60.

1. 精度栏   是相当于2级内螺纹适应的丝锥推荐精度。
2. 丝锥精度不能保证内螺纹精度。
3. 使用进给不稳定的机械时, 可能会发生内螺纹扩大的问题, 请务必注意。
4. 不推荐再研磨。

■ See p.2 for explanation of marks.

■ See p.56 for shank square length ( $l_k$ ) and width (K).

\* Please see p.60 for recommended drill hole dia.

1. The recommended tap limit corresponds to JIS class 2 internal thread standard.
2. Tap limit does not guarantee thread limit for the internal thread after tapping.
3. Stable feed control machines are recommended to avoid over size tapping.
4. Regrinding is not recommended.



1982年,随着ISO导入后,JIS的管用螺纹规格,螺纹尺寸记号都已被修订,因为螺纹精度没有变化,所以新、旧记号可通用。

The JIS pipe thread standard was revised in 1982 to meet ISO standards. Although thread symbols changed, the limits were not changed. Therefore, it is still acceptable to use taps with both new and old symbols.

(JIS B 0202-1982  
JIS B 0203-1982)

种类 Type	旧记号 Old Symbol	新记号 New Symbol
耐密用锥管内螺纹 Taper pipe threads for pressure-tight joints	PT	Rc
耐密用平行管内螺纹 Parallel pipe threads for pressure-tight joints	PS	Rp
机械结合用平行管内螺纹 Parallel pipe threads for mechanical joints	PF	G

## 螺纹种类：NPS

单位:mm Unit:mm

商品号 EDP No.	尺寸 Thread Size	切削锥部 Øc	精度 TAP Limit	全长 L	螺纹部长度 Ø	颈长 Øn	柄径 Ds	槽数 Flutes	推荐底孔径 Recommended drill hole dia.	库存 Stock
8327691	1/16 - 27 NPS	2.5P	ANSI G	90	14	36	8	3	*	○
8327692	1/8 - 27 NPS	2.5P	ANSI G	90	15	37	8	3	*	
8327693	1/4 - 18 NPS	2.5P	ANSI G	100	19	49	11	3	*	
8327694	3/8 - 18 NPS	2.5P	ANSI G	100	21	50	14	4	*	
8327695	1/2 - 14 NPS	2.5P	ANSI G	125	26	60	18	4	*	
8327697	3/4 - 14 NPS	2.5P	ANSI G	140	28	74	23	4	*	
8327699	1 - 11 1/2 NPS	2.5P	ANSI G	160	33	80	26	4	*	

- 标记的说明请参照 p.2.
- 柄部四方部尺寸ℓk, K请参见 p.56.
- \* 推荐底孔径请参考 p.60.

1. 丝锥精度不能保证内螺纹精度。
2. 使用进给不稳定的机械时,可能会发生内螺纹扩大的问题,请务必注意。
3. 不推荐再研磨。

- See p.2 for explanation of marks.
- See p.56 for shank square length (ℓk) and width (K).
- \* Please see p.60 for recommended drill hole dia.

1. Tap limit does not guarantee thread limit for the internal thread after tapping.
2. Stable feed control machines are recommended to avoid over size tapping.
3. Regrinding is not recommended.

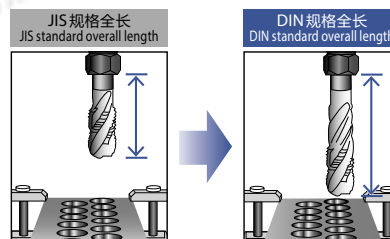
## 优势在这!

Key Point

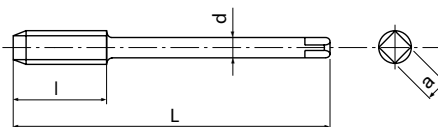
### A-TAP 管用 A-Tap Pipe Taps

长槽长及悬伸可以防止切屑问题!  
Long flute and overhang length geometry minimizes chip evacuation troubles!

- 全长: 加长的 DIN 规格
- Total length: DIN standard (longer than conventional)
- 柄部: 以往 JIS 规格
- Shank: JIS standard (conventional)



## A-SFT (A-SPT)



- 切削锥长2.5P  
Chamfer Length

- A-SFT为全尺寸突顶尖去除品  
The entire lineup of A-SFT is without external center on the screw side.



螺纹种类：G

单位:mm Unit:mm

商品号 EDP No.	尺寸 Thread Size	形状规格 Din	全长 L	螺纹部长度 l	柄径 d	四方部尺寸 a	槽数 Z	库存 Stock
48139900	G1/8-28	DIN5156	90	20	7	5.5	3	○
48139000	G1/4-19	DIN5156	100	22	11	9	3	
48139100	G3/8-19	DIN5156	100	22	12	9	4	
48139200	G1/2-14	DIN5156	125	25	16	12	4	
48139400	G3/4-14	DIN5156	140	28	20	16	4	
48139600	G1-11	DIN5156	160	30	25	20	4	

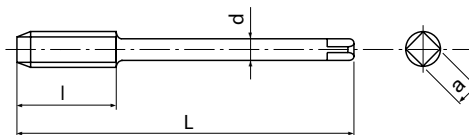
- 标记的说明请参照 p.2.

1. 丝锥精度不能保证内螺纹精度。
2. 使用进给不稳定的机械时，可能会发生内螺纹扩大的问题，请务必注意。
3. 不推荐再研磨。

- See p.2 for explanation of marks.

1. Tap limit does not guarantee thread limit for the internal thread after tapping.
2. Stable feed control machines are recommended to avoid over size tapping.
3. Regrinding is not recommended.

# A-POT (A-SPT)



■ 切削锥长4P  
Chamfer Length



螺纹种类：G

单位:mm Unit:mm

商品号 EDP No.	尺寸 Thread Size	形状规格 Din	全长 L	螺纹部长度 l	柄径 d	四方部尺寸 a	槽数 Z	库存 Stock
48145900	G1/8-28	DIN5156	90	20	7	5.5	3	○
48145000	G1/4-19	DIN5156	100	22	11	9	3	
48145100	G3/8-19	DIN5156	100	22	12	9	3	
48145200	G1/2-14	DIN5156	125	25	16	12	3	
48145400	G3/4-14	DIN5156	140	28	20	16	4	
48145600	G1-11	DIN5156	160	30	25	20	4	

■ 标记的说明请参照p.2。

1. 丝锥精度不能保证内螺纹精度。
2. 使用进给不稳定的机械时，可能会发生内螺纹扩大的问题，请务必注意。
3. 不推荐再研磨。

■ See p.2 for explanation of marks.

1. Tap limit does not guarantee thread limit for the internal thread after tapping.
2. Stable feed control machines are recommended to avoid over size tapping.
3. Re grinding is not recommended.

