

YA22
ASIA

2022/2023



CUTTING TOOLS



THREADING

螺纹工具

YG YG-1 CO., LTD.

THREADING TOOLS

整体硬质合金螺纹铣刀

粉末高速钢同步丝锥

HSS-E Combo 丝锥

YG 普通用途HSS&HSS-E丝锥

YG 钢用HSS-E丝锥

YG 高硬度钢用粉末高速钢丝锥

YG 不锈钢用HSS-E丝锥

YG 铸铁用硬质合金&HSS-E丝锥

YG 铝用硬质合金&HSS-E丝锥

YG 钛镍用粉末高速钢丝锥

YG HSS-E 挤压丝锥

HSS-E& HSS 嵌套丝锥

HSS-E&HSS 管用丝锥

SKS21手用丝锥

SKS21管用丝锥

技术参数

SOLID CARBIDE THREAD MILLS

HSS-PM SYNCHRO TAPS

HSS-E COMBO TAPS

HSS & HSS-E YG TAP GENERAL

HSS-E YG TAP STEEL

HSS-PM YG TAP HARDENED

HSS-E YG TAP INOX

SOLID CARBIDE & HSS-E YG TAP CAST IRON

SOLID CARBIDE & HSS-E YG TAP ALU

HSS-PM YG TAP Ti Ni

HSS-E YG TAP FORMING

HSS-E & HSS SCREW THREAD INSERT TAPS

HSS-E & HSS PIPE TAPS

SKS21 HAND TAPS

SKS21 PIPE TAPS

TECHNICAL DATA

SOLID CARBIDE THREAD MILLS

SOLID CARBIDE HSS HSS-E HSS-PM MACHINE TAPS

HSS-E & HSS PIPE TAPS

SKS21 HAND TAPS & PIPE TAPS

TECHNICAL DATA

整体硬质合金螺纹铣刀 大直径高质量螺纹加工/倒角功能可选	SOLID CARBIDE THREAD MILLS (with & without Coolant Holes) Threading Large Diameter in High Quality / Available with Chamfer	THREAD MILLS
粉末高速钢同步丝锥 刚性数控机床高速攻丝	HSS-PM SYNCHRO TAPS (Spiral Flute, Spiral Point, Straight Flute & Cold Forming) For High Speed Tapping on Rigid CNC Machine	SYNCHRO TAPS
HSS-E Combo 丝锥 多用途丝锥	HSS-E COMBO TAPS For Multi Purpose Tapping	COMBO TAPS
YG 普通用途HSS&HSS-E丝锥 独特的槽形设计和排屑能力, 适合通, 盲孔加工	HSS & HSS-E YG TAP GENERAL Suitable for Tapping Blind / Through Holes due to Flute Geometry and Excellent Chip Evacuation	YG TAP GENERAL
YG 钢用HSS-E丝锥 适合钢及其它长屑材料	HSS-E YG TAP STEEL For Steel Materials but also other Long Chip Forming Materials	YG TAP STEEL
YG 高硬度钢用粉末高速钢丝锥 淬硬钢用丝锥	HSS-PM YG TAP HARDENED For Hardened Steels Applications to Control the Continuous and Red-glowing Chips	YG TAP HARDENED
YG 不锈钢用HSS-E丝锥 不锈钢专用丝锥	HSS-E YG TAP INOX For Stainless Steels with Lamellar, Irregular Chip Formation where the Cutting Forces are Higher	YG TAP INOX
YG 铸铁用硬质合金&HSS-E丝锥 对于铸铁或类似材料	SOLID CARBIDE & HSS-E YG TAP CAST IRON For Cast Iron or Similar Work Materials	YG TAP CAST IRON
YG 铝用硬质合金&HSS-E丝锥 采用大排屑槽设计, 适合长屑铝合金攻丝, 避免缠屑	SOLID CARBIDE & HSS-E YG TAP ALU For long-chipping Aluminum Wrought Alloys with Large Chip Gullets to Avoid Clogging in the Threading Operations	YG TAP ALU
YG 钛镍用粉末高速钢丝锥 耐热超合金和钛合金用丝锥	HSS-PM YG TAP Ti Ni For Heat Resistant Super Alloys and Titanium Alloys Applied with Cutting Edge Rake Angles and Thread Relief	YG TAP Ti Ni
YG HSS-E 挤压丝锥 软材料挤压成形攻丝	HSS-E YG TAP FORMING Tapping by Forming Soft Materials	YG TAP FORMING
HSS-E& HSS 嵌套丝锥 软材料加工嵌套螺纹	HSS-E & HSS SCREW THREAD INSERT TAPS Tapping STI Threads of Soft Materials	STI TAPS
HSS-E&HSS 管用丝锥 惠氏管用螺纹加工	HSS-E & HSS PIPE TAPS Tapping Whitworth Pipe threads	PIPE TAPS
SKS21手用丝锥 实现高强度加工, 易装配	SKS21 HAND TAPS To Achieve High Strength. Easy Assembling.	SKS21 HAND TAPS
SKS21管用丝锥 实现高强度加工, 易装配	SKS21 PIPE TAPS To Achieve High Strength. Easy Assembling.	SKS21 PIPE TAPS
技术参数	TECHNICAL DATA	TECHNICAL DATA

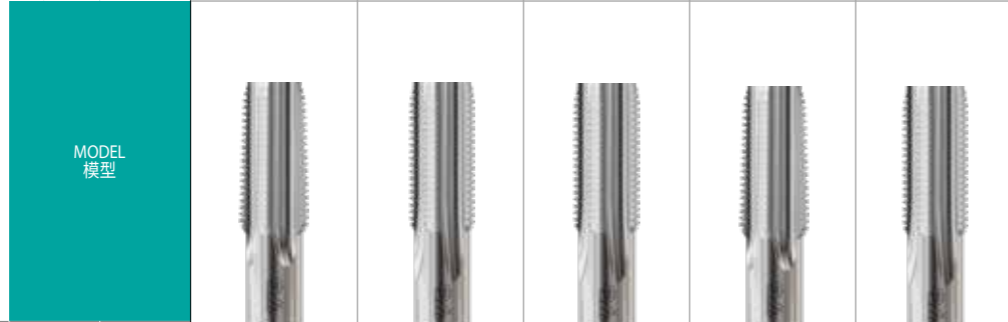
SELECTION GUIDE



THREADING TOOLS

SKS21 PIPE TAPS

HOLE TYPE 孔类型	Max. 2.0xD Blind/Through Hole				
TOOL MATERIAL 刀具材料	SKS21				
CHAMFER LEAD ACC. TO DIN2197 倒角长度	3.0P	3.0P	3.0P	3.0P	3.0P
FLUTE TYPE 槽型	Straight Flute 直槽旋	Straight Flute 直槽旋	Straight Flute 直槽旋	Straight Flute 直槽旋	Straight Flute 直槽旋
SPIRAL FLUTE ANGLE 螺旋槽夹角	-	-	-	-	-
JIS Type	PT	PS	PF	NPT	NPS
M/MF					
UNC/F					
W					
M-LH W-LH					
PIPE TAPS	TSK34 (p. B224)	TSK35 (p. B225)	TSK36 (p. B226)	TSK37 (p. B227)	TSK38 (p. B228)
SURFACE TREATMENT 表面处理	Bright	Bright	Bright	Bright	Bright



Please visit globalyg1.com/mat for material search

◎ : Excellent ○ : Good

ISO 公制	VDI 3323	Material Description 材料描述	HB 布氏硬度	HRC 硬度	1	2	3	4	5
P	1	Non-alloy steel	125		○	○	○	○	○
	2		190	13	○	○	○	○	○
	3		250	25	○	○	○	○	○
	4		270	28					
	5	300	32						
	6	Low alloy steel	180	10	○	○	○	○	○
	7		275	29					
	8		300	32					
	9	High alloyed steel, and tool steel	350	38					
	10		200	15	○	○	○	○	○
	11		325	35					
M	12	Stainless steel	200	15					
	13		240	23					
	14		180	10					
K	15	Grey cast iron	180	10	○	○	○	○	○
	16		260	26	○	○	○	○	○
	17	Nodular cast iron	160	3	○	○	○	○	○
	18		250	25					
	19	Malleable cast iron	130						
	20		230	21					
N	21	Aluminum-wrought alloy	60		○	○	○	○	○
	22		100		○	○	○	○	○
	23	Aluminum-cast, alloyed	75		○	○	○	○	○
	24		90						
	25		130						
	26	Copper and Copper Alloys (Bronze / Brass)	110		○	○	○	○	○
	27		90		○	○	○	○	○
	28		100						
	29		Non Metallic Materials						
	30								
S	31	Heat Resistant Super Alloys	200	15					
	32		280	30					
	33		250	25					
	34		350	38					
	35	320	34						
	36	Titanium Alloys	400 Rm						
	37		1050 Rm						
H	38	Hardened steel	550	55					
	39		630	60					
	40	Chilled Cast Iron	400	42					
	41	Hardened Cast Iron	550	55					

CUTTING SPEED TABLE

CUTTING SPEED TABLE / 切削速度表
Cutting Speeds m/min. into revolutions per minute / 切削速度mm

Tool Dia.	TOOL R.P.M. (rev/min)															
	Cutting Speed (m/min)															
	1	2	3	4	5	6	8	10	12	15	20	25	30	40	50	60
1	318	637	955	1274	1592	1910	2548	3185	3822	4777	6396	7962	9554	12739	15924	19108
2	159	318	478	637	796	955	1274	1592	1911	2388	3185	3981	4777	6369	7962	9554
3	106	212	318	425	531	637	849	1062	1274	1592	2123	2654	3185	4246	5308	6369
4	80	159	239	318	398	478	637	796	955	1194	1592	1990	2389	3185	3981	4777
5	64	127	191	255	318	382	510	637	764	955	1274	1592	1911	2548	3185	3822
6	53	106	159	212	265	318	425	531	637	796	1062	1327	1592	2123	2653	3185
8	40	80	119	159	199	239	318	398	478	597	796	955	1194	1592	1990	2388
10	31	64	96	127	159	191	255	318	382	478	637	796	955	1274	1592	1911
12	26	53	80	106	133	159	212	265	318	398	531	663	796	1062	1327	1592
14	23	45	68	91	114	136	182	227	273	341	455	569	682	910	1137	1365
16	20	40	60	80	100	119	159	199	239	299	398	498	597	796	995	1194
18	18	35	53	71	88	106	142	177	212	265	354	442	531	708	885	1062
20	16	32	48	64	80	96	127	159	191	239	318	398	478	637	796	955
25	13	25	38	51	64	76	102	127	153	191	255	318	382	510	637	764
30	11	21	32	42	53	64	85	106	127	159	212	265	318	425	531	637
35	9	18	27	36	45	55	73	91	109	136	182	227	273	364	455	546
40	8	16	24	32	40	48	64	80	96	119	159	199	239	318	398	478

RPM = rev/min
V = m/min
D = Dia.(mm)

$$V = \frac{RPM \cdot \pi \cdot D}{1000}$$

$$RPM = \frac{1000 \cdot V}{\pi \cdot D}$$

SURFACE TREATMENT AND COATING / 表面处理及涂层

The applied High Speed Steels holds a grant of good wear resistance and toughness.

Therefore YG-1 normally delivers taps with bright and unfinished surface.

For certain materials, various surface treatments provide higher advantage in machining.

高速钢具有良好的耐磨性和韧性，因此，YG-1通常交货的丝锥表面只有光亮处理。

对于某些材料，各种表面处理在机械加工中具有更高的优势。

STEAM TEMPERED - Vap

Steam Tempered is a Fe₃O₄-oxyd-coating which reduces friction between the tool and workpiece, also preventing cold welding.

蒸汽处理是一种Fe₃O₄氧化涂层，减少了工具和工件之间的摩擦，也防止冷焊。

NITRIDING - NI

Recommend surface treatment for machining materials that affect wear abrasion, such as grey cast iron, alu-alloys with high Si-percentages (more than 10%).

建议对影响磨损的机械加工材料进行的表面处理，如灰铸铁，高硅含量(超过10%)的铝合金。

Below are the various surface treatments for excellent finish surfaces suitable for many applications.

The surface treatments are produced and developed within the company.

下面是各种表面处理，为优秀的表面处理，适合多种应用。表面处理由公司自行生产和开发。

TiN-COATING TiN-涂层

TiN-coating yields a hardness of approx. 2,300 HV and also a heat resistant up to approx. 600°C.

The current coating is an excellent all-round coating for normal applications.

Colour : Golden Coefficient of friction against steel : 0.4

TiN的硬度约 2,300 HV, 耐热温度约600°C。

当前的涂料是一种优秀的全方位涂层，适用于普通应用。颜色:金色，与钢的摩擦系数:0.4

TiCN-COATING TiCN-涂层

TiCN takes place of TiN when the conditions require the coating to have a different hardness and toughness.

The TiCN brings advantages for machining very difficult steels or cutting interrupted bores.

The TiCN-coating has a hardness of approx. 3,000 HV, but is heat resistance only holds up to approx. 400°C, meaning that the TiCN needs an excellent cooling system for a long service life.

Colour : Blue-Grey Coefficient of friction against steel : 0.4

当条件要求涂层具有更高的硬度和韧性时，采用TiCN替代TiN。

TiCN对于加工非常难加工的钢或切削中断孔具有优势。

TiCN涂层的硬度约为 3,000 HV，但它的耐热性只能维持到大约400°C，这意味着TiCN需要一个优秀的冷却系统，以延长使用寿命。

颜色:蓝灰色与钢的摩擦系数:0.4。

TiAlN-COATING TiAlN-涂层

A special coating for machining abrasive materials such as grey cast iron, alu-alloys with silicon, fiber reinforced plastics, etc., or machining at high temperatures with insufficient cooling, or at high speeds $\geq 600\text{m/min}$.

TiAlN has a hardness of approx. 3,000 HV and is heat resistant up to approx. 800°C.

Colour : Violet-Grey Coefficient of friction against steel : 0.4

适用于磨削灰铸铁、含硅铝合金、纤维增强塑料等研磨材料，或在冷却不足的高温或高速下加工。

TiAlN的硬度约为 3,000 HV，耐热高达约800°C。

颜色:紫灰色与钢的摩擦系数:0.4

Hardslick-COATING Hardslick-涂层

Hardslick combines the advantages of an extremely hard, thermally stable TiAlN-coating with the sliding and lubricating properties of an outer WC/C(Tungsten carbide/carbon)-coating in a novel way.

The Hardslick coating has a hardness of approx. 3,000 HV and is temperature-resistant up to approx. 800°C.

Colour : Violet-Grey Coefficient of friction against steel : 0.2

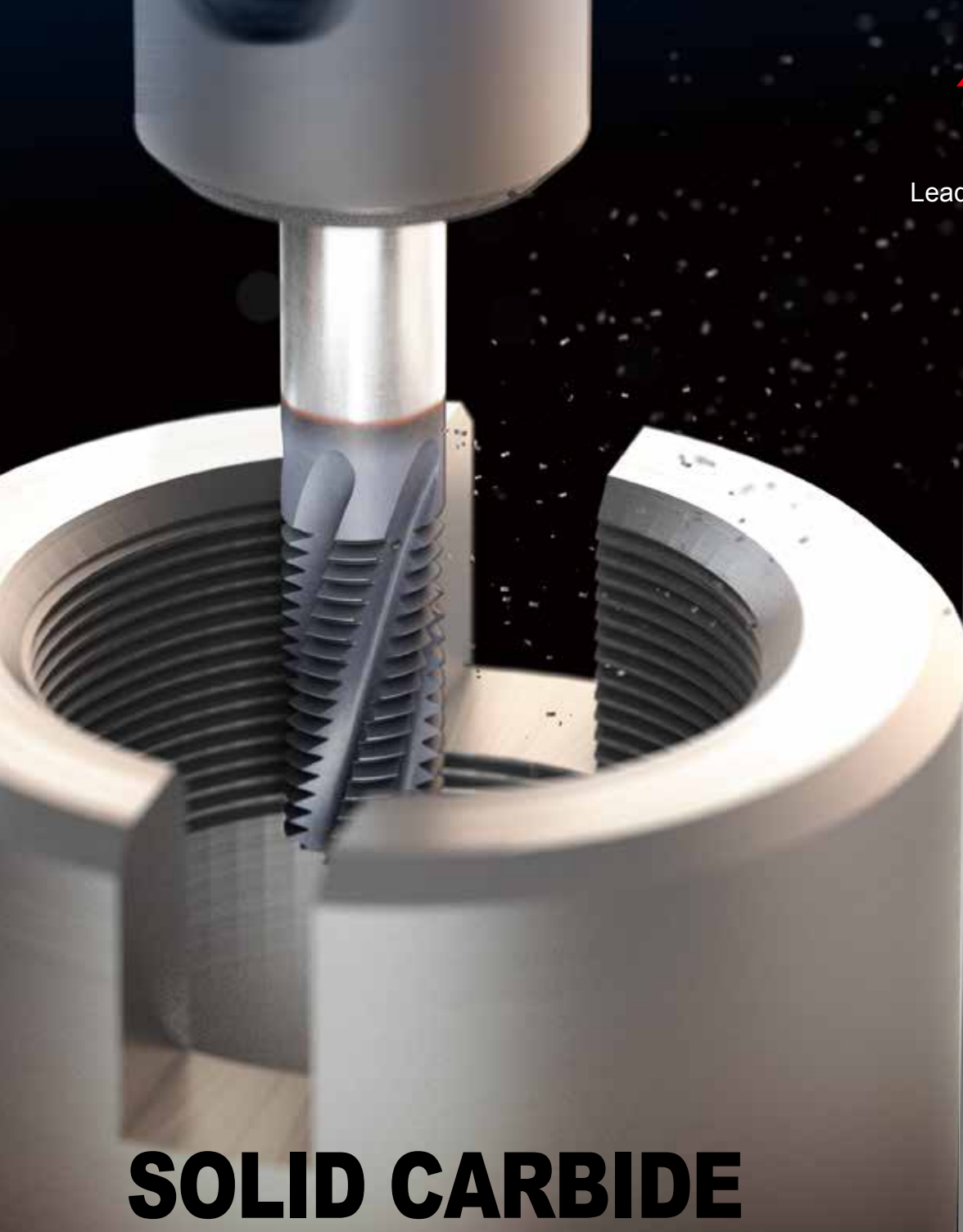
Hardslick以一种特殊的方式结合了TiAlN涂层极其坚硬、热稳定的优点，和外层WC/C(碳化钨/碳)涂层的滑动和润滑性能。

Hardslick涂层的硬度约为 3,000 HV，耐温度高达约800°C。

颜色:紫灰色与钢的摩擦系数:0.2



Leading Through Innovation



SOLID CARBIDE

THREAD MILLS

- Threading Large Diameter in High Quality Available with Chamfer
- 高质量大直径螺纹加工
可带倒角加工



SOLID CARBIDE THREAD MILLS

Threading Large Diameter in High Quality Available with Chamfer

高质量大直径螺纹加工 可带倒角加工



Scan this QR code to see our YG-1 TM Xpert Threading Mill CNC Program Generator

◎: Excellent (优秀) ○: Good (良好)

Table with columns: ISO 公制, VDI 3323, Material Description, Composition / Structure / Heat Treatment, HB 布氏硬度, HRC 硬度, and a grid of application suitability symbols (◎, ○) for various materials and conditions.

Thread Mill without Coolant Hole 带内冷却孔螺纹铣刀. Table with columns: TYPE 类型, THREAD FORM 螺纹形状 (M, MF, UNC, UNF), HOLE TYPE 孔类型, TOOL MATERIAL 刀具材料 (CARBIDE), FLUTE TYPE 槽型 (Helix 螺旋), HELIX ANGLE 螺旋角 (R15), SERIES NO. 系列号, SURFACE TREATMENT 表面处理 (TiAlN), and MODEL 模型.

Please visit globalyg1.com/mat for material search

Thread Mill with Coolant Hole 带内冷却孔螺纹铣刀&倒角. Table with columns: M, MF, BSP(G), M, MF, UNC, UNF, NPT, M, UNC, M, UNC, M. Includes images of various mill types and their application suitability symbols.

Table with columns: Helix 螺旋 (R15, R25), Helix 螺旋 (R15), Helix 螺旋 (R15), Straight 直槽螺旋, Helix 螺旋 (R25), and a grid of application suitability symbols (◎, ○) for various materials and conditions.

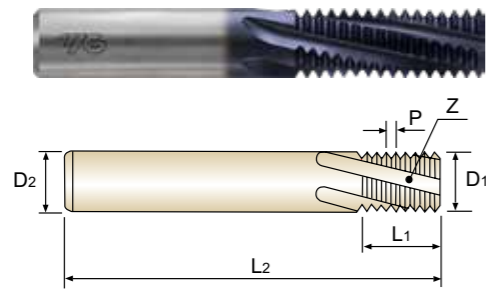
YG THREAD MILLS

L1211 SERIES

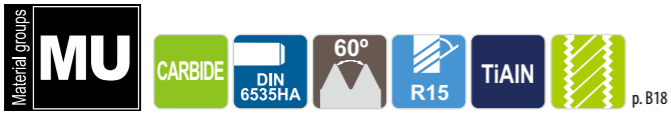
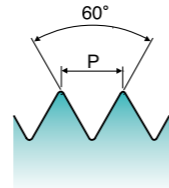
M SOLID CARBIDE THREAD MILL for ISO METRIC INTERNAL THREAD - DIN 13 ISO公制内螺纹用整体硬质合金螺纹铣刀-DIN 13

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

► 即使针对是镍, 钛等特殊材料, 可以轻松加工螺纹



Thread Depth
齿高
2.0×D



Flat Shank	Page	Plain Shank	Page
END MILL HOLDER	D117 - 137	HYDRAULIC CHUCK SHRINK FIT HOLDER	D15 - 46 D47 - 72
		POWER MILLING CHUCK	D161 - 176
		ER COLLET CHUCK SKSUM CHUCK	D73 - 115 D183 - 201

Unit(单位) : mm

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

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

◎ : Excellent (优秀) ○ : Good (良好)

ISO Material Description	P										M						K																								
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel						Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron																		
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	13	25	28	32	10	29	32	38	15	35	15	23	10	10	26	3	25	13	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230	130	230	130	230	130	230	130	230	130	230	130	230	130	230	130	230	130	130	230	130	230
Recommended	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

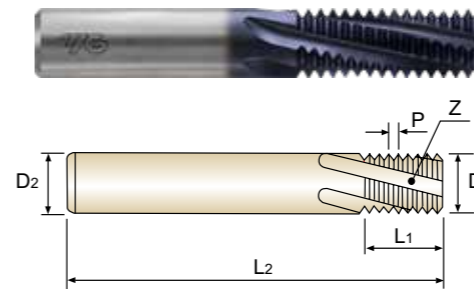
YG THREAD MILLS

L1212 SERIES

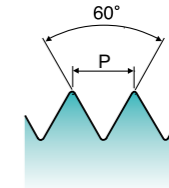
MF SOLID CARBIDE THREAD MILL for ISO METRIC-FINE INTERNAL THREAD - DIN 13 ISO公制细牙内螺纹用整体硬质合金螺纹铣刀-DIN 13

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Thread Depth
齿高
1.5×D



Flat Shank	Page	Plain Shank	Page
END MILL HOLDER	D117 - 137	HYDRAULIC CHUCK SHRINK FIT HOLDER	D15 - 46 D47 - 72
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		ER COLLET CHUCK SKSUM CHUCK	D73 - 115 D183 - 201

Unit(单位) : mm

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

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

◎ : Excellent (优秀) ○ : Good (良好)

ISO Material Description	P										M						K																								
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel						Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron																		
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	13	25	28	32	10	29	32	38	15	35	15	23	10	10	26	3	25	13	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230	130	230	130	230	130	230	130	230	130	230	130	230	130	230	130	230	130	130	230	130	230
Recommended	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

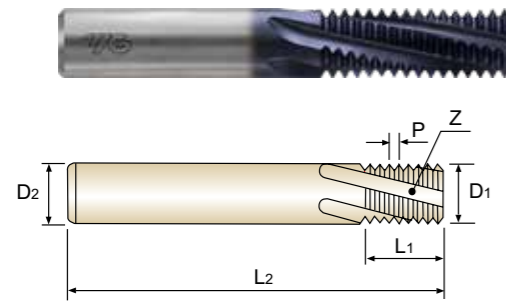
YG THREAD MILLS

L1213 SERIES

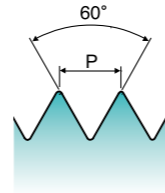
UNC SOLID CARBIDE THREAD MILL for UNC INTERNAL THREAD - ANSI B 1.1 美制内螺纹用整体硬质合金螺纹铣刀- ANSI B 1.1

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

► 即使针对是镍, 钛等特殊材料, 可以轻松加工螺纹



Thread Depth
齿高
2.0×D



Flat Shank	Page	Plain Shank	Page
END MILL HOLDER	D117 - 137	HYDRAULIC CHUCK SHRINK FIT HOLDER	D15 - 46 D47 - 72
POWER MILLING CHUCK			D161 - 176
ER COLLET CHUCK			D73 - 115 D183 - 201

Unit(单位) : mm

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

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

◎ : Excellent (优秀) ○ : Good (良好)

ISO Material Description	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
HRc	13	25	28	32	35	10	29	32	38	42	15	35	23	10	10	26	3	25	10	21	
HB	125	190	250	270	300	180	275	300	350	400	200	240	180	180	180	260	160	250	130	230	
Recommended	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	

ISO Material Description	N					S					H											
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys					Titanium Alloys		Hardened steel		Chilled Cast Iron		Hardened Cast Iron
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	
HRc	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550	
Recommended	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	

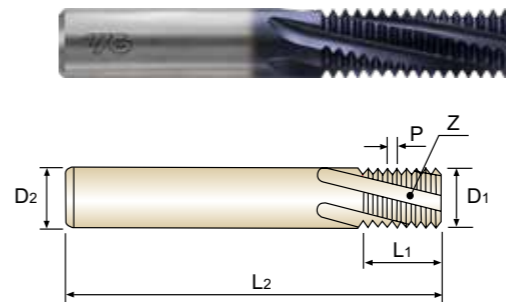
YG THREAD MILLS

L1214 SERIES

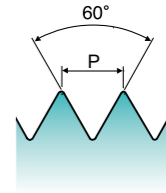
UNF SOLID CARBIDE THREAD MILL for UNF INTERNAL THREAD - ANSI B 1.1 美制细牙内螺纹用整体硬质合金螺纹铣刀- ANSI B 1.1

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

► 即使针对是镍, 钛等特殊材料, 可以轻松加工螺纹



Thread Depth
齿高
2.0×D



Flat Shank	Page	Plain Shank	Page
END MILL HOLDER	D117 - 137	HYDRAULIC CHUCK SHRINK FIT HOLDER	D15 - 46 D47 - 72
POWER MILLING CHUCK			D161 - 176
ER COLLET CHUCK			D73 - 115 D183 - 201

Unit(单位) : mm

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

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

◎ : Excellent (优秀) ○ : Good (良好)

ISO Material Description	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
HRc	13	25	28	32	35	10	29	32	38	42	15	35	23	10	10	26	3	25	10	21	
HB	125	190	250	270	300	180	275	300	350	400	200	240	180	180	180	260	160	250	130	230	
Recommended	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	

ISO Material Description	N					S					H											
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys					Titanium Alloys		Hardened steel		Chilled Cast Iron		Hardened Cast Iron
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	
HRc	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550	
Recommended	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	

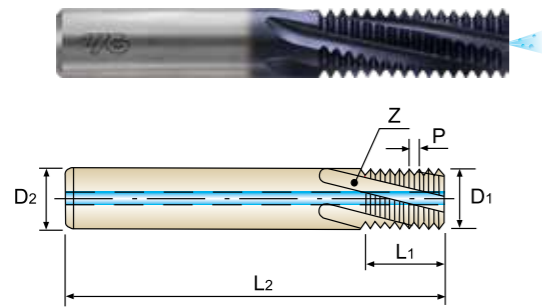
Y/G THREAD MILLS

L4211 SERIES

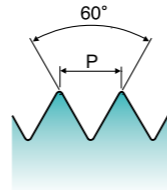
M SOLID CARBIDE THREAD MILL WITH COOLANT HOLE for ISO METRIC INTERNAL THREAD - DIN 13 ISO公制内螺纹用带内冷却孔整体合金螺纹铣刀- DIN 13

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

► 即使针对是镍, 钛等特殊材料, 可以轻松加工螺纹



Thread Depth
齿高
2.0×D



Recommended ToolHolder	Flat Shank		Plain Shank	
	Page	Page	Page	Page
⊙	END MILL HOLDER D117-137	HYDRAULIC CHUCK SHRINK FIT HOLDER D15-46 D47-72		
⊙	POWER MILLING CHUCK D161-176			
○	ER COLLET CHUCK SKSLIM CHUCK D73-115 D183-201			

Unit(单位) : mm

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

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

⊙ : Excellent (优秀) ○ : Good (良好)

ISO Material Description	P										M				K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron	Nodular cast iron		Malleable cast iron
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	25	28	32	35	10	29	32	38	42	15	35	38	42	10	26	3	25	10	21
HB	125	190	250	270	300	180	275	300	350	400	200	240	180	180	180	260	160	250	130	230
Recommended	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	○	○	○	○	⊙	⊙	⊙	⊙	⊙	⊙

ISO Material Description	N					S					H										
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys					Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron	
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	○	○	○	○	○	○	○	○	○	○	○

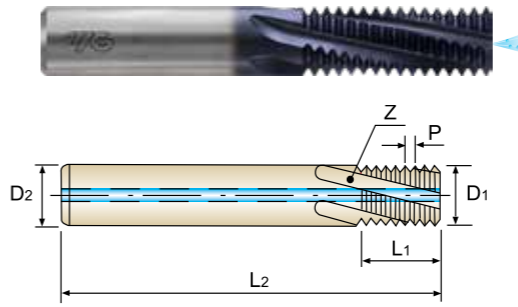
Y/G THREAD MILLS

L4212 SERIES

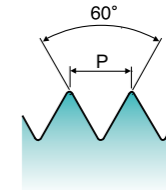
MF SOLID CARBIDE THREAD MILL WITH COOLANT HOLE for ISO METRIC-FINE INTERNAL THREAD - DIN 13 ISO公制细牙内螺纹用带内冷却孔整体合金螺纹铣刀- DIN 13

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

► 即使针对是镍, 钛等特殊材料, 可以轻松加工螺纹



Thread Depth
齿高
1.5×D



Recommended ToolHolder	Flat Shank		Plain Shank	
	Page	Page	Page	Page
⊙	END MILL HOLDER D117-137	HYDRAULIC CHUCK SHRINK FIT HOLDER D15-46 D47-72		
⊙	POWER MILLING CHUCK D161-176			
○	ER COLLET CHUCK SKSLIM CHUCK D73-115 D183-201			

Unit(单位) : mm

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

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

⊙ : Excellent (优秀) ○ : Good (良好)

ISO Material Description	P										M				K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron	Nodular cast iron		Malleable cast iron
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	25	28	32	35	10	29	32	38	42	15	35	38	42	10	26	3	25	10	21
HB	125	190	250	270	300	180	275	300	350	400	200	240	180	180	180	260	160	250	130	230
Recommended	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	○	○	○	○	⊙	⊙	⊙	⊙	⊙	⊙

ISO Material Description	N					S					H										
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys					Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron	
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	○	○	○	○	○	○	○	○	○	○	○

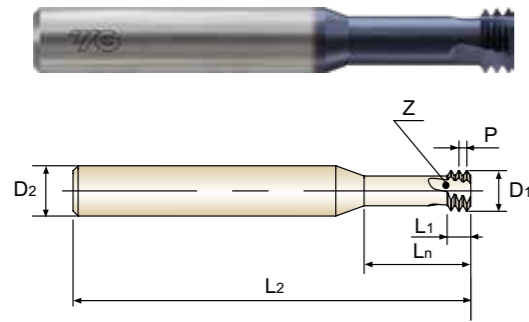
YG THREAD MILLS

L12D1 SERIES

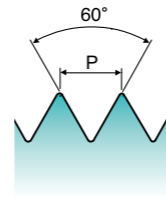
M SOLID CARBIDE MINIATURE THREAD MILL for ISO METRIC INTERNAL THREAD - DIN13 ISO公制内螺纹用整体硬质合金微型螺纹铣刀- DIN13

▶ Short thread length

▶ 短牙设计



Thread Depth
齿高
2.0×D



Material groups	Flat Shank	Page	Plain Shank	Page
◎	END MILL HOLDER	D117 - 137	HYDRAULIC CHUCK SHRINK FIT HOLDER	D15 - 46 D47 - 72
◎	POWER MILLING CHUCK		D161 - 176	
○	ER COLLET CHUCK SK SLIM CHUCK		D73 - 115 D183 - 201	

Unit(单位) : mm

EDP No.	Nominal Diameter[D]	Pitch	Cutter Diameter	Shank Diameter	Thread Length	Neck Length	Overall Length	No. of Flute
型号	通称直径	牙距	刃部直径	柄径	螺纹长	颈长	全长	槽数
TiAlN		P	D1	D2	L1	Ln	L2	Z
L12D1010	M1	0.25	0.70	3	0.75	2.1	30	3
L12D1050	M1.2	0.25	0.90	3	0.75	2.5	30	3
L12D1070	M1.4	0.3	1.04	3	0.90	2.9	30	3
L12D1090	M1.6	0.35	1.18	3	1.05	3.4	30	3
L12D1130	M2	0.4	1.52	6	1.2	4.2	57	3
L12D1150	M2.2	0.45	1.66	6	1.35	4.6	57	3
L12D1170	M2.5	0.45	1.96	6	1.35	5.3	57	3
L12D1200	M3	0.5	2.4	6	1.5	6.3	57	3
L12D1240	M4	0.7	3.16	6	2.1	8.4	57	3
L12D1280	M5	0.8	4.04	6	2.4	10.5	57	3
L12D1310	M6	1.0	4.8	6	3.0	12.6	57	3
L12D1360	M8	1.25	6.5	8	3.75	16.8	63	3
L12D1420	M10	1.5	8.2	10	4.5	21.0	73	3
L12D1500	M12	1.75	9.9	10	5.25	25.2	73	3

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

◎ : Excellent (优秀) ○ : Good (良好)

ISO Material Description	P										M						K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel		Stainless steel				Grey cast iron		Nodular cast iron		Malleable cast iron	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
HRc	13	25	28	32	38	10	29	32	38	45	15	35	23	10	10	26	3	25	10	21		
HB	125	190	250	270	300	180	275	300	350	200	200	240	180	180	260	160	250	130	230			
Recommended	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎		

ISO Material Description	N					S					H										
	Aluminum- wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)		Non Metallic Materials			Heat Resistant Super Alloys			Titanium Alloys		Hardened steel		Chilled Cast Iron	Hardened Cast Iron		
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

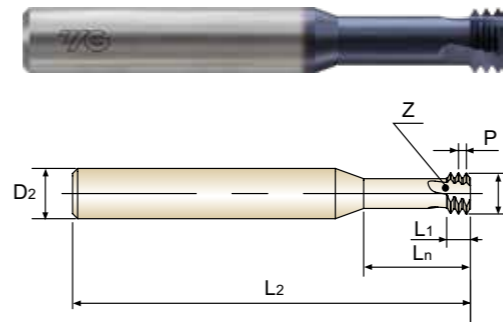
YG THREAD MILLS

L12D3 SERIES

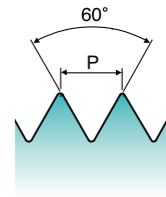
UNC SOLID CARBIDE MINIATURE THREAD MILL for UNC INTERNAL THREAD - ANSI B 1.1 美制内螺纹用整体硬质合金微型螺纹铣刀- ANSI B 1.1

▶ Short thread length

▶ 短牙设计



Thread Depth
齿高
2.0×D



Material groups	Flat Shank	Page	Plain Shank	Page
◎	END MILL HOLDER	D117 - 137	HYDRAULIC CHUCK SHRINK FIT HOLDER	D15 - 46 D47 - 72
◎	POWER MILLING CHUCK		D161 - 176	
○	ER COLLET CHUCK SK SLIM CHUCK		D73 - 115 D183 - 201	

Unit(单位) : mm

EDP No.	Nominal Diameter[D]	T.P.I	Cutter Diameter	Shank Diameter	Thread Length	Neck Length	Overall Length	No. of Flute
型号	通称直径	牙距	刃部直径	柄径	螺纹长	颈长	全长	槽数
TiAlN			D1	D2	L1	Ln	L2	Z
L12D3040	#1	64	1.38	6	1.19	3.9	57	3
L12D3080	#2	56	1.64	6	1.36	4.6	57	3
L12D3160	#4	40	2.08	6	1.91	6.0	57	3
L12D3240	#6	32	2.55	6	2.38	7.4	57	3
L12D3280	#8	32	3.21	6	2.38	8.7	57	3
L12D3320	#10	24	3.56	6	3.18	10.1	57	3
L12D3360	#12	24	4.22	6	3.18	11.5	57	3
L12D3400	1/4	20	4.83	6	3.81	13.3	57	3
L12D3440	5/16	18	6.24	8	4.23	16.7	63	3
L12D3480	3/8	16	7.62	8	4.76	20.0	63	3
L12D3520	7/16	14	8.94	10	5.44	23.3	73	3

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

◎ : Excellent (优秀) ○ : Good (良好)

ISO Material Description	P										M						K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel		Stainless steel				Grey cast iron		Nodular cast iron		Malleable cast iron	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
HRc	13	25	28	32	38	10	29	32	38	45	15	35	23	10	10	26	3	25	10	21		
HB	125	190	250	270	300	180	275	300	350	200	200	240	180	180	260	160	250	130	230			
Recommended	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎		

ISO Material Description	N					S					H										
	Aluminum- wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)		Non Metallic Materials			Heat Resistant Super Alloys			Titanium Alloys		Hardened steel		Chilled Cast Iron	Hardened Cast Iron		
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

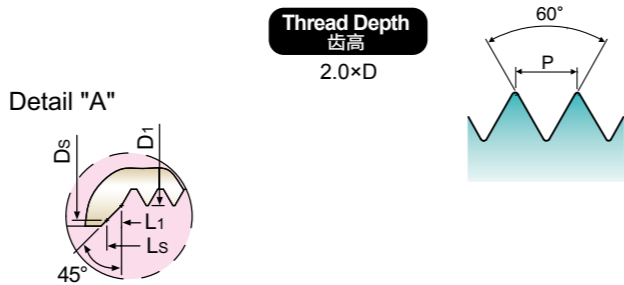
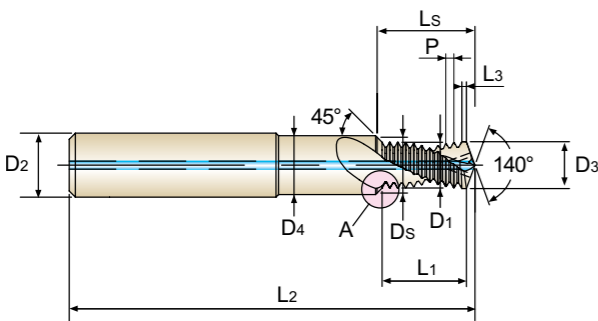
YG THREAD MILLS

Bright **L41A1** SERIES
TiAlN **L42A1** SERIES

SOLID CARBIDE DRILL AND THREAD MILL WITH CHAMFER for ISO METRIC INTERNAL THREAD - DIN 13 ISO公制内螺纹用钻, 螺纹铣一体刀, 带倒角-DIN 13

- ▶ No. of Flute : 2
- ▶ Drill Point : 140° / Countersink : 90°
- ▶ Drilling, Chamfering and Thread milling

- ▶ 2槽
- ▶ 钻尖 : 140° / 倒角 : 90°
- ▶ 钻, 倒角和螺纹铣刀一体设计



Material groups: **GG** **AI** CARBIDE **DIN 6535HA** **60°** **R25** **Bright** **TiAlN** p. B19

Flat Shank	Page	Plain Shank	Page
END MILL HOLDER D117-137		HYDRAULIC CHUCK D15-46	
		SHRINK FIT HOLDER D47-72	
POWER MILLING CHUCK		D161-176	
ER COLLET CHUCK		D73-115	
SKSLIM CHUCK		D183-201	

EDP No.		Nominal Diameter [D]	Pitch	Cutter Diameter	Shank Diameter	Effect. Diameter	Drill Diameter	Max. C'sink	Thread Length	Effect. Length	Drill Length	Overall Length
型号		通称直径	牙距	刃部直径	柄径	有效直径	钻头直径	最大镗锥孔	螺纹长	有效长度	钻头长度	全长
Bright	TiAlN		P	D1	D2	Ds	D3	D4	L1	Ls	L3	L2
L41A1310	L42A1310	M6	1.0	4.75	8	6.3	5.00	6.6	13.00	14.68	1.00	62
L41A1360	L42A1360	M8	1.25	6.35	10	8.3	6.75	9.0	16.27	18.48	1.25	74
L41A1420	L42A1420	M10	1.5	7.95	12	10.3	8.50	11.0	21.05	23.77	1.50	79
L41A1500	L42A1500	M12	1.75	9.95	14	12.3	10.25	13.5	24.21	27.25	1.50	89
L41A1540	L42A1540	M14	2.0	11.20	16	14.3	12.00	15.5	29.58	33.32	1.50	102

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

◎ : Excellent (优秀) ○ : Good (良好)

ISO	P										M				K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel		Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron	
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323																				
HRc	13	25	28	32	30	29	32	38	15	35	15	23	10		10	26	3	25	130	21
HB	125	190	250	270	300	180	275	300	350	200	200	240	180		180	260	160	250	130	230
Recommended	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

ISO	N										S					H					
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)					Non Metallic Materials		Heat Resistant Super Alloys			Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron	
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323																					
HRc																					
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

YG THREAD MILLS

RECOMMENDED CUTTING CONDITIONS 推荐加工条件

For Thread Mills 螺纹铣刀

Unit(单位) : mm

Materials 材料	Hardness(HB) 硬度(HB)	Strength(N/mm ²) 力量	Feed per Tooth 每齿进给量 (fz)	
			Cutter Diameter 刃部直径 ≤Ø8.0	Cutter Diameter 刃部直径 >Ø8.0
Low Carbon Steels 低碳钢	≤ 200	≤ 700	0.02 - 0.04	0.04 - 0.10
Medium Carbon Steels 中碳钢 High Carbon Steels 高碳钢	≤ 250	≤ 850	0.02 - 0.04	0.04 - 0.10
Alloy Steels 合金钢	≤ 250	≤ 850	0.02 - 0.04	0.04 - 0.10
Heat Treated Steels 淬火钢	≤ 400	≤ 1400	0.02 - 0.04	0.04 - 0.10
Stainless Steels 不锈钢	≤ 300	≤ 1000	0.01 - 0.02	0.02 - 0.06
Cast Iron 铸铁	≤ 300	≤ 1000	0.02 - 0.04	0.04 - 0.10
Chrome-Nickel Alloys 铬镍合金 Titanium Alloys 钛合金	≤ 350	≤ 1200	0.01 - 0.02	0.02 - 0.06
Non Ferrous Materials 有色金属	≤ 200	≤ 700	0.03 - 0.07	0.05 - 0.10

For Drill and Thread Mills 钻&螺纹一体铣刀

Unit(单位) : mm

Materials 材料	Hardness (HB) 硬度	Strength (N/mm ²) 力量	Fz(Threading) -Feed per Tooth 每齿进给量		Fdr(Drilling) - Feed per revolution 每转走刀量	
			Cutter Diameter 刃部直径 ≤Ø8.0	Cutter Diameter 刃部直径 >Ø8.0	Cutter Diameter 刃部直径 ≤Ø8.0	Cutter Diameter 刃部直径 >Ø8.0
Cast Iron 铸铁	≤ 200	≤ 700	0.03-0.08	0.08-0.12	0.10-0.20	0.20-0.25
Aluminium 铝 Aluminium-alloy 铝合金 Magnesium 镁合金	≤ 180	≤ 600	0.05-0.10	0.10-0.15	0.10-0.20	0.20-0.30
Plastics 塑料	-	-	0.05-0.10	0.10-0.15	0.10-0.20	0.20-0.30

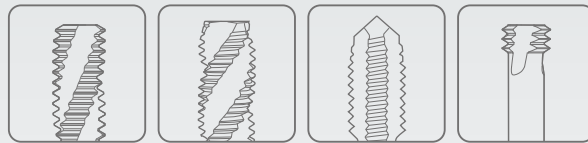
For Hard Material Miniature Thread Mills 高硬度材料用微型螺纹铣刀

Unit(单位) : mm

Materials 材料	Hardness(HB) 硬度	Strength(N/mm ²) 力量	Feed 进给 (mm/tooth)	
			Cutter Diameter 刃部直径 ≤Ø6.0	Cutter Diameter 刃部直径 >Ø6.0
Alloy Steel 合金钢	295-415HB	1000-1400	0.02-0.04	0.04-0.06
Stainless Steel 不锈钢	280-415HB	950-1250	0.02-0.04	0.04-0.06
Cast Iron 铸铁	≤ HB300	≤ 1000	0.03-0.05	0.05-0.07
Chrome-Nickel Alloys 铬镍合金 Titanium Alloys 钛合金	≤ HB445	≤ 1500	0.02-0.03	0.03-0.05
Hardened Material 淬火材料	45-50HRC		0.03-0.05	0.05-0.07
	51-55HRC		0.02-0.04	0.04-0.06
	56-62HRC		0.01-0.03	0.03-0.05



Global Cutting Tool Leader **YG-1**



THREADING



Leading Through Innovation



HSS-PM

SYNCHRO TAPS

- For High Speed Tapping on Rigid CNC Machine
- 刚性数控机床高速攻丝

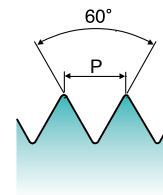
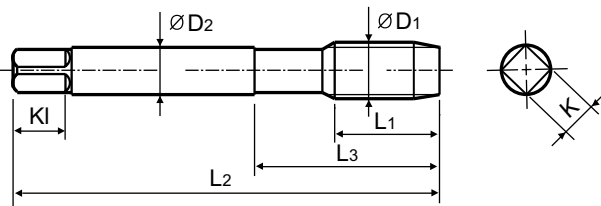
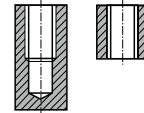
M FLUTELESS for HIGH SPEED TAPPING
高速攻丝挤压丝锥

- ▶ Coated HSS-PM(Powder Metallurgy) Taps for high-speed tapping on rigid CNC machines or equivalent machines
- ▶ Up to 3 times faster in tapping compared to conventional taps
- ▶ For high-speed synchro tapping, synchro holder for increasing tool life and thread quality is recommended
- ▶ High precision threads

- ▶ 为坚固的CNC机械或同等的机械高速攻丝而涂层的 HSS-PM 丝锥
- ▶ 与现有丝锥相比, 丝攻处理速度最大提高3倍
- ▶ 建议使用高速攻丝时, 为提高工具寿命和螺纹使用同步刀夹。
- ▶ 精巧的螺纹



Hole type
孔类型
3.0×D



Material groups: **GV** HSS-PM GH 60° 2P~3P TiN p. B40

Plain Shank Page
 Recommended ToolHolder SYNCHROTAPPING CHUCK D203-210

Tap Limits: p.B231

Unit(单位) : mm

SIZE	Pitch	EDP No.	Limit	Thread Length	Overall Length	Neck Length	Shank Diameter	Square Size	Square Length	No. of Lobe
尺寸	牙距	型号	精度	螺纹长	全长	颈长	柄径	方块尺寸	方块长度	槽数
ØD1	P	TiN		L1	L2	L3	ØD2	K	KI	
M3 × 0.5		TTS03205	GH5	5.0	46.0	18.0	4.0	3.2	6.0	5
M4 × 0.7		TTS03246	GH6	7.0	52.0	20.0	6.0	4.5	7.0	5
M5 × 0.8		TTS03286	GH6	8.0	60.0	25.0	6.0	4.5	7.0	5
M6 × 1.0		TTS03317	GH7	10.0	62.0	28.0	6.0	4.5	7.0	5
M8 × 1.25		TTS03367	GH7	13.0	70.0	35.0	8.0	6.0	9.0	5
M10 × 1.5		TTS03427	GH7	15.0	75.0	39.0	8.0	6.0	9.0	6
M12 × 1.75		TTS03508	GH8	18.0	82.0	42.0	10.0	8.0	11.0	6

▶ Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸.

◎ : Excellent (优秀) ○ : Good (良好)

ISO	P										M			K							
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel			Stainless steel			Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
HRc																					
HB	125	190	250	270	300	180	275	300	350	200	325	200	230	10	180	260	160	250	130	230	
Recommended	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

ISO	N										S						H				
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys						Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc																					
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	◎	◎	◎	◎	◎	◎	◎	◎			◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎



Leading Through Innovation

HSS-E

COMBO TAPS

- For Multi Purpose Tapping
- 多用途丝锥

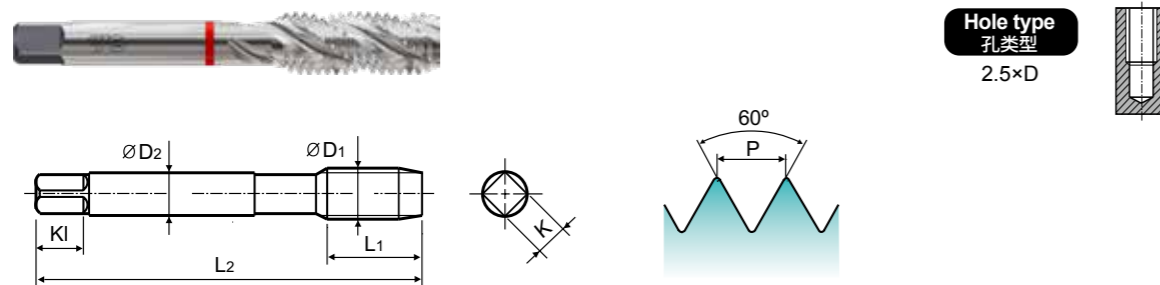
YG COMBO TAPS

Bright T2839 SERIES

UNC/F I-SP SPIRAL FLUTE TAPS for Multi Purpose I-SP 多用途螺旋槽丝锥

► For using multi-purpose and correct thread profiles & long tool life due to special tap geometry.

► 适合不锈钢加工, 可以修正螺纹形状, 采用独特的设计可以延长丝锥使用寿命



Hole type 孔类型 2.5×D

Material groups MU HSS-E I YH 60° 2.5P R40 Bright p. B46

Table with 10 columns: SIZE, Pitch, EDP No., Limit, Overall Length, Thread Length, Shank Diameter, Square Size, Square Length, No. of Flute. Includes Chinese and English headers and a list of 24 tap specifications.

* The other coating(TiCN or TiAlN) is available on your request... NEXT PAGE 下页

Material compatibility table for series P, M, K, N, S, H across various materials like Non-alloy steel, Low alloy steel, etc.

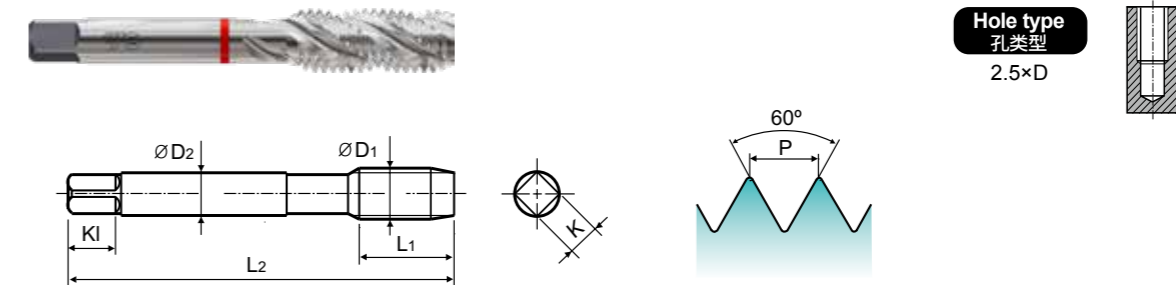
YG COMBO TAPS

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Hole type 孔类型 2.5×D

Material groups MU HSS-E I YH 60° 2.5P R40 Bright p. B46

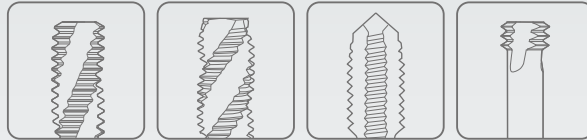
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* The other coating(TiCN or TiAlN) is available on your request... Refer to p.B233-B238 for recommended tap drill sizes.

Material compatibility table for series P, M, K, N, S, H across various materials like Non-alloy steel, Low alloy steel, etc.



Global Cutting Tool Leader **YG-1**



THREADING



Leading Through Innovation

HSS-E & HSS

YG TAP GENERAL

- Suitable for Tapping Blind / Through Holes due to Flute Geometry and Excellent Chip Evacuation
- 独特的槽形设计和排屑能力，适合通，盲孔加工

SELECTION GUIDE

选用指南



HSS-E & HSS YG TAP GENERAL

Suitable for Tapping Blind / Through Holes due to Flute Geometry and Excellent Chip Evacuation 独特的槽形设计和排屑能力, 适合通, 盲孔加工

Please visit globallyg1.com/mat for material search

◎: Excellent (优秀) ○: Good (良好)

Table with columns: ISO 公制, VDI 3323, Material Description 材料描述, Composition / Structure / Heat Treatment 成分 / 组织 / 热处理, HB 布氏硬度, HRC 硬度, and performance ratings for Holes 8-13, 7-12, 6-9, 5-8, 10-15, 10-20, 6-11, 6-20, and 55.

Table with columns: HOLE TYPE 孔类型, TOOL MATERIAL 刀具材料, CHAMFER LEAD ACC. TO DIN2197 倒角长度, FLUTE TYPE 槽型, SPIRAL FLUTE ANGLE 螺旋角, JIS Type, M/MF, UNC/F, W, M-LH W-LH, PIPE TAPS, SURFACE TREATMENT 表面处理, MODEL 模型.



Table with columns: HOLE TYPE 孔类型, TOOL MATERIAL 刀具材料, CHAMFER LEAD ACC. TO DIN2197 倒角长度, FLUTE TYPE 槽型, SPIRAL FLUTE ANGLE 螺旋角, JIS Type, M/MF, UNC/F, W, M-LH W-LH, PIPE TAPS, SURFACE TREATMENT 表面处理, MODEL 模型.

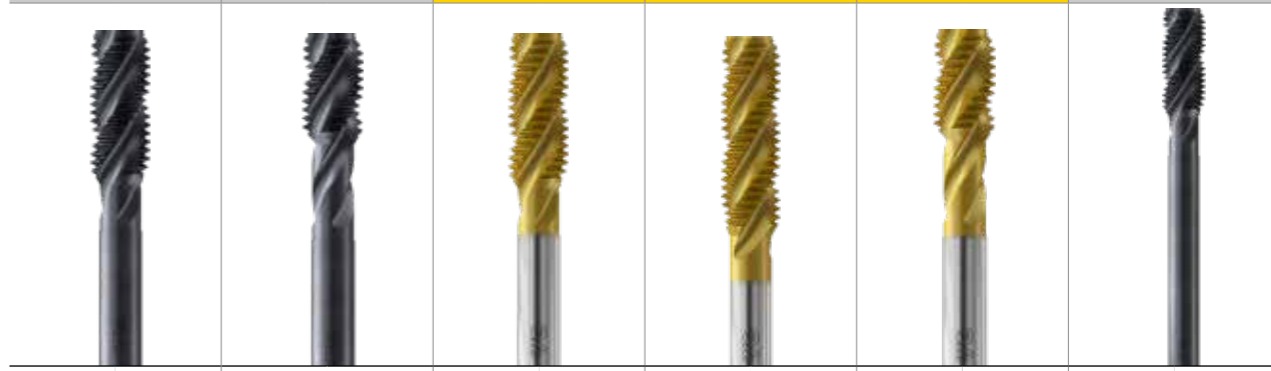
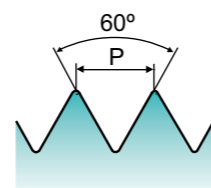
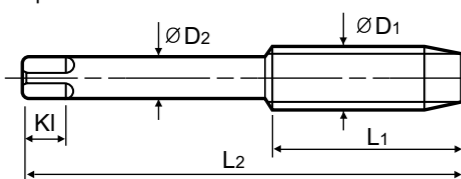
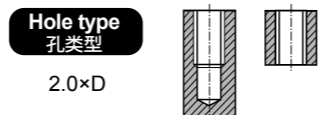


Table with columns: Performance ratings for Holes 8-13, 7-12, 6-9, 5-8, 10-15, 10-20, 6-11, 6-20, and 41.

I-SP HAND TAPS(SET of 3 PIECES) I-SP 手用丝锥(一套3支)

This tap is a serial hand tap in set, Taper, Plug and Bottoming.

这丝锥是手丝锥的一套 (头锥 / 中锥 / 底锥)



Material groups: GS, HSS, HT, JIS II, 60°, 1.5P/5.0P/9.0P, Bright, p. B62

Plain Shank Page D215-220 TAPPING ER CHUCK D221-228 ONE STEP TAPPING CHUCK D211-213 Recommended Toolholder

Unit(单位) : mm

Table with 10 columns: SIZE, Pitch, EDP No., Limit, Overall Length, Thread Length, Shank Diameter, Square Size, Square Length, No. of Flute. Rows include sizes M2 to M8.

Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸.

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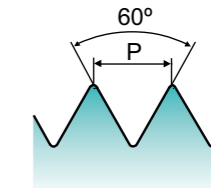
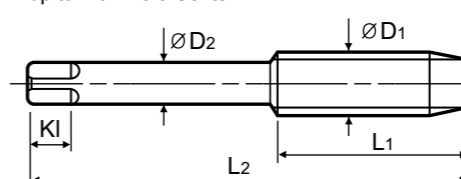
◎: Excellent (优秀) ○: Good (良好)

Material compatibility table with columns for ISO, Material Description, and various material groups (P, M, K, N, S, H).

I-SP HAND TAPS(SET of 3 PIECES) I-SP 手用丝锥(一套3支)

This tap is a serial hand tap in set, Taper, Plug and Bottoming.

这丝锥是手丝锥的一套 (头锥 / 中锥 / 底锥)



Material groups: GS, HSS, HT, JIS II, 60°, 1.5P/5.0P/9.0P, Bright, p. B62

Plain Shank Page D215-220 TAPPING ER CHUCK D221-228 ONE STEP TAPPING CHUCK D211-213 Recommended Toolholder

Unit(单位) : mm

Table with 10 columns: SIZE, Pitch, EDP No., Limit, Overall Length, Thread Length, Shank Diameter, Square Size, Square Length, No. of Flute. Rows include sizes M8 to M15.

Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸.

NEXT PAGE 下页

◎: Excellent (优秀) ○: Good (良好)

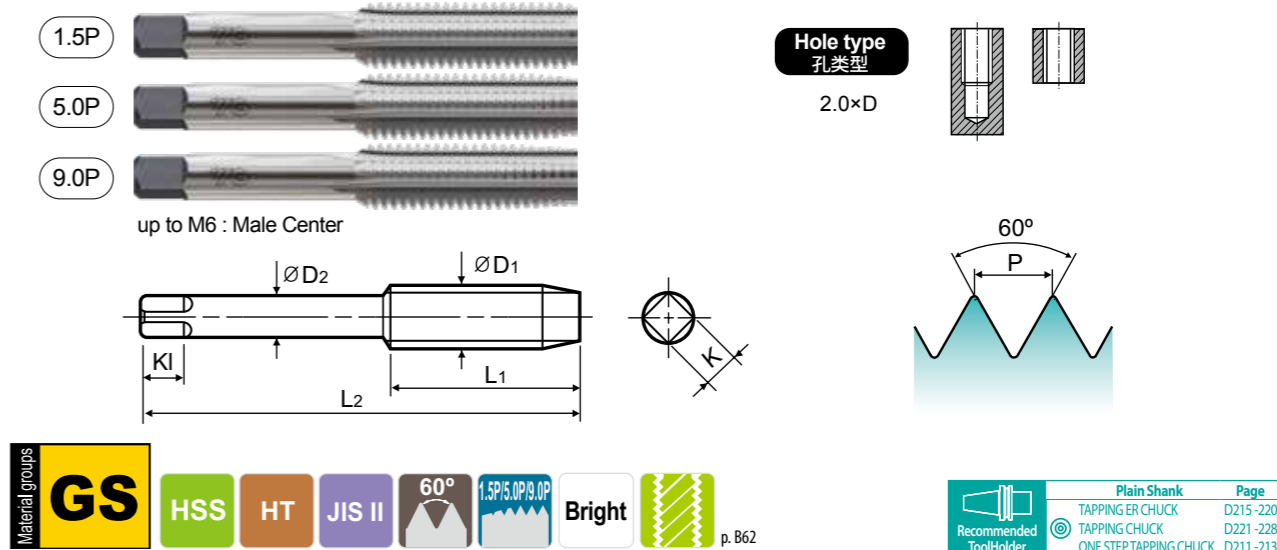
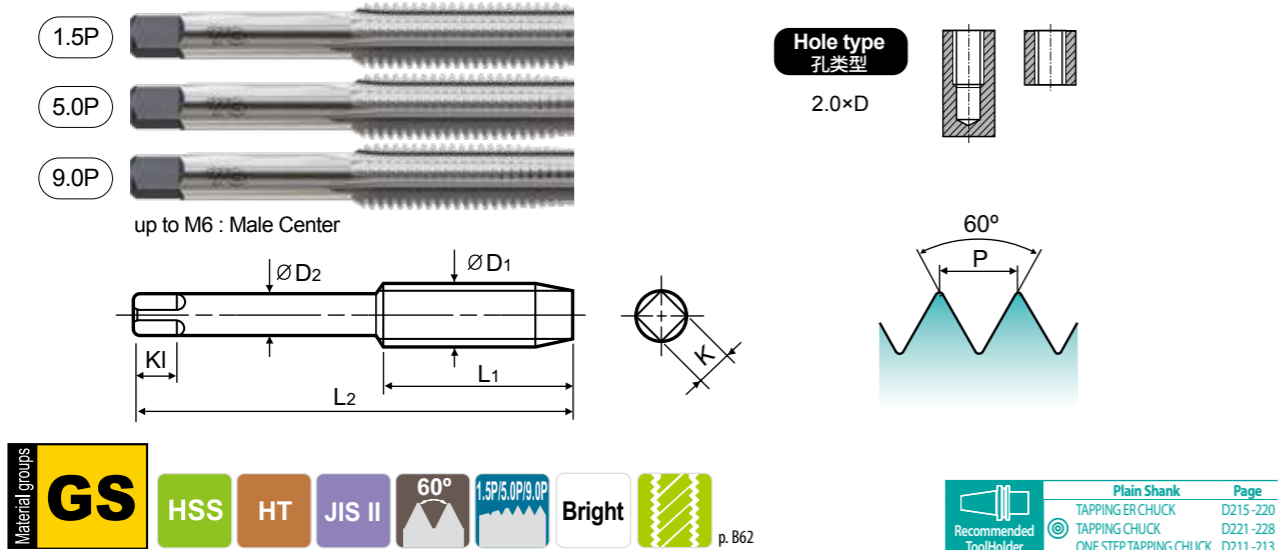
Material compatibility table with columns for ISO, Material Description, and various material groups (P, M, K, N, S, H).

M I-SP HAND TAPS(SET of 3 PIECES)
I-SP 手用丝锥(一套3支)

M I-SP HAND TAPS(SET of 3 PIECES)
I-SP 手用丝锥(一套3支)

This tap is a serial hand tap in set, Taper, Plug and Bottoming. 这丝锥是手丝锥的一套(头锥/中锥/底锥)

This tap is a serial hand tap in set, Taper, Plug and Bottoming. 这丝锥是手丝锥的一套(头锥/中锥/底锥)



Material groups GS, HSS, HT, JIS II, 60°, 1.5P/5.0P/9.0P, Bright. Recommended Tool Holder. Plain Shank TAPPING ER CHUCK D215-220, TAPPING CHUCK D221-228, ONE STEP TAPPING CHUCK D211-213. Page p. B62.

Table with 10 columns: SIZE, Pitch, EDP No., Limit, Overall Length, Thread Length, Shank Diameter, Square Size, Square Length, No. of Flute. Rows include sizes from M16 to M26.

Table with 10 columns: SIZE, Pitch, EDP No., Limit, Overall Length, Thread Length, Shank Diameter, Square Size, Square Length, No. of Flute. Rows include sizes from M26 to M36.

Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸. NEXT PAGE 下页

Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸.

ISO Material Compatibility Chart for I-SP Hand Taps. Columns: P (Non-alloy steel, Low alloy steel, High alloyed steel, Stainless steel, Grey cast iron, Nodular cast iron, Malleable cast iron), M (Aluminum-wrought alloy, Aluminum-cast, Copper and Copper Alloys, Non Metallic Materials, Heat Resistant Super Alloys, Titanium Alloys), H (Hardened steel, Chilled Cast Iron, Hardened Cast Iron).

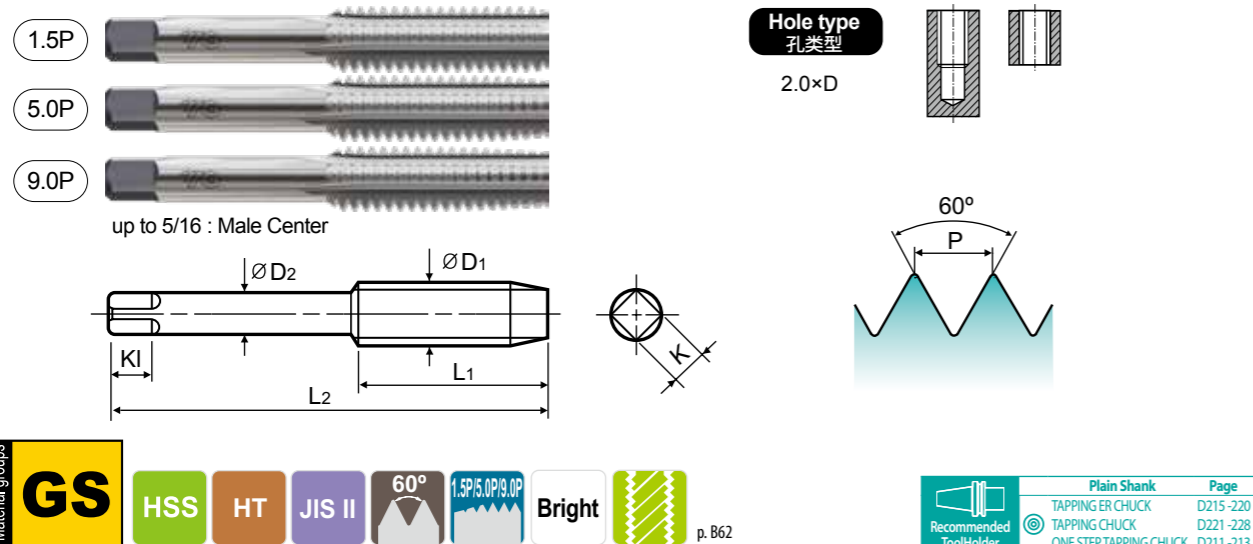
ISO Material Compatibility Chart for I-SP Hand Taps. Columns: P (Non-alloy steel, Low alloy steel, High alloyed steel, Stainless steel, Grey cast iron, Nodular cast iron, Malleable cast iron), M (Aluminum-wrought alloy, Aluminum-cast, Copper and Copper Alloys, Non Metallic Materials, Heat Resistant Super Alloys, Titanium Alloys), H (Hardened steel, Chilled Cast Iron, Hardened Cast Iron).



T7199 SERIES

UNC/F I-SP HAND TAPS(SET of 3 PIECES)
I-SP 手用丝锥(一套3支)

This tap is a serial hand tap in set, Taper, Plus and Bottoming. 这丝锥是手丝锥的一套 (头锥 / 中锥 / 底锥)



Material groups: GS, HSS, HT, JIS II, 60°, 1.5P/5.0P/9.0P, Bright, p. B62

Plain Shank Page TAPPING ER CHUCK D215-220 TAPPING CHUCK D221-228 ONE STEP TAPPING CHUCK D211-213

Table with 10 columns: SIZE, TPI, EDP No., Limit, Overall Length, Thread Length, Shank Diameter, Square Size, Square Length, No. of Flute. Contains 24 rows of tap specifications.

Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸.

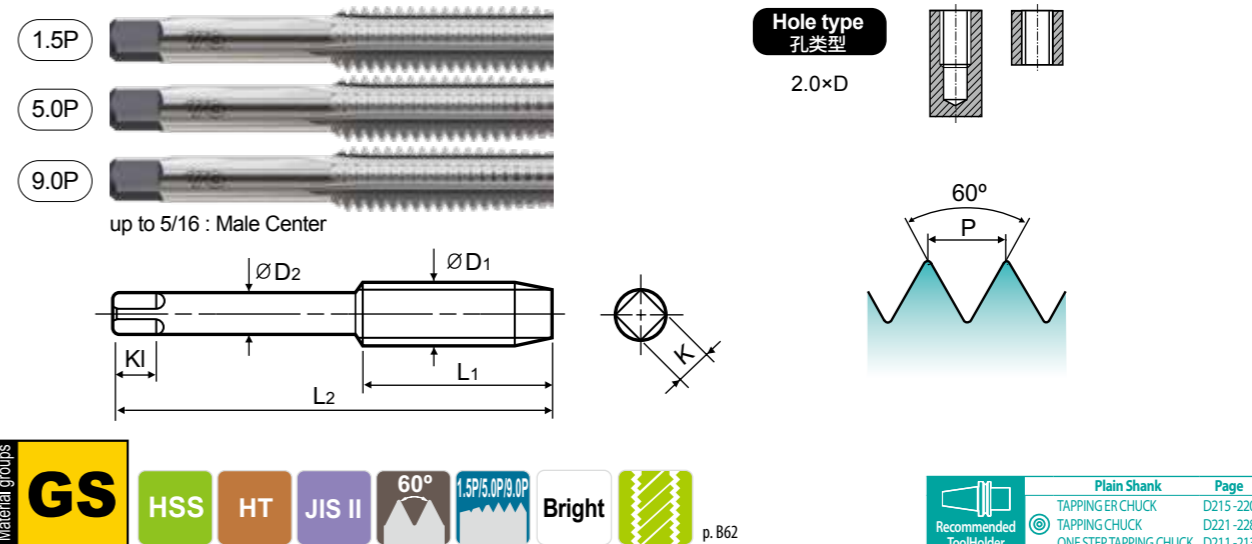
Material compatibility table showing ISO material descriptions and recommended tap grades (P, M, K, N, S, H).



T7199 SERIES

UNC/F I-SP HAND TAPS(SET of 3 PIECES)
I-SP 手用丝锥(一套3支)

This tap is a serial hand tap in set, Taper, Plus and Bottoming. 这丝锥是手丝锥的一套 (头锥 / 中锥 / 底锥)



Material groups: GS, HSS, HT, JIS II, 60°, 1.5P/5.0P/9.0P, Bright, p. B62

Plain Shank Page TAPPING ER CHUCK D215-220 TAPPING CHUCK D221-228 ONE STEP TAPPING CHUCK D211-213

Table with 10 columns: SIZE, TPI, EDP No., Limit, Overall Length, Thread Length, Shank Diameter, Square Size, Square Length, No. of Flute. Contains 24 rows of tap specifications.

Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸.

Material compatibility table showing ISO material descriptions and recommended tap grades (P, M, K, N, S, H).

HSS

HSS



T1121 SERIES



T1152 SERIES

M I-SP SPIRAL FLUTE TAPS for GENERAL PURPOSE I-SP 普通螺旋槽丝锥

UNC/F I-SP SPIRAL FLUTE TAPS for GENERAL PURPOSE I-SP 普通螺旋槽丝锥

Suitable for tapping Blind holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.

适用于碳钢和合金钢的盲孔加工, 优异的排屑.

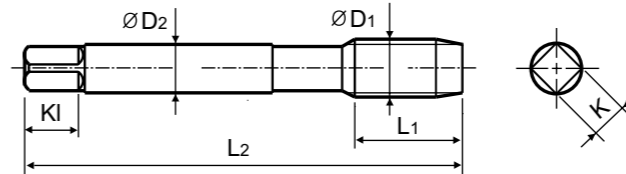
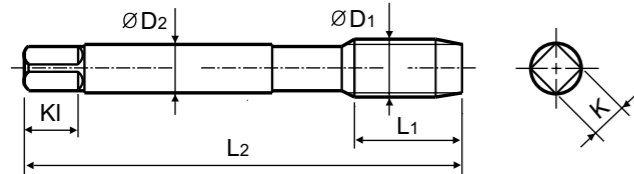
Suitable for tapping Blind holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.

适用于碳钢和合金钢的盲孔加工, 优异的排屑.



up to M7 : Male Center

up to 5/16 : Male Center

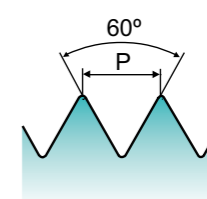
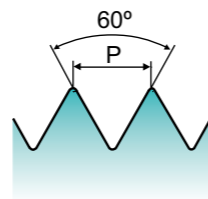


Hole type 孔类型

Hole type 孔类型

2.5×D

2.5×D



Material groups: GS, HSS-E, I, YH, 60°, 2.5P, R40, Homo, p. B62. Recommended ToolHolder: Plain Shank TAPPING ER CHUCK D215-220, TAPPING CHUCK D221-228, ONE STEP TAPPING CHUCK D211-213.

Material groups: GS, HSS-E, I, JIS II, 60°, 2.5P, R40, Homo, p. B62. Recommended ToolHolder: Plain Shank TAPPING ER CHUCK D215-220, TAPPING CHUCK D221-228, ONE STEP TAPPING CHUCK D211-213.

Table with 10 columns: SIZE, Pitch, EDP No., Limit, Overall Length, Thread Length, Shank Diameter, Square Size, Square Length, No. of Flute. Rows include sizes M26, M27, M28, M30, M33, M36 with various pitches and EDP numbers.

Table with 10 columns: SIZE, TPI, EDP No., Limit, Overall Length, Thread Length, Shank Diameter, Square Size, Square Length, No. of Flute. Rows include sizes #4, #5, #6, #8, #10, #12, 1/4, 5/16 with various TPI values and EDP numbers.

Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸.

Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸.

NEXT PAGE 下页

Material compatibility table for T1121 series. Columns: ISO, Material Description, P, N, S, H. Rows: VDI 3323, HRc, HB, Recommended.

Material compatibility table for T1152 series. Columns: ISO, Material Description, P, N, S, H. Rows: VDI 3323, HRc, HB, Recommended.

I-SP SPIRAL FLUTE TAPS for GENERAL PURPOSE I-SP 普通螺旋槽丝锥

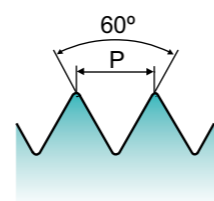
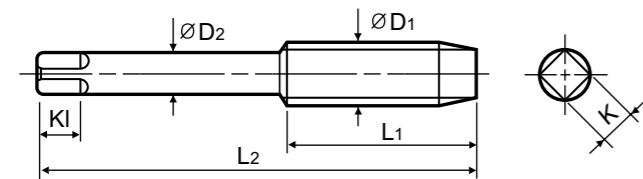
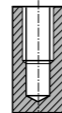
Suitable for tapping Blind holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.

适用于碳钢和合金钢的盲孔加工，优异的排屑。



up to M7 : Male Center

Hole type 孔类型 2.5xD



HSS-E

J

YH

60°

2.5P

R40

Homo



p. B63



Plain Shank Page TAPPING ER CHUCK D215-220 TAPPING CHUCK D221-228 ONE STEP TAPPING CHUCK D211-213 Recommended ToolHolder

Tap Limits p.B230

Unit(单位) : mm

Table with 10 columns: SIZE, Pitch, EDP No., Limit, Overall Length, Thread Length, Shank Diameter, Square Size, Square Length, No. of Flute. Contains data for various sizes from M2 to M8.

Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸。

NEXT PAGE 下页

◎: Excellent (优秀) ○: Good (良好)

Material compatibility table with columns for ISO, Material Description, and various material types like Non-alloy steel, Low alloy steel, High alloyed steel, etc.

I-SP SPIRAL FLUTE TAPS for GENERAL PURPOSE I-SP 普通螺旋槽丝锥

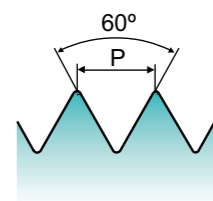
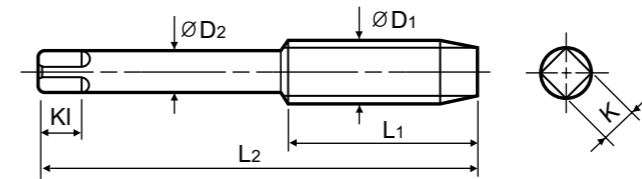
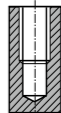
Suitable for tapping Blind holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.

适用于碳钢和合金钢的盲孔加工，优异的排屑。



up to M7 : Male Center

Hole type 孔类型 2.5xD



HSS-E

J

YH

60°

2.5P

R40

Homo



p. B63



Plain Shank Page TAPPING ER CHUCK D215-220 TAPPING CHUCK D221-228 ONE STEP TAPPING CHUCK D211-213 Recommended ToolHolder

Tap Limits p.B230

Unit(单位) : mm

Table with 10 columns: SIZE, Pitch, EDP No., Limit, Overall Length, Thread Length, Shank Diameter, Square Size, Square Length, No. of Flute. Contains data for various sizes from M8 to M15.

Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸。

NEXT PAGE 下页

◎: Excellent (优秀) ○: Good (良好)

Material compatibility table with columns for ISO, Material Description, and various material types like Non-alloy steel, Low alloy steel, High alloyed steel, etc.

I-SP SPIRAL FLUTE TAPS for GENERAL PURPOSE I-SP 普通螺旋槽丝锥

Suitable for tapping Blind holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.

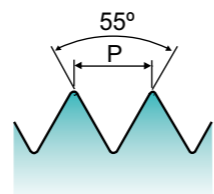
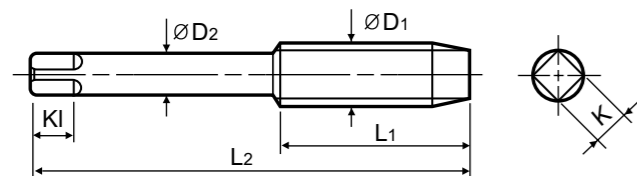
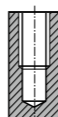
适用于碳钢和合金钢的盲孔加工, 优异的排屑。



up to W5/16 : Male Center

Hole type 孔类型

2.5xD



Material groups: GS, HSS-E, J, JIS II, 55°, 2.5P, R40, Homo

Plain Shank Page D215-220 TAPPING ER CHUCK D221-228 TAPPING CHUCK ONE STEP TAPPING CHUCK D211-213

Unit(单位) : mm

Table with columns: SIZE, TPI, EDP No., Limit, Overall Length, Thread Length, Shank Diameter, Square Size, Square Length, No. of Flute

Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸。

Material compatibility table for I-SP series with columns for ISO, Material Description, and various material groups (P, M, K, N, S, H).

I-SP SPIRAL FLUTE TAPS for DEEP HOLES(for GENERAL PURPOSE) I-SP 深孔螺旋槽丝锥(普通)

Suitable for tapping deep Blind holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.

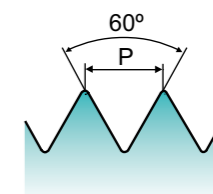
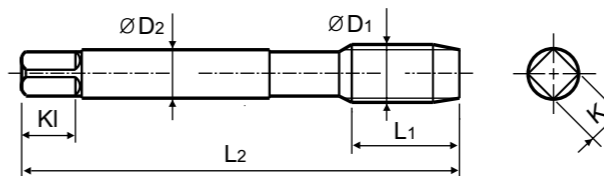
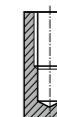
适用于碳钢和合金钢的盲孔深加工, 优异的排屑。



up to M7 : Male Center

Hole type 孔类型

2.5xD



Material groups: GS, HSS-E, S, YH, 60°, 2.5P, R40, Homo

Plain Shank Page D215-220 TAPPING ER CHUCK D221-228 TAPPING CHUCK ONE STEP TAPPING CHUCK D211-213

Tap Limits: p.B230

Unit(单位) : mm

Table with columns: SIZE, Pitch, EDP No., Limit, Overall Length, Thread Length, Shank Diameter, Square Size, Square Length, No. of Flute

Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸。

NEXT PAGE 下页

Material compatibility table for I-SP series with columns for ISO, Material Description, and various material groups (P, M, K, N, S, H).

M I-SP SPIRAL FLUTE TAPS for DEEP HOLES(for GENERAL PURPOSE) I-SP 深孔螺旋槽丝锥(普通)

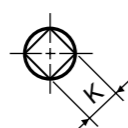
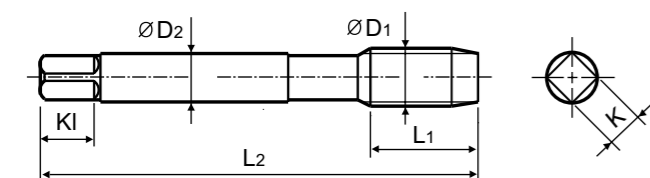
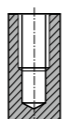
Suitable for tapping deep Blind holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state. 适用于碳钢和合金钢的盲孔深加工, 优异的排屑。



up to M7 : Male Center

Hole type 孔类型

2.5×D



Material groups: GS, HSS-E, S, YH, 60°, 2.5P, R40, Homo. Includes a table for Recommended Toolholder and Page numbers.

Table with 10 columns: SIZE, Pitch, EDP No., Limit, Overall Length, Thread Length, Shank Diameter, Square Size, Square Length, No. of Flute. Contains 20 rows of tap specifications.

Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸。 NEXT PAGE 下页

Material compatibility chart for the left page, showing ISO standards and material groups (P, M, K, N, S, H) with their corresponding performance ratings.

M I-SP SPIRAL FLUTE TAPS for DEEP HOLES(for GENERAL PURPOSE) I-SP 深孔螺旋槽丝锥(普通)

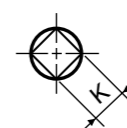
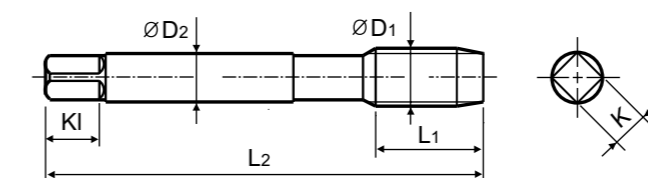
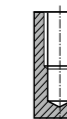
Suitable for tapping deep Blind holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state. 适用于碳钢和合金钢的盲孔深加工, 优异的排屑。



up to M7 : Male Center

Hole type 孔类型

2.5×D



Material groups: GS, HSS-E, S, YH, 60°, 2.5P, R40, Homo. Includes a table for Recommended Toolholder and Page numbers.

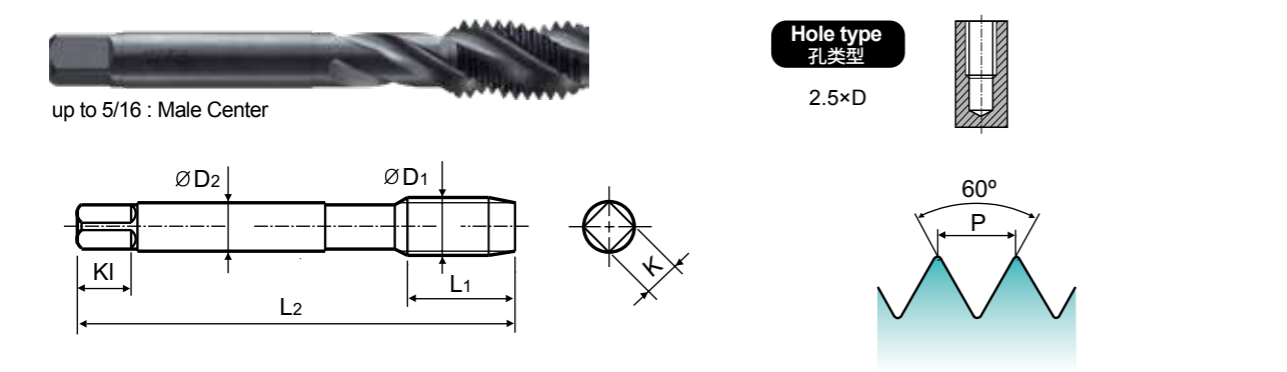
Table with 10 columns: SIZE, Pitch, EDP No., Limit, Overall Length, Thread Length, Shank Diameter, Square Size, Square Length, No. of Flute. Contains 20 rows of tap specifications.

Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸。

Material compatibility chart for the right page, showing ISO standards and material groups (P, M, K, N, S, H) with their corresponding performance ratings.

UNC/F I-SP SPIRAL FLUTE TAPS for DEEP HOLES(for GENERAL PURPOSE) I-SP 深孔螺旋槽丝锥(普通)

Suitable for tapping deep Blind holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state. 适用于碳钢和合金钢的盲孔深加工, 优异的排屑。



Material groups: GS, HSS-E, S, JIS II, 60°, 2.5P, R40, Homo. Includes a 'Recommended Toolholder' icon and page reference p. B63.

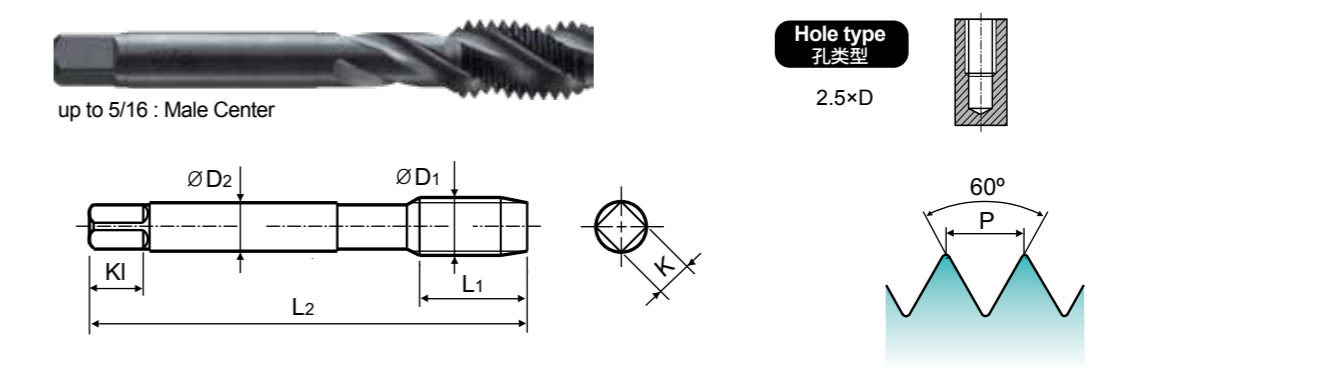
Table with 10 columns: SIZE, TPI, EDP No., Limit, Overall Length, Thread Length, Shank Diameter, Square Size, Square Length, No. of Flute. It lists various tap sizes and their specifications.

Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸。 NEXT PAGE 下页

Material compatibility chart with columns for ISO, Material Description, and various material types (Non-alloy steel, Low alloy steel, High alloyed steel, Stainless steel, etc.). Legend: ◎: Excellent (优秀) ○: Good (良好)

UNC/F I-SP SPIRAL FLUTE TAPS for DEEP HOLES(for GENERAL PURPOSE) I-SP 深孔螺旋槽丝锥(普通)

Suitable for tapping deep Blind holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state. 适用于碳钢和合金钢的盲孔深加工, 优异的排屑。



Material groups: GS, HSS-E, S, JIS II, 60°, 2.5P, R40, Homo. Includes a 'Recommended Toolholder' icon and page reference p. B63.

Table with 10 columns: SIZE, TPI, EDP No., Limit, Overall Length, Thread Length, Shank Diameter, Square Size, Square Length, No. of Flute. It lists various tap sizes and their specifications.

Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸。 NEXT PAGE 下页

Material compatibility chart with columns for ISO, Material Description, and various material types (Non-alloy steel, Low alloy steel, High alloyed steel, Stainless steel, etc.). Legend: ◎: Excellent (优秀) ○: Good (良好)

M I-SP SPIRAL FLUTE TAPS I-SP 螺旋槽丝锥

M I-SP SPIRAL FLUTE TAPS for DEEP HOLES I-SP 深孔螺旋槽丝锥

Suitable for tapping Blind holes in Carbon Steels and Alloy Steels. Capable of efficient, long life, high speed tapping.

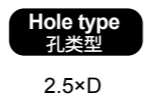
适用于碳钢和合金钢的通孔加工, 具有高效, 寿命长, 能够快速攻丝。

Suitable for tapping deep Blind holes in Carbon Steels and Alloy Steels. Capable of efficient, long life, high speed tapping.

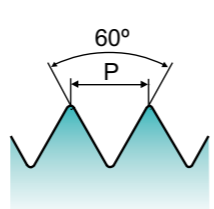
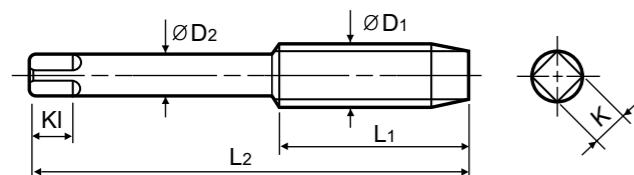
适用于碳钢和合金钢的通孔加工, 具有高效, 寿命长, 能够快速攻丝。



up to M7 : Male Center



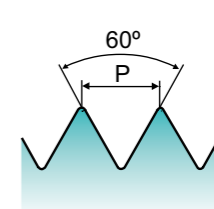
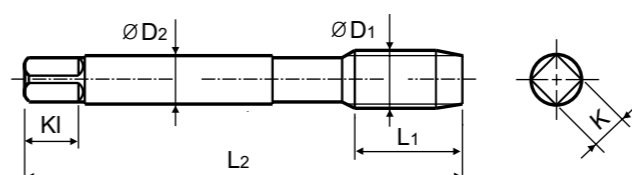
Hole type 孔类型 2.5xD



up to M7 : Male Center



Hole type 孔类型 2.5xD



Material groups: GS, HSS-E, J, YH, 60°, 2.5P, R40, TiN. Includes recommended toolholder information and page references.

Material groups: GS, HSS-E, S, YH, 60°, 2.5P, R40, TiN. Includes recommended toolholder information and page references.

Table with 10 columns: SIZE, Pitch, EDP No., Limit, Overall Length, Thread Length, Shank Diameter, Square Size, Square Length, No. of Flute. Lists various tap specifications for sizes M3 to M20.

Table with 10 columns: SIZE, Pitch, EDP No., Limit, Overall Length, Thread Length, Shank Diameter, Square Size, Square Length, No. of Flute. Lists various tap specifications for sizes M3 to M16.

Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸。

Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸。

◎ : Excellent (优秀) ○ : Good (良好)

Material compatibility chart for T3132 series taps across various ISO material groups (P, M, K, N, S, H).

◎ : Excellent (优秀) ○ : Good (良好)

Material compatibility chart for T3112 series taps across various ISO material groups (P, M, K, N, S, H).

I-SP LONG SHANK SPIRAL FLUTE TAPS for GENERAL PURPOSE I-SP 长柄普通螺旋槽丝锥

Suitable for tapping Blind holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.

适用于碳钢和合金钢的通孔加工, 优异的排屑.

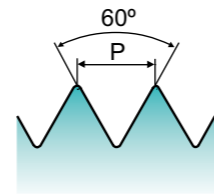
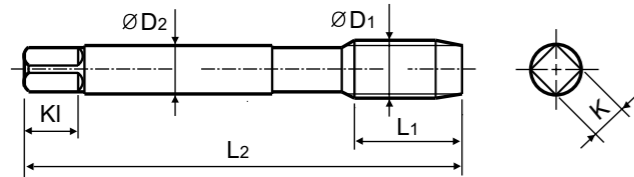
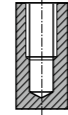
Long Shank



up to M7 : Male Center

Hole type 孔类型

2.5xD



Material groups icons: GS, HSS-E, LONG, YH, 60°, 2.5P, R40, Homo. p. B63

Plain Shank Page TAPPING ER CHUCK D215-220 TAPPING CHUCK D221-228 ONE STEP TAPPING CHUCK D211-213

100mm Tap Limits: p.B230 Unit(单位): mm

Table with 10 columns: SIZE, Pitch, EDP No., Limit, Overall Length, Thread Length, Shank Diameter, Square Size, Square Length, No. of Flute. Rows include M3, M4, M5, M6, M8, M10, M12, M14.

Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸.

◎: Excellent (优秀) ○: Good (良好)

Material compatibility table with columns for ISO, Material Description, and various material types like Non-alloy steel, Low alloy steel, etc.

I-SP LONG SHANK SPIRAL FLUTE TAPS for GENERAL PURPOSE I-SP 长柄普通螺旋槽丝锥

Suitable for tapping Blind holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.

适用于碳钢和合金钢的通孔加工, 优异的排屑.

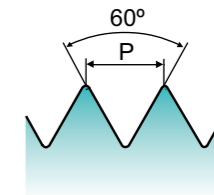
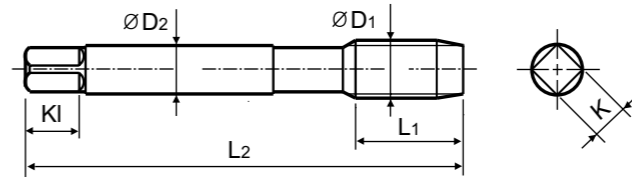
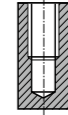
Long Shank



up to M7 : Male Center

Hole type 孔类型

2.5xD



Material groups icons: GS, HSS-E, LONG, YH, 60°, 2.5P, R40, Homo. p. B63

Plain Shank Page TAPPING ER CHUCK D215-220 TAPPING CHUCK D221-228 ONE STEP TAPPING CHUCK D211-213

120mm Tap Limits: p.B230 Unit(单位): mm

Table with 10 columns: SIZE, Pitch, EDP No., Limit, Overall Length, Thread Length, Shank Diameter, Square Size, Square Length, No. of Flute. Rows include M3, M4, M5, M6, M8, M10, M12, M14, M16.

Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸.

◎: Excellent (优秀) ○: Good (良好)

Material compatibility table with columns for ISO, Material Description, and various material types like Non-alloy steel, Low alloy steel, etc.

I-SP LONG SHANK SPIRAL FLUTE TAPS for GENERAL PURPOSE

Suitable for tapping Blind holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.

适用于碳钢和合金钢的通孔加工, 优异的排屑。

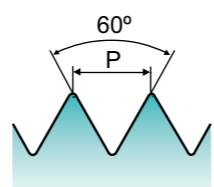
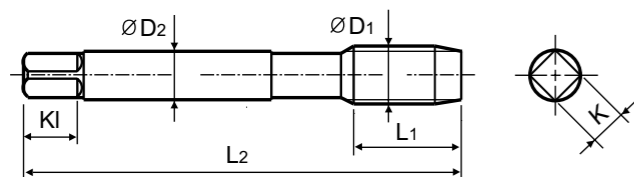
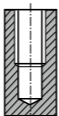


up to M7 : Male Center

Long Shank

Hole type 孔类型

2.5xD



Material groups icons: GS, HSS-E, LONG, YH, 60°, 2.5P, R40, Homo, p. B63

Recommended Toolholder icons: Plain Shank, TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK, Page D215-220, D221-228, D211-213

150mm

Tap Limits: p.B230

Unit(单位): mm

Table with 10 columns: SIZE, Pitch, EDP No., Limit, Overall Length, Thread Length, Shank Diameter, Square Size, Square Length, No. of Flute. Lists various tap sizes from M3 to M24.

Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸。

Material compatibility chart for T1105 series. Columns include ISO, Material Description, and various material groups (P, M, K, N, S, H) with hardness and strength values.

I-SP LONG SHANK SPIRAL FLUTE TAPS for GENERAL PURPOSE

Suitable for tapping Blind holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.

适用于碳钢和合金钢的通孔加工, 优异的排屑。

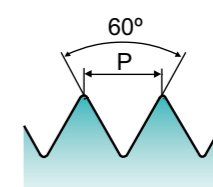
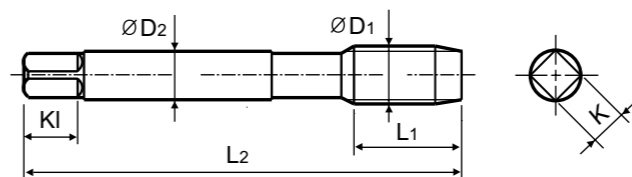
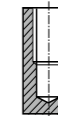


up to M7 : Male Center

Long Shank

Hole type 孔类型

2.5xD



Material groups icons: GS, HSS-E, LONG, YH, 60°, 2.5P, R40, Homo, p. B63

Recommended Toolholder icons: Plain Shank, TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK, Page D215-220, D221-228, D211-213

200mm

Tap Limits: p.B230

Unit(单位): mm

Table with 10 columns: SIZE, Pitch, EDP No., Limit, Overall Length, Thread Length, Shank Diameter, Square Size, Square Length, No. of Flute. Lists various tap sizes from M8 to M24.

Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸。

Material compatibility chart for T1106 series. Columns include ISO, Material Description, and various material groups (P, M, K, N, S, H) with hardness and strength values.

I-SP LONG SHANK SPIRAL FLUTE TAPS for GENERAL PURPOSE I-SP 长柄普通螺旋槽丝锥

Suitable for tapping Blind holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.

适用于碳钢和合金钢的通孔加工, 优异的排屑。

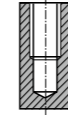
Long Shank



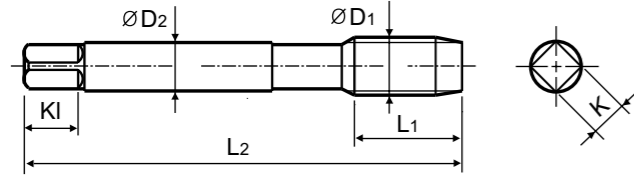
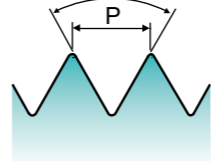
up to W5/16 : Male Center

Hole type 孔类型

2.5xD



55°



Material groups: GS, HSS-E, LONG, JIS II, 55°, 2.5P, R40, Homo, p. B63

Plain Shank Page TAPPING ER CHUCK D215-220 TAPPING CHUCK D221-228 ONE STEP TAPPING CHUCK D211-213 Recommended Toolholder

100mm Unit(单位) : mm

Table with 10 columns: SIZE, TPI, EDP No., Limit, Overall Length, Thread Length, Shank Diameter, Square Size, Square Length, No. of Flute. Rows include sizes W1/8 to W1/2.

120mm Unit(单位) : mm

Table with 10 columns: SIZE, TPI, EDP No., Limit, Overall Length, Thread Length, Shank Diameter, Square Size, Square Length, No. of Flute. Rows include sizes W1/8 to W5/8.

Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸.

◎ : Excellent (优秀) ○ : Good (良好)

Material compatibility table with columns for ISO, Material Description, and various material groups (P, M, K, N, S, H).

I-SP LONG SHANK SPIRAL FLUTE TAPS for GENERAL PURPOSE I-SP 长柄普通螺旋槽丝锥

Suitable for tapping Blind holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.

适用于碳钢和合金钢的通孔加工, 优异的排屑。

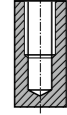
Long Shank



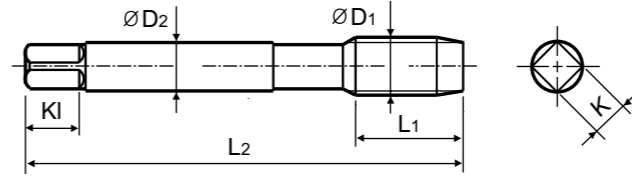
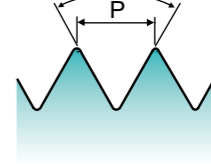
up to W5/16 : Male Center

Hole type 孔类型

2.5xD



55°



Material groups: GS, HSS-E, LONG, JIS II, 55°, 2.5P, R40, Homo, p. B63

Plain Shank Page TAPPING ER CHUCK D215-220 TAPPING CHUCK D221-228 ONE STEP TAPPING CHUCK D211-213 Recommended Toolholder

150mm Unit(单位) : mm

Table with 10 columns: SIZE, TPI, EDP No., Limit, Overall Length, Thread Length, Shank Diameter, Square Size, Square Length, No. of Flute. Rows include sizes W1/8 to W1 inch.

200mm Unit(单位) : mm

Table with 10 columns: SIZE, TPI, EDP No., Limit, Overall Length, Thread Length, Shank Diameter, Square Size, Square Length, No. of Flute. Rows include sizes W3/8 to W1 inch.

Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸.

◎ : Excellent (优秀) ○ : Good (良好)

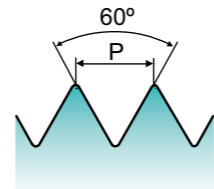
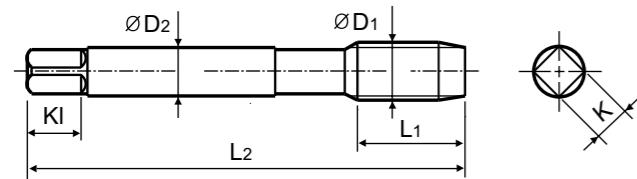
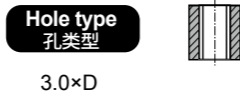
Material compatibility table with columns for ISO, Material Description, and various material groups (P, M, K, N, S, H).

M I-GP SPIRAL POINT TAPS for GENERAL PURPOSE I-GP 普通先端丝锥

Suitable for tapping Through holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state. 适用于碳钢和合金钢的通孔加工, 优异的排屑.



up to M8 : Male Center



Material groups: GS, HSS-E, I, YH, 60°, 5.0P, Homo. Tap Limits: p.B230

Plain Shank Page D215-220 TAPPING ER CHUCK D221-228 Recommended Toolholder ONE STEP TAPPING CHUCK D211-213

Unit(单位) : mm

Table with 10 columns: SIZE, Pitch, EDP No., Limit, Overall Length, Thread Length, Shank Diameter, Square Size, Square Length, No. of Flute. Rows include sizes M2 to M8 with various pitch and length options.

Refer to p.B64 for recommended tap drill sizes. 参考p.B64 底孔尺寸. NEXT PAGE 下页

◎: Excellent (优秀) ○: Good (良好)

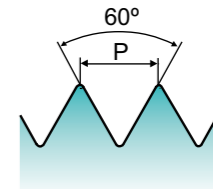
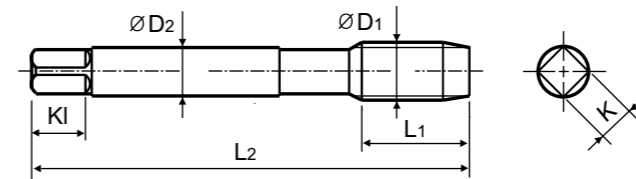
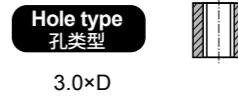
Material compatibility table with columns for ISO, Material Description, and various material types (Non-alloy steel, Low alloy steel, High alloyed steel, Stainless steel, Grey cast iron, Nodular cast iron, Malleable cast iron, Aluminum-wrought alloy, Aluminum-cast, alloyed, Copper and Copper Alloys, Non Metallic Materials, Heat Resistant Super Alloys, Titanium Alloys, Hardened steel, Chilled Cast Iron, Hardened Cast Iron).

M I-GP SPIRAL POINT TAPS for GENERAL PURPOSE I-GP 普通先端丝锥

Suitable for tapping Through holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state. 适用于碳钢和合金钢的通孔加工, 优异的排屑.



up to M8 : Male Center



Material groups: GS, HSS-E, I, YH, 60°, 5.0P, Homo. Tap Limits: p.B230

Plain Shank Page D215-220 TAPPING ER CHUCK D221-228 Recommended Toolholder ONE STEP TAPPING CHUCK D211-213

Unit(单位) : mm

Table with 10 columns: SIZE, Pitch, EDP No., Limit, Overall Length, Thread Length, Shank Diameter, Square Size, Square Length, No. of Flute. Rows include sizes M8 to M15 with various pitch and length options.

Refer to p.B64 for recommended tap drill sizes. 参考p.B64 底孔尺寸. NEXT PAGE 下页

◎: Excellent (优秀) ○: Good (良好)

Material compatibility table with columns for ISO, Material Description, and various material types (Non-alloy steel, Low alloy steel, High alloyed steel, Stainless steel, Grey cast iron, Nodular cast iron, Malleable cast iron, Aluminum-wrought alloy, Aluminum-cast, alloyed, Copper and Copper Alloys, Non Metallic Materials, Heat Resistant Super Alloys, Titanium Alloys, Hardened steel, Chilled Cast Iron, Hardened Cast Iron).

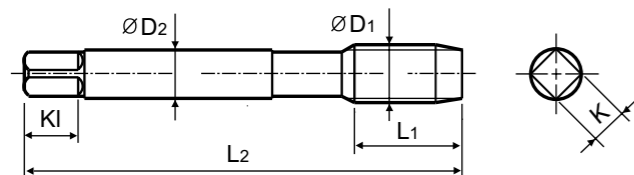
I-GP SPIRAL POINT TAPS for GENERAL PURPOSE I-GP 普通先端丝锥

Suitable for tapping Through holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.

适用于碳钢和合金钢的通孔加工, 优异的排屑.



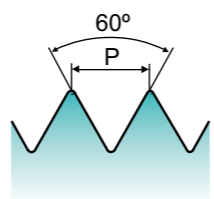
up to M8 : Male Center



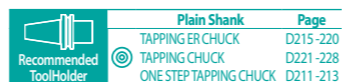
Hole type 孔类型



3.0xD



Tap Limits: p.B230



Unit(单位) : mm

Table with 10 columns: SIZE, Pitch, EDP No., Limit, Overall Length, Thread Length, Shank Diameter, Square Size, Square Length, No. of Flute. Rows include sizes from M16 to M26 with various pitches and EDP numbers.

Refer to p.B64 for recommended tap drill sizes. 参考p.B64 底孔尺寸.

NEXT PAGE 下页

◎: Excellent (优秀) ○: Good (良好)

ISO material compatibility table with columns for Material Description, P, M, K, N, S, H and rows for VDI 3323, HRc, HB, and Recommended.

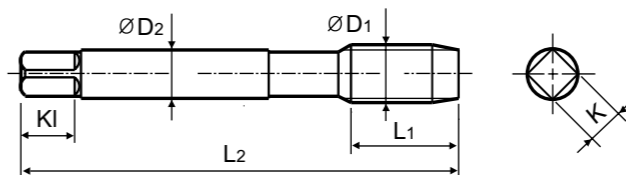
I-GP SPIRAL POINT TAPS for GENERAL PURPOSE I-GP 普通先端丝锥

Suitable for tapping Through holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.

适用于碳钢和合金钢的通孔加工, 优异的排屑.



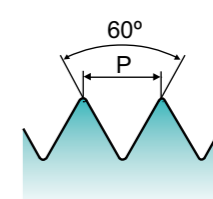
up to M8 : Male Center



Hole type 孔类型



3.0xD



Tap Limits: p.B230



Unit(单位) : mm

Table with 10 columns: SIZE, Pitch, EDP No., Limit, Overall Length, Thread Length, Shank Diameter, Square Size, Square Length, No. of Flute. Rows include sizes from M26 to M36 with various pitches and EDP numbers.

Refer to p.B64 for recommended tap drill sizes. 参考p.B64 底孔尺寸.

◎: Excellent (优秀) ○: Good (良好)

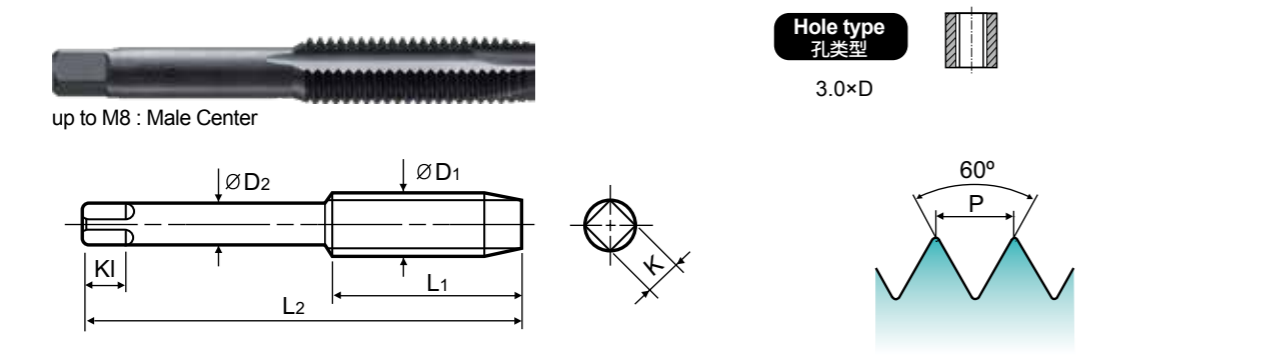
ISO material compatibility table with columns for Material Description, P, M, K, N, S, H and rows for VDI 3323, HRc, HB, and Recommended.



T1042 SERIES

I-GP SPIRAL POINT TAPS for GENERAL PURPOSE I-GP 普通先端丝锥

Suitable for tapping Through holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state. 适用于碳钢和合金钢的通孔加工, 优异的排屑。



Material groups: GS, HSS-E, J, YH, 60°, 5.0P, Homo, p. B64. Includes icons for recommended toolholders and pages D215-220, D221-228, D211-213.

Table with 10 columns: SIZE, Pitch, EDP No., Limit, Overall Length, Thread Length, Shank Diameter, Square Size, Square Length, No. of Flute. Rows include M8, M9, M10, M11, M12, M14, M15 in various sizes.

Refer to p.B64 for recommended tap drill sizes. 参考p.B64 底孔尺寸。 NEXT PAGE 下页

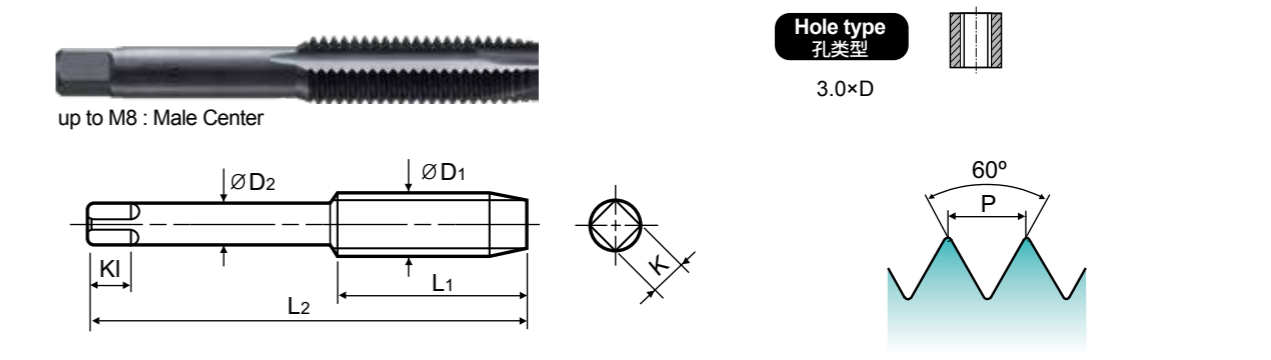
ISO material compatibility table for the tap series, listing ISO numbers and material types like Non-alloy steel, Low alloy steel, High alloyed steel, etc.



T1042 SERIES

I-GP SPIRAL POINT TAPS for GENERAL PURPOSE I-GP 普通先端丝锥

Suitable for tapping Through holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state. 适用于碳钢和合金钢的通孔加工, 优异的排屑。



Material groups: GS, HSS-E, J, YH, 60°, 5.0P, Homo, p. B64. Includes icons for recommended toolholders and pages D215-220, D221-228, D211-213.

Table with 10 columns: SIZE, Pitch, EDP No., Limit, Overall Length, Thread Length, Shank Diameter, Square Size, Square Length, No. of Flute. Rows include M16, M18, M20, M22, M24, M25, M26 in various sizes.

Refer to p.B64 for recommended tap drill sizes. 参考p.B64 底孔尺寸。 NEXT PAGE 下页

ISO material compatibility table for the tap series, listing ISO numbers and material types like Non-alloy steel, Low alloy steel, High alloyed steel, etc.

UNC/F I-GP SPIRAL POINT TAPS for GENERAL PURPOSE I-GP 普通先端丝锥

Suitable for tapping Through holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state. 适用于碳钢和合金钢的通孔加工, 优异的排屑。

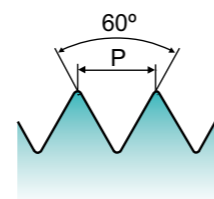
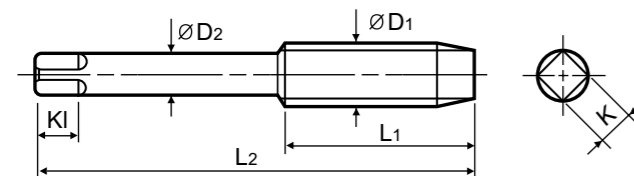
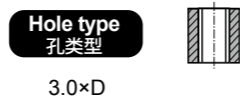


Table with 3 columns: Plain Shank, TAPPING CHUCK, ONE STEP TAPPING CHUCK and corresponding page numbers.

Unit(单位) : mm

Main table for T1142 series listing sizes, TPI, EDP No., Limit, Overall Length, Thread Length, Shank Diameter, Square Size, Square Length, and No. of Flute.

Refer to p.B64 for recommended tap drill sizes. 参考p.B64 底孔尺寸.

ISO material compatibility table for T1142 series, showing performance levels for various materials like Non-alloy steel, Low alloy steel, etc.

W I-GP SPIRAL POINT TAPS for GENERAL PURPOSE I-GP 普通先端丝锥

Suitable for tapping Through holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state. 适用于碳钢和合金钢的通孔加工, 优异的排屑。

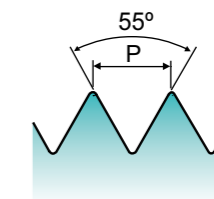
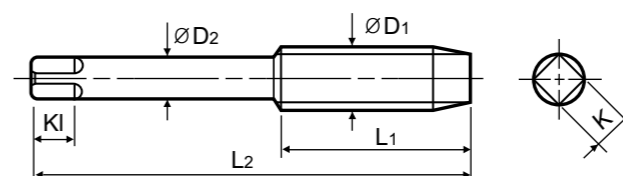
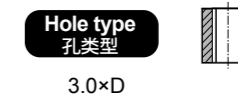


Table with 3 columns: Plain Shank, TAPPING CHUCK, ONE STEP TAPPING CHUCK and corresponding page numbers.

Unit(单位) : mm

Main table for T1262 series listing sizes, TPI, EDP No., Limit, Overall Length, Thread Length, Shank Diameter, Square Size, Square Length, and No. of Flute.

Refer to p.B64 for recommended tap drill sizes. 参考p.B64 底孔尺寸.

ISO material compatibility table for T1262 series, showing performance levels for various materials like Non-alloy steel, Low alloy steel, etc.

I-SP LONG SHANK STRAIGHT FLUTE TAPS for GENERAL PURPOSE
I-SP 长柄普通螺旋槽丝锥

Suitable for tapping Blind & Through holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.

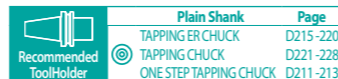
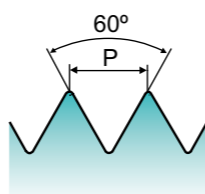
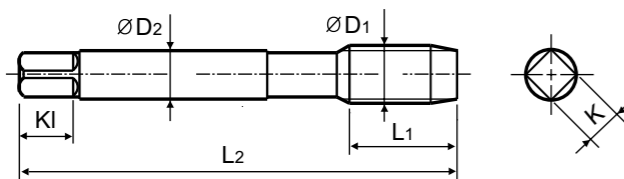
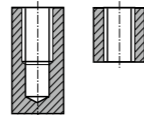
适用于碳钢和合金钢的盲孔和通孔加工, 优异的排屑。



Long Shank

Hole type 孔类型

2.0xD



120mm Tap Limits: p.B230 Unit(单位): mm

Table with 11 columns: SIZE, Pitch, EDP No., Limit, Overall Length, Thread Length, Shank Diameter, Square Size, Square Length, No. of Flute. Rows include sizes M3 to M16 with various pitches and EDP numbers.

Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸。

◎: Excellent (优秀) ○: Good (良好)

ISO material compatibility table with columns for P, M, K, N, S, H and rows for Material Description, VDI 3323, HRc, HB, and Recommended.

I-SP LONG SHANK STRAIGHT FLUTE TAPS for GENERAL PURPOSE
I-SP 长柄普通螺旋槽丝锥

Suitable for tapping Blind & Through holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.

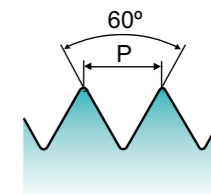
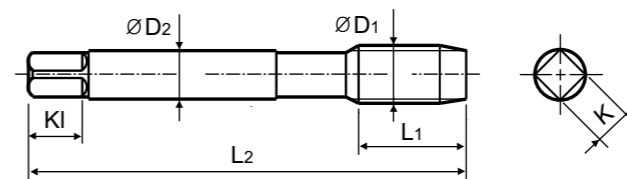
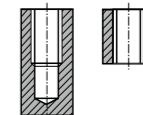
适用于碳钢和合金钢的盲孔和通孔加工, 优异的排屑。



Long Shank

Hole type 孔类型

2.0xD



150mm Tap Limits: p.B230 Unit(单位): mm

Table with 11 columns: SIZE, Pitch, EDP No., Limit, Overall Length, Thread Length, Shank Diameter, Square Size, Square Length, No. of Flute. Rows include sizes M3 to M24 with various pitches and EDP numbers.

Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸。

◎: Excellent (优秀) ○: Good (良好)

ISO material compatibility table with columns for P, M, K, N, S, H and rows for Material Description, VDI 3323, HRc, HB, and Recommended.



1.5P T1326 SERIES
5.0P T1306 SERIES

M I-SP LONG SHANK STRAIGHT FLUTE TAPS for GENERAL PURPOSE
I-SP 长柄普通螺旋槽丝锥

Suitable for tapping Blind & Through holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.
适用于碳钢和合金钢的盲孔和通孔加工, 优异的排屑。

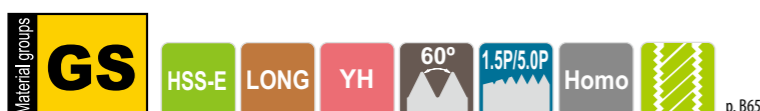
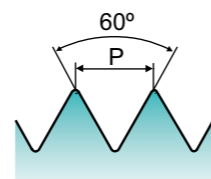
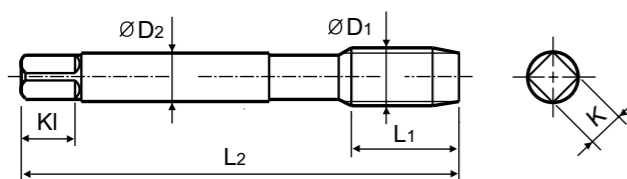
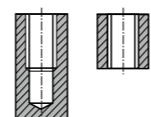


up to M8 : Male Center

Long Shank

Hole type 孔类型

2.0xD



Plain Shank TAPPING ER CHUCK D215-220
TAPPING CHUCK D221-228
ONE STEP TAPPING CHUCK D211-213

Table with 11 columns: SIZE, Pitch, EDP No., Limit, Overall Length, Thread Length, Shank Diameter, Square Size, Square Length, No. of Flute. Rows include sizes from M8 to M24.

Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸。

◎: Excellent (优秀) ○: Good (良好)

Material compatibility chart showing recommended tap sizes for various materials like ISO, VDI 3323, HRc, HB, and different alloy groups.

B128 phone:+82-32-526-0909, www.yg1.kr, E-mail:yg1@yg1.kr

YG-1 CO., LTD.



1.5P T1331 SERIES T1330 SERIES
5.0P T1341 SERIES T1340 SERIES

W I-SP LONG SHANK STRAIGHT FLUTE TAPS for GENERAL PURPOSE
I-SP 长柄普通螺旋槽丝锥

Suitable for tapping Blind & Through holes in Carbon Steels and Alloy Steels, where chips are produced in a continuous coil state.
适用于碳钢和合金钢的盲孔和通孔加工, 优异的排屑。

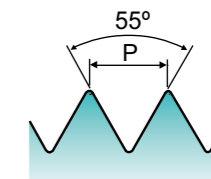
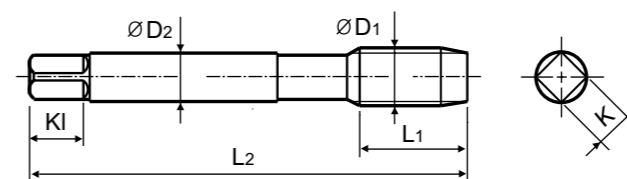
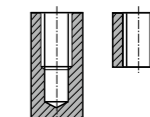


up to W5/16 : Male Center

Long Shank

Hole type 孔类型

2.0xD



Plain Shank TAPPING ER CHUCK D215-220
TAPPING CHUCK D221-228
ONE STEP TAPPING CHUCK D211-213

Table with 11 columns: SIZE, TPI, EDP No., Limit, Overall Length, Thread Length, Shank Diameter, Square Size, Square Length, No. of Flute. Rows include sizes from W1/8 to W5/8.

Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸。

◎: Excellent (优秀) ○: Good (良好)

Material compatibility chart for the W series taps, showing recommended sizes for various materials like ISO, VDI 3323, HRc, HB, and different alloy groups.

YG-1 CO., LTD.

phone:+82-32-526-0909, www.yg1.kr, E-mail:yg1@yg1.kr

B129



Leading Through Innovation

HSS-E

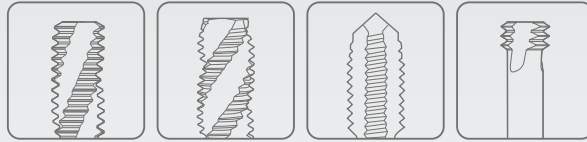
YG TAP STEEL

- For Steel Materials but also other Long Chip Forming Materials

- 独



Global Cutting Tool Leader **YG-1**



THREADING



Leading Through Innovation



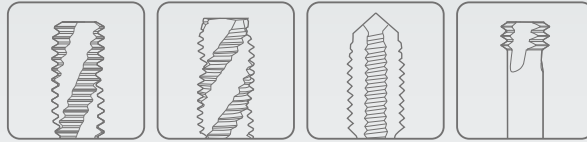
HSS-PM

YG TAP HARDENED

- For Hardened Steels Applications to Control the Continuous and Red-glowing Chipse
- 淬硬钢用丝锥



Global Cutting Tool Leader **YG-1**



THREADING



Leading Through Innovation



HSS-E

YG TAP INOX

- For Stainless Steels with Lamellar, Irregular Chip Formation where the Cutting Forces are Higher
- 不锈钢专用丝锥

SPIRAL FLUTE TAPS for STAINLESS STEELS 不锈钢用螺旋槽丝锥

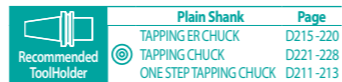
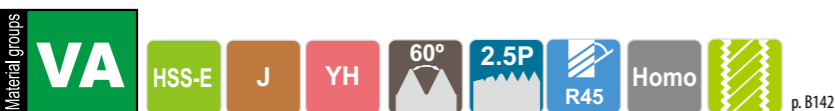
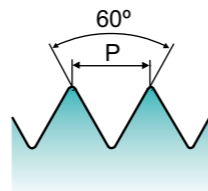
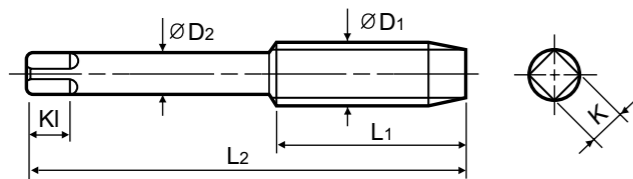
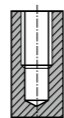
Suitable for tapping Blind holes in Stainless Steels, Chrome Steels, Chrome Molybdenum Steels and other ductile materials with great tendency to work harden.

适用于不锈钢, 铬钢, 铬钼钢和其他逐硬化具有韧性材料的盲孔加工



up to M7 : Male Center

Hole type 孔类型 2.5xD



Tap Limits: p.B230

Unit(单位) : mm

Table with columns: SIZE, Pitch, EDP No., Limit, Overall Length, Thread Length, Shank Diameter, Square Size, Square Length, No. of Flute. Rows include sizes M2 to M14.

Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸.

NEXT PAGE 下页

Material compatibility table with columns for ISO, Material Description, and various material groups (P, M, K, N, S, H).

SPIRAL FLUTE TAPS for STAINLESS STEELS 不锈钢用螺旋槽丝锥

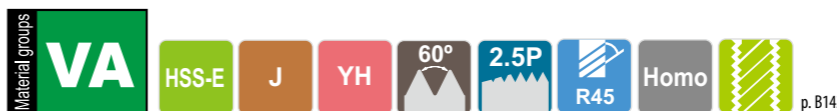
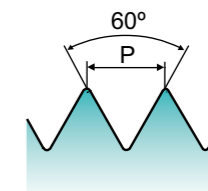
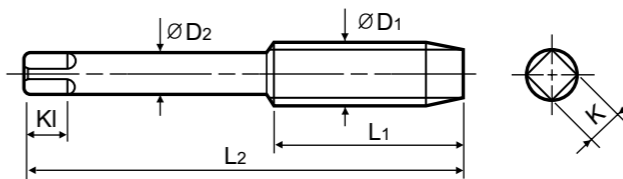
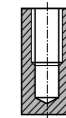
Suitable for tapping Blind holes in Stainless Steels, Chrome Steels, Chrome Molybdenum Steels and other ductile materials with great tendency to work harden.

适用于不锈钢, 铬钢, 铬钼钢和其他逐硬化具有韧性材料的盲孔加工



up to M7 : Male Center

Hole type 孔类型 2.5xD



Tap Limits: p.B230

Unit(单位) : mm

Table with columns: SIZE, Pitch, EDP No., Limit, Overall Length, Thread Length, Shank Diameter, Square Size, Square Length, No. of Flute. Rows include sizes M14 to M30.

Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸.

Material compatibility table with columns for ISO, Material Description, and various material groups (P, M, K, N, S, H).

M SPIRAL POINT TAPS for STAINLESS STEELS 不锈钢用先端丝锥

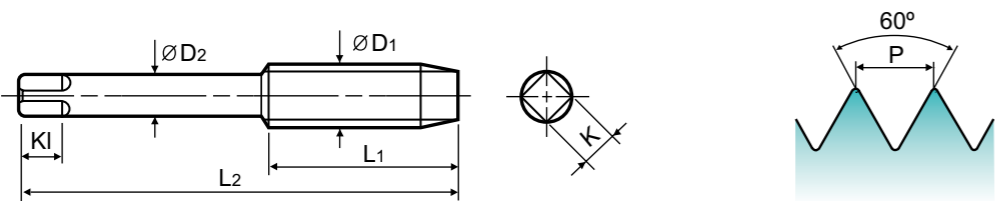
Suitable for tapping Through holes in Stainless Steels, Chrome steels, Chrome Molybdenum Steels and other ductile materials with great tendency to work harden

适用于不锈钢, 铬钢, 铬钼钢和其他逐硬化具有韧性材料的通孔加工



up to M8 : Male Center

Hole type
孔类型
3.0×D



Material groups: VA, HSS-E, J, YH, 60°, 4.0P, Homo, p. B143

Recommended Toolholder: Plain Shank, TAPPING ER CHUCK (Page D215-220), TAPPING CHUCK (Page D221-228), ONE STEP TAPPING CHUCK (Page D211-213)

SIZE	Pitch	EDP No.	Limit	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	No. of Flute
尺寸	牙距	型号	精度	全长	螺纹长	柄径	方块尺寸	方块长度	槽数
ØD1	P			L2	L1	ØD2	K	Kl	
M14	× 1.5	T1043553	YH3	88	42	10.5	8	11	3
M16	× 2	T1043604	YH4	95	45	12.5	10	13	3
M16	× 1.5	T1043613	YH3	95	45	12.5	10	13	3
M18	× 2.5	T1043654	YH4	100	48	14	11	14	3
M18	× 1.5	T1043674	YH4	95	45	14	11	14	3
M20	× 2.5	T1043704	YH4	105	50	15	12	15	3
M20	× 1.5	T1043724	YH4	95	45	15	12	15	3
M22	× 2.5	T1043744	YH4	115	55	17	13	16	3
M22	× 1.5	T1043764	YH4	95	45	17	13	16	3
M24	× 3	T1043784	YH4	120	58	19	15	18	3
M24	× 1.5	T1043804	YH4	95	45	19	15	18	3
M25	× 1.5	T1043834	YH4	95	45	19	15	18	3
M26	× 1.5	T1043854	YH4	95	45	20	15	18	4
M27	× 3	T1043864	YH4	130	62	20	15	18	4
M27	× 1.5	T1043884	YH4	95	45	20	15	18	4
M28	× 1.5	T1043914	YH4	105	45	21	17	20	4
M30	× 3.5	T1043945	YH5	135	65	23	17	20	4
M30	× 1.5	T1043974	YH4	105	45	23	17	20	4

Refer to p.B143 for recommended tap drill sizes. 参考p.B143 底孔尺寸.

◎ : Excellent (优秀) ○ : Good (良好)

ISO Material Description	P			M				K												
	Non-alloy steel			Low alloy steel		High alloyed steel, and tool steel		Stainless steel		Grey cast iron	Nodular cast iron	Malleable cast iron								
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	25	28	32	10	29	32	38	15	35	15	23	10	10	26	3	25	21		
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommended	○	○	○	○	○	◎	◎	◎		◎	◎									

ISO Material Description	N				S					H												
	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys		Titanium Alloys	Hardened steel	Chilled Cast Iron	Hardened Cast Iron							
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	
HRc	15	30	25	38	34							15	30	25	38	34		55	60	42	55	
HB	60	100	75	90	130	110	90	100				200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	○	○	○		◎																	

M STRAIGHT FLUTE TAPS for STAINLESS STEELS 不锈钢用直槽丝锥

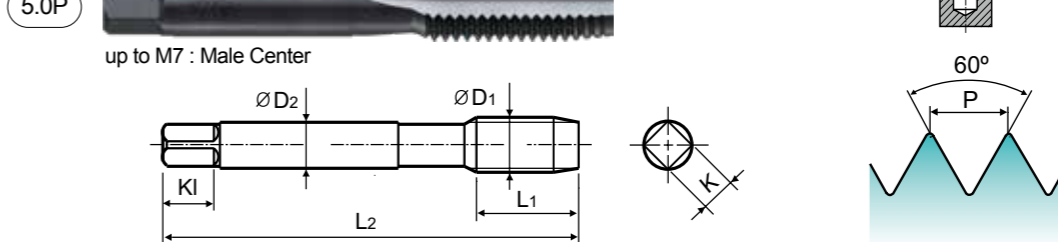
Suitable for tapping Blind & Through holes in Stainless Steels Chrome Steels, Chrome Molybdenum Steels and other ductile materials with great tendency to work harden.

适用于不碳钢, 铬钢, 铬钼钢和其他逐硬化的具有韧性材料的盲孔和通孔加工



up to M7 : Male Center

Hole type
孔类型
2.0×D



Material groups: VA, HSS-E, I, YH, 60°, 1.5P/5.0P, Homo, p. B143

Recommended Toolholder: Plain Shank, TAPPING ER CHUCK (Page D215-220), TAPPING CHUCK (Page D221-228), ONE STEP TAPPING CHUCK (Page D211-213)

SIZE	Pitch	EDP No.		Limit	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	No. of Flute
尺寸	牙距	型号		精度	全长	螺纹长	柄径	方块尺寸	方块长度	槽数
ØD1	P	1.5P	5.0P	精度	L2	L1	ØD2	K	Kl	
M3	× 0.5	T1402202	T1401202	YH2	46	11	4	3.2	6	3
M4	× 0.7	T1402242	T1401242	YH2	52	13	5	4	7	3
M5	× 0.8	T1402282	T1401282	YH2	60	16	5.5	4.5	7	3
M6	× 1	T1402312	T1401312	YH2	62	19	6	4.5	7	3
M8	× 1.25	T1402362	T1401362	YH2	70	22	6.2	5	8	3
M10	× 1.5	T1402423	T1401423	YH3	75	24	7	5.5	8	3
M10	× 1.25	T1402432	T1401432	YH2	75	24	7	5.5	8	3
M12	× 1.75	T1402503	T1401503	YH3	82	29	8.5	6.5	9	3
M12	× 1.5	T1402513	T1401513	YH3	82	29	8.5	6.5	9	3
M12	× 1.25	T1402522	T1401522	YH3	82	29	8.5	6.5	9	3
M12	× 1	T1402532	T1401532	YH2	82	29	8.5	6.5	9	3
M14	× 2	T1402543	T1401543	YH3	88	30	10.5	8	11	4
M14	× 1.5	T1402553	T1401553	YH3	88	30	10.5	8	11	4
M16	× 2	T1402603	T1401603	YH3	95	32	12.5	10	13	4
M16	× 1.5	T1402613	T1401613	YH3	95	32	12.5	10	13	4
M18	× 2.5	T1402653	T1401653	YH3	100	37	14	11	14	4
M18	× 1.5	T1402673	T1401673	YH3	100	37	14	11	14	4
M20	× 2.5	T1402703	T1401703	YH3	105	37	15	12	15	4
M20	× 1.5	T1402723	T1401723	YH3	105	37	15	12	15	4
M22	× 2.5	T1402743	T1401743	YH3	115	38	17	13	16	4
M22	× 1.5	T1402763	T1401763	YH3	115	38	17	13	16	4

Refer to p.B143 for recommended tap drill sizes. 参考p.B143 底孔尺寸.

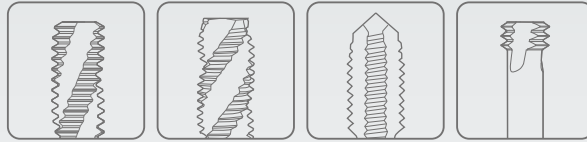
◎ : Excellent (优秀) ○ : Good (良好)

ISO Material Description	P			M				K												
	Non-alloy steel			Low alloy steel		High alloyed steel, and tool steel		Stainless steel		Grey cast iron	Nodular cast iron	Malleable cast iron								
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	25	28	32	30	10	29	32	38	15	35	15	23	10	10	26	3	25	21	
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommended	○	○	○	○	○	◎	◎	◎		◎	◎									

ISO Material Description	N				S					H												
	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys		Titanium Alloys	Hardened steel	Chilled Cast Iron	Hardened Cast Iron							
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	
HRc	15	30	25	38	34							15	30	25	38	34		55	60	42	55	
HB	60	100	75	90	130	110	90	100				200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	○	○	○		◎																	



Global Cutting Tool Leader **YG-1**



THREADING



Leading Through Innovation

SOLID CARBIDE & HSS-E

YG TAP CAST IRON

- For Cast Iron or Similar Work Materials
- 对于铸铁或类似材料



SOLID CARBIDE & HSS-E YG TAP CAST IRON

For Cast Iron or Similar Work Materials
对于铸铁或类似材料

HOLE TYPE 孔类型	Max. 2.0xD Blind/Through Hole 盲孔 / 通孔	
TOOL MATERIAL 刀具材料	CARBIDE	HSS-E
CHAMFER LEAD ACC. TO DIN2197 倒角长度	1.5P/3.0P	1.5P/5.0P
FLUTE TYPE 槽型	Straight Flute 直槽	Straight Flute 直槽
SPIRAL FLUTE ANGLE 螺旋角	-	-
JIS Type	I	I
M/MF	T0451 T0441 (p. B157)	T4471 T4461 (p. B159)
UNC/F		
W	T0462 T0452 (p. B158)	T4442 T4432 (p. B161)
M-LH W-LH		
PIPE TAPS		
SURFACE TREATMENT 表面处理	Bright	Nitrided & Steam Homo
MODEL 模型		

Please visit
globalyg1.com/mat
for material search
◎ : Excellent (优秀) ○ : Good (良好)

ISO 公制	VDI 3323	Material Description 材料描述	Composition / Structure / Heat Treatment 成分 / 组织 / 热处理	HB 布氏硬度	HRc 硬度			
P	1	Non-alloy steel	About 0.15% C Annealed	125				
	2		About 0.45% C Annealed	190	13			
	3		About 0.45% C Quenched & Tempered	250	25			
	4		About 0.75% C Annealed	270	28			
	5		About 0.75% C Quenched & Tempered	300	32			
	6	Low alloy steel	Annealed	180	10			
	7		Quenched & Tempered	275	29			
	8		Quenched & Tempered	300	32			
	9		Quenched & Tempered	350	38			
	10		High alloyed steel, and tool steel	Annealed	200	15		
	11	Quenched & Tempered		325	35			
M	12	Stainless steel	Ferritic / Martensitic Annealed	200	15			
	13		Martensitic Quenched & Tempered	240	23			
	14		Austenitic	180	10			
K	15	Grey cast iron	Pearlitic / ferritic	180	10	◎ 12~20	◎ 10~15	
	16		Pearlitic (Martensitic)	260	26	◎ 12~20	◎ 10~15	
	17	Nodular cast iron	Ferritic	160	3	◎ 10~15	◎ 7~12	
	18		Pearlitic	250	25	◎ 10~15	◎ 7~12	
	19	Malleable cast iron	Ferritic	130		○ 7~12	○ 7~12	
	20		Pearlitic	230	21	○ 7~12	○ 7~12	
N	21	Aluminum-wrought alloy	Not Curable	60				
	22		Curable Hardened	100				
	23	Aluminum-cast, alloyed	≤ 12% Si, Not Curable	75		◎ 15~20	◎ 10~15	
	24		≤ 12% Si, Curable Hardened	90		◎ 15~20	○ 10~15	
	25		> 12% Si, Not Curable	130		○ 10~15	○ 10~15	
	26		Copper and Copper Alloys (Bronze / Brass)	Cutting Alloys, PB>1% CuZn, CuSnZn (Brass)	110 90		○ 6~15	○ 6~15
	27		Copper and Copper Alloys (Bronze / Brass)	CuSn, lead-free copper and electrolytic copper	100			
	28	Non Metallic Materials	Duroplastic, Fiber Reinforced Plastic					
	29		Rubber, Wood, etc.					
	30							
S	31	Heat Resistant Super Alloys	Fe Based Annealed	200	15			
	32		Cured	280	30			
	33		Annealed	250	25			
	34		Ni or Co Based Cured	350	38			
	35		Cast	320	34			
	36	Titanium Alloys	Pure Titanium	400 Rm				
	37		Alpha + Beta Alloys Hardened	1050 Rm				
H	38	Hardened Cast Iron	Hardened	550	55			
	39		Hardened	630	60			
	40		Cast	400	42			
	41		Hardened	550	55			



1.5P T0451 SERIES
3.0P T0441 SERIES

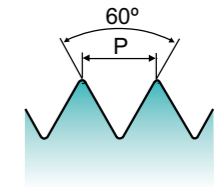
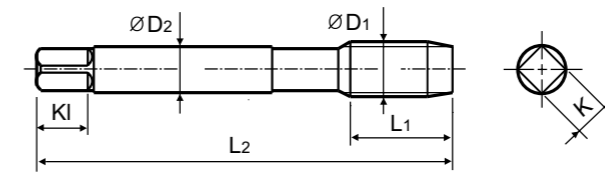
M SOLID CARBIDE STRAIGHT FLUTE TAPS for CAST IRONS 铸铁用硬质合金直槽丝锥

► Suitable for tapping Blind & Through holes in Grey Cast Iron, Nodular Cast Iron, Malleable Cast Iron, Brass Casting and other similar materials.

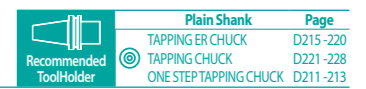
► 适用于灰铸铁, 球状石墨铸铁, 可锻铸铁, 黄铜铸件及具有相同性质的材料的盲孔和通孔的加工。



Hole type
孔类型
2.0xD



Tap Limits: p.B230



Unit(单位) : mm

SIZE 尺寸	Pitch 牙距	EDP No. 型号		Limit 精度	Overall Length 全长	Thread Length 螺纹长	Shank Diameter 柄径	Square Size 方块尺寸	Square Length 方块长度	No. of Flute 槽数
ØD1	P	1.5P	3.0P		L2	L1	ØD2	K	K1	
M3	× 0.5	T0451203	T0441203	YH3	46	11	4	3.2	6	3
M4	× 0.7	T0451243	T0441243	YH3	52	13	5	4	7	3
M5	× 0.8	T0451283	T0441283	YH3	60	16	5.5	4.5	7	3
M6	× 1	T0451313	T0441313	YH3	62	19	6	4.5	7	3
M8	× 1.25	T0451364	T0441364	YH4	70	22	6.2	5	8	4
M10	× 1.5	T0451424	T0441424	YH4	75	24	7	5.5	8	4
M12	× 1.75	T0451505	T0441505	YH5	82	29	8.5	6.5	9	4

► Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸.

◎ : Excellent (优秀) ○ : Good (良好)

ISO Material Description	P										M				K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel		Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc		13	25	28	32	10	29	32	38	15	35	15	23	10	10	26	3	25	4	21
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommended															◎	◎	◎	◎	○	○

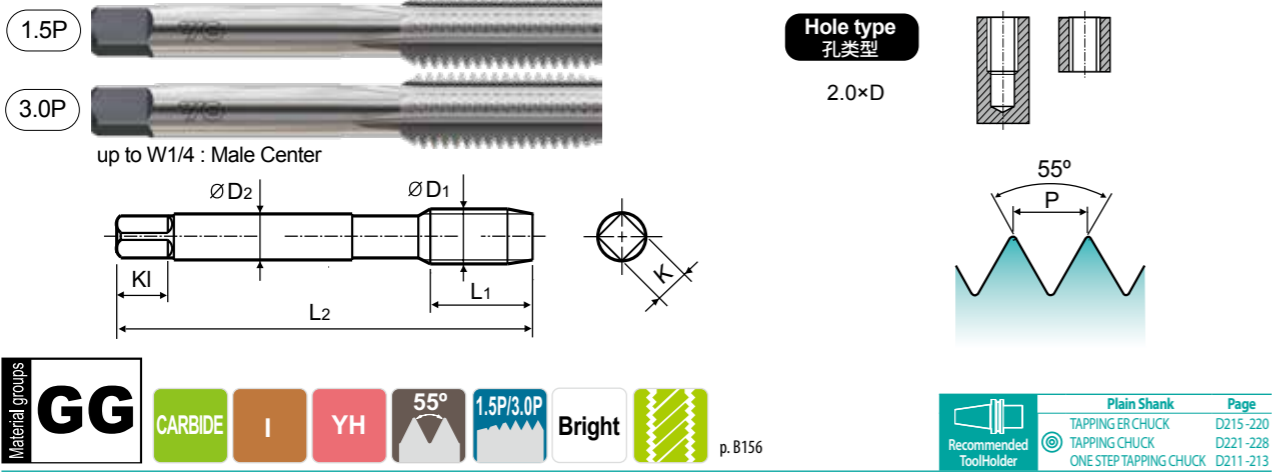
ISO Material Description	N				S					H											
	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys			Titanium Alloys	Hardened steel	Chilled Cast Iron	Hardened Cast Iron					
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc																		55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended			◎	◎	○				○												



1.5P T0462 SERIES
3.0P T0452 SERIES

W SOLID CARBIDE STRAIGHT FLUTE TAPS for CAST IRONS 铸铁用硬质合金直槽丝锥

► Suitable for tapping Blind & Through holes in Grey Cast Iron, Nodular Cast Iron, Malleable Cast Iron, Brass Casting and other similar materials.
► 适用于灰铸铁, 球状石墨铸铁, 可锻铸铁, 黄铜铸件及具有相同性质的材料的盲孔和通孔的加工。



SIZE	TPI	EDP No.		Limit	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	No. of Flute
尺寸	牙距	型号		精度	全长	螺纹长	柄径	方块尺寸	方块长度	槽数
ØD ₁		1.5P	3.0P		L ₂	L ₁	ØD ₂	K	KI	
W1/8	- 40	T0462203	T0452203	YH3	46	11	4	3.2	6	3
W3/16	- 24	T0462323	T0452323	YH3	60	16	5.5	4.5	7	3
W1/4	- 20	T0462404	T0452404	YH4	62	19	6	4.5	7	3
W5/16	- 18	T0462444	T0452444	YH4	70	22	6.1	5	8	4
W3/8	- 16	T0462484	T0452484	YH4	75	24	7	5.5	8	4
W7/16	- 14	T0462524	T0452524	YH4	80	25	8	6	9	4
W1/2	- 12	T0462565	T0452565	YH5	85	29	9	7	10	4

► Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸.

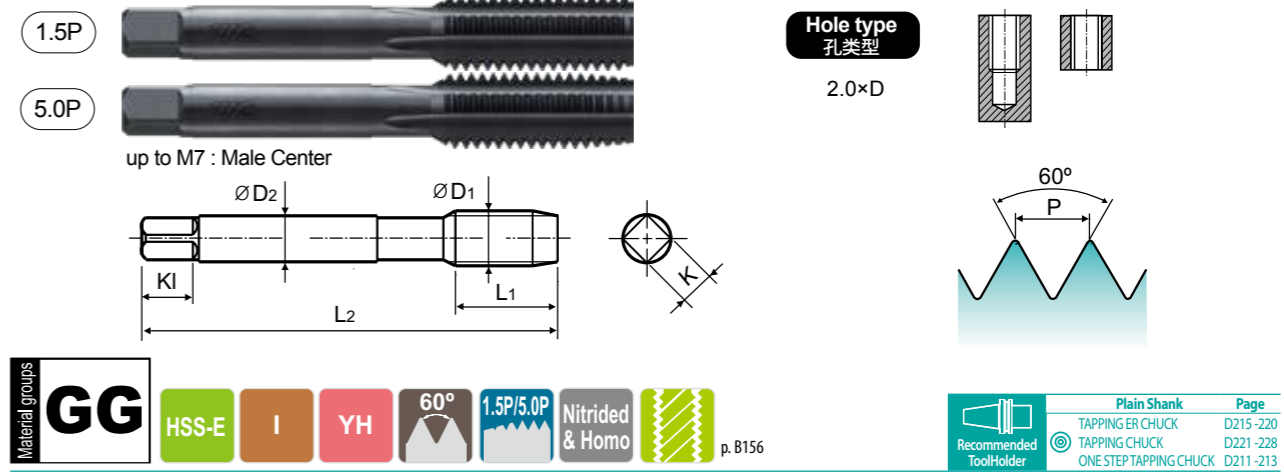
ISO Material Description	P					M					K										
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel										
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
HRc	13	25	28	32	38	10	29	32	38	45	15	35	40	48	10	26	3	25	31	21	
HB	125	190	250	270	300	180	275	300	350	400	200	325	200	240	180	260	160	250	130	230	
Recommended																					
ISO Material Description	N					S					H										
	Aluminum-wrought alloy					Aluminum-cast, alloyed					Copper and Copper Alloys (Bronze / Brass)										
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc																					
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550



1.5P T4471 SERIES
5.0P T4461 SERIES

M STRAIGHT FLUTE TAPS for CAST IRONS 铸铁用直槽丝锥

► Suitable for tapping Blind & Through holes in Grey Cast Iron, Nodular Cast Iron, Malleable Cast Iron Brass Casting and other similar materials.
► 适用于灰铸铁, 球状石墨铸铁, 可锻造铸铁及具有同性质的材料的盲孔和通孔的加工。



SIZE	Pitch	EDP No.		Limit	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	No. of Flute
尺寸	牙距	型号		精度	全长	螺纹长	柄径	方块尺寸	方块长度	槽数
ØD ₁	P	1.5P	5.0P		L ₂	L ₁	ØD ₂	K	KI	
M2	× 0.4	T4471133	T4461133	YH3	40	9.5	3	2.5	5	3
M2.2	× 0.45	T4471153	T4461153	YH3	42	9.5	3	2.5	5	3
M2.3	× 0.4	T4471193	T4461193	YH3	42	9.5	3	2.5	5	3
M2.5	× 0.45	T4471173	T4461173	YH3	44	9.5	3	2.5	5	3
M2.6	× 0.45	T4471493	T4461493	YH3	44	9.5	3	2.5	5	3
M3	× 0.5	T4471203	T4461203	YH3	46	11	4	3.2	6	3
M3.5	× 0.6	T4471223	T4461223	YH3	48	13	4	3.2	6	3
M4	× 0.7	T4471243	T4461243	YH3	52	13	5	4	7	4
M5	× 0.8	T4471283	T4461283	YH3	60	16	5.5	4.5	7	4
M6	× 1	T4471313	T4461313	YH3	62	19	6	4.5	7	4
M8	× 1.25	T4471364	T4461364	YH4	70	22	6.2	5	8	4
M10	× 1.5	T4471424	T4461424	YH4	75	24	7	5.5	8	4
M10	× 1.25	T4471434	T4461434	YH4	75	24	7	5.5	8	4
M12	× 1.75	T4471505	T4461505	YH5	82	29	8.5	6.5	9	4
M12	× 1.5	T4471514	T4461514	YH4	82	29	8.5	6.5	9	4
M12	× 1.25	T4471524	T4461524	YH4	82	29	8.5	6.5	9	4
M12	× 1	T4471533	T4461533	YH3	82	29	8.5	6.5	9	4
M14	× 2	T4471545	T4461545	YH5	88	30	10.5	8	11	4

► Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸.

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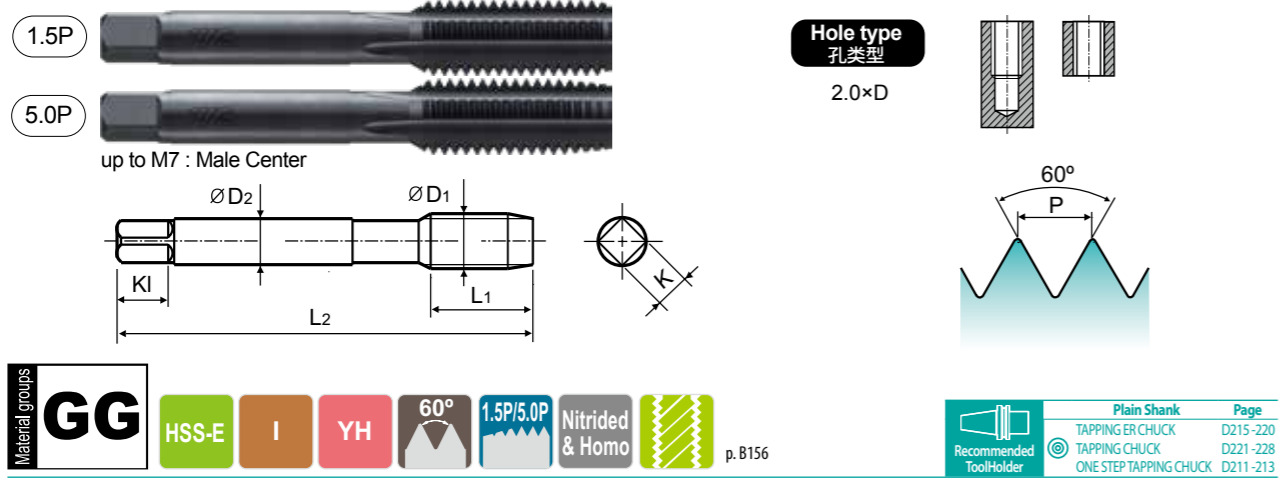
ISO Material Description	P					M					K										
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel										
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
HRc	13	25	28	32	38	10	29	32	38	45	15	35	40	48	10	26	3	25	31	21	
HB	125	190	250	270	300	180	275	300	350	400	200	325	200	240	180	260	160	250	130	230	
Recommended																					
ISO Material Description	N					S					H										
	Aluminum-wrought alloy					Aluminum-cast, alloyed					Copper and Copper Alloys (Bronze / Brass)										
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc																					
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550



1.5P T4471 SERIES
5.0P T4461 SERIES

M STRAIGHT FLUTE TAPS for CAST IRONS 铸铁用直槽丝锥

► Suitable for tapping Blind & Through holes in Grey Cast Iron, Nodular Cast Iron, Malleable Cast Iron Brass Casting and other similar materials.
► 适用于灰铸铁, 球状石墨铸铁, 可锻造铸铁及具有同性质的材料的盲孔和通孔的加工



Material groups: GG HSS-E I YH 60° 1.5P/5.0P Nitrided & Homo p. B156
Recommended ToolHolder: Plain Shank TAPPING ER CHUCK D215-220, TAPPING CHUCK D221-228, ONE STEP TAPPING CHUCK D211-213

SIZE	Pitch	EDP No.		Limit	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	No. of Flute
尺寸	牙距	型号		精度	全长	螺纹长	柄径	方块尺寸	方块长度	槽数
ØD1	P	1.5P	5.0P		L2	L1	ØD2	K	Kl	
M14	× 1.5	T4471554	T4461554	YH4	88	30	10.5	8	11	4
M16	× 2	T4471605	T4461605	YH5	95	32	12.5	10	13	4
M16	× 1.5	T4471614	T4461614	YH4	95	32	12.5	10	13	4
M18	× 2.5	T4471655	T4461655	YH5	100	37	14	11	14	4
M18	× 1.5	T4471674	T4461674	YH4	100	37	14	11	14	4
M20	× 2.5	T4471705	T4461705	YH5	105	37	15	12	15	4
M20	× 1.5	T4471724	T4461724	YH4	105	37	15	12	15	4
M22	× 2.5	T4471745	T4461745	YH5	115	38	17	13	16	4
M22	× 1.5	T4471764	T4461764	YH4	115	38	17	13	16	4
M24	× 3	T4471785	T4461785	YH5	120	45	19	15	18	4
M24	× 1.5	T4471804	T4461804	YH5	120	45	19	15	18	4
M25	× 1.5	T4471834	T4461834	YH4	125	45	19	15	18	4
M26	× 1.5	T4471854	T4461854	YH4	125	45	20	15	18	4
M27	× 3	T4471865	T4461865	YH5	130	45	20	15	18	4
M27	× 1.5	T4471884	T4461884	YH4	130	45	20	15	18	4
M28	× 1.5	T4471914	T4461914	YH4	130	45	21	17	20	4
M30	× 3.5	T4471946	T4461946	YH6	135	48	23	17	20	4
M30	× 1.5	T4471974	T4461974	YH4	135	45	23	17	20	4

Unit(单位): mm

► Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸.

◎: Excellent (优秀) ○: Good (良好)

ISO Material Description	P					M					K									
	Non-alloy steel			Low alloy steel		High alloyed steel, and tool steel		Stainless steel			Grey cast iron		Nodular cast iron		Malleable cast iron					
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRC	13	25	28	32	30	29	32	38	15	35	15	23	10	10	26	3	25		21	
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommended										◎	◎	◎	◎			◎	◎	○	○	○

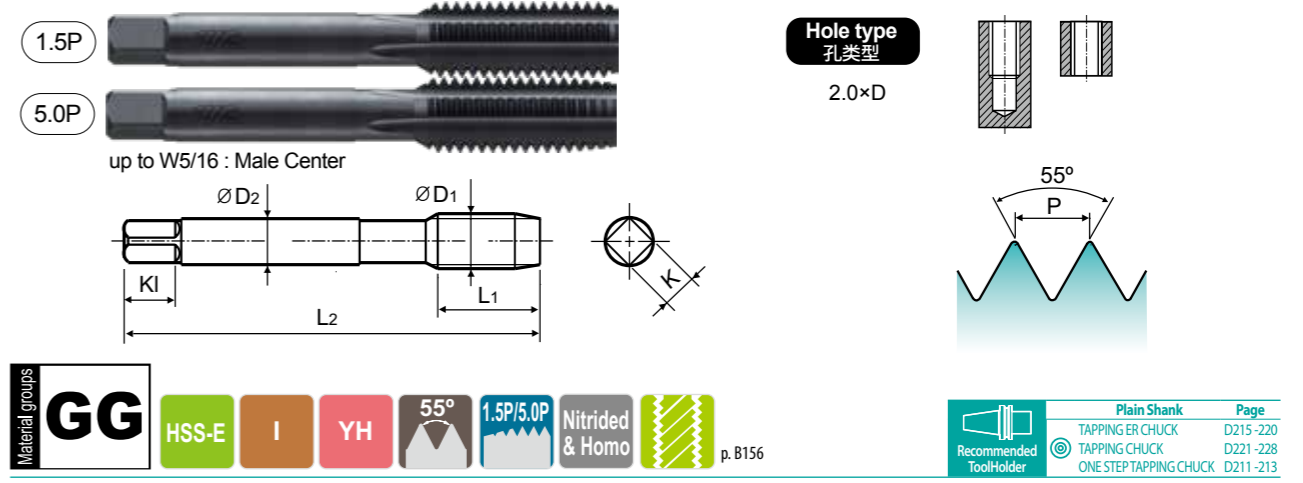
ISO Material Description	N						S						H								
	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)		Non Metallic Materials		Heat Resistant Super Alloys				Titanium Alloys	Hardened steel	Chilled Cast Iron	Hardened Cast Iron					
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRC	21										15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended			◎	○	○	○															



1.5P T4442 SERIES
5.0P T4432 SERIES

W STRAIGHT FLUTE TAPS for CAST IRONS 铸铁用直槽丝锥

► Suitable for tapping Blind & Through holes in Grey Cast Iron, Nodular Cast Iron, Malleable Cast Iron Brass Casting, and other similar materials.
► 适用于灰铸铁, 球状石墨铸铁, 可锻造铸铁及具有同性质的材料的盲孔和通孔的加工



Material groups: GG HSS-E I YH 55° 1.5P/5.0P Nitrided & Homo p. B156
Recommended ToolHolder: Plain Shank TAPPING ER CHUCK D215-220, TAPPING CHUCK D221-228, ONE STEP TAPPING CHUCK D211-213

SIZE	TPI	EDP No.		Limit	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	No. of Flute
尺寸	牙距	型号		精度	全长	螺纹长	柄径	方块尺寸	方块长度	槽数
ØD1		1.5P	5.0P		L2	L1	ØD2	K	Kl	
W1/8	- 40	T4442203	T4432203	YH3	46	11	4	3.2	6	3
W3/16	- 24	T4442323	T4432323	YH3	60	16	5.5	4.5	7	4
W1/4	- 20	T4442404	T4432404	YH4	62	19	6	4.5	7	4
W5/16	- 18	T4442444	T4432444	YH4	70	22	6.1	5	8	4
W3/8	- 16	T4442484	T4432484	YH4	75	24	7	5.5	8	4
W7/16	- 14	T4442525	T4432525	YH5	80	25	8	6	9	4
W1/2	- 12	T4442565	T4432565	YH5	85	29	9	7	10	4
W9/16	- 12	T4442605	T4432605	YH5	90	30	10.5	8	11	4
W5/8	- 11	T4442645	T4432645	YH5	95	32	12	9	12	4
W3/4	- 10	T4442705	T4432705	YH5	105	37	14	11	14	4
W7/8	- 9	T4442746	T4432746	YH6	115	38	17	13	16	4
W1"	- 8	T4442786	T4432786	YH6	125	45	20	15	18	4

Unit(单位): mm

► Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸.

◎: Excellent (优秀) ○: Good (良好)

ISO Material Description	P					M					K									
	Non-alloy steel			Low alloy steel		High alloyed steel, and tool steel		Stainless steel			Grey cast iron		Nodular cast iron		Malleable cast iron					
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRC	13	25	28	32	30	29	32	38	15	35	15	23	10	10	26	3	25		21	
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommended										◎	◎	◎	◎			◎	◎	○	○	○

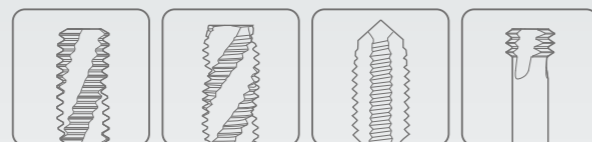
ISO Material Description	N						S						H								
	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)		Non Metallic Materials		Heat Resistant Super Alloys				Titanium Alloys	Hardened steel	Chilled Cast Iron	Hardened Cast Iron					
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRC	21										15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended			◎	○	○	○															



Leading Through Innovation



Global Cutting Tool Leader **YG-1**



SOLID CARBIDE & HSS-E

THREADING

YG TAP ALU

- For long-chipping Aluminum Wrought Alloys with Large Chip Gullets to Avoid Clogging in the Threading Operations
- 采用大排屑槽设计, 适合长屑铝合金攻丝, 避免缠屑-



SOLID CARBIDE & HSS-E YG TAP ALU

For long-chipping Aluminum Wrought Alloys with Large Chip Gullets to Avoid Clogging in the Threading Operations



Please visit globalyg1.com/mat for material search

◎: Excellent (优秀) ○: Good (良好)

Table with 7 columns: ISO 公制, VDI 3323, Material Description, Composition / Structure / Heat Treatment, HB 布氏硬度, HRC 硬度, and performance indicators. Rows include P (Non-alloy steel, Low alloy steel, High alloyed steel), M (Stainless steel), K (Cast iron), N (Aluminum-wrought alloy, Aluminum-cast alloy, Copper and Copper Alloys, Non Metallic Materials), S (Heat Resistant Super Alloys, Titanium Alloys), and H (Hardened steel, Chilled Cast Iron, Hardened Cast Iron).

Table with 4 columns for HSS-E (Max. 2.5xD Blind Hole 盲孔 and Max. 3.0xD Through Hole 通孔) and 4 columns for JIS Type (I, S, I, J). Includes images of tap models T2131, T2111, T2021, and T2041. Performance indicators (◎, ○) are provided for each model across various materials.

HSS

HSS



1.5P **T0202** SERIES
2.5P **T0102** SERIES



1.5P **T0164** SERIES
2.5P **T0154** SERIES

M SOLID CARBIDE SPIRAL FLUTE TAPS for NON-FERROUS METALS
有色金属用硬质合金螺旋槽丝锥

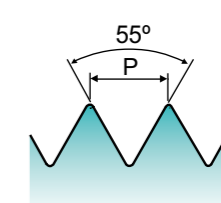
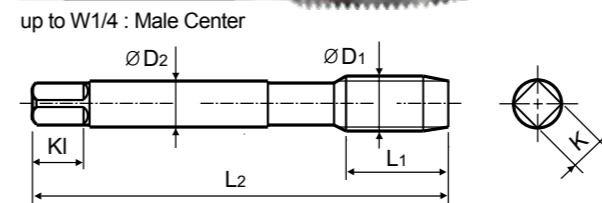
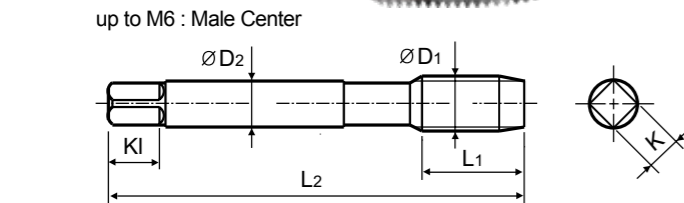
W SOLID CARBIDE SPIRAL FLUTE TAPS for NON-FERROUS METALS
有色金属用硬质合金螺旋槽丝锥

► Suitable for tapping Blind holes in Aluminum, Magnesium, Zinc, Copper as well as Non-Ferrous metal alloys.

► 适用于铝, 镁, 锌, 铜及有色金属的盲孔加工.

► Suitable for tapping Blind holes in Aluminum, Magnesium, Zinc, Copper as well as Non-Ferrous metal alloys.

► 适用于铝, 镁, 锌, 铜及有色金属的盲孔加工.



Material groups: **AI** CARBIDE I YH 60° 1.5P/2.5P R15 Bright p. B164

Recommended ToolHolder: Plain Shank TAPPING ER CHUCK D215-220, TAPPING CHUCK D221-228, ONE STEP TAPPING CHUCK D211-213

Material groups: **AI** CARBIDE I YH 55° 1.5P/2.5P R15 Bright p. B164

Recommended ToolHolder: Plain Shank TAPPING ER CHUCK D215-220, TAPPING CHUCK D221-228, ONE STEP TAPPING CHUCK D211-213

SIZE	Pitch	EDP No.		Limit	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	No. of Flute
尺寸	牙距	型号		精度	全长	螺纹长	柄径	方块尺寸	方块长度	槽数
ØD1	P	1.5P	2.5P		L2	L1	ØD2	K	Kl	
M3	× 0.5	T0202203	T0102203	YH3	46	11	4	3.2	6	3
M4	× 0.7	T0202243	T0102243	YH3	52	13	5	4	7	3
M5	× 0.8	T0202283	T0102283	YH3	60	16	5.5	4.5	7	3
M6	× 1	T0202313	T0102313	YH3	62	19	6	4.5	7	3
M8	× 1.25	T0202364	T0102364	YH4	70	22	6.2	5	8	3
M10	× 1.5	T0202424	T0102424	YH4	75	24	7	5.5	8	3
M12	× 1.75	T0202504	T0102504	YH4	82	29	8.5	6.5	9	3

► Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸.

SIZE	TPI	EDP No.		Limit	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	No. of Flute
尺寸	牙距	型号		精度	全长	螺纹长	柄径	方块尺寸	方块长度	槽数
ØD1		1.5P	2.5P		L2	L1	ØD2	K	Kl	
W1/8	- 40	T0164203	T0154203	YH3	46	11	4	3.2	6	3
W3/16	- 24	T0164323	T0154323	YH3	60	16	5.5	4.5	7	3
W1/4	- 20	T0164404	T0154404	YH4	62	19	6	4.5	7	3
W5/16	- 18	T0164444	T0154444	YH4	70	22	6.1	5	8	3
W3/8	- 16	T0164484	T0154484	YH4	75	24	7	5.5	8	3
W7/16	- 14	T0164524	T0154524	YH4	80	25	8	6	9	3
W1/2	- 12	T0164564	T0154564	YH4	85	29	9	7	10	3

► Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸.

◎ : Excellent (优秀) ○ : Good (良好)

ISO	P													M			K							
Material Description	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel			Stainless steel			Grey cast iron		Nodular cast iron		Malleable cast iron			
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
HRc	13	25	28	32	38	10	29	32	38	15	35	15	23	10	10	26	3	25	13	21	3	25	21	
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230	130	230	230	
Recommended												○			○						○			
ISO	N				S				H															
Material Description	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)		Non Metallic Materials		Heat Resistant Super Alloys			Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron								
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41			
HRc	21	22	23	24	25	26	27	28	29	30	15	30	25	38	34	55	60	42	55	55	60	42	55	
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550			
Recommended	◎	◎	◎	○		○																		

◎ : Excellent (优秀) ○ : Good (良好)

ISO	P													M			K							
Material Description	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel			Stainless steel			Grey cast iron		Nodular cast iron		Malleable cast iron			
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
HRc	13	25	28	32	38	10	29	32	38	15	35	15	23	10	10	26	3	25	13	21	3	25	21	
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230	130	230	230	
Recommended												○			○						○			
ISO	N				S				H															
Material Description	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)		Non Metallic Materials		Heat Resistant Super Alloys			Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron								
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41			
HRc	21	22	23	24	25	26	27	28	29	30	15	30	25	38	34	55	60	42	55	55	60	42	55	
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550			
Recommended	◎	◎	◎	○		○																		

M SPIRAL FLUTE TAPS for NON-FERROUS METALS 有色金属用螺旋槽丝锥

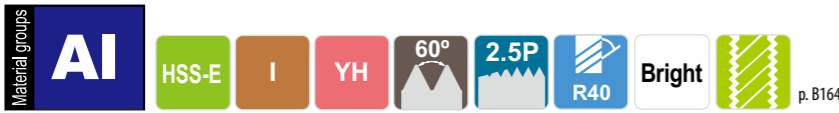
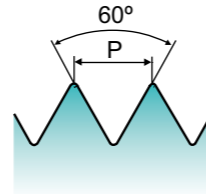
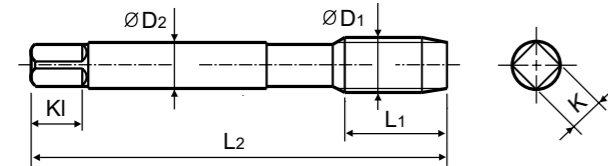
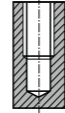
► Suitable for tapping Blind holes in Aluminum, Magnesium, Zinc, Copper as well as Non-Ferrous metal alloys.

► 适用于铝, 镁, 锌, 铜及有色金属的盲孔加工

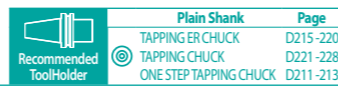


up to M7 : Male Center

Hole type
孔类型
2.5×D



Tap Limits: p.B230



Unit(单位) : mm

SIZE 尺寸	Pitch 牙距	EDP No. 型号	Limit 精度	Overall Length 全长	Thread Length 螺纹长	Shank Diameter 柄径	Square Size 方块尺寸	Square Length 方块长度	No. of Flute 槽数
ØD1	P			L2	L1	ØD2	K	KI	
M2	× 0.4	T2120131	YH1	40	9.5	3	2.5	5	2
M2.2	× 0.45	T2120151	YH1	42	9.5	3	2.5	5	2
M2.3	× 0.4	T2120191	YH1	42	9.5	3	2.5	5	2
M2.5	× 0.45	T2120171	YH1	44	9.5	3	2.5	5	2
M2.6	× 0.45	T2120491	YH1	44	9.5	3	2.5	5	2
M3	× 0.5	T2120202	YH2	46	11	4	3.2	6	3
M3.5	× 0.6	T2120222	YH2	48	13	4	3.2	6	3
M4	× 0.7	T2120242	YH2	52	13	5	4	7	3
M5	× 0.8	T2120282	YH2	60	16	5.5	4.5	7	3
M6	× 1	T2120312	YH2	62	19	6	4.5	7	3
M8	× 1.25	T2120363	YH3	70	22	6.2	5	8	3
M10	× 1.5	T2120423	YH3	75	24	7	5.5	8	3
M10	× 1.25	T2120433	YH3	75	24	7	5.5	8	3
M12	× 1.75	T2120503	YH3	82	29	8.5	6.5	9	3
M12	× 1.5	T2120513	YH3	82	29	8.5	6.5	9	3
M12	× 1.25	T2120523	YH3	82	29	8.5	6.5	9	3
M12	× 1	T2120532	YH2	82	29	8.5	6.5	9	3
M14	× 2	T2120543	YH3	88	30	10.5	8	11	3

► Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸.

► NEXT PAGE 下页

ISO Material Description	P									M						K					
	Non-alloy steel			Low alloy steel			High alloyed steel, and tool steel			Stainless steel			Grey cast iron			Nodular cast iron			Malleable cast iron		
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
HRc	13	25	28	32	35	38	40	42	45	48	50	52	55	58	60	62	64	66	68	70	
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230	
Recommended	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

ISO Material Description	N										S							H				
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys					Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron		
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	
HRc	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550	
Recommended	◎	◎	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

M SPIRAL FLUTE TAPS for NON-FERROUS METALS 有色金属用螺旋槽丝锥

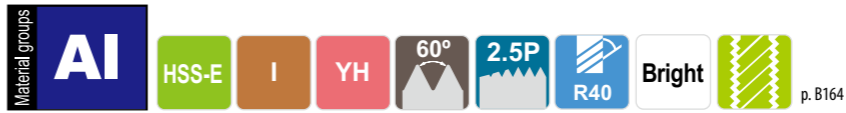
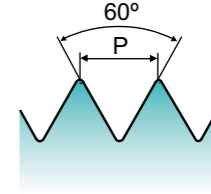
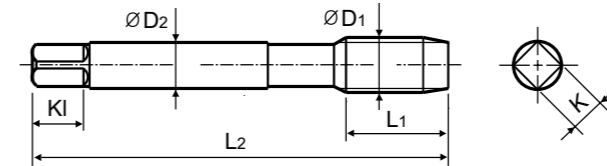
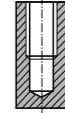
► Suitable for tapping Blind holes in Aluminum, Magnesium, Zinc, Copper as well as Non-Ferrous metal alloys.

► 适用于铝, 镁, 锌, 铜及有色金属的盲孔加工

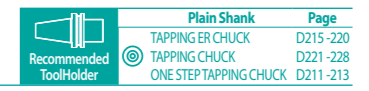


up to M7 : Male Center

Hole type
孔类型
2.5×D



Tap Limits: p.B230



Unit(单位) : mm

SIZE 尺寸	Pitch 牙距	EDP No. 型号	Limit 精度	Overall Length 全长	Thread Length 螺纹长	Shank Diameter 柄径	Square Size 方块尺寸	Square Length 方块长度	No. of Flute 槽数
ØD1	P			L2	L1	ØD2	K	KI	
M14	× 1.5	T2120553	YH3	88	30	10.5	8	11	3
M16	× 2	T2120603	YH3	95	32	12.5	10	13	3
M16	× 1.5	T2120613	YH3	95	32	12.5	10	13	3
M18	× 2.5	T2120653	YH3	100	37	14	11	14	4
M18	× 1.5	T2120673	YH3	100	37	14	11	14	4
M20	× 2.5	T2120703	YH3	105	37	15	12	15	4
M20	× 1.5	T2120723	YH3	105	37	15	12	15	4
M22	× 2.5	T2120744	YH4	115	38	17	13	16	4
M22	× 1.5	T2120763	YH3	115	38	17	13	16	4
M24	× 3	T2120784	YH4	120	45	19	15	18	4
M24	× 1.5	T2120803	YH3	120	45	19	15	18	4
M25	× 1.5	T2120833	YH3	125	45	19	15	18	4
M26	× 1.5	T2120853	YH3	125	45	20	15	18	4
M27	× 3	T2120864	YH4	130	45	20	15	18	4
M27	× 1.5	T2120883	YH3	130	45	20	15	18	4
M28	× 1.5	T2120913	YH3	130	45	21	17	20	4
M30	× 3.5	T2120944	YH4	135	48	23	17	20	4
M30	× 1.5	T2120973	YH3	135	45	23	17	20	4

► Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸.

◎ : Excellent (优秀) ○ : Good (良好)

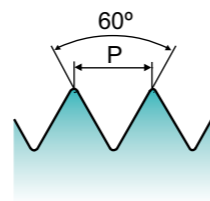
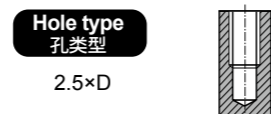
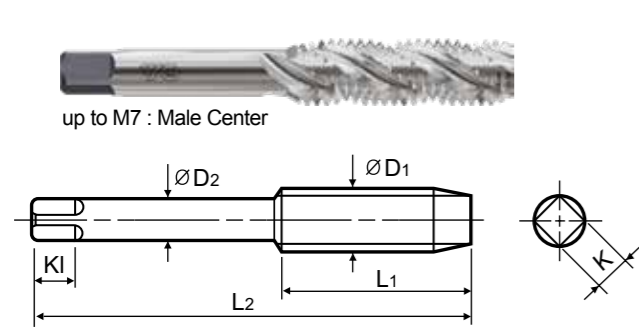
ISO Material Description	P									M						K					
	Non-alloy steel			Low alloy steel			High alloyed steel, and tool steel			Stainless steel			Grey cast iron			Nodular cast iron			Malleable cast iron		
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
HRc	13	25	28	32	35	38	40	42	45	48	50	52	55	58	60	62	64	66	68	70	
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230	
Recommended	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

ISO Material Description	N										S							H				
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys					Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron		
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	
HRc	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550	
Recommended	◎	◎	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

M SPIRAL FLUTE TAPS for NON-FERROUS METALS 有色金属用螺旋槽丝锥

Suitable for tapping Blind holes in Aluminum, Magnesium, Zinc, Copper as well as Non-Ferrous metal alloys.

适用于铝, 镁, 锌, 铜及有色金属的盲孔加工.



Material groups: AI, HSS-E, J, YH, 60°, 2.5P, R40, Bright. Includes icons for Plain Shank, TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK, and a page reference p. B165.

Table with 10 columns: SIZE, Pitch, EDP No., Limit, Overall Length, Thread Length, Shank Diameter, Square Size, Square Length, No. of Flute. Rows include sizes from M2 to M14.

Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸.

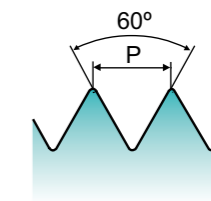
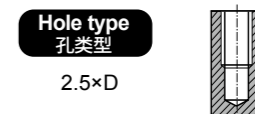
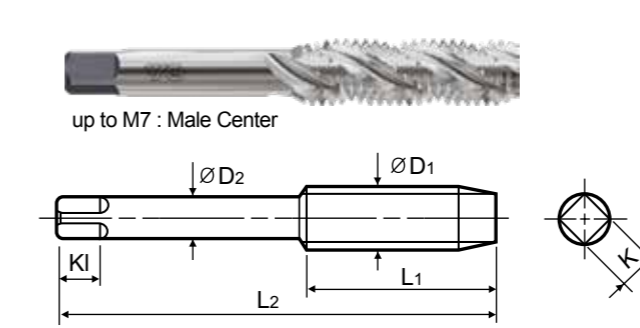
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ISO material compatibility chart with columns for P (Non-alloy steel), M (Stainless steel), K (Grey cast iron), N (Aluminum-cast, alloyed), S (Heat Resistant Super Alloys), and H (Titanium Alloys, Hardened steel, Chilled Cast Iron, Hardened Cast Iron).

M SPIRAL FLUTE TAPS for NON-FERROUS METALS 有色金属用螺旋槽丝锥

Suitable for tapping Blind holes in Aluminum, Magnesium, Zinc, Copper as well as Non-Ferrous metal alloys.

适用于铝, 镁, 锌, 铜及有色金属的盲孔加工.



Material groups: AI, HSS-E, J, YH, 60°, 2.5P, R40, Bright. Includes icons for Plain Shank, TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK, and a page reference p. B165.

Table with 10 columns: SIZE, Pitch, EDP No., Limit, Overall Length, Thread Length, Shank Diameter, Square Size, Square Length, No. of Flute. Rows include sizes from M14 to M30.

Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸.

◎: Excellent (优秀) ○: Good (良好)

ISO material compatibility chart with columns for P (Non-alloy steel), M (Stainless steel), K (Grey cast iron), N (Aluminum-cast, alloyed), S (Heat Resistant Super Alloys), and H (Titanium Alloys, Hardened steel, Chilled Cast Iron, Hardened Cast Iron).

YG TAP ALU

T2111 SERIES

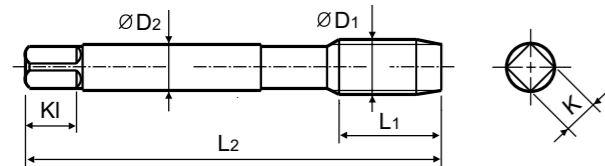
SPIRAL FLUTE TAPS for DEEP HOLES(for NON-FERROUS METALS) 深孔螺旋槽丝锥(有色金属)

Suitable for tapping deep Blind holes in Aluminum, Magnesium Zinc, Copper as well as Non-Ferrous metal alloys.

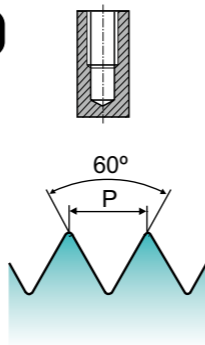
适用于铝, 镁, 锌, 铜及有色金属的盲孔加工.



up to M7 : Male Center



Hole type 孔类型 2.5xØD



Material groups AI, HSS-E, S, YH, 60°, 2.5P, R40, Bright

Plain Shank Page D215-220 TAPPING CHUCK D221-228 ONE STEP TAPPING CHUCK D211-213

Tap Limits: p.B230

Unit(单位) : mm

Table with 10 columns: SIZE, Pitch, EDP No., Limit, Overall Length, Thread Length, Shank Diameter, Square Size, Square Length, No. of Flute. Lists various tap sizes from M2 to M22.

Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸.

◎: Excellent (优秀) ○: Good (良好)

ISO material compatibility chart with columns for Material Description, P, M, K, N, S, H and rows for VDI 3323, HRc, HB, Recommended.

YG TAP ALU

T2021 SERIES

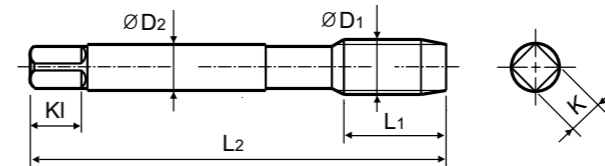
SPIRAL POINT TAPS for NON-FERROUS METALS 有色金属用先端丝锥

Suitable for tapping Through holes in Aluminum, Magnesium Zinc, Copper as well as Non-Ferrous metal alloys.

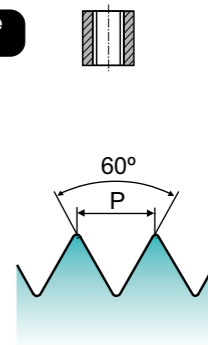
适用于铝, 镁, 锌, 铜及有色金属的通孔加工.



up to M8 : Male Center



Hole type 孔类型 3.0xØD



Material groups AI, HSS-E, I, YH, 60°, 5.0P, Bright

Plain Shank Page D215-220 TAPPING CHUCK D221-228 ONE STEP TAPPING CHUCK D211-213

Tap Limits: p.B230

Unit(单位) : mm

Table with 10 columns: SIZE, Pitch, EDP No., Limit, Overall Length, Thread Length, Shank Diameter, Square Size, Square Length, No. of Flute. Lists various tap sizes from M2 to M14.

Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸.

NEXT PAGE 下一页

◎: Excellent (优秀) ○: Good (良好)

ISO material compatibility chart with columns for Material Description, P, M, K, N, S, H and rows for VDI 3323, HRc, HB, Recommended.

M SPIRAL POINT TAPS for NON-FERROUS METALS 有色金属用先端丝锥

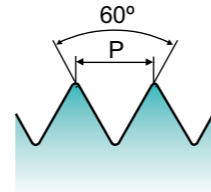
► Suitable for tapping Through holes in Aluminum, Magnesium, Zinc, Copper as well as Non-Ferrous metal alloys.

► 适用于铝, 镁, 锌, 铜及有色金属的通孔加工。



up to M8 : Male Center

Hole type
孔类型
3.0xD



Plain Shank Page
TAPPING ER CHUCK D215-220
TAPPING CHUCK D221-228
ONE STEP TAPPING CHUCK D211-213

Tap Limits: p.B230

Unit(单位) : mm

SIZE	Pitch	EDP No.	Limit	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	No. of Flute
尺寸 ØD1	牙距 P	型号	精度	全长 L2	螺纹长 L1	柄径 ØD2	方块尺寸 K	方块长度 KI	槽数
M14	× 1.5	T2021553	YH3	88	30	10.5	8	11	3
M16	× 2	T2021604	YH4	95	32	12.5	10	13	3
M16	× 1.5	T2021613	YH3	95	32	12.5	10	13	3
M18	× 2.5	T2021654	YH4	100	37	14	11	14	3
M18	× 1.5	T2021674	YH4	100	37	14	11	14	3
M20	× 2.5	T2021704	YH4	105	37	15	12	15	3
M20	× 1.5	T2021724	YH4	105	37	15	12	15	3
M22	× 2.5	T2021744	YH4	115	38	17	13	16	3
M22	× 1.5	T2021764	YH4	115	38	17	13	16	3
M24	× 3	T2021784	YH4	120	45	19	15	18	3
M24	× 1.5	T2021804	YH4	120	45	19	15	18	3
M25	× 1.5	T2021834	YH4	125	45	19	15	18	3
M26	× 1.5	T2021854	YH4	125	45	20	15	18	4
M27	× 3	T2021864	YH4	130	45	20	15	18	4
M27	× 1.5	T2021884	YH4	130	45	20	15	18	4
M28	× 1.5	T2021914	YH4	130	45	21	17	20	4
M30	× 3.5	T2021945	YH5	135	48	23	17	20	4
M30	× 1.5	T2021974	YH4	135	45	23	17	20	4

► Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸。

◎ : Excellent (优秀) ○ : Good (良好)

ISO	P										M				K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron	Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	25	28	32	35	29	32	38	41	45	35	45	50	55	30	35	40	45	50	55
HB	125	190	250	270	300	180	210	275	300	350	200	240	260	280	180	260	160	250	130	230
Recommended	◎	◎	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

ISO	N						S						H								
	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)		Heat Resistant Super Alloys						Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron				
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	◎	◎	○	○	○	○	○	○			○	○	○	○	○	○	○	○	○	○	○

M SPIRAL POINT TAPS for NON-FERROUS METALS 有色金属用先端丝锥

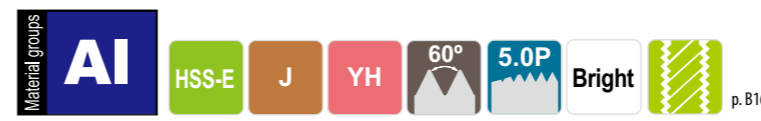
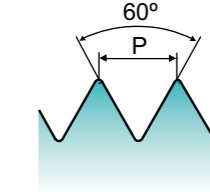
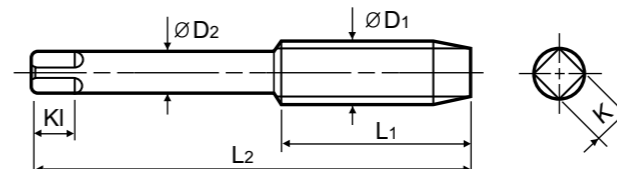
► Suitable for tapping Through holes in Aluminum, Magnesium, Zinc, Copper as well as Non-Ferrous metal alloys.

► 适用于铝, 镁, 锌, 铜及有色金属的通孔加工。



up to M8 : Male Center

Hole type
孔类型
3.0xD



Plain Shank Page
TAPPING ER CHUCK D215-220
TAPPING CHUCK D221-228
ONE STEP TAPPING CHUCK D211-213

Tap Limits: p.B230

Unit(单位) : mm

SIZE	Pitch	EDP No.	Limit	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	No. of Flute
尺寸 ØD1	牙距 P	型号	精度	全长 L2	螺纹长 L1	柄径 ØD2	方块尺寸 K	方块长度 KI	槽数
M2	× 0.4	T2041132	YH2	40	15	3	2.5	5	2
M2.2	× 0.45	T2041152	YH2	42	15	3	2.5	5	2
M2.3	× 0.4	T2041192	YH2	42	15	3	2.5	5	2
M2.5	× 0.45	T2041172	YH2	44	16	3	2.5	5	2
M2.6	× 0.45	T2041492	YH2	44	16	3	2.5	5	2
M3	× 0.5	T2041202	YH2	46	18	4	3.2	6	3
M3.5	× 0.6	T2041222	YH2	48	18	4	3.2	6	3
M4	× 0.7	T2041242	YH2	52	20	5	4	7	3
M5	× 0.8	T2041282	YH2	60	22	5.5	4.5	7	3
M6	× 1	T2041312	YH2	62	24	6	4.5	7	3
M8	× 1.25	T2041363	YH3	70	30	6.2	5	8	3
M10	× 1.5	T2041423	YH3	75	32	7	5.5	8	3
M10	× 1.25	T2041433	YH3	75	32	7	5.5	8	3
M12	× 1.75	T2041504	YH4	82	38	8.5	6.5	9	3
M12	× 1.5	T2041513	YH3	82	38	8.5	6.5	9	3
M12	× 1.25	T2041523	YH3	80	38	8.5	6.5	9	3
M12	× 1	T2041533	YH3	70	30	8.5	6.5	9	3
M14	× 2	T2041544	YH4	88	42	10.5	8	11	3

► Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸。

► NEXT PAGE 下页

◎ : Excellent (优秀) ○ : Good (良好)

ISO	P										M				K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron	Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	25	28	32	35	29	32	38	41	45	35	45	50	55	30	35	40	45	50	55
HB	125	190	250	270	300	180	210	275	300	350	200	240	260	280	180	260	160	250	130	230
Recommended	◎	◎	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

ISO	N						S						H								
	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)		Heat Resistant Super Alloys						Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron				
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	◎	◎	○	○	○	○	○	○			○	○	○	○	○	○	○	○	○	○	○

M SPIRAL POINT TAPS for NON-FERROUS METALS
有色金属用先端丝锥

► Suitable for tapping Through holes in Aluminum, Magnesium, Zinc, Copper as well as Non-Ferrous metal alloys.

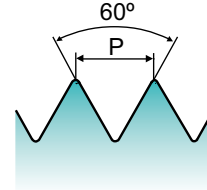
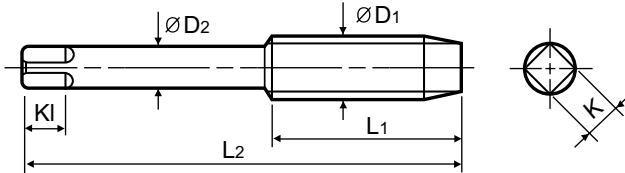
► 适用于铝, 镁, 锌, 铜及有色金属的通孔加工.



up to M8 : Male Center

Hole type

孔类型



Material groups: **AI** HSS-E J YH 60° 5.0P Bright

Tap Limits: p.B230

Recommended ToolHolder

Plain Shank	Page
TAPPING ER CHUCK	D215-220
TAPPING CHUCK	D221-228
ONE STEP TAPPING CHUCK	D211-213

Unit(单位) : mm

SIZE	Pitch	EDP No.	Limit	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	No. of Flute
尺寸	牙距	型号	精度	全长	螺纹长	柄径	方块尺寸	方块长度	槽数
ØD1	P			L2	L1	ØD2	K	KI	
M14	× 1.5	T2041553	YH3	88	42	10.5	8	11	3
M16	× 2	T2041604	YH4	95	45	12.5	10	13	3
M16	× 1.5	T2041613	YH3	95	45	12.5	10	13	3
M18	× 2.5	T2041654	YH4	100	48	14	11	14	3
M18	× 1.5	T2041674	YH4	95	45	14	11	14	3
M20	× 2.5	T2041704	YH4	105	50	15	12	15	3
M20	× 1.5	T2041724	YH4	95	45	15	12	15	3
M22	× 2.5	T2041744	YH4	115	55	17	13	16	3
M22	× 1.5	T2041764	YH4	95	45	17	13	16	3
M24	× 3	T2041784	YH4	120	58	19	15	18	3
M24	× 1.5	T2041804	YH4	95	45	19	15	18	3
M25	× 1.5	T2041834	YH4	95	45	19	15	18	3
M26	× 1.5	T2041854	YH4	95	45	20	15	18	4
M27	× 3	T2041864	YH4	130	62	20	15	18	4
M27	× 1.5	T2041884	YH4	95	45	20	15	18	4
M28	× 1.5	T2041914	YH4	105	45	21	17	20	4
M30	× 3.5	T2041945	YH5	135	65	23	17	20	4
M30	× 1.5	T2041974	YH4	105	45	23	17	20	4

► Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸.

◎ : Excellent (优秀) ○ : Good (良好)

ISO	P										M				K							
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel				Grey cast iron		Nodular cast iron	
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
VDI 3323																						
HRc		13	25	28	32	10	29	32	38	15	35	15	23	10	10	26	3	25				
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230		
Recommended	○	○				○						○	○	○								

ISO	N										S					H					
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys					Titanium Alloys		Hardened steel		Chilled Cast Iron	Hardened Cast Iron
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323																					
HRc											15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	◎	◎	○			○	○														



Leading Through Innovation



HSS-PM



YG TAP Ti Ni

- For Heat Resistant Super Alloys and Titanium Alloys Applied with Cutting Edge Rake Angles and Thread Relief
- 耐热超合金和钛合金用丝锥

SELECTION GUIDE 选用指南



HSS-PM YG TAP Ti Ni

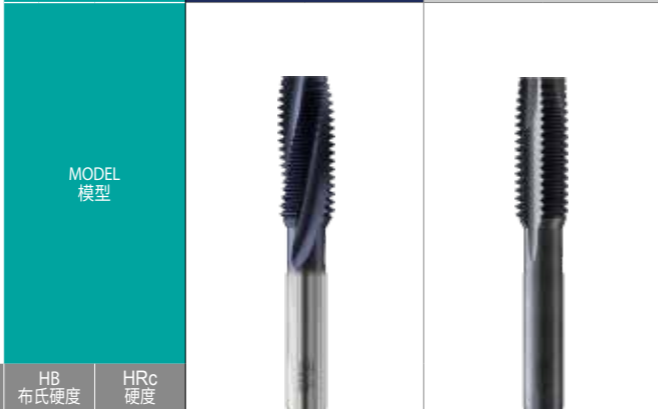
For Heat Resistant Super Alloys and Titanium Alloys
Applied with Cutting Edge Rake Angles and Thread Relief
耐热超合金和钛合金用丝锥

Please visit
globalyg1.com/mat
for material search

◎: Excellent (优秀) ○: Good (良好)

ISO 公制	VDI 3323	Material Description 材料描述	Composition / Structure / Heat Treatment 成分 / 组织 / 热处理	HB 布氏硬度	HRC 硬度	MODEL 模型			
P	1	Non-alloy steel	About 0.15% C Annealed	125					
	2		About 0.45% C Annealed	190	13				
	3		About 0.45% C Quenched & Tempered	250	25				
	4		About 0.75% C Annealed	270	28				
	5	About 0.75% C Quenched & Tempered	300	32					
	6	Low alloy steel	Annealed	180	10			○	10~15
	7		Quenched & Tempered	275	29			○	10~15
	8		Quenched & Tempered	300	32			○	4~8
	9	High alloyed steel, and tool steel	Quenched & Tempered	350	38			○	4~8
	10		Annealed	200	15			○	6~9
	11		Quenched & Tempered	325	35			○	6~10
M	12	Stainless steel	Ferritic / Martensitic Annealed	200	15				
	13		Martensitic Quenched & Tempered	240	23				
	14		Austenitic	180	10				
K	15	Grey cast iron	Pearlitic / ferritic	180	10				
	16		Pearlitic (Martensitic)	260	26				
	17	Nodular cast iron	Ferritic	160	3				
	18		Pearlitic	250	25				
	19		Ferritic	130					
	20		Pearlitic	230	21				
N	21	Aluminum-wrought alloy	Not Curable	60					
	22		Curable Hardened	100					
	23		≤ 12% Si, Not Curable	75					
	24	Aluminum-cast, alloyed	≤ 12% Si, Curable Hardened	90					
	25		> 12% Si, Not Curable	130					
	26	Copper and Copper Alloys (Bronze / Brass)	Cutting Alloys, PB>1%	110					
	27		CuZn, CuSnZn (Brass)	90					
	28		CuSn, lead-free copper and electrolytic copper	100					
	29		Non Metallic Materials	Duroplastic, Fiber Reinforced Plastic					
	30	Rubber, Wood, etc.							
S	31	Heat Resistant Super Alloys	Fe Based Annealed	200	15		◎	2~4	
	32		Cured	280	30		◎	2~4	
	33		Annealed	250	25	○	1~3	◎	2~4
	34		Ni or Co Based Cured	350	38	○	1~3	◎	2~4
	35	Cast	320	34	○	1~3	◎	2~4	
	36	Titanium Alloys	Pure Titanium	400 Rm		◎	3~5	○	3~5
	37		Alpha + Beta Alloys Hardened	1050 Rm		◎	3~5	◎	3~5
H	38	Hardened steel	Hardened	550	55				
	39		Hardened	630	60				
	40	Chilled Cast Iron	Cast	400	42		○	2~4	
	41	Hardened Cast Iron	Hardened	550	55				

HOLE TYPE 孔类型	Max. 2.5xD Blind Hole 盲孔	Max. 3.0xD Through Hole 通孔
TOOL MATERIAL 刀具材料	HSS-PM	
CHAMFER LEAD ACC. TO DIN2197 倒角长度	3.0P	5.0P
FLUTE TYPE 槽型	Spiral Flute 螺旋刃	Spiral Point 螺旋尖
SPIRAL FLUTE ANGLE 螺旋角	R15	-
JIS Type	I	I
M/MF	TZ181 (p. B179)	TL231 (p. B180)
UNC/F		
W		
M-LH W-LH		
PIPE TAPS		
SURFACE TREATMENT 表面处理	TiAIN	Steam Homo



ISO	VDI	Material Description	Composition / Structure / Heat Treatment	HB	HRC	MODEL			
1	2	Non-alloy steel	About 0.15% C Annealed	125					
2	3		About 0.45% C Annealed	190	13				
3	4		About 0.45% C Quenched & Tempered	250	25				
4	5		About 0.75% C Annealed	270	28				
5	6	About 0.75% C Quenched & Tempered	300	32					
6	7	Low alloy steel	Annealed	180	10			○	10~15
7	8		Quenched & Tempered	275	29			○	10~15
8	9		Quenched & Tempered	300	32			○	4~8
9	10	High alloyed steel, and tool steel	Quenched & Tempered	350	38			○	4~8
10	11		Annealed	200	15			○	6~9
11	12		Quenched & Tempered	325	35			○	6~10
12	M	Stainless steel	Ferritic / Martensitic Annealed	200	15				
13			Martensitic Quenched & Tempered	240	23				
14			Austenitic	180	10				
15	K	Grey cast iron	Pearlitic / ferritic	180	10				
16			Pearlitic (Martensitic)	260	26				
17		Nodular cast iron	Ferritic	160	3				
18			Pearlitic	250	25				
19	Ferritic		130						
20	Pearlitic		230	21					
21	N	Aluminum-wrought alloy	Not Curable	60					
22			Curable Hardened	100					
23			≤ 12% Si, Not Curable	75					
24		Aluminum-cast, alloyed	≤ 12% Si, Curable Hardened	90					
25			> 12% Si, Not Curable	130					
26		Copper and Copper Alloys (Bronze / Brass)	Cutting Alloys, PB>1%	110					
27			CuZn, CuSnZn (Brass)	90					
28			CuSn, lead-free copper and electrolytic copper	100					
29			Non Metallic Materials	Duroplastic, Fiber Reinforced Plastic					
30		Rubber, Wood, etc.							
31	S	Heat Resistant Super Alloys	Fe Based Annealed	200	15		◎	2~4	
32			Cured	280	30		◎	2~4	
33			Annealed	250	25	○	1~3	◎	2~4
34			Ni or Co Based Cured	350	38	○	1~3	◎	2~4
35		Cast	320	34	○	1~3	◎	2~4	
36		Titanium Alloys	Pure Titanium	400 Rm		◎	3~5	○	3~5
37			Alpha + Beta Alloys Hardened	1050 Rm		◎	3~5	◎	3~5
38	H	Hardened steel	Hardened	550	55				
39			Hardened	630	60				
40		Chilled Cast Iron	Cast	400	42		○	2~4	
41		Hardened Cast Iron	Hardened	550	55				

YG TAP Ti Ni

TZ181 SERIES

M SPIRAL FLUTE TAPS for TITANIUM ALLOYS 钛合金用螺旋槽丝锥

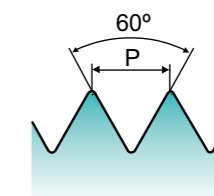
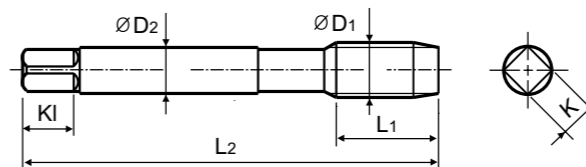
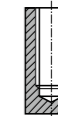
► Suitable for tapping Blind holes in Titanium and Titanium Alloys.
This tap compensates for the characteristics of titanium material such as closure and low thermal conductivity.

► 适用于钛和钛合金和具有与其相同性质的材料的盲孔加工, 也适用于低导热材料的盲孔加工。



up to M7 : Male Center

Hole type
孔类型
2.5×D



Material groups: Ti, HSS-PM, I, YH, 60°, 3.0P, R15, TiAIN, p. B178

Tap Limits: p. B230

Recommended Toolholder: Plain Shank, TAPPING ER CHUCK, ONE STEP TAPPING CHUCK

Page: D215-220, D221-228, D211-213

SIZE	Pitch	EDP No.	Limit	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	No. of Flute
尺寸	牙距	型号	精度	全长	螺纹长	柄径	方块尺寸	方块长度	槽数
ØD1	P			L2	L1	ØD2	K	KI	
M3	× 0.5	TZ181203	YH3	46	11	4	3.2	6	3
M4	× 0.7	TZ181243	YH3	52	13	5	4	7	3
M5	× 0.8	TZ181283	YH3	60	16	5.5	4.5	7	3
M6	× 1	TZ181313	YH3	62	19	6	4.5	7	3
M8	× 1.25	TZ181363	YH3	70	22	6.2	5	8	3
M10	× 1.5	TZ181423	YH3	75	24	7	5.5	8	3
M12	× 1.75	TZ181504	YH4	82	29	8.5	6.5	9	3

► Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸。

◎: Excellent (优秀) ○: Good (良好)

ISO	P									M				K							
	Non-alloy steel					Low alloy steel				High alloyed steel, and tool steel				Stainless steel		Grey cast iron	Nodular cast iron	Malleable cast iron			
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
HRC	13	19	25	27	30	10	29	32	38	15	35	15	23	10	26	3	25	25	21	21	
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230	
Recommended								○	○	○											
ISO	N						S						H								
	Aluminum-wrought alloy			Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials			Heat Resistant Super Alloys			Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron	
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRC	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
HB																					
Recommended																◎	◎				

M SPIRAL POINT TAPS for NICKEL BASE ALLOYS
镍合金用先端丝锥

► Suitable for tapping Through holes in Nickel Alloys, Inconel 781 and Heat Resistant Alloy Steels.

► 适用于镍合金, 铬镍铁合金781和耐热合金钢的通孔加工.

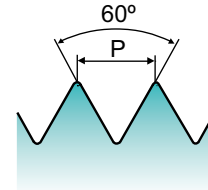
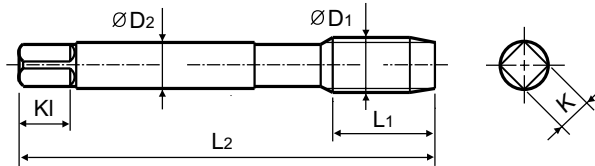


up to M7 : Male Center

Hole type

孔类型

3.0×D



Material groups: **NI** (HSS-PM, I, YH, 60°, 5.0P, Homo) p. B178



Plain Shank	Page
TAPPING ER CHUCK	D215-220
TAPPING CHUCK	D221-228
ONE STEP TAPPING CHUCK	D211-213

Tap Limits: p.B230

Unit(单位) : mm

SIZE	Pitch	EDP No.	Limit	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	No. of Flute
尺寸	牙距	型号	精度	全长	螺纹长	柄径	方块 尺寸	方块 长度	槽数
ØD1	P			L2	L1	ØD2	K	KI	
M3	× 0.5	TL231203	YH3	46	11	4	3.2	6	3
M4	× 0.7	TL231243	YH3	52	13	5	4	7	3
M5	× 0.8	TL231283	YH3	60	16	5.5	4.5	7	3
M6	× 1	TL231313	YH3	62	19	6	4.5	7	3
M8	× 1.25	TL231363	YH3	70	22	6.2	5	8	3
M10	× 1.5	TL231423	YH3	75	24	7	5.5	8	3
M12	× 1.75	TL231504	YH4	82	29	8.5	6.5	9	3

► Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸.

◎ : Excellent (优秀) ○ : Good (良好)

ISO	P										M						K													
Material Description	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel						Stainless steel			Grey cast iron			Nodular cast iron			Malleable cast iron				
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
HRc	125	130	135	140	145	150	155	160	165	170	175	180	185	190	200	210	220	230	240	250	260	270	280	290	300	310	320	330	340	350
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230										
Recommended						○	○	○	◎	○	○																			
ISO	N										S							H												
Material Description	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys							Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron								
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41									
HRc	60	100	75	90	130	110	90	100			15	30	25	38	34	400Rm	1050Rm	550	630	400	550									
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550									
Recommended											◎	◎	◎	◎	○	○	◎				○									



Leading Through Innovation



HSS-E

YG TAP FORMING

- Tapping by Forming Soft Materials
- 软材料挤压成形攻丝

SELECTION GUIDE

选用指南



HSS-E YG TAP FORMING

Tapping by Forming Soft Materials

软材料挤压成形攻丝



Please visit globalyg1.com/mat for material search

Table with columns: ISO 公制, VDI 3323, Material Description 材料描述, Composition / Structure / Heat Treatment 成分 / 组织 / 热处理, HB 布氏硬度, HRC 硬度, HOLE TYPE 孔类型, TOOL MATERIAL 刀具材料, CHAMFER LEAD ACC. TO DIN2197 倒角长度, FLUTE TYPE 槽型, SPIRAL FLUTE ANGLE 螺旋角, JIS Type, M/MF, UNC/F, W, M-LH, W-LH, PIPE TAPS, SURFACE TREATMENT 表面处理, MODEL 模型.

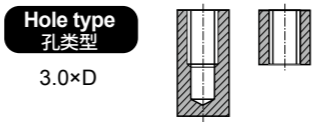
Max. 3.0xD Blind / Th rough Hole 盲孔 / 通孔

Table with columns: HOLE TYPE 孔类型, TOOL MATERIAL 刀具材料, CHAMFER LEAD ACC. TO DIN2197 倒角长度, FLUTE TYPE 槽型, SPIRAL FLUTE ANGLE 螺旋角, JIS Type, M/MF, UNC/F, W, M-LH, W-LH, PIPE TAPS, SURFACE TREATMENT 表面处理, MODEL 模型. Includes images of various tap models and a detailed material compatibility table.

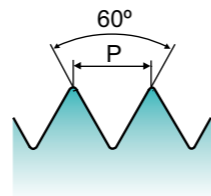
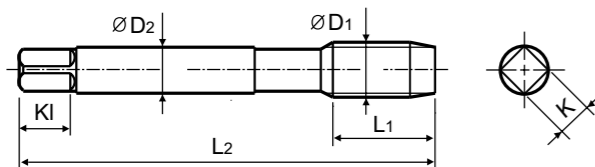
M FLUTELESS TAPS for STEELS
钢用挤压丝锥

► Suitable for tapping in Low Carbon Steels, Alloy Steels and Stainless Steels.

► 适用于低碳钢, 合金钢和不锈钢的加工



up to M6 : Male Center



Material groups: **GV** HSS-E I GH 60° 2.0P/4.0P Homo p. B182

Recommended ToolHolder: Plain Shank TAPPING ER CHUCK D215-220, TAPPING CHUCK D221-228, ONE STEP TAPPING CHUCK D211-213

Tap Limits: p. B231

Unit(单位) : mm

SIZE	Pitch	EDP No.		Limit	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	No. of Lobe
尺寸	牙距	型号		精度	全长	螺纹长	柄径	方块尺寸	方块长度	槽数
ØD1	P	2.0P	4.0P		L2	L1	ØD2	K	KI	
M2 × 0.4		T1791134	T1781134	GH4	40	9	3	2.5	5	
M2.3 × 0.4		T1791194	T1781194	GH4	42	10	3	2.5	5	
M2.5 × 0.45		T1791175	T1781175	GH5	44	11	3	2.5	5	
M2.6 × 0.45		T1791495	T1781495	GH5	44	11	3	2.5	5	
M3 × 0.5		T1791206	T1781206	GH6	46	9	4	3.2	6	
M3.5 × 0.6		T1791226	T1781226	GH6	48	9	4	3.2	6	
M4 × 0.7		T1791247	T1781247	GH7	52	10	5	4	7	
M5 × 0.8		T1791287	T1781287	GH7	60	11	5.5	4.5	7	
M6 × 1		T1791317	T1781317	GH7	62	12	6	4.5	7	

► Refer to p.B194 for recommended tap drill sizes. 参考p.B194 底孔尺寸.

◎ : Excellent (优秀) ○ : Good (良好)

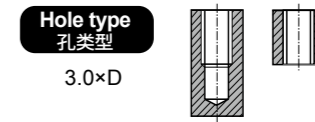
ISO	P										M						K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel			Stainless steel			Grey cast iron		Nodular cast iron		Malleable cast iron	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
HRc	13	25	28	32	30	10	29	32	38	15	35	15	23	10	10	26	3	25	21			
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230		
Recommended	◎	○	○			◎		◎	◎													

ISO	N						S						H								
	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)		Heat Resistant Super Alloys			Titanium Alloys			Hardened steel		Chilled Cast Iron		Hardened Cast Iron				
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc											15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	◎	◎	◎	○		◎	◎														

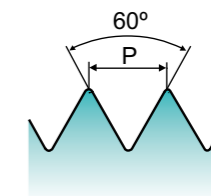
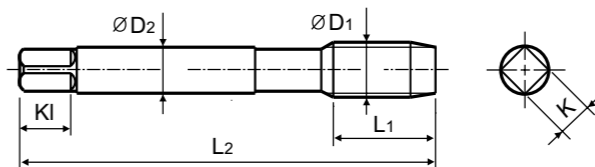
M FLUTELESS TAPS with OIL GROOVE for STEELS
带油槽钢用挤压丝锥

► Suitable for tapping in Low Carbon Steels, Alloy Steels and Stainless Steels.

► 适用于低碳钢, 合金钢和不锈钢的加工



up to M7 : Male Center



Material groups: **GV** HSS-E I GH 60° 2.0P/4.0P Homo p. B182

Recommended ToolHolder: Plain Shank TAPPING ER CHUCK D215-220, TAPPING CHUCK D221-228, ONE STEP TAPPING CHUCK D211-213

Tap Limits: p. B231

Unit(单位) : mm

SIZE	Pitch	EDP No.		Limit	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	No. of Lobe
尺寸	牙距	型号		精度	全长	螺纹长	柄径	方块尺寸	方块长度	槽数
ØD1	P	2.0P	4.0P		L2	L1	ØD2	K	KI	
M2 × 0.4		T1771134	T1761134	GH4	40	9	3	2.5	5	
M2.3 × 0.4		T1771194	T1761194	GH4	42	10	3	2.5	5	
M2.5 × 0.45		T1771174	T1761174	GH4	44	11	3	2.5	5	
M2.6 × 0.45		T1771494	T1761494	GH4	44	11	3	2.5	5	
M3 × 0.5		T1771205	T1761205	GH5	46	9	4	3.2	6	
M3.5 × 0.6		T1771225	T1761225	GH5	48	9	4	3.2	6	
M4 × 0.7		T1771246	T1761246	GH6	52	10	5	4	7	
M5 × 0.8		T1771286	T1761286	GH6	60	11	5.5	4.5	7	
M6 × 1		T1771317	T1761317	GH7	62	12	6	4.5	7	
M7 × 1		T1771347	T1761347	GH7	65	13	6.2	5	8	
M8 × 1.25		T1771367	T1761367	GH7	70	22	6.2	5	8	
M8 × 1		T1771377	T1761377	GH7	70	22	6.2	5	8	
M10 × 1.5		T1771427	T1761427	GH7	75	24	7	5.5	8	
M10 × 1.25		T1771437	T1761437	GH7	75	24	7	5.5	8	
M10 × 1		T1771447	T1761447	GH7	75	24	7	5.5	8	
M12 × 1.75		T1771508	T1761508	GH8	82	29	8.5	6.5	9	
M12 × 1.5		T1771517	T1761517	GH7	82	29	8.5	6.5	9	
M12 × 1.25		T1771527	T1761527	GH7	82	29	8.5	6.5	9	
M12 × 1		T1771537	T1761537	GH7	82	29	8.5	6.5	9	
M14 × 2		T1771540	T1761540	GH10	88	30	10.5	8	11	
M14 × 1.5		T1771559	T1761559	GH9	88	30	10.5	8	11	
M16 × 2		T1771600	T1761600	GH10	95	32	12.5	10	13	
M16 × 1.5		T1771619	T1761619	GH9	95	32	12.5	10	13	
M18 × 2.5		T177165A	T176165A	GH11	100	37	14	11	14	
M18 × 1.5		T1771670	T1761670	GH10	100	37	14	11	14	
M20 × 2.5		T177170A	T176170A	GH11	105	37	15	12	15	
M20 × 1.5		T1771720	T1761720	GH10	105	37	15	12	15	

► Refer to p.B194 for recommended tap drill sizes. 参考p.B194 底孔尺寸.

◎ : Excellent (优秀) ○ : Good (良好)

ISO	P										M						K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel			Stainless steel			Grey cast iron		Nodular cast iron		Malleable cast iron	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
HRc	13	25	28	32	30	10	29	32	38	15	35	15	23	10	10	26	3	25	21			
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230		
Recommended	◎	○	○			◎		◎	◎													

ISO	N						S						H								
	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)		Heat Resistant Super Alloys			Titanium Alloys			Hardened steel		Chilled Cast Iron		Hardened Cast Iron				
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc											15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	◎	◎	◎	○		◎	◎														

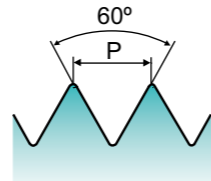
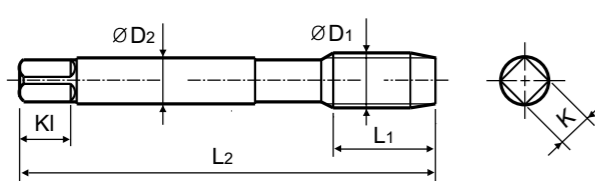
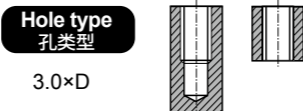
M FLUTELESS TAPS for NON-FERROUS METALS
有色金属用挤压丝锥

▶ Suitable for tapping in Aluminum, Magnesium, Zinc, Copper as well as Non-Ferrous metal alloy.

▶ 适用于铝, 镁, 锌, 铜及有色金属的加工



up to M6 : Male Center



Material groups: **GV**, HSS-E, I, GH, 60°, 2.0P/4.0P, Bright, p. B183

Recommended Tool/Holder	Plain Shank	Page
TAPPING ER CHUCK	D215-220	
TAPPING CHUCK	D221-228	
ONE STEP TAPPING CHUCK	D211-213	

Tap Limits: p.B231

Unit(单位) : mm

SIZE	Pitch	EDP No.		Limit	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	No. of Lobe
尺寸	牙距	型号		精度	全长	螺纹长	柄径	方块尺寸	方块长度	槽数
ϕD_1	P	2.0P	4.0P		L ₂	L ₁	ϕD_2	K	KI	
M2	× 0.4	T2731134	T2701134	GH4	40	9	3	2.5	5	
M2.3	× 0.4	T2731194	T2701194	GH4	42	10	3	2.5	5	
M2.5	× 0.45	T2731175	T2701175	GH5	44	11	3	2.5	5	
M2.6	× 0.45	T2731495	T2701495	GH5	44	11	3	2.5	5	
M3	× 0.5	T2731206	T2701206	GH6	46	9	4	3.2	6	
M3.5	× 0.6	T2731226	T2701226	GH6	48	9	4	3.2	6	
M4	× 0.7	T2731247	T2701247	GH7	52	10	5	4	7	
M5	× 0.8	T2731287	T2701287	GH7	60	11	5.5	4.5	7	
M6	× 1	T2731317	T2701317	GH7	62	12	6	4.5	7	

▶ Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸.

◎ : Excellent (优秀) ○ : Good (良好)

ISO	P										M				K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	25	28	32	38	10	29	32	38	15	35	15	23	10	10	26	3	25	21	
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommended	◎	○	○	○	○	○	○	○	○	◎	◎	◎	◎	◎	◎	◎				

ISO	N					S					H										
	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)	Non Metallic Materials	Heat Resistant Super Alloys					Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron					
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	◎	◎	◎	○	◎	◎	◎														

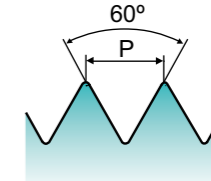
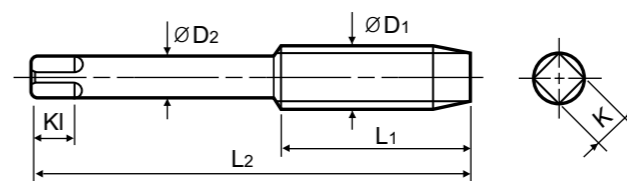
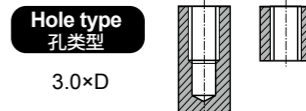
M FLUTELESS TAPS for NON-FERROUS METALS
有色金属用挤压丝锥

▶ Suitable for tapping in Aluminum, Magnesium, Zinc, Copper as well as Non-Ferrous metal alloy.

▶ 适用于铝, 镁, 锌, 铜及有色金属的加工



up to M7 : Male Center



Material groups: **GV**, HSS-E, J, GH, 60°, 2.0P/4.0P, Bright, p. B183

Recommended Tool/Holder	Plain Shank	Page
TAPPING ER CHUCK	D215-220	
TAPPING CHUCK	D221-228	
ONE STEP TAPPING CHUCK	D211-213	

Tap Limits: p.B231

Unit(单位) : mm

SIZE	Pitch	EDP No.		Limit	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	No. of Lobe
尺寸	牙距	型号		精度	全长	螺纹长	柄径	方块尺寸	方块长度	槽数
ϕD_1	P	2.0P	4.0P		L ₂	L ₁	ϕD_2	K	KI	
M1	× 0.25	T2759014	T2749014	GH4	30	6.0	3.0	2.5	5	
M1.4	× 0.3	T2759074	T2749074	GH4	34	6.5	3.0	2.5	5	
M1.6	× 0.35	T2759094	T2749094	GH4	36	7.0	3.0	2.5	5	
M1.7	× 0.35	T2759K54	T2749K54	GH4	36	8.0	3.0	2.5	5	
M1.8	× 0.35	T2759114	T2749114	GH4	36	8.0	3.0	2.5	5	
M2	× 0.4	T2759134	T2749134	GH4	40	9.0	3.0	2.5	5	
M2.3	× 0.4	T2759194	T2749194	GH4	42	10.0	3.0	2.5	5	
M2.5	× 0.45	T2759175	T2749175	GH5	44	11.0	3.0	2.5	5	
M2.6	× 0.45	T2759495	T2749495	GH5	44	11.0	3.0	2.5	5	
M3	× 0.5	T2759206	T2749206	GH6	46	18.0	4.0	3.2	6	
M3.5	× 0.6	T2759226	T2749226	GH6	48	18.0	4.0	3.2	6	
M4	× 0.7	T2759247	T2749247	GH7	52	20.0	5.0	4.0	7	
M5	× 0.8	T2759287	T2749287	GH7	60	22.0	5.5	4.5	7	
M6	× 1	T2759317	T2749317	GH7	62	24.0	6.0	4.5	7	

▶ Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸.

◎ : Excellent (优秀) ○ : Good (良好)

ISO	P										M				K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron	
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	25	28	32	38	10	29	32	38	15	35	15	23	10	10	26	3	25	21	
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommended	◎	○	○	○	○	○	○	○	○	◎	◎	◎	◎	◎	◎	◎				

ISO	N					S					H										
	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)	Non Metallic Materials	Heat Resistant Super Alloys					Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron					
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	◎	◎	◎	○	◎	◎	◎														

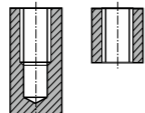
M FLUTELESS TAPS with OIL GROOVE for NON-FERROUS METALS 带油槽有色金属用挤压丝锥

► Suitable for tapping in Aluminum, Magnesium, Zinc, Copper as well as Non-Ferrous metal alloys.

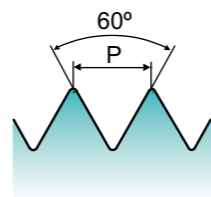
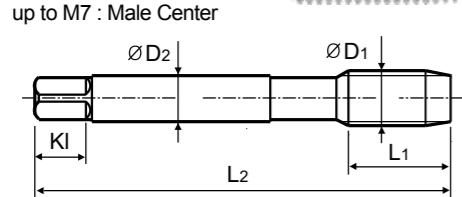
► 适用于铝, 镁, 锌, 铜及有色金属的加工.



Hole type
孔类型



3.0xD



Material groups **GV** **HSS-E** **I** **GH** **60°** **2.0P/4.0P** **Bright** p. B183

Plain Shank Page
TAPPING ER CHUCK D215-220
TAPPING CHUCK D221-228
ONE STEP TAPPING CHUCK D211-213
Recommended ToolHolder

Tap Limits: p. B231

Unit(单位) : mm

SIZE	Pitch	EDP No.		Limit	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	No. of Lobe
尺寸	牙距	型号		精度	全长	螺纹长	柄径	方块尺寸	方块长度	槽数
ØD1	P	2.0P	4.0P		L2	L1	ØD2	K	KI	
M2 × 0.4		T2751134	T2741134	GH4	40	9	3	2.5	5	
M2.3 × 0.4		T2751194	T2741194	GH4	42	10	3	2.5	5	
M2.5 × 0.45		T2751174	T2741174	GH4	44	11	3	2.5	5	
M2.6 × 0.45		T2751494	T2741494	GH4	44	11	3	2.5	5	
M3 × 0.5		T2751205	T2741205	GH5	46	9	4	3.2	6	
M3.5 × 0.6		T2751225	T2741225	GH5	48	9	4	3.2	6	
M4 × 0.7		T2751246	T2741246	GH6	52	10	5	4	7	
M5 × 0.8		T2751286	T2741286	GH6	60	11	5.5	4.5	7	
M6 × 1		T2751317	T2741317	GH7	62	12	6	4.5	7	
M7 × 1		T2751347	T2741347	GH7	65	13	6.2	5	8	
M8 × 1.25		T2751367	T2741367	GH7	70	22	6.2	5	8	
M8 × 1		T2751377	T2741377	GH7	70	22	6.2	5	8	
M10 × 1.5		T2751427	T2741427	GH7	75	24	7	5.5	8	
M10 × 1.25		T2751437	T2741437	GH7	75	24	7	5.5	8	
M10 × 1		T2751447	T2741447	GH7	75	24	7	5.5	8	
M12 × 1.75		T2751508	T2741508	GH8	82	29	8.5	6.5	9	
M12 × 1.5		T2751517	T2741517	GH7	82	29	8.5	6.5	9	
M12 × 1.25		T2751527	T2741527	GH7	82	29	8.5	6.5	9	
M12 × 1		T2751537	T2741537	GH7	82	29	8.5	6.5	9	
M14 × 2		T2751540	T2741540	GH10	88	30	10.5	8	11	
M14 × 1.5		T2751559	T2741559	GH9	88	30	10.5	8	11	
M16 × 2		T2751600	T2741600	GH10	95	32	12.5	10	13	
M16 × 1.5		T2751619	T2741619	GH9	95	32	12.5	10	13	
M18 × 2.5		T275165A	T274165A	GH11	100	37	14	11	14	
M18 × 1.5		T2751670	T2741670	GH10	100	37	14	11	14	
M20 × 2.5		T275170A	T274170A	GH11	105	37	15	12	15	
M20 × 1.5		T2751720	T2741720	GH10	105	37	15	12	15	

► Refer to p. B233-B238 for recommended tap drill sizes. 参考p. B233-B238 底孔尺寸.

◎ : Excellent (优秀) ○ : Good (良好)

ISO	P										M				K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel					
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	25	28	32	30	10	29	32	38	15	35	15	23	10	10	26	3	25	21	
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommended	◎	○	○	○	○	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

ISO	N				S				H												
	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)				Non Metallic Materials		Heat Resistant Super Alloys										
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	15	30	25	38	34	15	30	25	38	34	15	30	25	38	34	55	60	42	55		
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	◎	◎	◎	○	◎	◎	◎	◎			◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

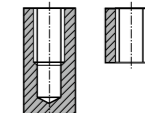
M FLUTELESS TAPS 挤压丝锥

► Suitable for tapping in Steels, Non-Ferrous Metal Alloys and Stainless Steels. Capable of efficient, long life, high speed tapping.

► 适用于钢和非铁金属合金和不锈钢的加工, 具有高效, 寿命长, 能够快速攻丝.

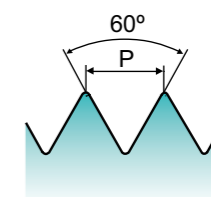
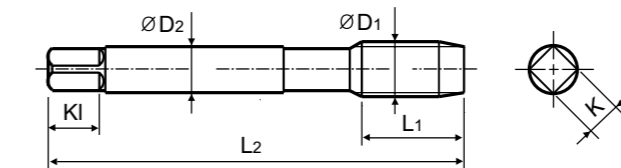


Hole type
孔类型



3.0xD

up to M6 : Male Center



Material groups **GV** **HSS-E** **I** **GH** **60°** **2.0P/4.0P** **TiN** p. B183

Plain Shank Page
TAPPING ER CHUCK D215-220
TAPPING CHUCK D221-228
ONE STEP TAPPING CHUCK D211-213
Recommended ToolHolder

Tap Limits: p. B231

Unit(单位) : mm

SIZE	Pitch	EDP No.		Limit	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	No. of Lobe
尺寸	牙距	型号		精度	全长	螺纹长	柄径	方块尺寸	方块长度	槽数
ØD1	P	2.0P	4.0P		L2	L1	ØD2	K	KI	
M2 × 0.4		T3731134	T3701134	GH4	40	9	3	2.5	5	
M2.3 × 0.4		T3731194	T3701194	GH4	42	10	3	2.5	5	
M2.5 × 0.45		T3731175	T3701175	GH5	44	11	3	2.5	5	
M2.6 × 0.45		T3731495	T3701495	GH5	44	11	3	2.5	5	
M3 × 0.5		T3731206	T3701206	GH6	46	9	4	3.2	6	
M3.5 × 0.6		T3731226	T3701226	GH6	48	9	4	3.2	6	
M4 × 0.7		T3731247	T3701247	GH7	52	10	5	4	7	
M5 × 0.8		T3731287	T3701287	GH7	60	11	5.5	4.5	7	
M6 × 1		T3731317	T3701317	GH7	62	12	6	4.5	7	

► Refer to p. B233-B238 for recommended tap drill sizes. 参考p. B233-B238 底孔尺寸.

◎ : Excellent (优秀) ○ : Good (良好)

ISO	P										M				K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel					
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	25	28	32	30	10	29	32	38	15	35	15	23	10	10	26	3	25	21	
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommended	◎	○	○	○	○	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

ISO	N				S				H												
	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)				Non Metallic Materials		Heat Resistant Super Alloys										
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	15	30	25	38	34	15	30	25	38	34	15	30	25	38	34	55	60	42	55		
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	◎	◎	◎	○	◎	◎	◎	◎			◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎



2.0P T3751 SERIES
4.0P T3741 SERIES

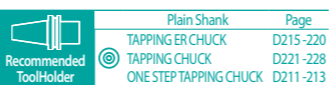
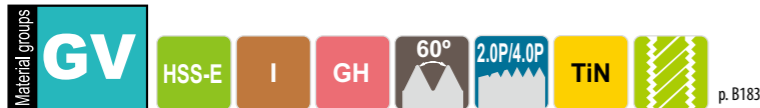
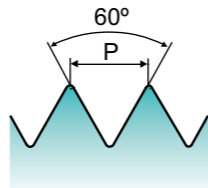
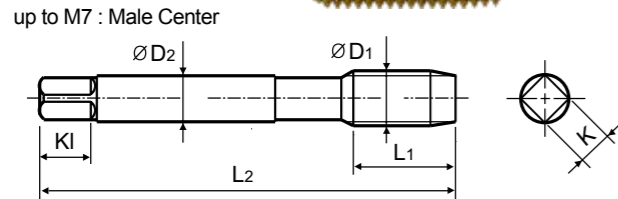
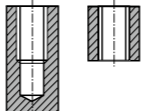
M FLUTELESS TAPS with OIL GROOVE 带油槽钢用挤压丝锥

► Suitable for tapping in Steels, Non-Ferrous Metal Alloys and Stainless Steels. Capable of efficient, long life, high speed tapping.

► 适用于钢和非铁金属合金和不锈钢的加工, 具有高效, 寿命长, 能够快速攻丝.



Hole type 孔类型
3.0×D



Tap Limits: p.B231

Unit(单位) : mm

SIZE	Pitch	EDP No.		Limit	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	No. of Lobe
尺寸	牙距	型号		精度	全长	螺纹长	柄径	方块尺寸	方块长度	槽数
ØD1	P	2.0P	4.0P		L2	L1	ØD2	K	KI	
M2 × 0.4		T3751134	T3741134	GH4	40	9	3	2.5	5	
M2.3 × 0.4		T3751194	T3741194	GH4	42	10	3	2.5	5	
M2.5 × 0.45		T3751174	T3741174	GH4	44	11	3	2.5	5	
M2.6 × 0.45		T3751494	T3741494	GH4	44	11	3	2.5	5	
M3 × 0.5		T3751205	T3741205	GH5	46	9	4	3.2	6	
M3.5 × 0.6		T3751225	T3741225	GH5	48	9	4	3.2	6	
M4 × 0.7		T3751246	T3741246	GH6	52	10	5	4	7	
M5 × 0.8		T3751286	T3741286	GH6	60	11	5.5	4.5	7	
M6 × 1		T3751317	T3741317	GH7	62	12	6	4.5	7	
M7 × 1		T3751347	T3741347	GH7	65	13	6.2	5	8	
M8 × 1.25		T3751367	T3741367	GH7	70	22	6.2	5	8	
M8 × 1		T3751377	T3741377	GH7	70	22	6.2	5	8	
M10 × 1.5		T3751427	T3741427	GH7	75	24	7	5.5	8	
M10 × 1.25		T3751437	T3741437	GH7	75	24	7	5.5	8	
M10 × 1		T3751447	T3741447	GH7	75	24	7	5.5	8	
M12 × 1.75		T3751508	T3741508	GH8	82	29	8.5	6.5	9	
M12 × 1.5		T3751517	T3741517	GH7	82	29	8.5	6.5	9	
M12 × 1.25		T3751527	T3741527	GH7	82	29	8.5	6.5	9	
M12 × 1		T3751537	T3741537	GH7	82	29	8.5	6.5	9	
M14 × 2		T3751540	T3741540	GH10	88	30	10.5	8	11	
M14 × 1.5		T3751559	T3741559	GH9	88	30	10.5	8	11	
M16 × 2		T3751600	T3741600	GH10	95	32	12.5	10	13	
M16 × 1.5		T3751619	T3741619	GH9	95	32	12.5	10	13	
M18 × 2.5		T375165A	T374165A	GH11	100	37	14	11	14	
M18 × 1.5		T3751670	T3741670	GH10	100	37	14	11	14	
M20 × 2.5		T375170A	T374170A	GH11	105	37	15	12	15	
M20 × 1.5		T3751720	T3741720	GH10	105	37	15	12	15	

Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸.

◎ : Excellent (优秀) ○ : Good (良好)

ISO	P									M						K					
Material Description	Non-alloy steel				Low alloy steel					High alloyed steel, and tool steel		Stainless steel				Grey cast iron		Nodular cast iron		Malleable cast iron	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
HRc	13	25	28	32	10	29	32	38	15	35	15	23	10	10	26	3	25	21			
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230	
Recommended	◎	○	○		○					◎	◎			◎							
ISO	N								S							H					
Material Description	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials			Heat Resistant Super Alloys				Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron	
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HB	60	100	75	90	130	110	90	100			15	30	25	38	34	55	60	42	55		
Recommended	◎	◎	◎	○		◎	◎														



2.0P T2732 SERIES
4.0P T2702 SERIES

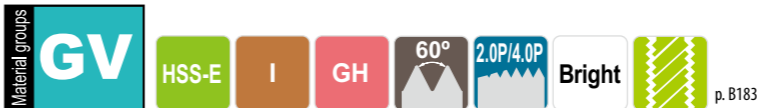
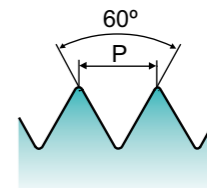
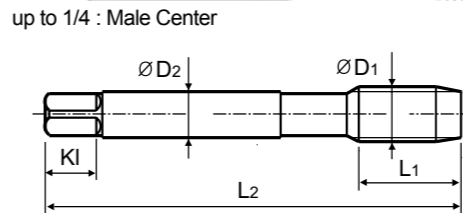
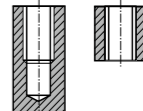
UNC FLUTELESS TAPS for NON-FERROUS METALS 有色金属用挤压丝锥

► Suitable for tapping in Aluminum, Magnesium, Zinc, Copper as well as Non-Ferrous metal alloys.

► 适用于铝, 镁, 铜及有色金属的加工.



Hole type 孔类型
3.0×D



Tap Limits: p.B231

Unit(单位) : mm

SIZE	Pitch	EDP No.		Limit	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	No. of Lobe
尺寸	牙距	型号		精度	全长	螺纹长	柄径	方块尺寸	方块长度	槽数
ØD1	P	2.0P	4.0P		L2	L1	ØD2	K	KI	
#2 - 56 UNC		T2732085	T2702085	GH5	42	10	3	2.5	5	
#4 - 40 UNC		T2732166	T2702166	GH6	44	12	3	2.5	5	
#5 - 40 UNC		T2732206	T2702206	GH6	46	9	4	3.2	6	
#6 - 32 UNC		T2732247	T2702247	GH7	48	9	4	3.2	6	
#8 - 32 UNC		T2732287	T2702287	GH7	52	10	5	4	7	
#10 - 24 UNC		T2732327	T2702327	GH7	60	11	5.5	4.5	7	
#12 - 24 UNC		T2732367	T2702367	GH7	60	11	5.5	4.5	7	
1/4 - 20 UNC		T2732408	T2702408	GH8	62	14	6	4.5	7	

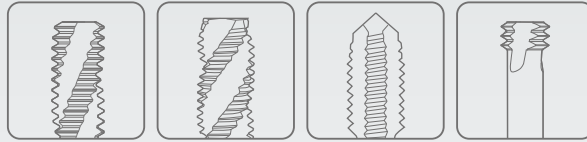
Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸.

◎ : Excellent (优秀) ○ : Good (良好)

ISO	P									M						K					
Material Description	Non-alloy steel				Low alloy steel					High alloyed steel, and tool steel		Stainless steel				Grey cast iron		Nodular cast iron		Malleable cast iron	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
HRc	13	25	28	32	10	29	32	38	15	35	15	23	10	10	26	3	25	21			
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230	
Recommended	◎	○	○		○					◎	◎			◎							
ISO	N								S							H					
Material Description	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials			Heat Resistant Super Alloys				Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron	
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HB	60	100	75	90	130	110	90	100			15	30	25	38	34	55	60	42	55		
Recommended	◎	◎	◎	○		◎	◎														



Global Cutting Tool Leader **YG-1**



THREADING



Leading Through Innovation

HSS-E & HSS

SCREW THREAD INSERT TAPS

- Tapping STI Threads of Soft Materials
- 软材料加工嵌套螺纹

SELECTION GUIDE
选用指南



**HSS-E & HSS
SCREW
THREAD
INSERT TAPS**

Tapping STI Threads of Soft Materials
软材料加工嵌套螺纹

Please visit
globalyg1.com/mat
for material search

◎: Excellent (优秀) ○: Good (良好)

ISO 公制	VDI 3323	Material Description 材料描述	Composition / Structure / Heat Treatment 成分 / 组织 / 热处理	HB 布氏硬度	HRC 硬度	◎	○	
P	1	Non-alloy steel	About 0.15% C Annealed	125		◎	8~13	
	2		About 0.45% C Annealed	190	13	◎	7~12	
	3		About 0.45% C Quenched & Tempered	250	25	◎	7~12	
	4		About 0.75% C Annealed	270	28			
	5		About 0.75% C Quenched & Tempered	300	32			
	6	Low alloy steel	Annealed	180	10			
	7		Quenched & Tempered	275	29			
	8		Quenched & Tempered	300	32			
	9		Quenched & Tempered	350	38			
	10		High alloyed steel, and tool steel	Annealed	200	15		
	11			Quenched & Tempered	325	35		
M	12	Stainless steel	Ferritic / Martensitic Annealed	200	15			
	13		Martensitic Quenched & Tempered	240	23			
	14		Austenitic	180	10			
K	15	Grey cast iron	Pearlitic / ferritic	180	10			
	16		Pearlitic (Martensitic)	260	26			
	17	Nodular cast iron	Ferritic	160	3			
	18		Pearlitic	250	25			
	19	Malleable cast iron	Ferritic	130				
	20		Pearlitic	230	21			
N	21	Aluminum-wrought alloy	Not Curable	60		◎	10~20	
	22		Curable Hardened	100		◎	10~20	
	23	Aluminum-cast, alloyed	≤ 12% Si, Not Curable	75		◎	10~15	
	24		≤ 12% Si, Curable Hardened	90		○	10~15	
	25		> 12% Si, Not Curable	130				
	26	Copper and Copper Alloys (Bronze / Brass)	Cutting Alloys, PB>1%	110				
	27		CuZn, CuSnZn (Brass)	90		◎	6~20	
	28	Non Metallic Materials	CuSn, lead-free copper and electrolytic copper	100		◎	6~15	
	29		Duroplastic, Fiber Reinforced Plastic					
	30	Rubber, Wood, etc.						
S	31	Heat Resistant Super Alloys	Fe Based Annealed	200	15			
	32		Cured	280	30			
	33		Annealed	250	25			
	34		Ni or Co Based Cured	350	38			
	35		Cast	320	34			
36	Titanium Alloys	Pure Titanium	400 Rm					
37		Alpha + Beta Alloys Hardened	1050 Rm					
H	38	Hardened steel	Hardened	550	55			
	39		Hardened	630	60			
	40	Hardened Cast Iron	Cast	400	42			
	41		Hardened	550	55			

HOLE TYPE 孔类型	Max. 2.5xD Blind Hole 盲孔	Max. 2.0xD Blind/Through Hole 盲孔/通孔	
TOOL MATERIAL 刀具材料	HSS-E	HSS	
CHAMFER LEAD ACC. TO DIN2197 倒角长度	2.5P	1.5P/5.0P	
FLUTE TYPE 槽型	Spiral Flute 螺旋角	Straight Flute 直槽	
SPIRAL FLUTE ANGLE 螺旋角	R40	-	
SERIES NO. 系列号 (page 页码)	JIS Type	STI	STI
	M/MF	T2197 (p. B195)	T7399 (p. B197)
	UNC/F	T2198 (p. B196)	T7322 (p. B198)
	W		
	M-LH W-LH		
PIPE TAPS			
SURFACE TREATMENT 表面处理	Bright	Bright	
MODEL 模型			HAND TAP

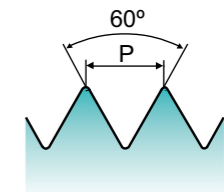
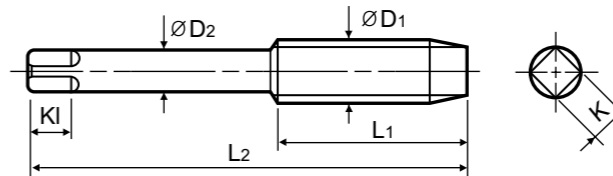
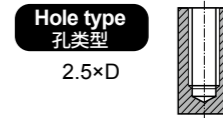
YG SCREW THREAD INSERT TAPS

T2197 SERIES

M SCREW THREAD INSERT SPIRAL FLUTE TAPS
嵌套螺纹用螺旋槽丝锥

► Suitable for tapping deep Blind holes when a standard Straight Fluted tap is inadequate.

► 适用于标准直槽丝锥加工能力不足时的深盲孔加工。



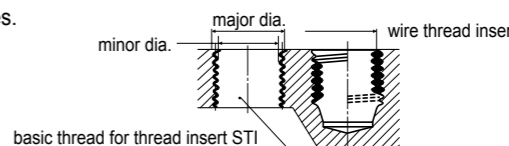
Material groups: AI, HSS-E, STI, JIS 1b, 60°, 2.5P, R40, Bright, p. B194

Recommended ToolHolder: Plain Shank, TAPPING ER CHUCK, TAPPING CHUCK, ONE STEP TAPPING CHUCK

Page: D215-220, D221-228, D211-213

SIZE 尺寸	Pitch 牙距	EDP No. 型号	Limit 精度	Overall Length 全长	Thread Length 螺纹长	Shank Diameter 柄径	Square Size 方块尺寸	Square Length 方块长度	No. of Flute 槽数
ØD1	P			L2	L1	ØD2	K	KI	
M3	× 0.5	T2197201	JIS 1b	48	18	4	3.2	6	3
M4	× 0.7	T2197241	JIS 1b	60	22	5.5	4.5	7	3
M5	× 0.8	T2197281	JIS 1b	62	24	6	4.5	7	3
M6	× 1	T2197311	JIS 1b	65	26	6.2	5	8	3
M8	× 1.25	T2197361	JIS 1b	75	32	7	5.5	8	3
M10	× 1.5	T2197421	JIS 1b	82	38	8.5	6.5	9	3
M10	× 1.25	T2197431	JIS 1b	82	38	8.5	6.5	9	3
M12	× 1.75	T2197501	JIS 1b	90	42	10.5	8	11	3
M12	× 1.5	T2197511	JIS 1b	88	42	10.5	8	11	3
M12	× 1.25	T2197521	JIS 1b	88	42	10.5	8	11	3
M14	× 2	T2197541	JIS 1b	95	45	13	10	13	3
M14	× 1.5	T2197551	JIS 1b	95	45	12.5	10	13	3
M16	× 2	T2197601	JIS 1b	95	45	14	11	14	4
M16	× 1.5	T2197611	JIS 1b	95	45	14	11	14	4
M18	× 2.5	T2197651	JIS 1b	115	55	17	13	16	4
M18	× 1.5	T2197671	JIS 1b	95	45	15	12	15	4
M20	× 2.5	T2197701	JIS 1b	120	58	19	15	18	4
M20	× 1.5	T2197721	JIS 1b	95	45	17	13	16	4
M22	× 2.5	T2197741	JIS 1b	130	62	20	15	18	4
M22	× 1.5	T2197761	JIS 1b	95	45	19	15	18	4
M24	× 3	T2197781	JIS 1b	135	65	21	17	20	4
M24	× 1.5	T2197801	JIS 1b	95	45	20	15	18	4

► Refer to p.B233-B238 for recommended tap drill sizes.
参考p.B233-B238 底孔尺寸。



◎: Excellent (优秀) ○: Good (良好)

ISO	P									M				K							
Material Description	Non-alloy steel			Low alloy steel			High alloyed steel, and tool steel			Stainless steel		Grey cast iron	Nodular cast iron		Malleable cast iron						
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
HRC		13	25	28	32	10	29	32	38	15	35	15	23	10	10	26	3	25	21	21	
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230	
Recommended	○	○	○																		
ISO	N									S					H						
Material Description	Aluminum-wrought alloy			Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys			Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron		
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRC											15	30	25	38	34	55	60	55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	◎	◎	◎	○																	

Y/G SCREW THREAD INSERT TAPS

T2198 SERIES

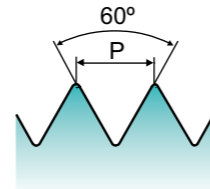
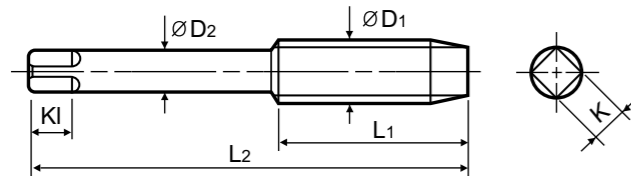
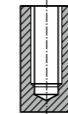
UNC/F SCREW THREAD INSERT SPIRAL FLUTE TAPS 嵌套螺纹用螺旋槽丝锥

► Suitable for tapping deep Blind holes when a standard Straight Fluted tap is inadequate.

► 适用于标准直槽丝锥加工能力不足时的深盲孔加工。



Hole type
孔类型
2.5×D



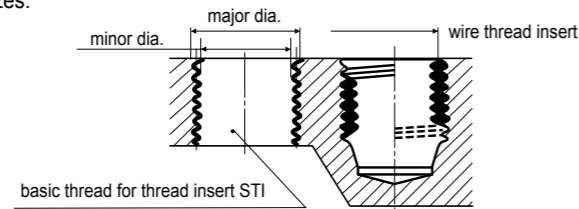
Material groups: AI, HSS-E, STI, JIS 1b, 60°, 2.5P, R40, Bright, p. B194

Recommended ToolHolder: Plain Shank TAPPING ER CHUCK D215-220, TAPPING CHUCK D221-228, ONE STEP TAPPING CHUCK D211-213

Unit(单位) : mm

SIZE	TPI	EDP No.	Limit	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	No. of Flute
尺寸	牙距	型号	精度	全长	螺纹长	柄径	方块 尺寸	方块 长度	槽数
ØD1	P			L2	L1	ØD2	K	KI	
#4	- 40 UNC	T2198161	JIS 1b	48	18	4	3.2	6	3
#5	- 40 UNC	T2198201	JIS 1b	52	20	5	4	7	3
#6	- 32 UNC	T2198241	JIS 1b	55	20	5	4	7	3
#8	- 32 UNC	T2198281	JIS 1b	60	22	5.5	4.5	7	3
#10	- 24 UNC	T2198321	JIS 1b	62	24	6	4.5	7	3
1/4	- 20 UNC	T2198401	JIS 1b	70	30	6.1	5	8	3
5/16	- 18 UNC	T2198441	JIS 1b	75	32	7	5.5	8	3
3/8	- 16 UNC	T2198481	JIS 1b	82	38	8.5	6.5	9	3
3/8	- 24 UNF	T2198501	JIS 1b	80	38	8	6	9	3
1/2	- 13 UNC	T2198561	JIS 1b	95	45	12	9	12	3
1/2	- 20 UNF	T2198581	JIS 1b	90	42	10.5	8	11	3
5/8	- 11 UNC	T2198641	JIS 1b	105	50	14	11	14	4
5/8	- 18 UNF	T2198661	JIS 1b	95	45	14	11	14	4
3/4	- 10 UNC	T2198701	JIS 1b	120	55	18	14	17	4
3/4	- 16 UNF	T2198721	JIS 1b	95	45	17	13	16	4
7/8	- 9 UNC	T2198741	JIS 1b	130	62	20	15	18	4
7/8	- 14 UNF	T2198761	JIS 1b	95	45	19	15	18	4
1"	- 8 UNC	T2198781	JIS 1b	135	65	23	17	20	4
1"	- 12 UNF	T2198801	JIS 1b	105	45	22	17	20	4

► Refer to p.B233-B238 for recommended tap drill sizes.
参考p.B233-B238 底孔尺寸。



basic thread for thread insert STI

◎ : Excellent (优秀) ○ : Good (良好)

ISO	P										M				K					
Material Description	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron	Nodular cast iron		Malleable cast iron
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	25	28	32	30	10	29	32	38	15	35	15	23	10	10	26	3	25	21	21
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommended	○	○	○																	

ISO	N								S							H					
Material Description	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)				Non Metallic Materials		Heat Resistant Super Alloys					Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron	
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc											15	30	25	38	34	55	60	42	55	55	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	◎	◎	◎	○																	

Y/G SCREW THREAD INSERT TAPS

T7399 SERIES

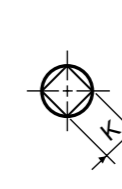
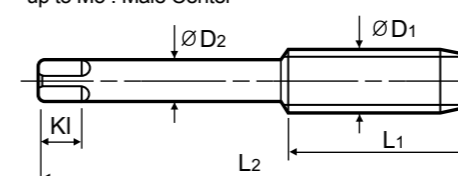
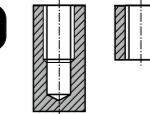
M SCREW THREAD INSERT HAND TAPS 嵌套螺纹手用丝锥

► Suitable for tapping Blind & Through holes in Aluminum, Aluminum Alloy Casting and Zinc Alloy Casting.

► 适用于铝、铝合金铸件和锌合金铸件的盲孔和通孔攻丝。



Hole type
孔类型
2.0×D



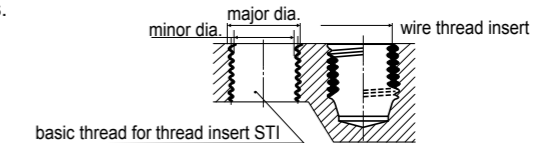
Material groups: AI, HSS, STI, JIS 1b, 60°, 1.5P/5.0P, Bright, p. B194

Recommended ToolHolder: Plain Shank TAPPING ER CHUCK D215-220, TAPPING CHUCK D221-228, ONE STEP TAPPING CHUCK D211-213

Unit(单位) : mm

SIZE	Pitch	EDP No.		Limit	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	No. of Flute
尺寸	牙距	型号		精度	全长	螺纹长	柄径	方块 尺寸	方块 长度	槽数
ØD1	P	1.5P	5.0P		L2	L1	ØD2	K	KI	
M3	× 0.5	T7399208	T7399207	JIS 1b	48	18	4	3.2	6	3
M4	× 0.7	T7399248	T7399247	JIS 1b	60	22	5.5	4.5	7	3
M5	× 0.8	T7399288	T7399287	JIS 1b	62	24	6	4.5	7	3
M6	× 1	T7399318	T7399317	JIS 1b	65	26	6.2	5	8	3
M8	× 1.25	T7399368	T7399367	JIS 1b	75	32	7	5.5	8	4
M10	× 1.5	T7399428	T7399427	JIS 1b	82	38	8.5	6.5	9	4
M10	× 1.25	T7399438	T7399437	JIS 1b	82	38	8.5	6.5	9	4
M12	× 1.75	T7399508	T7399507	JIS 1b	90	42	10.5	8	11	4
M12	× 1.5	T7399518	T7399517	JIS 1b	88	42	10.5	8	11	4
M12	× 1.25	T7399528	T7399527	JIS 1b	88	42	10.5	8	11	4
M14	× 2	T7399548	T7399547	JIS 1b	95	45	13	10	13	4
M14	× 1.5	T7399558	T7399557	JIS 1b	95	45	12.5	10	13	4
M16	× 2	T7399608	T7399607	JIS 1b	95	45	14	11	14	4
M16	× 1.5	T7399618	T7399617	JIS 1b	95	45	14	11	14	4
M18	× 2.5	T7399658	T7399657	JIS 1b	115	55	17	13	16	4
M18	× 1.5	T7399678	T7399677	JIS 1b	95	45	15	12	15	4
M20	× 2.5	T7399708	T7399707	JIS 1b	120	58	19	15	18	5
M20	× 1.5	T7399728	T7399727	JIS 1b	95	45	17	13	16	5
M22	× 2.5	T7399748	T7399747	JIS 1b	130	62	20	15	18	5
M22	× 1.5	T7399768	T7399767	JIS 1b	95	45	19	15	18	5
M24	× 3	T7399788	T7399787	JIS 1b	135	65	21	17	20	5
M24	× 1.5	T7399808	T7399807	JIS 1b	95	45	20	15	18	5

► Refer to p.B233-B238 for recommended tap drill sizes.
参考p.B233-B238 底孔尺寸。



basic thread for thread insert STI

◎ : Excellent (优秀) ○ : Good (良好)

ISO	P										M				K					
Material Description	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron	Nodular cast iron		Malleable cast iron
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	25	28	32	30	10	29	32	38	15	35	15	23	10	10	26	3	25	21	21
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommended	○	○	○																	

ISO	N								S							H					
Material Description	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)				Non Metallic Materials		Heat Resistant Super Alloys					Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron	
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc											15	30	25	38	34	55	60	42	55	55	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	◎	◎	◎	○																	

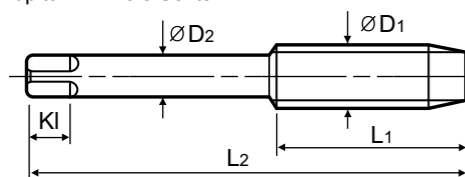
UNC/F SCREW THREAD INSERT HAND TAPS
嵌套螺纹手用丝锥

► Suitable for tapping Blind & Through holes in Aluminum, Aluminum Alloy Casting and Zinc Alloy Casting.

► 适用于铝、铝合金铸件和锌合金铸件的盲孔和通孔攻丝。

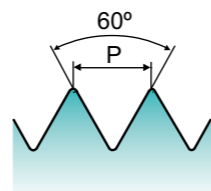
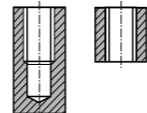


up to 1/4 : Male Center



Hole type
孔类型

2.0×D



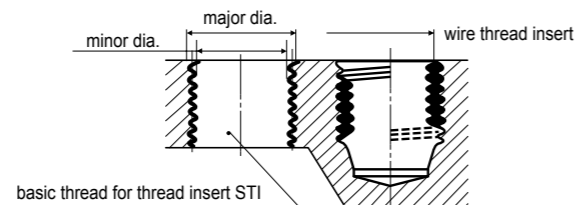
Material groups: **AI** **HSS** **STI** **JIS 1b** **60°** **1.5P/5.0P** **Bright** p. B194

Recommended ToolHolder	Plain Shank	Page
	TAPPING ER CHUCK	D215-220
	TAPPING CHUCK	D221-228
	ONE STEP TAPPING CHUCK	D211-213

Unit(单位) : mm

SIZE	TPI	EDP No.		Limit	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	No. of Flute
尺寸	牙距	型号		精度	全长	螺纹长	柄径	方块尺寸	方块长度	槽数
ØD1		1.5P	5.0P		L2	L1	ØD2	K	KI	
#4 - 40 UNC		T7322168	T7322167	JIS 1b	48	18	4	3.2	6	3
#5 - 40 UNC		T7322208	T7322207	JIS 1b	52	20	5	4	7	3
#6 - 32 UNC		T7322248	T7322247	JIS 1b	55	20	5	4	7	3
#8 - 32 UNC		T7322288	T7322287	JIS 1b	60	22	5.5	4.5	7	3
#10 - 24 UNC		T7322328	T7322327	JIS 1b	62	24	6	4.5	7	3
1/4 - 20 UNC		T7322408	T7322407	JIS 1b	70	30	6.1	5	8	3
5/16 - 18 UNC		T7322448	T7322447	JIS 1b	75	32	7	5.5	8	4
3/8 - 16 UNC		T7322488	T7322487	JIS 1b	82	38	8.5	6.5	9	4
3/8 - 24 UNC		T7322508	T7322507	JIS 1b	80	38	8	6	9	4
1/2 - 13 UNC		T7322568	T7322567	JIS 1b	95	45	12	9	12	4
1/2 - 20 UNF		T7322588	T7322587	JIS 1b	90	42	10.5	8	11	4
5/8 - 11 UNC		T7322648	T7322647	JIS 1b	105	50	14	11	14	4
5/8 - 18 UNF		T7322668	T7322667	JIS 1b	95	45	14	11	14	4
3/4 - 10 UNC		T7322708	T7322707	JIS 1b	120	55	18	14	17	4
3/4 - 16 UNF		T7322728	T7322727	JIS 1b	95	45	17	13	16	4
7/8 - 9 UNC		T7322748	T7322747	JIS 1b	130	62	20	15	18	5
7/8 - 14 UNF		T7322768	T7322767	JIS 1b	95	45	19	15	18	5
1" - 8 UNC		T7322788	T7322787	JIS 1b	135	65	23	17	20	5
1" - 12 UNF		T7322808	T7322807	JIS 1b	105	45	22	17	20	5

► Refer to p.B233-B238 for recommended tap drill sizes.
 参考p.B233-B238 底孔尺寸.



◎ : Excellent (优秀) ○ : Good (良好)

ISO	P										M				K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel		Stainless steel		Grey cast iron	Nodular cast iron		Malleable cast iron		
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323																				
HRc	13	25	28	32	30	10	29	32	38	15	35	15	23	10	10	26	3	25	21	
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommended	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

ISO	N										S						H				
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)					Non Metallic Materials		Heat Resistant Super Alloys				Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323																					
HRc											15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	◎	◎	◎	○	○	◎	◎	◎			◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎



Leading Through Innovation



HSS-E & HSS

PIPE TAPS

- Tapping Whitworth Pipe Threads
- 惠氏管用螺纹加工



HSS-E & HSS PIPE TAPS

Tapping Whitworth Pipe Threads 惠氏管用螺纹加工



Please visit globallyg1.com/mat for material search

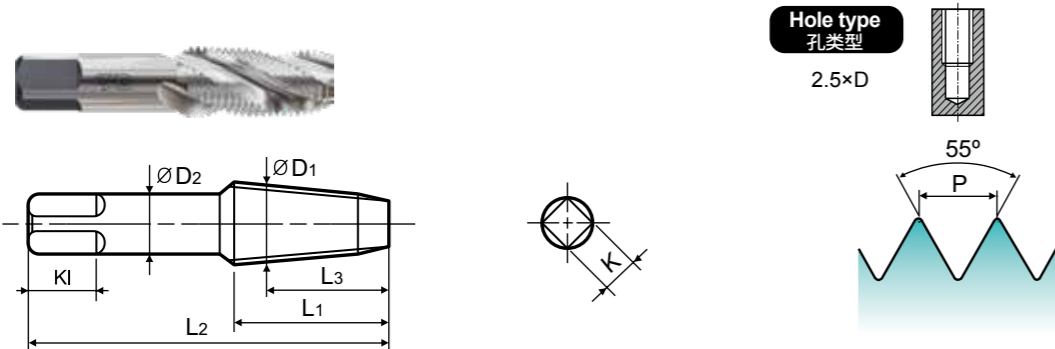
Table with columns: ISO 公制, VDI 3323, Material Description 材料描述, Composition / Structure / Heat Treatment 成分 / 组织 / 热处理, HB 布氏硬度, HRC 硬度, HOLE TYPE 孔类型, TOOL MATERIAL 刀具材料, CHAMFER LEAD ACC. TO DIN2197 倒角长度, FLUTE TYPE 槽型, SPIRAL FLUTE ANGLE 螺旋角, JIS Type, M/MF, UNC/F, W, M-LH W-LH, PIPE TAPS, SURFACE TREATMENT 表面处理, MODEL 模型.

Table with columns: Max. 2.5xD Blind Hole 盲孔, Max. 2.0xD Blind/Through Hole 盲孔/通孔, HSS-E, HSS HSS-E, HSS-E, JIS Type, M/MF, UNC/F, W, M-LH W-LH, PIPE TAPS, SURFACE TREATMENT 表面处理, MODEL 模型.

PT SPIRAL FLUTE TAPER PIPE TAPS for PT THREADS
螺旋槽PT 螺纹用锥管丝锥

► Suitable for process taper pipe internal threads.
PT : Taper pipe threads (for pressure-tight joints)

► 适用于锥管螺纹加工
PT : 锥管螺纹 (用于压力密封接头)



Material groups: **GS** HSS-E PT JIS II 55° 2.5P R30 Bright p. B200

Recommended ToolHolder: Plain Shank TAPPING ER CHUCK D215-220, TAPPING CHUCK D221-228, ONE STEP TAPPING CHUCK D211-213

Unit(单位) : mm

SIZE	TPI	EDP No.	Limit	Basic Maj. Dia.	Overall Length	Thread Length	Projection Length	Shank Diameter	Square Size	Square Length	No. of Flute
尺寸	牙距	型号	精度	最大基准直径	全长	螺纹长	基准长度	柄径	方块尺寸	方块长度	槽数
ØD1					L2	L1	L3	ØD2	K	KI	
PT 1/8	- 28	T2518202	JIS II	9.728	55	19	13	8	6	9	3
PT 1/4	- 19	T2518402	JIS II	13.157	62	28	21	11	9	12	3
PT 3/8	- 19	T2518482	JIS II	16.662	65	28	21	14	11	14	3
PT 1/2	- 14	T2518562	JIS II	20.955	80	35	25	18	14	17	4
PT 3/4	- 14	T2518702	JIS II	26.441	85	35	25	23	17	20	4
PT 1"	- 11	T2518782	JIS II	33.249	95	45	32	26	21	24	4

► Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸.

◎ : Excellent (优秀) ○ : Good (良好)

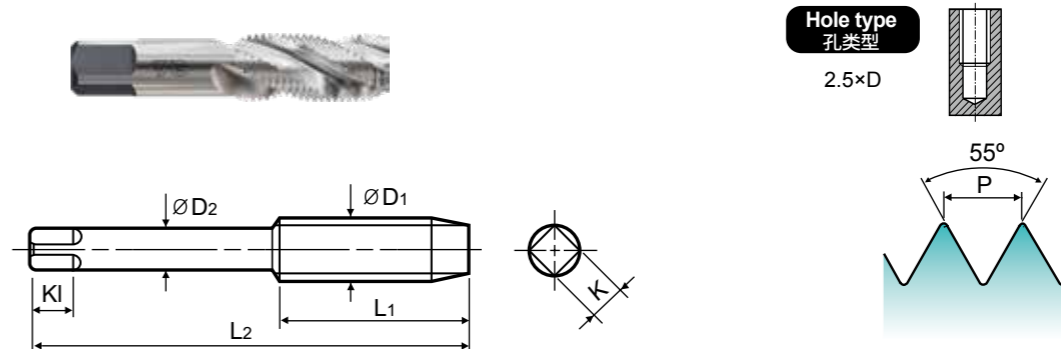
ISO Material Description	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron	Nodular cast iron	Malleable cast iron		
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
HRc	13	25	28	32	35	10	29	32	38	42	15	35	40	45	10	26	3	25	21		
HB	125	190	250	270	300	180	275	300	350		200	325	200	240	180	180	260	160	250	130	230
Recommended	◎	◎	○	○	○	◎	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

ISO Material Description	N					S					H										
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys					Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron	
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

PS SPIRAL FLUTE STRAIGHT PIPE TAPS for PS THREADS
螺旋槽PS 螺纹用直管丝锥

► Suitable for process Straight pipe internal threads.
PS : Straight pipe threads (for pressure-tight joints)

► 适用于锥管螺纹加工
PS : 锥管螺纹 (用于压力密封接头)



Material groups: **GS** HSS-E PS JIS II 55° 3.0P R35 Bright p. B200

Recommended ToolHolder: Plain Shank TAPPING ER CHUCK D215-220, TAPPING CHUCK D221-228, ONE STEP TAPPING CHUCK D211-213

Unit(单位) : mm

SIZE	TPI	EDP No.	Limit	Basic Maj. Dia.	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	No. of Flute
尺寸	牙距	型号	精度	最大基准直径	全长	螺纹长	柄径	方块尺寸	方块长度	槽数
ØD1					L2	L1	ØD2	K	KI	
PS 1/8	- 28	T2538202	JIS II	9.728	55	19	8	6	9	3
PS 1/4	- 19	T2538402	JIS II	13.157	62	28	11	9	12	3
PS 3/8	- 19	T2538482	JIS II	16.662	65	28	14	11	14	3
PS 1/2	- 14	T2538562	JIS II	20.955	80	35	18	14	17	4
PS 3/4	- 14	T2538702	JIS II	26.441	85	35	23	17	20	4
PS 1"	- 11	T2538782	JIS II	33.249	95	45	26	21	24	4

► Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸.

◎ : Excellent (优秀) ○ : Good (良好)

ISO Material Description	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron	Nodular cast iron	Malleable cast iron		
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
HRc	13	25	28	32	35	10	29	32	38	42	15	35	40	45	10	26	3	25	21		
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230	
Recommended	◎	◎	○	○	○	◎	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

ISO Material Description	N					S					H										
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys					Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron	
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

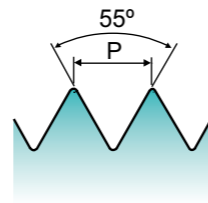
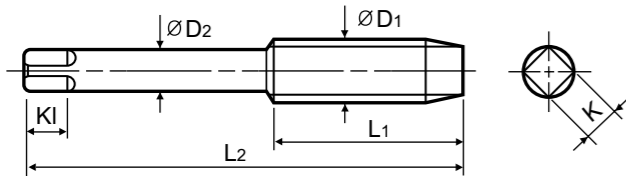
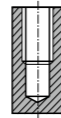
PF SPIRAL FLUTE STRAIGHT PIPE TAPS for PF THREADS 螺旋槽PF 螺纹用直管丝锥

► Suitable for process Straight pipe internal threads.
PF : Straight pipe threads (for mechanical joints)

► 适用于锥管螺纹加工
PF : 锥管螺纹 (用于压力密封接头)



Hole type
孔类型
2.5×D



Material groups: **GS** HSS-E PF JIS II 55° 3.0P R35 Bright p. B201

Recommended ToolHolder: Plain Shank TAPPING ER CHUCK D215-220, TAPPING CHUCK D221-228, ONE STEP TAPPING CHUCK D211-213

Unit(单位) : mm

SIZE	TPI	EDP No.	Limit	Basic Maj. Dia.	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	No. of Flute
尺寸	牙距	型号	精度	最大基准直径	全长	螺纹长	柄径	方块尺寸	方块长度	槽数
ØD1					L2	L1	ØD2	K	K1	
PF 1/8 - 28		T2539202	JIS II	9.728	55	19	8	6	9	3
PF 1/4 - 19		T2539402	JIS II	13.157	62	28	11	9	12	3
PF 3/8 - 19		T2539482	JIS II	16.662	65	28	14	11	14	3
PF 1/2 - 14		T2539562	JIS II	20.955	80	35	18	14	17	4
PF 3/4 - 14		T2539702	JIS II	26.441	85	35	23	17	20	4
PF 1" - 11		T2539782	JIS II	33.249	95	45	26	21	24	4

► Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸.

◎ : Excellent (优秀) ○ : Good (良好)

ISO	P										M					K							
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel					Stainless steel					Grey cast iron	Nodular cast iron	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20			
HRc	13	25	28	32	30	10	29	32	38	15	35	15	23	10	10	26	3	25	21				
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230			
Recommended	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

ISO	N					S					H												
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys					Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron			
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41		
HRc	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41		
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550		
Recommended	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

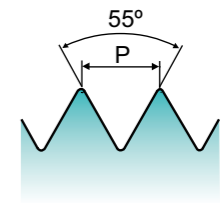
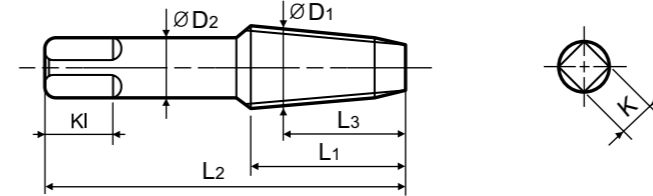
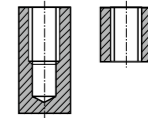
PT TAPER PIPE TAPS for PT THREADS PT 螺纹用锥管丝锥

► Suitable for taper pipe internal threads.
PT : Taper pipe threads (for pressure-tight joints)

► 适用于锥管螺纹加工
PT : 锥管螺纹 (用于压力密封接头)



Hole type
孔类型
2.0×D



Material groups: **GS** HSS HSS-E PT JIS II 55° 2.5P Bright p. B201

Recommended ToolHolder: Plain Shank TAPPING ER CHUCK D215-220, TAPPING CHUCK D221-228, ONE STEP TAPPING CHUCK D211-213

Unit(单位) : mm

SIZE	TPI	EDP No.		Limit	Basic Maj. Dia.	Overall Length	Thread Length	Projection Length	Shank Diameter	Square Size	Square Length	No. of Flute
尺寸	牙距	型号		精度	最大基准直径	全长	螺纹长	基准长度	柄径	方块尺寸	方块长度	槽数
ØD1		HSS	HSS-E			L2	L1	L3	ØD2	K	K1	
PT 1/16 - 28		T7532022	T2532022	JIS II	7.723	55	18	13	8	6	9	4
PT 1/8 - 28		T7532202	T2532202	JIS II	9.728	55	19	13	8	6	9	4
PT 1/4 - 19		T7532402	T2532402	JIS II	13.157	62	28	21	11	9	12	4
PT 3/8 - 19		T7532482	T2532482	JIS II	16.662	65	28	21	14	11	14	4
PT 1/2 - 14		T7532562	T2532562	JIS II	20.955	80	35	25	18	14	17	4
PT 3/4 - 14		T7532702	T2532702	JIS II	26.441	85	35	25	23	17	20	4
PT 1" - 11		T7532782	T2532782	JIS II	33.249	95	45	32	26	21	24	5
PT 1*1/4 - 11		T7532862	T2532862	JIS II	41.910	105	45	32	32	26	30	5
PT 1*1/2 - 11		T7532962	T2532962	JIS II	47.803	110	45	32	38	29	32	6
PT 2" - 11		T7532D22	T2532D22	JIS II	59.614	120	50	35	46	35	38	6

► Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸.

◎ : Excellent (优秀) ○ : Good (良好)

ISO	P										M					K							
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel					Stainless steel					Grey cast iron	Nodular cast iron	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20			
HRc	13	25	28	32	30	10	29	32	38	15	35	15	23	10	10	26	3	25	21				
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230			
Recommended	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

ISO	N					S					H												
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys					Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron			
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41		
HRc	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41		
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550		
Recommended	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

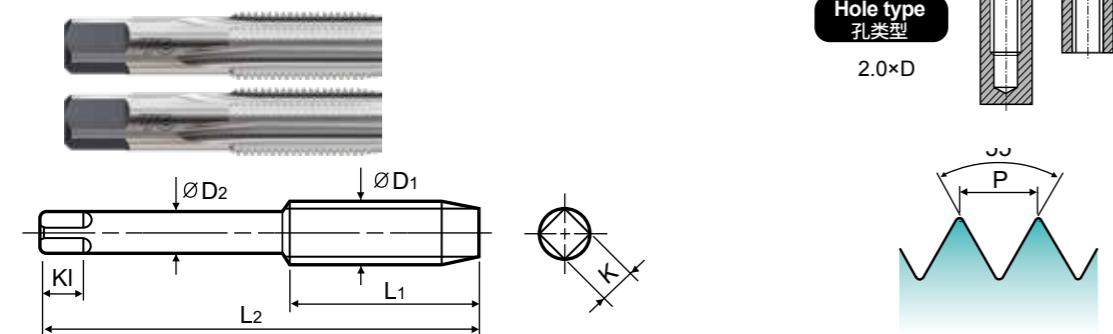
YG PIPE TAPS

T7552 SERIES
T2552 SERIES

PS STRAIGHT PIPE TAPS for PS THREADS
PS螺纹用直管丝锥

► Suitable for process Straight pipe internal threads.
PS : Straight pipe threads (for pressure-tight joints)

► 适用于锥管螺纹加工
PS : 锥管螺纹 (用于压力密封接头)



Material groups: **GS** HSS HSS-E PS JIS II 55° 3.5P Bright p. B201

Recommended ToolHolder: Plain Shank TAPPING ER CHUCK D215-220, TAPPING CHUCK D221-228, ONE STEP TAPPING CHUCK D211-213

Unit(单位) : mm

SIZE	TPI	EDP No.		Limit	Basic Maj. Dia.	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	No. of Flute
尺寸	牙距	型号		精度	最大基准直径	全长	螺纹长	柄径	方块尺寸	方块长度	槽数
ØD1		HSS	HSS-E			L2	L1	ØD2	K	KI	
PS 1/8	- 28	T7552202	T2552202	JIS II	9.728	55	19	8	6	9	4
PS 1/4	- 19	T7552402	T2552402	JIS II	13.157	62	28	11	9	12	4
PS 3/8	- 19	T7552482	T2552482	JIS II	16.662	65	28	14	11	14	4
PS 1/2	- 14	T7552562	T2552562	JIS II	20.955	80	35	18	14	17	4
PS 3/4	- 14	T7552702	T2552702	JIS II	26.441	85	35	23	17	20	4
PS 1"	- 11	T7552782	T2552782	JIS II	33.249	95	45	26	21	24	5
PS 1*1/4	- 11	T7552862	T2552862	JIS II	41.910	105	45	32	26	30	5
PS 1*1/2	- 11	T7552962	T2552962	JIS II	47.803	110	45	38	29	32	6
PS 2"	- 11	T7552D22	T2552D22	JIS II	59.614	120	50	46	35	38	6

► Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸.

◎ : Excellent (优秀) ○ : Good (良好)

ISO Material Description	P										M						K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel						Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
HRc	13	25	28	32	38	15	29	32	38	45	55	60	65	70	10	15	20	25	30	35	40	45	
HB	125	190	250	270	300	180	215	275	300	350	200	240	260	280	180	260	160	250	130	230	130	230	
Recommended	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	

ISO Material Description	N										S						H								
	Aluminum-wrought alloy		Aluminum-cast, alloyed				Copper and Copper Alloys (Bronze / Brass)				Non Metallic Materials		Heat Resistant Super Alloys						Titanium Alloys		Hardened steel		Chilled Cast Iron		Hardened Cast Iron
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43		
HRc	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43		
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550	400	550		
Recommended	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎		

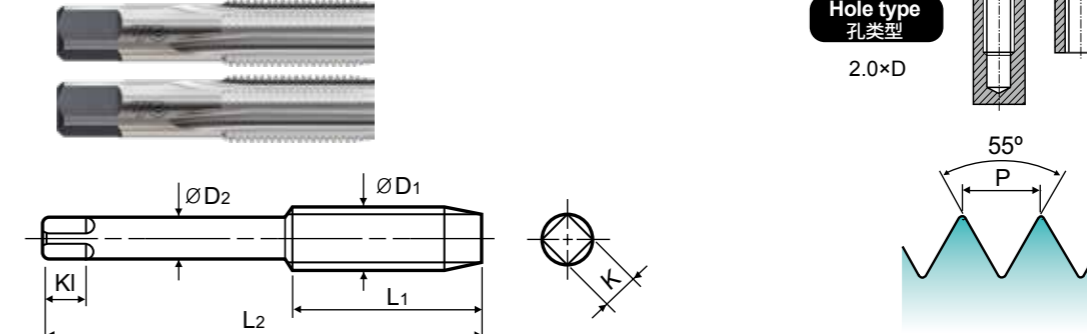
YG PIPE TAPS

T7562 SERIES
T2562 SERIES

PF STRAIGHT PIPE TAPS for PF THREADS
PF螺纹用直管丝锥

► Suitable for process Straight pipe internal threads.
PF : Straight pipe threads (for mechanical joints)

► 适用于锥管螺纹加工
PF : 锥管螺纹 (用于压力密封接头)



Material groups: **GS** HSS HSS-E PF JIS II 55° 3.5P Bright p. B201

Recommended ToolHolder: Plain Shank TAPPING ER CHUCK D215-220, TAPPING CHUCK D221-228, ONE STEP TAPPING CHUCK D211-213

Unit(单位) : mm

SIZE	TPI	EDP No.		Limit	Basic Maj. Dia.	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	No. of Flute
尺寸	牙距	型号		精度	最大基准直径	全长	螺纹长	柄径	方块尺寸	方块长度	槽数
ØD1		HSS	HSS-E			L2	L1	ØD2	K	KI	
PF 1/8	- 28	T7562202	T2562202	JIS II	9.728	55	19	8	6	9	4
PF 1/4	- 19	T7562402	T2562402	JIS II	13.157	62	28	11	9	12	4
PF 3/8	- 19	T7562482	T2562482	JIS II	16.662	65	28	14	11	14	4
PF 1/2	- 14	T7562562	T2562562	JIS II	20.955	80	35	18	14	17	4
PF 3/4	- 14	T7562702	T2562702	JIS II	26.441	85	35	23	17	20	4
PF 1"	- 11	T7562782	T2562782	JIS II	33.249	95	45	26	21	24	5
PF 1*1/4	- 11	T7562862	T2562862	JIS II	41.910	105	45	32	26	30	4
PF 1*1/2	- 11	T7562962	T2562962	JIS II	47.803	110	45	38	29	32	6
PF 2"	- 11	T7562D22	T2562D22	JIS II	59.614	120	50	46	35	38	6

► Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸.

◎ : Excellent (优秀) ○ : Good (良好)

ISO Material Description	P										M						K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel						Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
HRc	13	25	28	32	38	15	29	32	38	45	55	60	65	70	10	15	20	25	30	35	40	45	
HB	125	190	250	270	300	180	215	275	300	350	200	240	260	280	180	260	160	250	130	230	130	230	
Recommended	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	

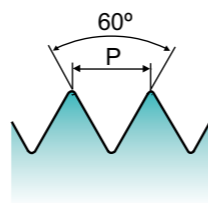
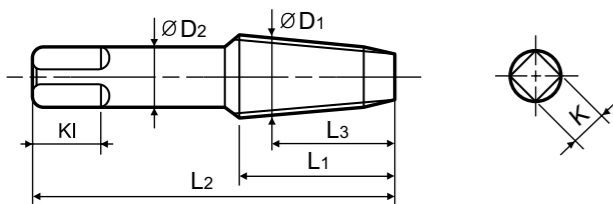
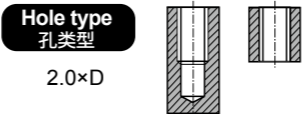
ISO Material Description	N										S						H								
	Aluminum-wrought alloy		Aluminum-cast, alloyed				Copper and Copper Alloys (Bronze / Brass)				Non Metallic Materials		Heat Resistant Super Alloys						Titanium Alloys		Hardened steel		Chilled Cast Iron		Hardened Cast Iron
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43		
HRc	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43		
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550	400	550		
Recommended	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎		

NPT AMERICAN TAPER PIPE TAPS for NPT THREADS

美制NPT螺纹用锥管丝锥

► Suitable for process Taper pipe internal threads.
NPT : American Taper pipe threads (for mechanical joints)

► 适用于加工锥管内螺纹。
NPT : 美制锥管螺纹 (机械连接用)



Material groups: **GS** HSS-E NPT ANSI G 60° 3.0P Bright p. B201

Recommended Toolholder: Plain Shank TAPPING ER CHUCK D215-220, ONE STEP TAPPING CHUCK D211-213

Unit(单位) : mm

SIZE	TPI	EDP No.	Limit	Basic Maj. Dia.	Overall Length	Thread Length	Projection Length	Shank Diameter	Square Size	Square Length	No. of Flute
尺寸	牙距	型号	精度	最大基准直径	全长	螺纹长	基准长度	柄径	方块尺寸	方块长度	槽数
ØD1					L2	L1	L3	ØD2	K	KI	
NPT 1/16 - 27	27	T2527020	ANSI G	7.770	54	17	12.00	8	6	9	4
NPT 1/8 - 27	27	T2527200	ANSI G	10.117	55	19	12.05	8	6	9	4
NPT 1/4 - 18	18	T2527400	ANSI G	13.426	62	28	17.45	11	9	12	4
NPT 3/8 - 18	18	T2527480	ANSI G	16.866	65	28	17.65	14	11	14	4
NPT 1/2 - 14	14	T2527560	ANSI G	20.980	80	35	22.85	18	14	17	4
NPT 3/4 - 14	14	T2527700	ANSI G	26.325	85	35	22.95	23	17	20	5
NPT 1" - 11*1/2	11*1/2	T2527780	ANSI G	32.934	95	45	27.40	26	21	24	5

► Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸.

◎ : Excellent (优秀) ○ : Good (良好)

ISO	P										M				K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron	Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	25	28	32	32	10	29	32	38	15	35	15	23	10	10	26	3	25	21	21
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommended	◎	◎	◎	◎	◎	◎	○	○	○	○	○	○	○	○	○	○	○	○	○	○

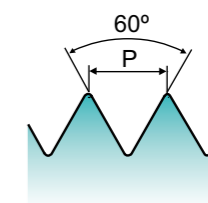
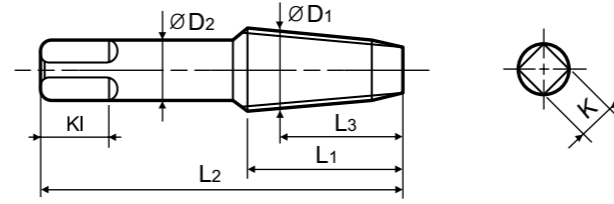
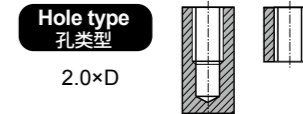
ISO	N				S						H										
	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)				Non Metallic Materials		Heat Resistant Super Alloys			Titanium Alloys	Hardened steel	Chilled Cast Iron	Hardened Cast Iron				
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

NPTF AMERICAN TAPER PIPE TAPS for NPTF THREADS

美制NPTF螺纹用锥管丝锥

► Suitable for process taper pipe internal threads.
NPTF : American Taper pipe threads (Dry seal)

► 适用于加工锥管内螺纹。
NPTF : 美制锥管螺纹 (干密封)



Material groups: **GS** HSS-E NPTF ANSI G 60° 3.0P Bright p. B201

Recommended Toolholder: Plain Shank TAPPING ER CHUCK D215-220, ONE STEP TAPPING CHUCK D211-213

Unit(单位) : mm

SIZE	TPI	EDP No.	Limit	Basic Maj. Dia.	Overall Length	Thread Length	Projection Length	Shank Diameter	Square Size	Square Length	No. of Flute
尺寸	牙距	型号	精度	最大基准直径	全长	螺纹长	基准长度	柄径	方块尺寸	方块长度	槽数
ØD1					L2	L1	L3	ØD2	K	KI	
NPTF 1/16 - 27	27	T2537020	ANSI G	7.770	54	17	12.00	8	6	9	4
NPTF 1/8 - 27	27	T2537200	ANSI G	10.117	55	19	12.05	8	6	9	4
NPTF 1/4 - 18	18	T2537400	ANSI G	13.426	62	28	17.45	11	9	12	4
NPTF 3/8 - 18	18	T2537480	ANSI G	16.866	65	28	17.65	14	11	14	4
NPTF 1/2 - 14	14	T2537560	ANSI G	20.980	80	35	22.85	18	14	17	4
NPTF 3/4 - 14	14	T2537700	ANSI G	26.325	85	35	22.95	23	17	20	5
NPTF 1" - 11*1/2	11*1/2	T2537780	ANSI G	32.934	95	45	27.40	26	21	24	5

► Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸.

◎ : Excellent (优秀) ○ : Good (良好)

ISO	P										M				K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron	Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	25	28	32	32	10	29	32	38	15	35	15	23	10	10	26	3	25	21	21
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommended	◎	◎	◎	◎	◎	◎	○	○	○	○	○	○	○	○	○	○	○	○	○	○

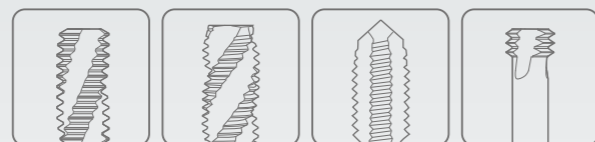
ISO	N				S						H										
	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)				Non Metallic Materials		Heat Resistant Super Alloys			Titanium Alloys	Hardened steel	Chilled Cast Iron	Hardened Cast Iron				
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○



Leading Through Innovation



Global Cutting Tool Leader **YG-1**



THREADING



SKS21

SKS21 HAND TAPS

- To Achieve High Strength.
Easy Assembling.
- 实现高强度加工，易装配

SELECTION GUIDE

选用指南



SKS21 HAND TAPS

To Achieve High Strength. Easy Assembling.

实现高强度加工，易装配

Please visit globalyg1.com/mat for material search

◎: Excellent (优秀) ○: Good (良好)

ISO 公制	VDI 3323	Material Description 材料描述	Composition / Structure / Heat Treatment 成分 / 组织 / 热处理	HB 布氏硬度	HRc 硬度		
P	1	Non-alloy steel	About 0.15% C Annealed	125		○	8~13
	2		About 0.45% C Annealed	190	13	○	7~12
	3		About 0.45% C Quenched & Tempered	250	25	○	7~12
	4		About 0.75% C Annealed	270	28		
	5		About 0.75% C Quenched & Tempered	300	32		
	6	Low alloy steel	Annealed	180	10	○	7~12
	7		Quenched & Tempered	275	29		
	8		Quenched & Tempered	300	32		
	9		Quenched & Tempered	350	38		
	10		High alloyed steel, and tool steel	Annealed	200	15	○
	11		Quenched & Tempered	325	35		
M	12	Stainless steel	Ferritic / Martensitic Annealed	200	15		
	13		Martensitic Quenched & Tempered	240	23		
	14		Austenitic	180	10		
K	15	Grey cast iron	Pearlitic / ferritic	180	10	○	10~15
	16		Pearlitic (Martensitic)	260	26	○	10~15
	17	Nodular cast iron	Ferritic	160	3	○	7~12
	18		Pearlitic	250	25	○	7~12
	19		Ferritic	130			
	20	Malleable cast iron	Pearlitic	230	21		
N	21	Aluminum-wrought alloy	Not Curable	60		○	10~20
	22		Curable Hardened	100		○	10~20
	23	Aluminum-cast, alloyed	≤ 12% Si, Not Curable	75			
	24		≤ 12% Si, Curable Hardened	90			
	25		> 12% Si, Not Curable	130			
	26		Copper and Copper Alloys (Bronze / Brass)	Cutting Alloys, PB>1% CuZn, CuSnZn (Brass)	110		○
	27			90		○	6~15
	28			100			
	29	Non Metallic Materials	Duroplastic, Fiber Reinforced Plastic				
	30		Rubber, Wood, etc.				
S	31	Heat Resistant Super Alloys	Fe Based Annealed	200	15		
	32		Cured	280	30		
	33		Annealed	250	25		
	34		Cured	350	38		
	35		Cast	320	34		
36	Titanium Alloys	Pure Titanium	400 Rm				
37		Alpha + Beta Alloys Hardened	1050 Rm				
H	38	Hardened steel	Hardened	550	55		
	39		Hardened	630	60		
	40	Chilled Cast Iron	Cast	400	42		
	41	Hardened Cast Iron	Hardened	550	55		



TSK11(TS923) SERIES

M HAND TAPS(SET of 3 PIECES) 手用丝锥(一套3支)

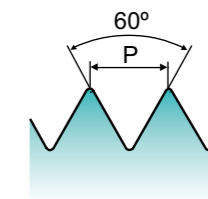
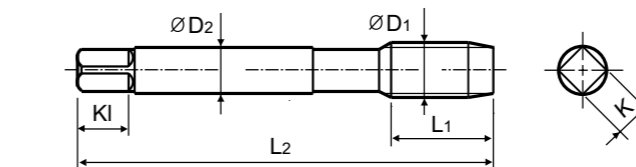
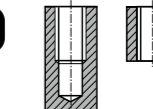
Standard taps for a variety of application.

多用途标准丝锥



up to M6 : Male Center

Hole type 孔类型 2.0xD



Material groups: GS SKS21 HT JIS III 60° 1.5P/5.0P/9.0P Bright p. B212

Recommended Toolholder: Plain Shank TAPPING CHUCK D215-220, ONE STEP TAPPING CHUCK D211-213

Unit(单位) : mm

SIZE 尺寸	Pitch 牙距	EDP No. 型号	Limit 精度	Overall Length 全长	Thread Length 螺纹长	Shank Diameter 柄径	Square Size 方块尺寸	Square Length 方块长度	No. of Flute 槽数
ØD1	P			L2	L1	ØD2	K	Kl	
M2.5 × 0.45		TSK11179	JIS III	44	16	3	2.5	5	3
M2.6 × 0.45		TSK11499	JIS III	44	16	3	2.5	5	3
M3 × 0.5		TSK11209	JIS III	46	18	4	3.2	6	3
M3.5 × 0.6		TSK11229	JIS III	48	18	4	3.2	6	3
M4 × 0.7		TSK11249	JIS III	52	20	5	4	7	3
M4 × 0.5		TSK11259	JIS III	52	15	5	4	7	3
M4.5 × 0.75		TSK11269	JIS III	55	20	5	4	7	3
M5 × 0.9		TSK11999	JIS III	60	22	5.5	4.5	7	3
M5 × 0.8		TSK11289	JIS III	60	22	5.5	4.5	7	3
M6 × 1		TSK11319	JIS III	62	24	6	4.5	7	3
M6 × 0.75		TSK11329	JIS III	62	20	6	4.5	7	3
M7 × 1		TSK11349	JIS III	65	26	6.2	5	8	4
M7 × 0.75		TSK11359	JIS III	62	20	6.2	5	8	4
M8 × 1.25		TSK11369	JIS III	70	30	6.2	5	8	4
M8 × 1		TSK11379	JIS III	70	30	6.2	5	8	4
M8 × 0.75		TSK11389	JIS III	62	20	6.2	5	8	4
M9 × 1.25		TSK11399	JIS III	72	30	7	5.5	8	4
M9 × 1		TSK11409	JIS III	70	30	7	5.5	8	4
M9 × 0.75		TSK11419	JIS III	62	20	7	5.5	8	4
M10 × 1.5		TSK11429	JIS III	75	32	7	5.5	8	4

Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸.

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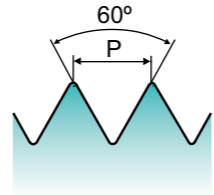
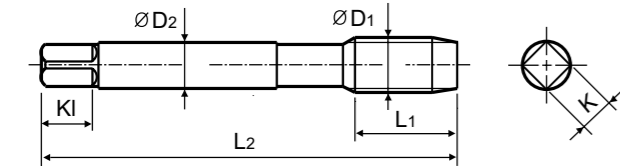
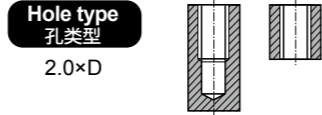
◎: Excellent (优秀) ○: Good (良好)

ISO Material Description	P									M				K							
	Non-alloy steel					Low alloy steel				High alloyed steel, and tool steel		Stainless steel		Grey cast iron	Nodular cast iron		Malleable cast iron				
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
HRc		13	25	28	32	10	29	32	38	15	35	15	23	10	10	26	3	25	21		
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230	
Recommended	○	○	○			○				○					○	○	○	○			
ISO Material Description	N					S					H										
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys					Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron	
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc																					
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	○	○				○	○														

M HAND TAPS(SET of 3 PIECES) 手用丝锥(一套3支)

► Standard taps for a variety of application.

► 多用途标准丝锥



Material groups: **GS** SKS21 HT JIS III 60° 1.5P/1.5OP/1.9OP Bright

Recommended ToolHolder: Plain Shank Page D215-220
TAPPING ER CHUCK D221-228
TAPPING CHUCK D211-213
ONE STEP TAPPING CHUCK

Unit(单位) : mm

SIZE	Pitch	EDP No.	Limit	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	No. of Flute
尺寸	牙距	型号	精度	全长	螺纹长	柄径	方块尺寸	方块长度	槽数
ØD1	P			L2	L1	ØD2	K	Kl	
M10 × 1.25		TSK11439	JIS III	75	32	7	5.5	8	4
M10 × 1		TSK11449	JIS III	70	30	7	5.5	8	4
M11 × 1.5		TSK11469	JIS III	80	38	8	6	9	4
M11 × 1		TSK11479	JIS III	70	30	8	6	9	4
M12 × 1.75		TSK11509	JIS III	82	38	8.5	6.5	9	4
M12 × 1.5		TSK11519	JIS III	82	38	8.5	6.5	9	4
M12 × 1.25		TSK11529	JIS III	80	38	8.5	6.5	9	4
M14 × 2		TSK11549	JIS III	88	42	10.5	8	11	4
M14 × 1.5		TSK11559	JIS III	88	42	10.5	8	11	4
M14 × 1.25		TSK11569	JIS III	80	38	10.5	8	11	4
M15 × 1.5		TSK11589	JIS III	90	42	10.5	8	11	4
M16 × 2		TSK11609	JIS III	95	45	12.5	10	13	4
M16 × 1.5		TSK11619	JIS III	95	45	12.5	10	13	4
M18 × 2.5		TSK11659	JIS III	100	48	14	11	14	4
M18 × 2		TSK11669	JIS III	95	45	14	11	14	4
M18 × 1.5		TSK11679	JIS III	95	45	14	11	14	4
M20 × 2.5		TSK11709	JIS III	105	50	15	12	15	4
M20 × 2		TSK11719	JIS III	95	45	15	12	15	4
M20 × 1.5		TSK11729	JIS III	95	45	15	12	15	4
M22 × 2.5		TSK11749	JIS III	115	55	17	13	16	4

► Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸.

► NEXT PAGE 下页

◎ : Excellent (优秀) ○ : Good (良好)

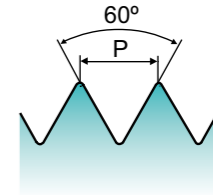
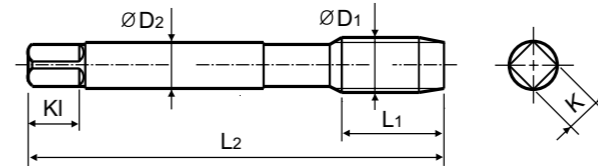
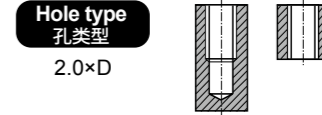
ISO	P						M						K								
	Non-alloy steel			Low alloy steel			High alloyed steel, and tool steel			Stainless steel			Grey cast iron	Nodular cast iron	Malleable cast iron						
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
HRc	13	25	28	32	38	10	29	32	38	15	35	15	23	10	10	26	3	25	21	21	
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230	
Recommended	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

ISO	N					S					H											
	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)	Non Metallic Materials		Heat Resistant Super Alloys			Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron							
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	
HRc	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550	
Recommended	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

M HAND TAPS(SET of 3 PIECES) 手用丝锥(一套3支)

► Standard taps for a variety of application.

► 多用途标准丝锥



Material groups: **GS** SKS21 HT JIS III 60° 1.5P/1.5OP/1.9OP Bright

Recommended ToolHolder: Plain Shank Page D215-220
TAPPING ER CHUCK D221-228
TAPPING CHUCK D211-213
ONE STEP TAPPING CHUCK

Unit(单位) : mm

SIZE	Pitch	EDP No.	Limit	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	No. of Flute
尺寸	牙距	型号	精度	全长	螺纹长	柄径	方块尺寸	方块长度	槽数
ØD1	P			L2	L1	ØD2	K	Kl	
M22 × 2		TSK11759	JIS III	95	45	17	13	16	4
M22 × 1.5		TSK11769	JIS III	95	45	17	13	16	4
M24 × 3		TSK11789	JIS III	120	58	19	15	18	4
M24 × 2		TSK11799	JIS III	95	45	19	15	18	4
M24 × 1.5		TSK11809	JIS III	95	45	19	15	18	4
M25 × 2		TSK11829	JIS III	95	45	19	15	18	4
M25 × 1.5		TSK11839	JIS III	95	45	19	15	18	4
M26 × 2		TSK11N49	JIS III	95	45	20	15	18	4
M26 × 1.5		TSK11859	JIS III	95	45	20	15	18	4
M27 × 3		TSK11869	JIS III	130	62	20	15	18	4
M27 × 2		TSK11879	JIS III	95	45	20	15	18	4
M27 × 1.5		TSK11889	JIS III	95	45	20	15	18	4
M28 × 2		TSK11909	JIS III	105	45	21	17	20	4
M28 × 1.5		TSK11919	JIS III	105	45	21	17	20	4
M30 × 3.5		TSK11949	JIS III	135	65	23	17	20	4
M30 × 3		TSK11959	JIS III	135	65	23	17	20	4
M30 × 2		TSK11969	JIS III	105	45	23	17	20	4
M30 × 1.5		TSK11979	JIS III	105	45	23	17	20	4

► Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸.

◎ : Excellent (优秀) ○ : Good (良好)

ISO	P						M						K								
	Non-alloy steel			Low alloy steel			High alloyed steel, and tool steel			Stainless steel			Grey cast iron	Nodular cast iron	Malleable cast iron						
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
HRc	13	25	28	32	38	10	29	32	38	15	35	15	23	10	10	26	3	25	21	21	
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230	
Recommended	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

ISO	N					S					H											
	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)	Non Metallic Materials		Heat Resistant Super Alloys			Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron							
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	
HRc	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550	
Recommended	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

SKS21 HAND TAPS

TSK12(TS943) SERIES

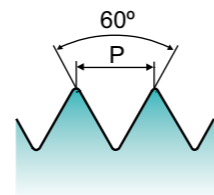
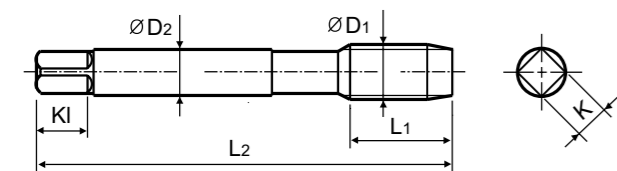
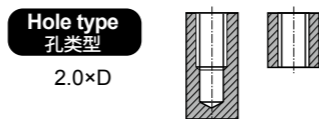
UNC/F HAND TAPS(SET of 3 PIECES) 手用丝锥(一套3支)

▶ Standard taps for a variety of application.

▶ 多用途标准丝锥



up to 1/4 : Male Center



Material groups: **GS** SKS21 HT JIS III 60° 1.5P/1.5OP/1.5OP Bright p. B212

Recommended ToolHolder: Plain Shank Page D215-220
TAPPING ER CHUCK D221-228
TAPPING CHUCK D221-228
ONE STEP TAPPING CHUCK D211-213

Unit(单位) : mm

SIZE	TPI	EDP No.	Limit	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	No. of Flute
尺寸	牙距	型号	精度	全长	螺纹长	柄径	方块尺寸	方块长度	槽数
ØD1				L2	L1	ØD2	K	KI	
#4 - 40 UNC	TSK12169	JIS III	44	16	3	2.5	5	3	
#4 - 48 UNF	TSK12189	JIS III	44	16	3	2.5	5	3	
#5 - 40 UNC	TSK12209	JIS III	46	18	4	3.2	6	3	
#5 - 44 UNF	TSK12229	JIS III	46	18	4	3.2	6	3	
#6 - 32 UNC	TSK12249	JIS III	48	18	4	3.2	6	3	
#6 - 40 UNF	TSK12269	JIS III	48	18	4	3.2	6	3	
#8 - 32 UNC	TSK12289	JIS III	52	20	5	4	7	3	
#8 - 36 UNF	TSK12309	JIS III	52	20	5	4	7	3	
#10 - 24 UNC	TSK12329	JIS III	60	22	5.5	4.5	7	3	
#10 - 32 UNF	TSK12349	JIS III	60	22	5.5	4.5	7	3	
#12 - 24 UNC	TSK12369	JIS III	60	22	5.5	4.5	7	3	
#12 - 28 UNF	TSK12389	JIS III	60	22	5.5	4.5	7	3	
1/4 - 20 UNC	TSK12409	JIS III	62	24	6	4.5	7	3	
1/4 - 28 UNF	TSK12429	JIS III	62	24	6	4.5	7	3	
5/16 - 18 UNC	TSK12449	JIS III	70	30	6.1	5	8	4	
5/16 - 24 UNF	TSK12469	JIS III	70	30	6.1	5	8	4	

▶ Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸.

▶ NEXT PAGE 下页

◎ : Excellent (优秀) ○ : Good (良好)

ISO Material Description	P										M						K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel			Stainless steel			Grey cast iron		Nodular cast iron		Malleable cast iron	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
HRc	13	25	28	32	38	10	29	32	38	45	15	35	23	10	10	26	3	25	21			
HB	125	190	250	270	300	180	275	300	350	400	200	325	200	180	180	260	160	250	130	230		
Recommended	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○		

ISO Material Description	N										S						H					
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys				Titanium Alloys		Hardened steel		Chilled Cast Iron		Hardened Cast Iron	
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	
HRc	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550	
Recommended	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	

SKS21 HAND TAPS

TSK12(TS943) SERIES

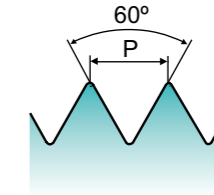
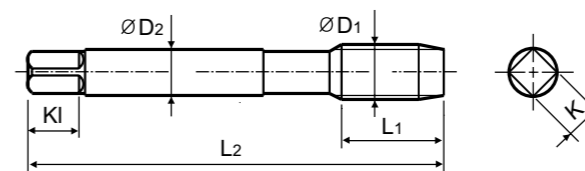
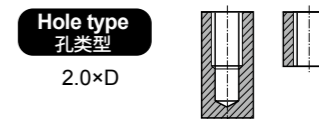
UNC/F HAND TAPS(SET of 3 PIECES) 手用丝锥(一套3支)

▶ Standard taps for a variety of application.

▶ 多用途标准丝锥



up to 1/4 : Male Center



Material groups: **GS** SKS21 HT JIS III 60° 1.5P/1.5OP/1.5OP Bright p. B212

Recommended ToolHolder: Plain Shank Page D215-220
TAPPING ER CHUCK D221-228
TAPPING CHUCK D221-228
ONE STEP TAPPING CHUCK D211-213

Unit(单位) : mm

SIZE	TPI	EDP No.	Limit	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	No. of Flute
尺寸	牙距	型号	精度	全长	螺纹长	柄径	方块尺寸	方块长度	槽数
ØD1				L2	L1	ØD2	K	KI	
3/8 - 16 UNC	TSK12489	JIS III	75	35	7	5.5	8	4	
3/8 - 24 UNF	TSK12509	JIS III	75	32	7	5.5	8	4	
7/16 - 14 UNC	TSK12529	JIS III	80	38	8	6	9	4	
7/16 - 20 UNF	TSK12549	JIS III	80	38	8	6	9	4	
1/2 - 13 UNC	TSK12569	JIS III	85	42	9	7	10	4	
1/2 - 20 UNF	TSK12589	JIS III	85	42	9	7	10	4	
9/16 - 12 UNC	TSK12609	JIS III	90	42	10.5	8	11	4	
9/16 - 18 UNF	TSK12629	JIS III	90	42	10.5	8	11	4	
5/8 - 11 UNC	TSK12649	JIS III	95	45	12	9	12	4	
5/8 - 18 UNF	TSK12669	JIS III	95	45	12	9	12	4	
3/4 - 10 UNC	TSK12709	JIS III	105	50	14	11	14	4	
3/4 - 16 UNF	TSK12729	JIS III	95	45	14	11	14	4	
7/8 - 9 UNC	TSK12749	JIS III	115	55	17	13	16	4	
7/8 - 14 UNF	TSK12769	JIS III	95	45	17	13	16	4	
1 - 8 UNC	TSK12789	JIS III	125	60	20	15	18	4	
1 - 12 UNF	TSK12809	JIS III	95	45	20	15	18	4	

▶ Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸.

◎ : Excellent (优秀) ○ : Good (良好)

ISO Material Description	P										M						K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel			Stainless steel			Grey cast iron		Nodular cast iron		Malleable cast iron	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
HRc	13	25	28	32	38	10	29	32	38	45	15	35	23	10	10	26	3	25	21			
HB	125	190	250	270	300	180	275	300	350	400	200	325	200	180	180	260	160	250	130	230		
Recommended	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○		

ISO Material Description	N										S						H					
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys				Titanium Alloys		Hardened steel		Chilled Cast Iron		Hardened Cast Iron	
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	
HRc	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550	
Recommended	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	

YG SKS21 HAND TAPS

TSK13(TS933) SERIES

W HAND TAPS(SET of 3 PIECES) 手用丝锥(一套3支)

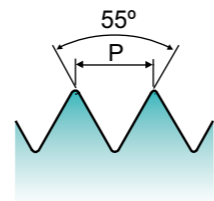
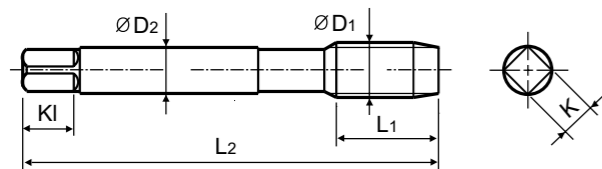
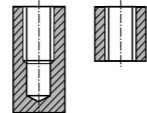
▶ Standard taps that can be used in for a variety of application.

▶ 多用途标准丝锥



up to 1/4 : Male Center

Hole type
孔类型
2.0×D



Material groups: **GS** SKS21 HT JIS III 55° 1.SP/5.OP/9.OP Bright

Recommended ToolHolder: Plain Shank TAPPING ER CHUCK D215-220 TAPPING CHUCK D221-228 ONE STEP TAPPING CHUCK D211-213

Page: p. B212

Unit(单位) : mm

SIZE	TPI	EDP No.	Limit	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	No. of Flute
尺寸	牙距	型号	精度	全长	螺纹长	柄径	方块尺寸	方块长度	槽数
ØD1	P			L2	L1	ØD2	K	KI	
W1/8 - 40		TSK13209	JIS III	46	18	4	3.2	6	3
W3/16 - 24		TSK13329	JIS III	60	22	5.5	4.5	7	3
W1/4 - 20		TSK13409	JIS III	62	24	6	4.5	7	3
W5/16 - 18		TSK13449	JIS III	70	30	6.1	5	8	4
W3/8 - 16		TSK13489	JIS III	75	35	7	5.5	8	4
W7/16 - 14		TSK13529	JIS III	80	38	8	6	9	4
W1/2 - 12		TSK13569	JIS III	85	42	9	7	10	4
W9/16 - 12		TSK13609	JIS III	90	42	10.5	8	11	4
W5/8 - 11		TSK13649	JIS III	95	45	12	9	12	4
W3/4 - 10		TSK13709	JIS III	105	50	14	11	14	4
W7/8 - 9		TSK13749	JIS III	115	55	17	13	16	4
W1 - 8		TSK13789	JIS III	125	60	20	15	18	4

▶ Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸.

◎ : Excellent (优秀) ○ : Good (良好)

ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
VDI 3323	1	13	25	28	32	10	29	32	38	15	35	15	23	10	10	26	3	25	21	21	
HRc	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230	
HB																					
Recommended	○	○	○			○									○	○					

ISO	N						S						H								
	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)		Non Metallic Materials			Heat Resistant Super Alloys			Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron				
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	15	30	25	38	34						200	280	250	350	320	400Rm	1050Rm	550	630	400	550
HB	60	100	75	90	130	110	90	100													
Recommended	○	○				○	○														

YG SKS21 HAND TAPS

TSK21 SERIES

M-LH HAND TAPS(SET of 3 PIECES) 手用丝锥(一套3支)

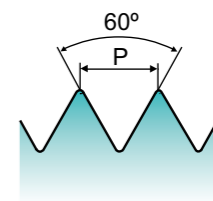
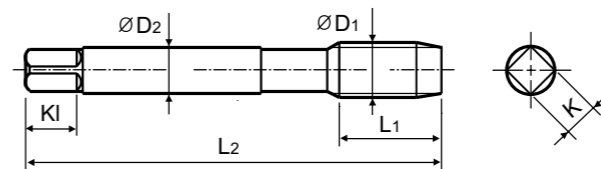
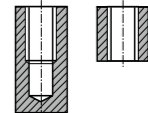
▶ Standard taps for a variety of application.

▶ 多用途标准丝锥



up to M6 : Male Center

Hole type
孔类型
2.0×D



Material groups: **GS** SKS21 HT JIS III 60° 1.SP/5.OP/9.OP Bright

Recommended ToolHolder: Plain Shank TAPPING ER CHUCK D215-220 TAPPING CHUCK D221-228 ONE STEP TAPPING CHUCK D211-213

Page: p. B212

Unit(单位) : mm

SIZE	Pitch	EDP No.	Limit	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	No. of Flute
尺寸	牙距	型号	精度	全长	螺纹长	柄径	方块尺寸	方块长度	槽数
ØD1	P			L2	L1	ØD2	K	KI	
M3 × 0.5		TSK21209	JIS III	46	18	4	3.2	6	3
M4 × 0.7		TSK21249	JIS III	52	20	5	4	7	3
M5 × 0.8		TSK21289	JIS III	60	22	5.5	4.5	7	3
M6 × 1		TSK21319	JIS III	62	24	6	4.5	7	3
M7 × 1		TSK21349	JIS III	65	26	6.2	5	8	4
M8 × 1.25		TSK21369	JIS III	70	30	6.2	5	8	4
M10 × 1.5		TSK21429	JIS III	75	32	7	5.5	8	4
M10 × 1.25		TSK21439	JIS III	75	32	7	5.5	8	4
M11 × 1.5		TSK21469	JIS III	80	38	8	6	9	4
M12 × 1.75		TSK21509	JIS III	82	38	8.5	6.5	9	4
M12 × 1.5		TSK21519	JIS III	82	38	8.5	6.5	9	4
M12 × 1.25		TSK21529	JIS III	80	38	8.5	6.5	9	4
M14 × 2		TSK21549	JIS III	88	42	10.5	8	11	4
M14 × 1.5		TSK21559	JIS III	88	42	10.5	8	11	4
M14 × 1.25		TSK21569	JIS III	80	38	10.5	8	11	4
M15 × 1.5		TSK21589	JIS III	90	42	10.5	8	11	4
M16 × 2		TSK21609	JIS III	95	45	12.5	10	13	4
M16 × 1.5		TSK21619	JIS III	95	45	12.5	10	13	4
M18 × 2.5		TSK21659	JIS III	100	48	14	11	14	4
M18 × 2		TSK21669	JIS III	95	45	14	11	14	4
M18 × 1.5		TSK21679	JIS III	95	45	14	11	14	4
M20 × 2.5		TSK21709	JIS III	105	50	15	12	15	4
M20 × 2		TSK21719	JIS III	95	45	15	12	15	4
M20 × 1.5		TSK21729	JIS III	95	45	15	12	15	4

▶ Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸.

◎ : Excellent (优秀) ○ : Good (良好)

ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
HRc	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230	
HB																					
Recommended	○	○	○			○									○	○					

ISO	N						S						H								
	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)		Non Metallic Materials			Heat Resistant Super Alloys			Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron				
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	15	30	25	38	34						200	280	250	350	320	400Rm	1050Rm	550	630	400	550
HB	60	100	75	90	130	110	90	100													
Recommended	○	○				○	○														

TSK23 SERIES

W-LH HAND TAPS(SET of 3 PIECES)

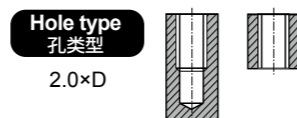
手用丝锥(一套3支)

▶ Standard taps that can be used in for a variety of application.

▶ 多用途标准丝锥

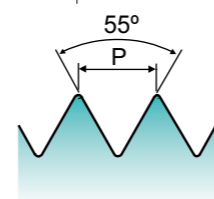
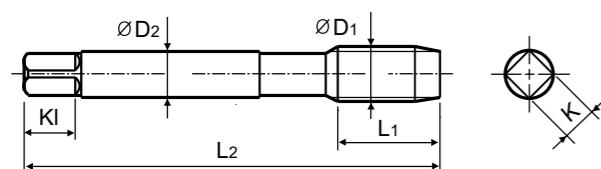


up to 1/4 : Male Center



Hole type
孔类型

2.0×D



Recommended ToolHolder

Plain Shank Page
TAPPING ER CHUCK D215-220
TAPPING CHUCK D221-228
ONE STEP TAPPING CHUCK D211-213

Unit(单位) : mm

SIZE	TPI	EDP No.	Limit	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	No. of Flute
尺寸	牙距	型号	精度	全长	螺纹长	柄径	方块尺寸	方块长度	槽数
ØD1				L2	L1	ØD2	K	K1	
W1/8	- 40	TSK23209	JIS III	46	18	4	3.2	6	3
W3/16	- 24	TSK23329	JIS III	60	22	5.5	4.5	7	3
W1/4	- 20	TSK23409	JIS III	62	24	6	4.5	7	3
W5/16	- 18	TSK23449	JIS III	70	30	6.1	5	8	4
W3/8	- 16	TSK23489	JIS III	75	35	7	5.5	8	4
W7/16	- 14	TSK23529	JIS III	80	38	8	6	9	4
W1/2	- 12	TSK23569	JIS III	85	42	9	7	10	4
W9/16	- 12	TSK23609	JIS III	90	42	10.5	8	11	4
W5/8	- 11	TSK23649	JIS III	95	45	12	9	12	4
W3/4	- 10	TSK23709	JIS III	105	50	14	11	14	4
W7/8	- 9	TSK23749	JIS III	115	55	17	13	16	4
W1	- 8	TSK23789	JIS III	125	60	20	15	18	4

▶ Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸.

SKS21

SKS21 PIPE TAPS

- To Achieve High Strength.
Easy Assembling.
- 实现高强度加工, 易装配

◎ : Excellent (优秀) ○ : Good (良好)

ISO	P										M				K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel		Stainless steel		Grey cast iron	Nodular cast iron		Malleable cast iron		
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323																				
HRc	13	25	28	32	30	10	29	32	38	15	35	15	23	10	10	26	3	25	13	21
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommended	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

ISO	N										S						H				
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys				Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron		
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323																					
HRc																					
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

SELECTION GUIDE

选用指南



SKS21 PIPE TAPS

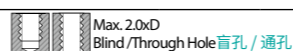
To Achieve High Strength. Easy Assembling.
实现高强度加工, 易装配

Please visit globalyg1.com/mat for material search

◎ : Excellent (优秀) ○ : Good (良好)

HOLE TYPE 孔类型	Max. 2.0xD Blind/Through Hole盲孔/ 通孔		
TOOL MATERIAL 刀具材料	SKS21		
CHAMFER LEAD ACC. TO DIN2197 倒角长度	3.0P	3.0P	
FLUTE TYPE 槽型	Straight Flute 直槽		
SPIRAL FLUTE ANGLE 螺旋角	-	-	
SERIES NO. 系列号 (page页码)	JIS Type	PT	PS
	M/MF		
	UNC/F		
	W		
	M-LH W-LH		
PIPE TAPS	TSK34 (p. B224)	TSK35 (p. B225)	
SURFACE TREATMENT 表面处理	Bright	Bright	
MODEL 模型			

ISO 公制	VDI 3323	Material Description 材料描述	Composition / Structure / Heat Treatment 成分 / 组织 / 热处理	HB 布氏硬度	HRc 硬度	PT	PS
	1	Non-alloy steel	About 0.15% C Annealed	125		○	○
	2		About 0.45% C Annealed	190	13	○	○
	3		About 0.45% C Quenched & Tempered	250	25	○	○
	4		About 0.75% C Annealed	270	28		
	5		About 0.75% C Quenched & Tempered	300	32		
	6	Low alloy steel	Annealed	180	10	○	○
	7		Quenched & Tempered	275	29		
	8		Quenched & Tempered	300	32		
	9		Quenched & Tempered	350	38		
	10	High alloyed steel, and tool steel	Annealed	200	15	○	○
	11		Quenched & Tempered	325	35		
	12	Stainless steel	Ferritic / Martensitic Annealed	200	15		
	13		Martensitic Quenched & Tempered	240	23		
	14		Austenitic	180	10		
	15	Grey cast iron	Pearlitic / ferritic	180	10	○	○
	16		Pearlitic (Martensitic)	260	26	○	○
	17	Nodular cast iron	Ferritic	160	3	○	○
	18		Pearlitic	250	25		
	19	Malleable cast iron	Ferritic	130			
	20		Pearlitic	230	21		
	21	Aluminum-wrought alloy	Not Curable	60		○	○
	22		Curable Hardened	100		○	○
	23	Aluminum-cast, alloyed	≤ 12% Si, Not Curable	75		○	○
	24		≤ 12% Si, Curable Hardened	90			
	25		> 12% Si, Not Curable	130			
	26	Copper and Copper Alloys (Bronze / Brass)	Cutting Alloys, PB>1%	110		○	○
	27		CuZn, CuSnZn (Brass)	90		○	○
	28		CuSn, lead-free copper and electrolytic copper	100			
	29	Non Metallic Materials	Duroplastic, Fiber Reinforced Plastic				
	30		Rubber, Wood, etc.				
	31	Heat Resistant Super Alloys	Fe Based Annealed	200	15		
	32		Cured	280	30		
	33		Annealed	250	25		
	34		Ni or Co Based Cured	350	38		
	35		Cast	320	34		
	36	Titanium Alloys	Pure Titanium	400 Rm			
	37		Alpha + Beta Alloys Hardened	1050 Rm			
	38	Hardened steel	Hardened	550	55		
	39		Hardened	630	60		
	40	Chilled Cast Iron	Cast	400	42		
	41	Hardened Cast Iron	Hardened	550	55		

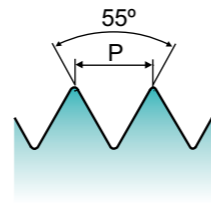
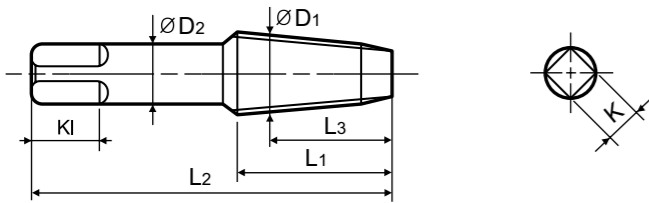
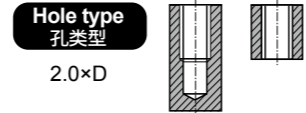


Max. 2.0xD Blind/Through Hole盲孔/ 通孔			JIS Type
SKS21			M/MF
3.0P	3.0P	3.0P	UNC/F
Straight Flute 直槽			W
-	-	-	M-LH W-LH
PF	NPT	NPS	PIPE TAPS
TSK36 (p. B226)	TSK37 (p. B227)	TSK38 (p. B228)	
Bright	Bright	Bright	
○ 3~6	○ 3~6	○ 3~6	1
○ 3~6	○ 3~6	○ 3~6	2
○ 3~6	○ 3~6	○ 3~6	3
			4
			5
○ 3~6	○ 3~6	○ 3~6	6
			7
			8
			9
○ 3~6	○ 3~6	○ 3~6	10
			11
			12
			13
			14
○ 3~6	○ 3~6	○ 3~6	15
○ 3~6	○ 3~6	○ 3~6	16
○ 4~8	○ 4~8	○ 4~8	17
			18
			19
			20
○ 5~10	○ 5~10	○ 5~10	21
○ 5~10	○ 5~10	○ 5~10	22
○ 10~15	○ 10~15	○ 10~15	23
			24
			25
○ 3~6	○ 3~6	○ 3~6	26
○ 5~10	○ 5~10	○ 5~10	27
			28
			29
			30
			31
			32
			33
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			36
			37
			38
			39
			40
			41

PT TAPER PIPE TAPS for PT THREADS
PT 螺纹用锥管丝锥

► Suitable for taper pipe internal threads.
PT : Taper pipe threads (for pressure-tight joints)

► 适用于锥管螺纹加工
PT : 锥管螺纹 (用于压力密封接头)



Material groups **GS** SKS21 PT JIS 55° 3.0P Bright p. B222

Recommended ToolHolder	Plain Shank	Page
	TAPPING ER CHUCK	D215-220
	TAPPING CHUCK	D221-228
	ONE STEP TAPPING CHUCK	D211-213

Unit(单位) : mm

SIZE	TPI	EDP No.	Limit	Basic Maj. Dia.	Overall Length	Thread Length	Projection Length	Shank Diameter	Square Size	Square Length	No. of Flute
尺寸	牙距	型号	精度	最大基准直径	全长	螺纹长	基准长度	柄径	方块尺寸	方块长度	槽数
ØD1					L2	L1	L3	ØD2	K	Kl	
PT 1/16	- 28	TSK34022	JIS	7.723	55	19	13	6.5	5	8	4
PT 1/8	- 28	TSK34202	JIS	9.728	55	19	13	8	6	9	4
PT 1/4	- 19	TSK34402	JIS	13.157	62	28	21	11	9	12	4
PT 3/8	- 19	TSK34482	JIS	16.662	65	28	21	14	11	14	4
PT 1/2	- 14	TSK34562	JIS	20.955	80	35	25	18	14	17	4
PT 3/4	- 14	TSK34702	JIS	26.441	85	35	25	23	17	20	4
PT 1	- 11	TSK34782	JIS	33.249	95	45	32	26	21	24	5
PT 1*1/4	- 11	TSK34862	JIS	41.910	105	45	32	32	26	30	5
PT 1*1/2	- 11	TSK34962	JIS	47.803	110	45	32	38	29	32	6
PT 2	- 11	TSK34D22	JIS	59.614	120	50	35	46	35	38	6

► Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸.

◎ : Excellent (优秀) ○ : Good (良好)

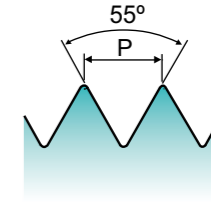
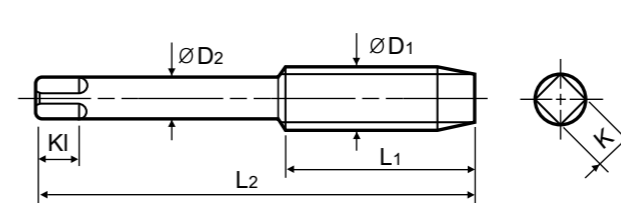
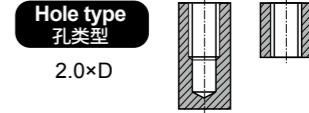
ISO	P										M					K							
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel					Stainless steel					Grey cast iron	Nodular cast iron	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20			
HRc	13	25	28	32	30	10	29	32	38	15	35	15	23	10	10	26	3	25	21				
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230			
Recommended	○	○	○			○									○	○							

ISO	N										S					H								
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)					Non Metallic Materials					Heat Resistant Super Alloys					Titanium Alloys		Hardened steel	Chilled Cast Iron
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41			
HRc											15	30	25	38	34			55	60	42	55			
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550			
Recommended	○	○	○			○	○																	

PS STRAIGHT PIPE TAPS for PS THREADS
PS 螺纹用直管丝锥

► Suitable for process Straight pipe internal threads.
PS : Straight pipe threads (for pressure-tight joints)

► 适用于锥管螺纹加工
PS : 锥管螺纹 (用于压力密封接头)



Material groups **GS** SKS21 PS JIS 55° 3.0P Bright p. B222

Recommended ToolHolder	Plain Shank	Page
	TAPPING ER CHUCK	D215-220
	TAPPING CHUCK	D221-228
	ONE STEP TAPPING CHUCK	D211-213

Unit(单位) : mm

SIZE	TPI	EDP No.	Limit	Basic Maj. Dia.	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	No. of Flute
尺寸	牙距	型号	精度	最大基准直径	全长	螺纹长	柄径	方块尺寸	方块长度	槽数
ØD1					L2	L1	ØD2	K	Kl	
PS 1/8	- 28	TSK35202	JIS	9.728	55	19	8	6	9	4
PS 1/4	- 19	TSK35402	JIS	13.157	62	28	11	9	12	4
PS 3/8	- 19	TSK35482	JIS	16.662	65	28	14	11	14	4
PS 1/2	- 14	TSK35562	JIS	20.955	80	35	18	14	17	4
PS 3/4	- 14	TSK35702	JIS	26.441	85	35	23	17	20	4
PS 1	- 11	TSK35782	JIS	33.249	95	45	26	21	24	5
PS 1*1/4	- 11	TSK35862	JIS	41.910	105	45	32	26	30	5
PS 1*1/2	- 11	TSK35962	JIS	47.803	110	45	38	29	32	6
PS 2	- 11	TSK35D22	JIS	59.614	120	50	46	35	38	6

► Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸.

◎ : Excellent (优秀) ○ : Good (良好)

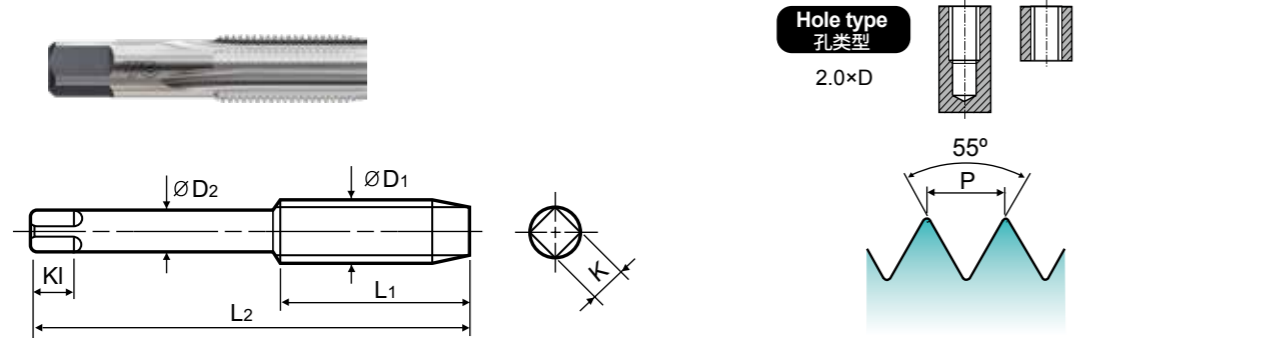
ISO	P										M					K							
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel					Stainless steel					Grey cast iron	Nodular cast iron	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20			
HRc	13	25	28	32	30	10	29	32	38	15	35	15	23	10	10	26	3	25	21				
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230			
Recommended	○	○	○			○									○	○							

ISO	N										S					H								
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)					Non Metallic Materials					Heat Resistant Super Alloys					Titanium Alloys		Hardened steel	Chilled Cast Iron
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41			
HRc											15	30	25	38	34			55	60	42	55			
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550			
Recommended	○	○	○			○	○																	

PF STRAIGHT PIPE TAPS for PF THREADS
PF螺纹用直管丝锥

► Suitable for process Straight pipe internal threads.
PF : Straight pipe threads (for mechanical joints)

► 适用于直管螺纹加工
PF : 直管螺纹 (用于压力密封接头)



Material groups: **GS** SKS21 PF JIS 55° 3.0P Bright

Recommended ToolHolder: Plain Shank TAPPING ER CHUCK D215-220, TAPPING CHUCK D221-228, ONE STEP TAPPING CHUCK D211-213

Unit(单位) : mm

SIZE	TPI	EDP No.	Limit	Basic Maj. Dia.	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	No. of Flute
尺寸	牙距	型号	精度	最大基准直径	全长	螺纹长	柄径	方块尺寸	方块长度	槽数
ØD1					L2	L1	ØD2	K	Kl	
PF 1/8 - 28		TSK36202	JIS	9.728	55	19	8	6	9	4
PF 1/4 - 19		TSK36402	JIS	13.157	62	28	11	9	12	4
PF 3/8 - 19		TSK36482	JIS	16.662	65	28	14	11	14	4
PF 1/2 - 14		TSK36562	JIS	20.955	80	35	18	14	17	4
PF 3/4 - 14		TSK36702	JIS	26.441	85	35	23	17	20	4
PF 1 - 11		TSK36782	JIS	33.249	95	45	26	21	24	5
PF 1*1/4 - 11		TSK36862	JIS	41.910	105	45	32	26	30	5
PF 1*1/2 - 11		TSK36962	JIS	47.803	110	45	38	29	32	6
PF 2 - 11		TSK36D22	JIS	59.614	120	50	46	35	38	6

► Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸.

◎ : Excellent (优秀) ○ : Good (良好)

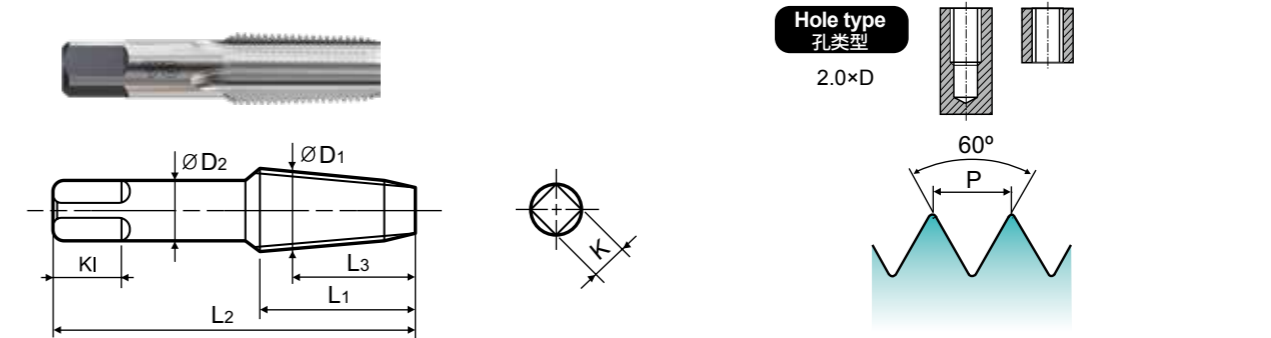
ISO	P										M					K				
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel					Stainless steel		Grey cast iron	Nodular cast iron	
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRC	13	25	28	32	30	10	29	32	38	15	35	15	23	10	10	26	3	25	21	21
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommended	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

ISO	N					S					H										
	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)	Heat Resistant Super Alloys					Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron						
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRC	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

NPT AMERICAN TAPER PIPE TAPS for NPT THREADS
美制NPT螺纹用锥管丝锥

► Suitable for process Taper pipe internal threads.
NPT : American Taper pipe threads (for mechanical joints)

► 适用于加工锥管内螺纹。
NPT : 美制锥管螺纹 (机械连接用)



Material groups: **GS** SKS21 NPT ANSI 60° 3.0P Bright

Recommended ToolHolder: Plain Shank TAPPING ER CHUCK D215-220, TAPPING CHUCK D221-228, ONE STEP TAPPING CHUCK D211-213

Unit(单位) : mm

SIZE	TPI	EDP No.	Limit	Basic Maj. Dia.	Overall Length	Thread Length	Projection Length	Shank Diameter	Square Size	Square Length	No. of Flute
尺寸	牙距	型号	精度	最大基准直径	全长	螺纹长	基准长度	柄径	方块尺寸	方块长度	槽数
ØD1					L2	L1	L3	ØD2	K	Kl	
NPT 1/8 - 27		TSK37200	ANSI	10.117	55	19	12.05	8	6	9	4
NPT 1/4 - 18		TSK37400	ANSI	13.426	62	28	17.45	11	9	12	4
NPT 3/8 - 18		TSK37480	ANSI	16.866	65	28	17.65	14	11	14	4
NPT 1/2 - 14		TSK37560	ANSI	20.980	80	35	22.85	18	14	17	4
NPT 3/4 - 14		TSK37700	ANSI	26.325	85	35	22.95	23	17	20	4
NPT 1 - 11 1/2		TSK37780	ANSI	32.934	95	45	27.40	26	21	24	5

► Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸.

◎ : Excellent (优秀) ○ : Good (良好)

ISO	P										M					K				
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel					Stainless steel		Grey cast iron	Nodular cast iron	
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRC	13	25	28	32	30	10	29	32	38	15	35	15	23	10	10	26	3	25	21	21
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommended	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

ISO	N					S					H										
	Aluminum-wrought alloy		Aluminum-cast, alloyed		Copper and Copper Alloys (Bronze / Brass)	Heat Resistant Super Alloys					Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron						
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRC	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○



NPS STRAIGHT PIPE TAPS for NPS THREADS

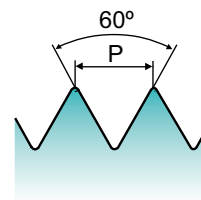
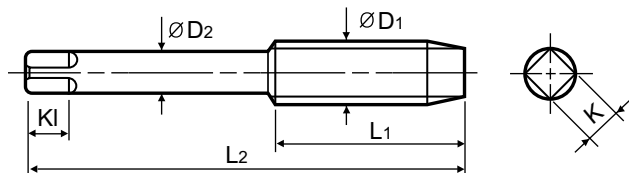
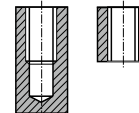
NPS螺纹用直管丝锥

► Suitable for process Straight pipe internal threads.
NPS : American Straight pipe threads (for pressure-tight joints)

► 适用于锥管螺纹加工
NPS : 锥管螺纹 (用于压力密封接头)



Hole type
孔类型
2.0×D



Material groups

GS SKS21 NPS ANSI 60° 3.0P Bright

p. B223

Recommended ToolHolder	Plain Shank	Page
	TAPPING ER CHUCK	D215-220
	TAPPING CHUCK	D221-228
	ONE STEP TAPPING CHUCK	D211-213

Unit(单位) : mm

SIZE	TPI	EDP No.	Limit	Basic Maj. Dia.	Overall Length	Thread Length	Shank Diameter	Square Size	Square Length	No. of Flute
尺寸	牙距	型号	精度	最大基准直径	全长	螺纹长	柄径	方块尺寸	方块长度	槽数
ØD1					L2	L1	ØD2	K	KI	
NPS 1/8 - 27		TSK38202	ANSI	10.117	55	19	8	6	9	4
NPS 1/4 - 18		TSK38402	ANSI	13.426	62	28	11	9	12	4
NPS 3/8 - 18		TSK38482	ANSI	16.866	65	28	14	11	14	4
NPS 1/2 - 14		TSK38562	ANSI	20.980	80	35	18	14	17	4
NPS 3/4 - 14		TSK38702	ANSI	26.325	85	35	23	17	20	4
NPS 1 - 11 1/2		TSK38782	ANSI	30.934	95	45	26	21	24	5
NPS 1*1/4 - 11 1/2		TSK38862	ANSI	41.689	105	45	32	26	30	5
NPS 1*1/2 - 11 1/2		TSK38962	ANSI	47.760	110	45	38	29	32	6
NPS 2 - 11 1/2		TSK38D22	ANSI	59.800	120	50	46	35	38	6

► Refer to p.B233-B238 for recommended tap drill sizes. 参考p.B233-B238 底孔尺寸.

◎ : Excellent (优秀) ○ : Good (良好)

ISO	P										M				K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel		Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron	
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc		13	25	28	32	10	29	32	38	15	35	15	23	10	10	26	3	25		21
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommended	○	○	○			○				○					○	○	○			

ISO	N										S							H			
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys					Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron	
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc											15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	○	○	○			○	○														



Leading Through Innovation



TAPS



TECHNICAL DATA



1 YG-1 YH LIMIT SYSTEM YG-1 YH精度体系

YG-1 applies a unique system of tap pitch diameter limits. We call it the YH limits system. Using the step method, you can select the best tap pitch diameter limits to match your work condition.

YG-1使用一套独特的丝锥中径精度 我们叫它YH精度体系 用等级方法, 你可选择最合适你工件条件的丝锥中径精度。

YH limit Most of Y.G-1's taps use this limit system. The limits calculated as follows;
YH精度, 为大多数YG-1的丝锥所采用 精度计算如下。

1. Up to 0.6P (40TPI)

upper limits : $10\mu\text{m} + 15\mu\text{m} \times n$
lower limit : (upper limits) - $15\mu\text{m}$

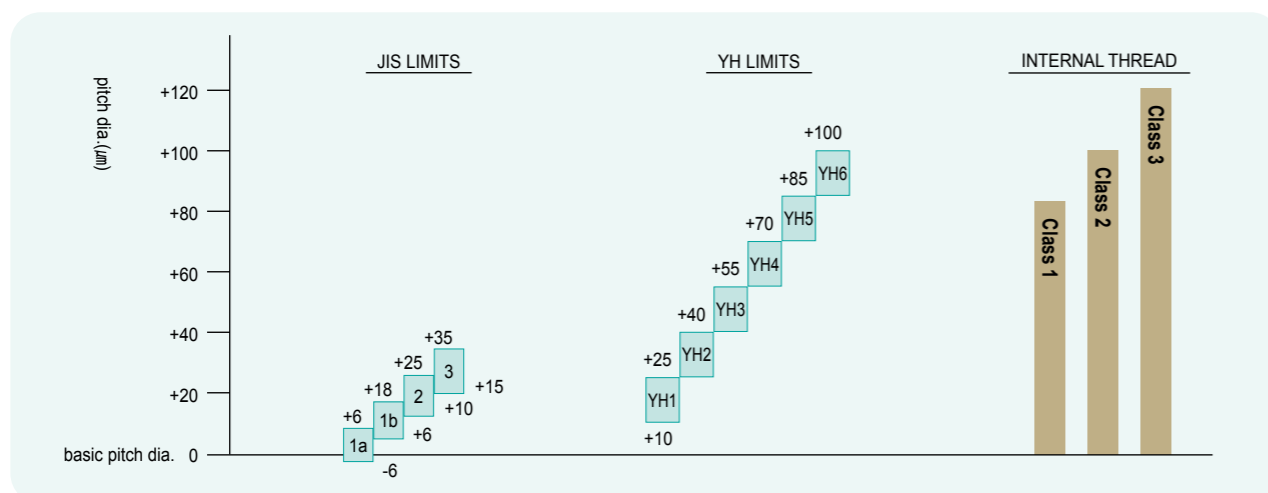
n=YH No.

2. Above 0.7P (36TPI)

upper limits : $20\mu\text{m} \times n$
lower limit : (upper limits) - $20\mu\text{m}$

n=YH No.

Example M3×0.5 / 例如M3×0.5



Example M10×1.5 / 例如M10×1.5

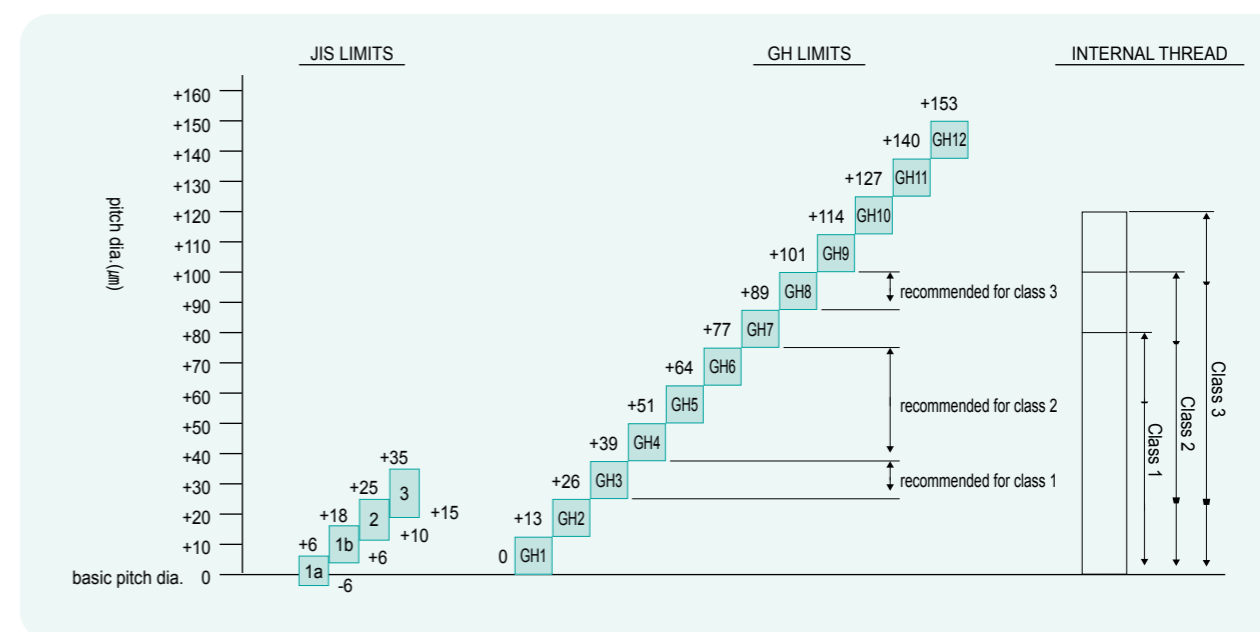


2 YG-1 GH LIMIT SYSTEM YG-1 GH精度体系

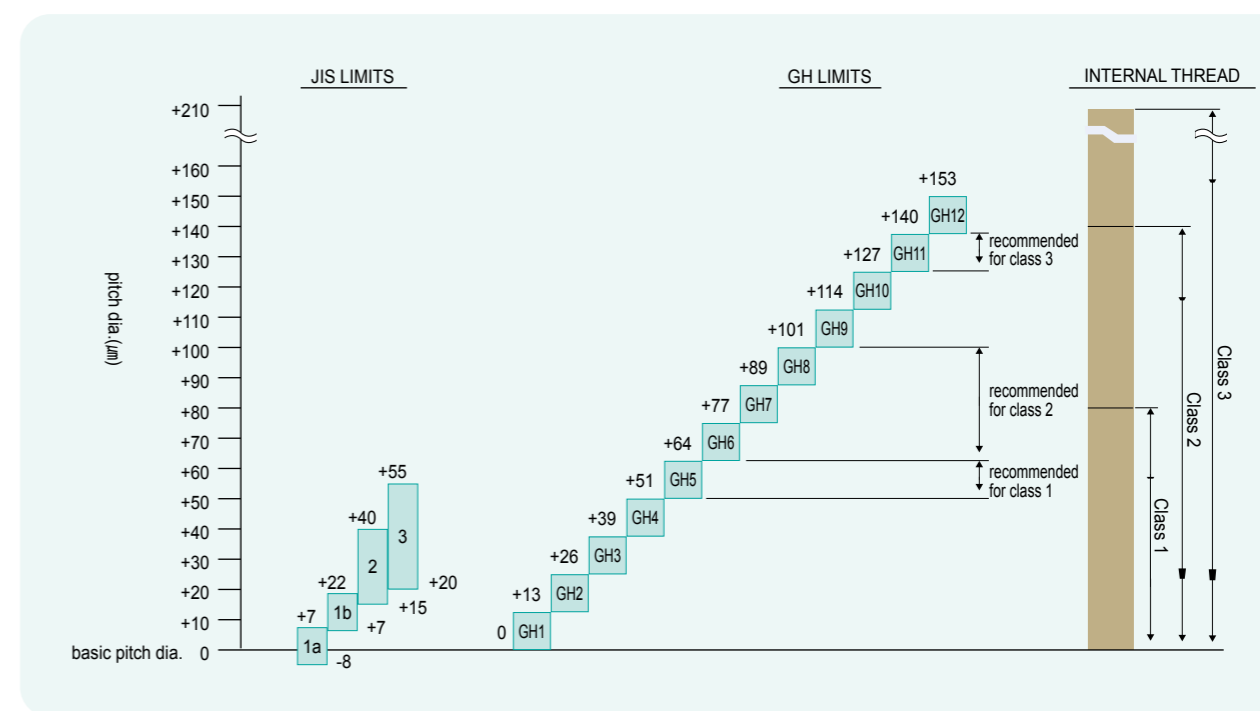
YG-1's fluteless taps are described by the GH limit system. The limits are established by increments of $12.7\mu\text{m}$.

YG-1的挤压丝锥采用GH精度体系 精度是按 $12.7\mu\text{m}$ 的增量确定的。

Example M3×0.5 / 例如M3×0.5



Example M10×1.5 / 例如M10×1.5





3 RECOMMENDED TAPPING SPEEDS 推荐的攻丝速度

RECOMMENDED TAPPING SPEED AND CUTTING FLUIDS 推荐攻丝速度

This chart shows the recommended tapping speeds and cutting fluids. Tap material, type of tap chamfer length, dimension of drill hole, work materials and cutting fluids are important factors for determining suitable tapping speed. Lubrication, cooling capability and adhesion Resistance are the three important factors effecting cutting fluid. 表中列出推荐的攻丝速度和切削液 丝锥材质, 丝锥倒角长度的形式底孔尺寸, 工件尺寸和切削液是决定合适的攻丝速度的重要因素. 润滑, 冷却能力和抗粘合性是影响切削液的3个重要因素

WORK MATERIALS		TAPPING SPEED (m/min)						CUTTING FLUIDS	
		SPIRAL FLUTED TAP	GUN POINTED TAP	STRAIGHT FLUTED TAP	FLUTELESS TAP	SOLID CARBIDE TAP	PIPE TAP		
LOW CARBON STEELS	≤C0.2%	8~13	15~25	8~13	8~13	—	3~6	Sulfochlorinated Oil (Active Type) Tapping Paste EP Additive Non-Water-Soluble Cutting Fluid (Emulsion Type)	
MEDIUM CARBON STEELS	C0.25~0.40%	7~12	10~15	7~12	7~10	—	3~6		
HIGH CARBON STEELS	≥C0.45%	6~9	8~13	6~9	5~8	—	2~5		
ALLOY STEELS	SCM	7~12	10~15	7~12	5~8	—	2~5		
HARDENED STEELS	HRC 25~40	3~5 (4~8)	4~6 (6~10)	3~5 (4~8)	—	—	2~5		
STAINLESS STEELS	SUS	5~8	8~13	4~7	5~10	—	5~10		
TOOL STEELS	SKD	6~9	7~10	6~9	—	—	2~5		
CAST STEELS	SC	6~11	10~15	6~11	—	—	2~5		
CAST IRON	FC	—	—	10~15	—	10~20	2~5		Water-Soluble Cutting Fluid (Emulsion Type) Non-Water-Soluble Cutting Fluid
HIGH TENSION CAST IRON	FCD	7~12	10~20	7~12	—	10~20	4~8		
COPPER	Cu	6~11	7~12	6~9	7~12	10~20	2~5	Non-Water-Soluble Cutting Fluid (Inactive Type) Water-Soluble Cutting Fluid (Emulsion Type)	
BRASS BRASS CASTING	Bs, BsC	10~20	15~25	10~15	7~12	15~25	5~10		
BRONZE BORNZE CASTING	PB, PBC	6~11	10~20	6~11	7~12	10~20	6~11		
ALUMINUM ROLLED STEELS	AL	10~20	15~25	10~20	10~20	—	5~10		
ALUMINUM ALLOY CASTING	AC, ADC	10~15	15~20	10~15	10~15	10~20	10~15		
MAGNESIUM ALLOY CASTING	MC	7~12	10~15	7~12	—	10~20	10~15		
ZINC ALLOY CASTING	ZDC	7~12	10~15	7~12	7~12	10~20	10~15		
THERMOSETTING PLASTIC	BAKELITE PHENOL, EPOXY	—	—	10~20	—	15~25	5~10		Water-Soluble Cutting Fluid Mist Lubrication Air Cooling, Dry
THERMOPLASTIC	VINYL CHLORIDE NYLON	10~15	10~20	10~20	—	10~20	5~10		

- These are general recommendations which depending upon conditions, may be altered.
- To select the best taps, please see Tap Recommended Table.
- ()=recommendation for HSS-PM taps.
1.这些是一般的建议, 根据实际条件, 可能有变火.
2.要选择最适合的丝锥, 请参考丝锥推荐表
3.()=是关于HSS-PM丝锥的推荐



4 RECOMMENDED TAP DRILL SIZES 推荐攻丝底孔尺寸

FOR METRIC THREADS 公制螺纹

Thread Size	Drill Size (mm)	D1 (mm)		Thread Size	Drill Size (mm)	D1 (mm)	
		Max.	Min.			Max.	Min.
M2 x 0.4	1.60	1.679	1.567	M12 x 0.5	11.50	11.520	11.400
M2 x 0.25	1.75	(1.785)	(1.729)	M14 x 2	12.00	12.210	11.835
M2.2 x 0.45	1.75	1.838	1.713	M14 x 1.5	12.50	12.676	12.376
M2.2 x 0.25	1.95	(1.985)	(1.929)	M14 x 1	13.00	13.153	12.917
M2.2 x 0.4	1.90	1.979	1.867	M15 x 1.5	13.50	13.673	13.376
M2.3 x 0.25	2.05	2.061	2.001	M15 x 1	14.00	14.153	13.917
M2.5 x 0.45	2.10	2.138	5.013	M16 x 2	14.00	14.210	13.835
M2.5 x 0.35	2.20	2.221	2.121	M16 x 1.5	14.50	14.676	14.376
M2.6 x 0.45	2.20	2.238	2.113	M16 x 1	15.00	15.153	14.917
M2.6 x 0.35	2.20	2.246	2.186	M17 x 1.5	15.50	15.676	15.376
M3 x 0.5	2.50	2.599	2.459	M17 x 1	16.00	16.153	15.917
M3 x 0.35	2.70	2.721	2.621	M18 x 2.5	15.50	15.744	15.294
M3.5 x 0.6	2.90	3.010	2.850	M18 x 2	16.00	16.210	15.835
M3.5 x 0.35	3.20	3.221	3.121	M18 x 1.5	16.50	16.676	16.376
M4 x 0.7	3.30	3.422	3.242	M18 x 1	17.00	17.153	16.917
M4 x 0.5	3.50	3.599	3.459	M20 x 2.5	17.50	17.744	17.294
M4.5 x 0.75	3.80	3.878	3.688	M20 x 2	18.00	18.210	17.835
M4.5 x 0.5	4.00	4.099	3.959	M20 x 1.5	18.50	18.676	18.376
M5 x 0.8	4.20	4.334	4.134	M20 x 1	19.00	19.153	18.917
M5 x 0.5	4.50	4.599	4.459	M22 x 2.5	19.50	19.744	19.294
M6 x 1	5.00	5.153	4.917	M22 x 2	20.00	20.210	19.835
M6 x 0.75	5.30	5.378	5.188	M22 x 1.5	20.50	20.673	20.376
M6 x 0.5	5.50	5.550	5.400	M22 x 1	21.00	21.153	20.917
M7 x 1	6.00	6.153	5.917	M24 x 3	21.00	21.252	20.752
M7 x 0.75	6.30	6.378	6.188	M24 x 2	22.00	22.210	21.835
M7 x 0.5	6.50	6.550	6.400	M24 x 1.5	22.50	22.676	22.376
M8 x 1.25	6.80	6.912	6.647	M24 x 1	23.00	23.153	22.917
M8 x 1	7.00	7.153	6.917	M25 x 2	23.00	23.210	22.835
M8 x 0.75	7.30	7.378	7.188	M25 x 1.5	23.50	23.676	23.376
M8 x 0.5	7.50	7.520	7.400	M25 x 1	24.00	24.153	23.917
M9 x 1.25	7.80	7.912	7.647	M26 x 1.5	24.50	24.676	24.376
M9 x 1	8.00	8.153	7.917	M27 x 3	24.00	24.252	23.752
M9 x 0.75	8.30	8.378	8.188	M27 x 2	25.00	25.210	24.835
M10 x 1.5	8.50	8.676	8.376	M27 x 1.5	25.50	25.676	25.376
M10 x 1.25	8.80	8.912	8.647	M27 x 1	26.00	26.153	25.917
M10 x 1	9.00	9.153	8.917	M28 x 2	26.00	26.210	25.835
M10 x 0.75	9.30	9.378	9.188	M28 x 1.5	26.50	26.676	26.376
M10 x 0.5	9.50	9.520	9.400	M28 x 1	27.00	27.153	26.917
M11 x 1.5	9.50	9.676	9.376	M30 x 3.5	26.50	26.771	26.211
M11 x 1	10.00	10.153	9.917	M30 x 3	27.00	27.252	26.752
M11 x 0.75	10.30	10.378	10.188	M30 x 2	28.00	28.210	27.835
M12 x 1.75	10.30	10.441	10.106	M30 x 1.5	28.50	28.676	28.376
M12 x 1.5	10.50	10.676	10.376	M30 x 1	29.00	29.153	28.917
M12 x 1.25	10.80	10.912	10.647	M32 x 2	30.00	30.210	29.835
M12 x 1	11.00	11.153	10.917	M32 x 1.5	30.50	30.676	30.376



FOR METRIC THREADS

公制螺纹

Thread Size	Drill Size (mm)	D1 (mm)		Thread Size	Drill Size (mm)	D1 (mm)	
		Max.	Min.			Max.	Min.
M33 × 3.5	29.50	29.771	29.211	M42 × 4	38.00	38.270	37.670
M33 × 3	30.00	30.252	29.752	M42 × 3	39.00	39.252	38.752
M33 × 2	31.00	31.210	30.835	M42 × 2	40.00	40.210	39.835
M33 × 1.5	31.50	31.676	31.376	M42 × 1.5	40.50	40.676	40.376
M35 × 1.5	33.50	33.676	33.376	M45 × 4.5	40.50	40.799	40.129
M36 × 4	32.00	32.270	31.670	M45 × 4	41.00	41.270	40.670
M36 × 3	33.00	33.252	32.752	M45 × 3	42.00	42.252	41.752
M36 × 2	34.00	34.210	33.835	M45 × 2	43.00	43.210	42.835
M36 × 1.5	34.50	34.676	34.376	M45 × 1.5	43.50	43.676	43.376
M38 × 1.5	36.50	36.676	36.376	M48 × 5	43.00	43.297	42.587
M39 × 4	35.00	35.270	34.670	M48 × 4	44.00	44.270	43.670
M39 × 3	36.00	36.252	35.752	M48 × 3	45.00	45.252	44.752
M39 × 2	37.00	37.210	36.835	M48 × 2	46.00	46.210	45.835
M39 × 1.5	37.50	37.676	37.376	M48 × 1.5	46.50	46.676	46.376
M40 × 3	37.00	37.252	36.752	M50 × 3	47.00	47.252	46.752
M40 × 2	38.00	38.210	37.835	M50 × 2	48.00	48.210	47.835
M40 × 1.5	38.50	38.676	38.376	M50 × 1.5	48.50	48.676	48.376
M42 × 4.5	37.50	37.799	37.129				

D1 : Minor diameter of JIS class internal thread. But, the minor diameter D1 shown in () are of JIS class 1 internal threads because their nominal sizes are not specified in JIS Class 2.

D1 : JIS级内螺纹小径 但 () 内的 D1是JIS 1级内螺纹因为它们的公称尺寸在JIS2级中未指定。

FOR UNIFIED THREADS

英制螺纹

Thread Size	Drill Size (mm)	D1 (mm)		Thread Size	Drill Size (mm)	D1 (mm)	
		Max.	Min.			Max.	Min.
#2 - 56 UNC	1.80	1.871	1.695	1/4 - 28 UNF	5.50	5.588	5.360
#2 - 64 UNF	1.85	1.912	1.756	1/4 - 32 UNEF	5.60	5.690	5.486
#3 - 48 UNC	2.10	2.146	1.941	5/16 - 18 UNC	6.60	6.731	6.401
#3 - 56 UNF	2.10	2.197	2.025	5/16 - 24 UNF	6.90	7.035	6.782
#4 - 40 UNC	2.30	2.385	2.157	5/16 - 32 UNEF	7.10	7.264	7.087
#4 - 48 UNF	2.40	2.458	2.271	3/8 - 16 UNC	8.00	8.153	7.798
#5 - 40 UNC	2.60	2.697	2.487	3/8 - 24 UNF	8.50	8.636	8.382
#5 - 44 UNF	2.70	2.740	2.551	3/8 - 32 UNEF	8.70	8.865	8.661
#6 - 32 UNC	2.80	2.895	2.642	7/16 - 14 UNC	9.40	9.550	9.144
#6 - 40 UNF	2.90	3.022	2.820	7/16 - 20 UNF	9.90	10.033	9.729
#8 - 32 UNC	3.40	3.530	3.302	7/16 - 28 UNEF	10.20	10.338	10.135
#8 - 36 UNF	3.50	3.606	3.404	1/2 - 13 UNC	10.80	11.023	10.592
#10 - 24 UNC	3.90	3.962	3.683	1/2 - 20 UNF	11.50	11.607	11.329
#10 - 32 UNF	4.10	4.165	3.963	1/2 - 28 UNEF	11.80	11.938	11.709
#12 - 24 UNC	4.50	4.597	4.344	9/16 - 12 UNC	12.20	12.446	11.989
#12 - 28 UNF	4.60	4.724	4.496	9/16 - 18 UNF	12.90	13.081	12.751
#12 - 32 UNF	4.70	4.826	4.623	9/16 - 24 UNEF	13.20	13.386	13.132
1/4 - 20 UNC	5.10	5.257	4.979	5/8 - 11 UNC	13.60	13.868	13.386

FOR UNIFIED THREADS

英制螺纹

Thread Size	Drill Size (mm)	D1 (mm)		Thread Size	Drill Size (mm)	D1 (mm)	
		Max.	Min.			Max.	Min.
5/8 - 18 UNF	14.50	14.681	14.351	1 * 1/4 - 8 UN	28.50	28.956	28.321
5/8 - 24 UNEF	14.80	14.986	14.732	1 * 3/8 - 6 UNC	30.80	31.115	30.353
3/4 - 10 UNC	16.50	16.840	16.307	1 * 3/8 - 12 UNF	32.80	33.096	32.639
3/4 - 16 UNF	17.50	17.678	17.323	1 * 3/8 - 18 UNEF	33.50	33.731	33.401
3/4 - 20 UNEF	17.80	17.958	17.678	1 * 3/8 - 8 UN	31.80	32.131	31.496
7/8 - 9 UNC	19.50	19.761	19.177	1 * 1/2 - 6 UNC	34.00	34.290	33.528
7/8 - 14 UNF	20.50	20.675	20.270	1 * 1/2 - 12 UNF	36.00	36.271	35.814
7/8 - 20 UNEF	21.00	21.133	20.853	1 * 1/2 - 18 UNEF	36.50	36.881	36.576
1 - 8 UNC	22.20	22.606	21.971	1 * 1/2 - 8 UN	35.00	35.306	34.671
1 - 12 UNF	23.20	23.571	23.114	1 * 5/8 - 18 UNEF	39.80	40.081	39.751
1 - 20 UNEF	24.00	24.308	24.028	1 * 5/8 - 8 UN	38.20	38.481	37.846
1 * 1/8 - 7 UNC	25.00	25.349	24.638	1 * 5/8 - 12 UN	39.20	39.446	38.989
1 * 1/8 - 12 UNF	26.50	26.746	26.289	1 * 3/4 - 5 UNC	39.50	39.827	38.964
1 * 1/8 - 18 UNEF	27.20	27.381	27.051	1 * 3/4 - 8 UN	41.20	41.656	41.021
1 * 1/8 - 8 UN	25.50	25.781	25.146	1 * 3/4 - 12 UN	42.20	42.621	42.164
1 * 1/4 - 7 UNC	28.20	28.524	27.813	2 - 4 * 1/2 UNC	45.20	45.593	44.679
1 * 1/4 - 12 UNF	29.50	29.921	29.464	2 - 8 UN	47.80	48.006	47.371
1 * 1/4 - 18 UNEF	30.20	30.556	30.226	2 - 12 UN	48.50	48.971	48.514

D1 : Minor diameter of internal thread.

For UNC and UNF threads, according to JIS Class 2B ;

For UNEF and UN threads, according to ANSI B1.1 Class 2B

D1 : 内螺纹小径.

对 UNC 和 UNF 螺纹, 按照 JIS 2B 级

对 UNEF 和 UN 螺纹, 按照 ANSI B1, 1a, 2B 级.

FOR WHITWORTH THREADS

惠氏螺纹

Thread Size	Drill Size (mm)		Thread Size	Drill Size (mm)	
	A	B		A	B
W1/8 - 40	2.65	2.60	W7/8 - 9	19.50	19.30
W5/32 - 32	3.25	3.20	W1 - 8	22.40	22.00
W3/16 - 24	3.75	3.70	W1 * 1/8 - 7	25.00	24.80
W1/4 - 20	5.10	5.00	W1 * 1/4 - 7	28.30	28.00
W5/16 - 18	6.60	6.50	W1 * 3/8 - 6	30.50	30.30
W3/8 - 16	8.00	7.90	W1 * 1/2 - 6	33.80	33.50
W7/16 - 14	9.40	9.30	W1 * 5/8 - 5	36.00	35.70
W1/2 - 12	10.70	10.50	W1 * 3/4 - 5	39.20	39.00
W9/16 - 12	12.30	12.00	W1 * 7/8 - 4 * 1/2	41.80	41.50
W5/8 - 11	13.70	13.50	W2 - 4 * 1/2	45.00	44.70
W3/4 - 10	16.70	16.50			

Generally the tap drill sizes in column A are used for producing holes ; When holes tend to be cut oversized the tap drill sizes in column B should be Selected.

通常A栏的螺纹底孔的钻头尺寸是用于加工孔的 ; 当孔的尺寸趋向变大时应选择B栏的螺纹底孔的钻头尺寸.



PT TAPER PIPE THREADS

PT锥形管螺纹

Thread Size	Drill Size (mm)		Internal Thread Minor Dia. on [Min] Length of Useful Thread (mm)	Internal Thread Minor Dia. on [Min] Gauge Length (mm)
	With Reaming Before Tapping	Without Reaming Before Tapping		
PT 1/16 - 28	6.10	6.10	6.244	6.384
PT 1/8 - 28	8.10	8.10	8.249	8.388
PT 1/4 - 19	10.70	10.70	10.962	11.174
PT 3/8 - 19	14.20	14.20	14.448	14.658
PT 1/2 - 14	17.60	17.60	17.979	18.263
PT 3/4 - 14	23.00	23.00	23.378	23.663
PT 1 - 11	29.00	29.00	29.459	29.822
PT 1 * 1/4 - 11	37.50	37.50	37.976	38.339
PT 1 * 1/2 - 11	43.40	43.40	43.869	44.232
PT 2 - 11	54.90	54.90	55.412	55.844

PS STRAIGHT PIPE THREADS

PS直形管螺纹

Thread Size	Drill Size (mm)	D1 (mm)		Thread Size	Drill Size (mm)	D1 (mm)	
		Max.	Min.			Max.	Min.
PS 1/16 - 28	6.50	6.632	6.490	PS 3/4 - 14	24.00	24.259	23.975
PS 1/8 - 28	8.50	8.637	8.495	PS 1 - 11	30.20	30.471	30.111
PS 1/4 - 19	11.40	11.549	11.341	PS 1 * 1/4 - 11	38.80	39.132	38.772
PS 3/8 - 19	15.00	15.054	14.846	PS 1 * 1/2 - 11	44.80	45.025	44.665
PS 1/2 - 14	18.50	18.773	18.489	PS 2 - 11	56.50	56.836	56.476

PF STRAIGHT PIPE THREADS

PF直形管螺纹

Thread Size	Drill Size (mm)	D1 (mm)		Thread Size	Drill Size (mm)	D1 (mm)	
		Max.	Min.			Max.	Min.
PS 1/16 - 28	6.70	6.843	6.561	PF 3/4 - 14	24.50	24.658	24.117
PS 1/8 - 28	8.70	8.848	8.566	PF 1 - 11	30.50	30.931	30.291
PS 1/4 - 19	11.70	11.890	11.445	PF 1 * 1/4 - 11	39.20	39.592	38.952
PS 3/8 - 19	15.20	15.395	14.950	PF 1 * 1/2 - 11	45.00	45.485	44.845
PS 1/2 - 14	19.00	19.172	18.631	PF 2 - 11	57.00	57.296	56.656

NPT TAPER PIPE THREADS

NPT锥形管螺纹

Thread Size	Drill Size (mm)			
	With Reaming Before Tapping		Without Reaming Before Tapping	
	mm	inch	mm	inch
NPT 1/16 - 27	5.94	0.234	6.15	0.242
NPT 1/8 - 27	8.33	0.328	8.43	0.332
NPT 1/4 - 18	10.72	0.422	11.13	0.438
NPT 3/8 - 18	14.27	0.562	14.27	0.562
NPT 1/2 - 14	17.48	0.688	17.86	0.703
NPT 3/4 - 14	22.63	0.891	23.01	0.906
NPT 1 - 11 * 1/2	28.58	1.125	28.98	1.141
NPT 1 * 1/4 - 11 * 1/2	37.31	1.469	37.69	1.484
NPT 1 * 1/2 - 11 * 1/2	43.26	1.703	43.66	1.719
NPT 2 - 11 * 1/2	55.17	2.172	55.58	2.188
NPT 2/1/2 - 8	65.48	2.578	66.27	2.609

NPTF TAPER PIPE THREADS

NPTF锥形管螺纹

Thread Size	Drill Size (mm)			
	With Reaming Before Tapping		Without Reaming Before Tapping	
	mm	inch	mm	inch
NPTF 1/16 - 27	5.94	0.234	6.15	0.242
NPTF 1/8 - 27	8.33	0.328	8.43	0.332
NPTF 1/4 - 18	10.72	0.422	11.13	0.438
NPTF 3/8 - 18	14.27	0.562	14.27	0.562
NPTF 1/2 - 14	17.48	0.688	17.86	0.703
NPTF 3/4 - 14	22.63	0.891	23.01	0.906
NPTF 1 - 11 * 1/2	28.58	1.125	28.98	1.141
NPTF 1 * 1/4 - 11 * 1/2	37.31	1.469	37.69	1.484
NPTF 1 * 1/2 - 11 * 1/2	43.26	1.703	43.66	1.719
NPTF 2 - 11 * 1/2	55.17	2.172	55.58	2.188
NPTF 2/1/2 - 8	65.48	2.578	66.27	2.609



FOR FLUTELESS TAPS

挤压丝锥

Thread Size	Drill Size (mm)								
	Tap Limits								
	GH4	GH5	GH6	GH7	GH8	GH9	GH10	GH11	
M2 × 0.4	1.83	1.84	---	---	---	---	---	---	---
M2.2 × 0.45	2.00	2.01	---	---	---	---	---	---	---
M2.3 × 0.4	2.13	2.14	---	---	---	---	---	---	---
M2.5 × 0.45	2.30	2.31	---	---	---	---	---	---	---
M2.6 × 0.45	2.40	2.41	---	---	---	---	---	---	---
M3 × 0.5	2.77	2.78	2.79	2.81	---	---	---	---	---
M3 × 0.35	2.85	2.87	2.88	2.89	---	---	---	---	---
M3.5 × 0.6	---	3.23	3.24	3.25	---	---	---	---	---
M4 × 0.7	---	3.67	3.68	3.70	---	---	---	---	---
M4 × 0.5	---	3.78	3.79	3.81	---	---	---	---	---
M5 × 0.8	---	4.61	4.63	4.64	---	---	---	---	---
M5 × 0.5	---	4.78	4.79	4.81	---	---	---	---	---
M6 × 1	---	5.50	5.51	5.53	---	---	---	---	---
M6 × 0.75	---	5.64	5.65	5.67	---	---	---	---	---
M6 × 0.5	---	5.78	5.79	5.81	---	---	---	---	---
M7 × 1	---	6.50	6.51	6.53	---	---	---	---	---
M8 × 1.25	---	---	7.37	7.39	7.40	---	---	---	---
M8 × 1	---	---	7.51	7.53	7.54	---	---	---	---
M10 × 1.5	---	---	9.23	9.24	9.26	9.27	---	---	---
M10 × 1.25	---	---	9.37	9.39	9.40	9.41	---	---	---
M10 × 1	---	---	9.51	9.53	9.54	9.55	---	---	---
M12 × 1.75	---	---	---	11.10	11.12	11.13	11.14	---	---
M12 × 1.5	---	---	---	11.24	11.26	11.27	11.28	---	---
M12 × 1.25	---	---	---	11.39	11.40	11.41	11.42	---	---
M12 × 1	---	---	---	11.53	11.54	11.55	11.56	---	---
M14 × 2	---	---	---	---	12.98	12.99	13.00	13.01	---
M14 × 1.5	---	---	---	---	13.26	13.27	13.28	13.30	---
M14 × 1	---	---	---	---	13.54	13.55	13.56	13.58	---
M16 × 2	---	---	---	---	14.98	14.99	15.00	15.01	---
M16 × 1.5	---	---	---	---	14.26	15.27	15.28	15.30	---
M16 × 1	---	---	---	---	15.54	15.55	15.56	15.58	---
M18 × 2.5	---	---	---	---	---	16.71	16.72	16.73	---
M18 × 1.5	---	---	---	---	---	17.27	17.28	17.30	---
M20 × 2.5	---	---	---	---	---	---	18.72	18.73	---
M20 × 1.5	---	---	---	---	---	---	19.28	19.30	---

FOR FLUTELESS TAPS

挤压丝锥

Thread Size	Drill Size (mm)								
	Tap Limits								
	GH4	GH5	GH6	GH7	GH8	GH9	GH10	GH11	
#2 - 56 UNC	---	1.99	2.01	---	---	---	---	---	---
#4 - 40 UNC	---	2.55	2.56	2.58	---	---	---	---	---
#5 - 40 UNC	---	2.88	2.89	2.91	---	---	---	---	---
#6 - 32 UNC	---	3.12	3.13	3.15	3.16	---	---	---	---
#8 - 32 UNC	---	---	3.80	3.81	3.82	---	---	---	---
#10 - 24 UNC	---	---	---	4.32	4.33	4.34	---	---	---
#12 - 24 UNC	---	---	---	4.98	4.99	5.01	---	---	---
1/4 - 20 UNC	---	---	---	5.72	5.74	5.75	---	---	---



SYMBOL USED FOR STANDARD THREADS (PARTIAL LISTING)

标准螺纹规格(部分)

Thread Symbol	Thread	Reference Standard	Thread Angle
M	Metric screw threads Coarse series	JIS B 0205	60°
	Fine series	JIS B 0207	
S	Metric screw threads	JIS B 0201	60°
UNC	Unified threads Coarse series	JIS B 0206	
UNF	Unified threads Fine series	ANSI B1.1	60°
UNEF	Unified threads Extra-fine series	JIS B 0208	
UNS	Unified threads Special diameter, pitch, & length of engagement	ANSI B1.1	60°
UN	Unified threads Constant-pitch series		
UNJC	Unified threads (MIL Standard) Coarse series	MIL-S-8879	60°
UNJF	Unified threads (MIL Standard) Fine series		
UNJEF	Unified threads (MIL Standard) Extra-fine series		
UNJ	Unified threads (MIL Standard) Constant-pitch series		
Tr	Metric trapezoidal screw threads	JIS B 0216	30°
TM	30° Trapezoidal screw threads	JIS B 0216 Appendix	29°
TW	29° Trapezoidal screw threads	JIS B 0222	
R	Pipe threads where pressure-tight joints are made on the threads	JIS B 0203	55° 1/16 Taper
Rc	Taper external pipe threads		
Rp	Taper internal pipe threads Parallel internal pipe threads		
G	Pipe threads where pressure-tight joints are not made on the threads	JIS B 0202	55°
PF	Parallel pipe threads (For mechanical joints)	JIS B 0202 Appendix	55° 1/16 Taper
PT	Taper pipe threads	JIS B 0203 Appendix	
PS	Parallel pipe threads (For pressure-tight joints)		
NPT	American Standard taper pipe threads for general use	ANSI/ASEM B1.20.1	60° 1/16 Taper
NPSC	American Standard straight pipe threads in pipe couplings		60°
NPSM	American Standard straight pipe threads for free-fitting mechanical joints for fixtures		60° 1/16 Taper
NPTF	Dryseal American Standard taper pipe threads	ANSI B1.20.3	60°
NPSF	Dryseal American Standard fuel internal straight pipe threads		60°
CTG	Screw threads for rigid metal thick-walled conduits and fittings	JIS B 0204	55°
CTC	Screw threads for rigid metal thin-walled conduits and fittings		80°
BC	Cycle threads	JIS B 0225	60°
SM	Screw threads for sewing machine	JIS B 0226	
CTV	Tyre valve threads of cycle	JIS D 9422	60°
TV	Tyre valve threads of automobile	JIS D 4208	
E	Electric socket and lamp-base threads	JIS C 7709	---
BA	British association threads	BS 93	47° 30'
BSC	British Standard cycle threads	BS 811	60°
BSW	British Standard Whitworth threads	BS 84	55°
BSF	British Standard fine threads		
BSMO	British Standard microscope objective threads	BS 3569	80°
FG	(Germany) Cycle threads	DIN 79012	
Pg	(Germany) Steel conduit threads	DIN 40430	80°



HARDNESS CONVERSION TABLE

硬度换算表

Rockwell ★ C. Scale Hardness	Vickers Hardness	Brinell Hardness	Rockwell A. Scale Hardness	Shore Hardness	Tensile Strength ★★ MPa (Kg/mm ²)
58	653	---	80.1	78	---
57	633	---	79.6	76	---
56	613	---	79.0	75	---
55	595	---	78.5	74	2075 (212)
54	577	---	78.0	72	2015 (205)
53	560	---	77.4	71	1950 (199)
52	544	(500)	76.8	69	1880 (192)
51	528	(487)	76.3	68	1820 (186)
50	513	(475)	75.9	67	1760 (179)
49	498	(464)	75.2	66	1695 (173)
48	484	451	74.7	64	1635 (167)
47	471	442	74.1	63	1580 (161)
46	458	432	73.6	62	1530 (156)
45	446	421	73.1	60	1480 (151)
44	434	409	72.5	58	1435 (146)
43	423	400	72.0	57	1385 (141)
42	412	390	71.5	56	1340 (136)
41	402	381	70.9	55	1295 (132)
40	392	371	70.4	54	1250 (127)
39	382	362	69.9	52	1215 (124)
38	372	353	69.4	51	1180 (120)
37	363	344	68.9	50	1160 (118)
36	354	336	68.4	49	1115 (114)
35	345	327	67.9	48	1080 (110)
34	336	319	67.4	47	1055 (108)
33	327	311	66.8	46	1025 (105)
32	318	301	66.3	44	1000 (102)
31	310	294	65.8	43	980 (100)
30	302	286	65.3	42	950 (97)
29	294	279	64.7	41	930 (95)
28	286	271	64.3	41	910 (93)
27	279	264	63.8	40	880 (90)
26	272	258	63.3	38	860 (88)
25	266	253	62.8	38	840 (86)
24	260	247	62.4	37	825 (84)
23	254	243	62.0	36	805 (82)
22	248	237	61.5	35	785 (80)
21	243	231	61.0	35	770 (79)
20	238	226	60.5	34	760 (77)
(18)	230	219	---	33	730 (75)
(16)	222	212	---	32	705 (72)
(14)	213	203	---	31	675 (69)
(12)	204	194	---	29	650 (66)
(10)	196	187	---	28	620 (63)
(8)	188	179	---	27	600 (61)
(6)	180	171	---	26	580 (59)
(4)	173	165	---	25	550 (56)
(2)	166	158	---	24	530 (54)
(0)	160	152	---	24	515 (53)

● Hardness conversions should only be used as a rough guide due to variation for different materials.
Figures shown in bold type are based on ASTM E 140 (which being adjusted commonly by SAE-ASM-ASTM).

★ Figure shown in () are provided for reference only.

★★ The unit of tensile strength and figures in () are converted from psi values by using conversion tables in JIS Z 8413 & Z 8438. This table is according to SAE J 417 (partial listing).

● 硬度转换只作为粗略的参考, 因为不同材料会有变化。

黑体字的数字是以ASTM E 140为基准(通常由SAE-ASM-ASTM进行调整)

★ ()中的数字只供参考

★★ 抗拉强度的单位和()中的数字是用JIS Z 8413 & Z 8438中的转换表由psi值转换的。
此表是根据SAE J 417作成(部分)



APPLICATION AND USE OF THREADING TAPS

攻丝过程中的问题及对策

Problem / 问题	Causes / 问题发生	Solutions / 对策
Tapped hole oversize 攻孔过大	Incorrect tap in use (cutting geometry unsuitable for application) 不正确的丝锥使用(切削参数不适合运用)	Use tap selected from the relevant material group 根据相应的材料组选择丝锥
	Faulty alignment 同轴性不好	Ensure that the tap is correctly aligned with the core hole axis 确保丝锥和锥孔准确的在一条线上
	Cold welding 冷焊	Improve lubrication and direction of coolant Adjust cutting speed 改变冷却油方向, 调整切削速度
	Re-ground tap(lead-in is not concentric) 重置丝锥(引入线不是同心的)	Regrind tap lead correctly on a suitable tap grinding machine 用合适的研磨机械再研磨丝锥的引入部分
Stripped threads 带状螺纹	Incorrect tap in use (cutting geometry incorrect for application) 错误使用丝锥(切削参数不适合运用)	Use a tap from the relevant material group. 根据相应的材料组选择丝锥
	Spindle speed and feed rate not synchronized 主轴速度和进给率不同步	Check feed rate programming and / or pitch of leading spindle Use a tapping spindle with axial float 检查进给率程序和主轴螺距 使用带有轴向滑动的攻丝主轴
	Insufficient start pressure exerted on tap with peel-cut 不足的启动压力, 促使外面的螺纹脱落	Increase start pressure 增大启动压力
Bell mouthed tapped hole 攻丝的孔成钟型	Incorrect start pressure applied to tap 启动压力不合适	Use a tapping spindle with axial float 使用带有轴向滑动的攻丝主轴
Unsatisfactory thread surface finish 不理想的螺纹表面	Incorrect tap in use (Cutting geometry unsuitable for application) 错误使用丝锥 (切削参数不适合运用)	Select tap from the relevant material group 根据相应的材料组选择丝锥
	The tap is blunt 丝锥生硬	Replace or re-grind tap 替换和重新研磨丝锥
	Tap badly re-ground 再研磨效果差	Re-grind tap again. Check that cutting geometry is suitable for material 再研磨一遍 检查切削参数是否适合被加工材料
	Coolant lacking in lubricating qualities and / or quantity 冷却油太少影响润滑质量和产量	Ensure the use of asuitable coolant and an ample supply 确保冷却油使用正确且供应充足

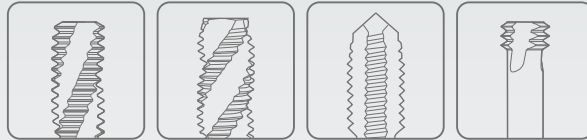


Problem / 问题	Causes / 问题发生	Solutions / 对策
Partial chipping of tap 丝锥的铁屑部分	Swarf jamming 金属屑阻塞	Check cutting speed Use alternative tap type 检查切削速度 使用有选择性的丝锥类型
	Tap has jammed against bottom of core hole 丝锥碰到孔底部而阻塞	Check hole and thread depths Drill core hole deeper 检查孔和螺纹的深度 钻孔要深一些
	Tap incorrectly re-ground (lead-in diameter too small therefore too few cutting teeth) 丝锥错误的再研磨 (导入的直径太小以至于切齿太少)	Ensure that original values are maintained when regrinding 在再研磨时, 确保它的原始值
	Irregular workpiece material structure 无规律的工件原材料结构	Adjust cutting speed Improve lubricating quality of coolant 调整切削速度 提高冷却油的润滑质量
Excessive tap wear 过度的丝锥破损	Incorrect cutting speed 不当的切削速度	Adjust cutting speed to suit workpiece material 调整切削速度以合适被加工材料
	Coolant lacking in lubricating qualities and / or quantity 冷却油太少影响润滑质量和产量	Ensure the use of a suitable coolant and an ample supply 确保冷却油使用正确且供应充足 Check that coolant is reaching the cutting zone 检查冷却油是否到达加工区域
	Surface of the core hole is compacted 攻孔太小, 孔的外表面压缩	Check core hole drilling conditions (drill carefully to reduce risk of surface compacting) 检查钻孔情况(仔细钻孔以减少缩孔的风险) Check drill cutting edges 检查钻边
Tap breakage 丝锥破损	Incorrect tap in use(cutting geometry unsuitable for application) 错误使用丝锥(切削参数不适合运用)	Use tap from the relevant material group 根据相应的材料组选择丝锥
	Centering error 中心误差	Ensure that axes of tap and core hole are aligned 确保丝锥和被加工孔成一条直线
	Blunt tap 丝锥生硬	Re-grind tap 再研磨丝锥 Ensure that taps are stored carefully 确保丝锥的存放安全性
	Tap has reached bottom of core hole 丝锥碰到孔的底部	Use tapping spindle with axial float and slipping clutch 用具有轴向滑动制动的攻丝主轴
	Core hole too small 攻孔太小	Select core hole as per chart, pages 533~538 of this catalogue 为每一步选择攻孔 手册在533-538页

EDP No.	Page	EDP No.	Page	EDP No.	Page
L1211	B20	T1203~6	B118-121	T3022	B116
L1212	B21	T1230~60	B122-123	T3042	B117
L1213	B22	T1232	B84	T3112	B95
L1214	B23	T1251	B79	T3121	B93
L12D1	B32	T1262	B115	T3132	B94
L12D3	B33	T1272	B106	T3491	B124
L19E1	B34	T1282	B108	T3492	B124
L19E3	B35	T1303~6	B125-128	T3701	B189
L41A1 / L42A1	B36	T1323~6	B125-128	T3731	B189
L4211	B24	T1330~60	B129-130	T3741	B190
L4212	B25	T1331~61	B129-130	T3751	B190
L4271	B27	T1401	B153	T4432	B161
L4272	B28	T1402	B153	T4442	B161
L4273	B29	T1761	B185	T4461	B159
L4274	B30	T1771	B185	T4471	B159
L4276	B31	T1781	B184	T7099	B66
L6215	B26	T1791	B184	T7199	B70
T0102	B166	T2021	B173	T7299	B72
T0154	B167	T2041	B175	T7322	B198
T0164	B167	T2111	B172	T7399	B197
T0202	B166	T2120	B168	T7532	B205
T0441	B157	T2131	B170	T7552	B206
T0451	B157	T2197	B195	T7562	B207
T0452	B158	T2198	B196	TKS02	B43
T0462	B158	T2518	B202	TL231	B180
T1022	B102	T2527	B208	TM481	B139
T1023	B149	T2532	B205	TM482	B139
T1042	B109	T2537	B209	TSK11	B213
T1043	B151	T2538	B203	TSK12	B216
T1103~6	B96-99	T2539	B204	TSK13	B218
T1112	B87	T2552	B206	TSK21	B219
T1113	B148	T2562	B207	TSK23	B220
T1121	B73	T2701	B186	TSK34	B224
T1130~60	B100-101	T2702	B191	TSK35	B225
T1131	B134	T2731	B186	TSK36	B226
T1132	B80	T2732	B191	TSK37	B227
T1133	B146	T2741	B188	TSK38	B228
T1142	B113	T2749	B187	TT437	B41
T1151	B133	T2751	B188	TTS01	B42
T1152	B77	T2759	B187	TTS03	B44
T1162	B86	T2809	B47	TW201	B135
T1172	B90	T2829	B54	TZ181	B179
T1182	B92	T2839	B52		
T1191	B144	T2849	B58		



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THREADING