



Leading Through Innovation

HSS-E

COMBO TAPS

- For Multi Purpose Tapping
- 多用途丝锥

SELECTION GUIDE
选用指南



HSS-E COMBO TAPS

For Multi Purpose Tapping
多用途丝锥

| | | |
|--------------------------------------|-----------------------------|-------------------------------|
| 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-E | |
| CHAMFER LEAD ACC. TO DIN2197 倒角长度 | 2.5P | 5.0P |
| FLUTE TYPE 槽型 | Spiral Flute 螺旋角 | Spiral Point 螺旋尖 |
| SPIRAL FLUTE ANGLE 螺旋角 | R40 | - |
| JIS Type | I | I |
| M/MF | T2809 (p. B47) | T2829 (p. B54) |
| UNC/F | T2839 (p. B52) | T2849 (p. B58) |
| W | | |
| M-LH W-LH | | |
| PIPE TAPS | | |
| SURFACE TREATMENT 表面处理 | Bright | Bright |



| 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 | 盲孔 | 通孔 |
|--------|-----------------|------------------------------|--|----------|--------|------|-------|
| P | 1 | Non-alloy steel | About 0.15% C Annealed | 125 | | ◎ | 5~8 |
| | 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 | ◎ | 7~12 |
| | 5 | | About 0.75% C Quenched & Tempered | 300 | 32 | ◎ | 7~12 |
| | 6 | Low alloy steel | Annealed | 180 | 10 | ◎ | 7~12 |
| | 7 | | Quenched & Tempered | 275 | 29 | ◎ | 7~12 |
| | 8 | | Quenched & Tempered | 300 | 32 | ◎ | 5~8 |
| | 9 | | Quenched & Tempered | 350 | 38 | ◎ | 8~10 |
| | 10 | | High alloyed steel, and tool steel | Annealed | 200 | 15 | ◎ |
| | 11 | Quenched & Tempered | 325 | 35 | ◎ | 7~10 | |
| M | 12 | Stainless steel | Ferritic / Martensitic Annealed | 200 | 15 | ◎ | 5~8 |
| | 13 | | Martensitic Quenched & Tempered | 240 | 23 | ◎ | 5~8 |
| | 14 | | Austenitic | 180 | 10 | ◎ | 5~8 |
| K | 15 | Grey cast iron | Pearlitic / ferritic | 180 | 10 | ◎ | 7~12 |
| | 16 | | Pearlitic (Martensitic) | 260 | 26 | ◎ | 7~12 |
| | 17 | Nodular cast iron | Ferritic | 160 | 3 | ◎ | 7~12 |
| | 18 | | Pearlitic | 250 | 25 | ◎ | 7~12 |
| | 19 | Malleable cast iron | Ferritic | 130 | | ◎ | 10~15 |
| | 20 | | Pearlitic | 230 | 21 | ◎ | 10~15 |
| 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 | | ◎ | 10~15 |
| | 26 | | Copper and Cutting Alloys, PB>1% | 110 | | ◎ | 6~11 |
| | 27 | | Copper Alloys (Bronze / Brass) | 90 | | ◎ | 6~20 |
| | 28 | | CuSn, lead-free copper and electrolytic copper | 100 | | ◎ | 10~25 |
| | 29 | | Non Metallic Duroplastic, Fiber Reinforced Plastic | | | | |
| | 30 | | Materials 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 | | |

Please visit globaly1.com/mat for material search

◎ : Excellent (优秀) ○ : Good (良好)

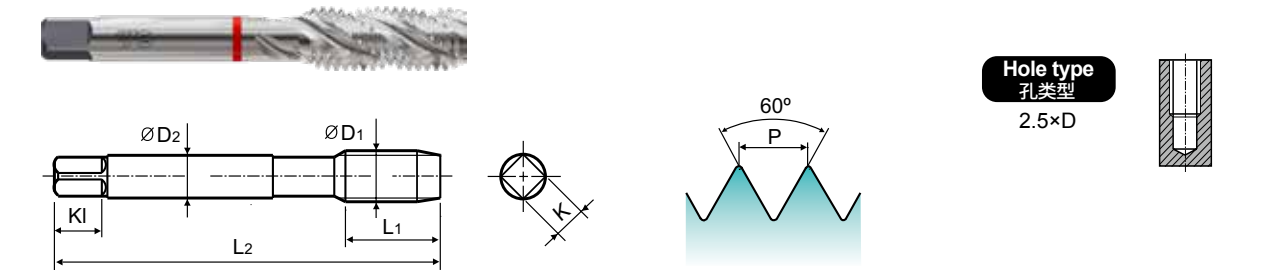
YG COMBO TAPS

Bright T2809 SERIES

M 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



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

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

Tap Limits: p.B230

| 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 | Bright | | L2 | L1 | ØD2 | K | KI | |
| M1 x 0.25 | | T2809011 | YH1 | 30.0 | 5.5 | 3.0 | 2.5 | 5.0 | 2 |
| M1.1 x 0.25 | | T2809031 | YH1 | 32.0 | 5.5 | 3.0 | 2.5 | 5.0 | 2 |
| M1.2 x 0.25 | | T2809051 | YH1 | 32.0 | 5.5 | 3.0 | 2.5 | 5.0 | 2 |
| M1.4 x 0.3 | | T2809071 | YH1 | 34.0 | 8.0 | 3.0 | 2.5 | 5.0 | 2 |
| M1.6 x 0.35 | | T2809091 | YH1 | 36.0 | 8.0 | 3.0 | 2.5 | 5.0 | 2 |
| M1.7 x 0.35 | | T2809K51 | YH1 | 36.0 | 8.0 | 3.0 | 2.5 | 5.0 | 2 |
| M1.8 x 0.35 | | T2809111 | YH1 | 36.0 | 8.0 | 3.0 | 2.5 | 5.0 | 2 |
| M2 x 0.4 | | T2809131 | YH1 | 40.0 | 9.5 | 3.0 | 2.5 | 5.0 | 2 |
| M2.2 x 0.45 | | T2809151 | YH1 | 42.0 | 9.5 | 3.0 | 2.5 | 5.0 | 2 |
| M2.3 x 0.4 | | T2809191 | YH1 | 42.0 | 9.5 | 3.0 | 2.5 | 5.0 | 2 |
| M2.5 x 0.45 | | T2809171 | YH1 | 44.0 | 9.5 | 3.0 | 2.5 | 5.0 | 2 |
| M2.5 x 0.35 | | T2809181 | YH1 | 44.0 | 9.5 | 3.0 | 2.5 | 5.0 | 2 |
| M2.6 x 0.45 | | T2809491 | YH1 | 44.0 | 9.5 | 3.0 | 2.5 | 5.0 | 2 |
| M2.6 x 0.35 | | T2809K71 | YH1 | 44.0 | 9.5 | 3.0 | 2.5 | 5.0 | 2 |
| M3 x 0.5 | | T2809202-C | YH2 | 46.0 | 11.0 | 4.0 | 3.2 | 6.0 | 3 |
| M3 x 0.35 | | T2809211-C | YH1 | 46.0 | 11.0 | 4.0 | 3.2 | 6.0 | 3 |
| M3.5 x 0.6 | | T2809222-C | YH2 | 48.0 | 13.0 | 4.0 | 3.2 | 6.0 | 3 |
| M3.5 x 0.35 | | T2809231-C | YH1 | 48.0 | 13.0 | 4.0 | 3.2 | 6.0 | 3 |
| M4 x 0.7 | | T2809242-C | YH2 | 52.0 | 13.0 | 5.0 | 4.0 | 7.0 | 3 |
| M4 x 0.5 | | T2809251-C | YH1 | 52.0 | 13.0 | 5.0 | 4.0 | 7.0 | 3 |
| M4.5 x 0.75 | | T2809262-C | YH2 | 55.0 | 13.0 | 5.0 | 4.0 | 7.0 | 3 |
| M4.5 x 0.5 | | T2809271-C | YH1 | 55.0 | 13.0 | 5.0 | 4.0 | 7.0 | 3 |
| M5 x 0.8 | | T2809282-C | YH2 | 60.0 | 16.0 | 5.5 | 4.5 | 7.0 | 3 |
| M5 x 0.5 | | T2809292-C | YH2 | 60.0 | 16.0 | 5.5 | 4.5 | 7.0 | 3 |
| M5.5 x 0.5 | | T2809301-C | YH1 | 60.0 | 16.0 | 5.5 | 4.5 | 7.0 | 3 |

* The other coating (TiCN or TiAlN) is available on your request 涂层 (TiCN or TiAlN) 可根据要求定制
► 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)

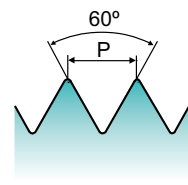
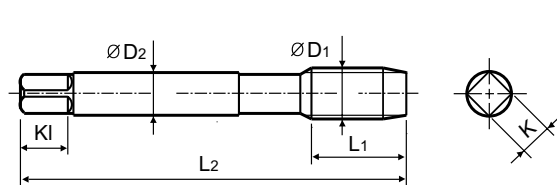
| ISO | P | | | | | | | | | M | | | | | K | | | | | |
|----------------------|-----------------|-----|-----|-----|-----|-----------------|-----|-----|-----|------------------------------------|-----------------|-----|-----|----------------|-------------------|---------------------|-----|-----|-----|-----|
| 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 | | | | | | | | | | | | | | | | | | | | | |
| HB | 60 | 100 | 75 | 90 | 130 | 110 | 90 | 100 | | | 200 | 280 | 250 | 350 | 320 | 400Rm | 1050Rm | 550 | 630 | 400 | 550 |
| Recommended | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | | | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ |

M I-GP SPIRAL POINT TAPS for Multi Purpose
I-GP 多用途先端丝锥

► 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



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 | Bright | | L2 | L1 | ØD2 | K | KI | |
| M1 | x 0.25 | T2829011 | YH1 | 30.0 | 5.5 | 3.0 | 2.5 | 5.0 | 2 |
| M1.1 | x 0.25 | T2829031 | YH1 | 32.0 | 5.5 | 3.0 | 2.5 | 5.0 | 2 |
| M1.2 | x 0.25 | T2829051 | YH1 | 32.0 | 5.5 | 3.0 | 2.5 | 5.0 | 2 |
| M1.4 | x 0.3 | T2829071 | YH1 | 34.0 | 8.0 | 3.0 | 2.5 | 5.0 | 2 |
| M1.6 | x 0.35 | T2829091 | YH1 | 36.0 | 8.0 | 3.0 | 2.5 | 5.0 | 2 |
| M1.7 | x 0.35 | T2829K51 | YH1 | 36.0 | 8.0 | 3.0 | 2.5 | 5.0 | 2 |
| M1.8 | x 0.35 | T2829112 | YH2 | 36.0 | 8.0 | 3.0 | 2.5 | 5.0 | 2 |
| M2 | x 0.4 | T2829132 | YH2 | 40.0 | 9.5 | 3.0 | 2.5 | 5.0 | 2 |
| M2.2 | x 0.45 | T2829152 | YH2 | 42.0 | 9.5 | 3.0 | 2.5 | 5.0 | 2 |
| M2.3 | x 0.4 | T2829192 | YH2 | 42.0 | 9.5 | 3.0 | 2.5 | 5.0 | 2 |
| M2.5 | x 0.45 | T2829172 | YH2 | 44.0 | 9.5 | 3.0 | 2.5 | 5.0 | 2 |
| M2.6 | x 0.45 | T2829492 | YH2 | 44.0 | 9.5 | 3.0 | 2.5 | 5.0 | 2 |
| M3 | x 0.5 | T2829202-C | YH2 | 46.0 | 11.0 | 4.0 | 3.2 | 6.0 | 3 |
| M3 | x 0.35 | T2829212-C | YH2 | 46.0 | 11.0 | 4.0 | 3.2 | 6.0 | 3 |
| M3.5 | x 0.6 | T2829222-C | YH2 | 48.0 | 13.0 | 4.0 | 3.2 | 6.0 | 3 |
| M3.5 | x 0.35 | T2829232-C | YH2 | 48.0 | 13.0 | 4.0 | 3.2 | 6.0 | 3 |
| M4 | x 0.7 | T2829242-C | YH2 | 52.0 | 13.0 | 5.0 | 4.0 | 7.0 | 3 |
| M4 | x 0.5 | T2829252-C | YH2 | 52.0 | 13.0 | 5.0 | 4.0 | 7.0 | 3 |
| M4.5 | x 0.75 | T2829262-C | YH2 | 55.0 | 13.0 | 5.0 | 4.0 | 7.0 | 3 |
| M4.5 | x 0.5 | T2829272-C | YH2 | 55.0 | 13.0 | 5.0 | 4.0 | 7.0 | 3 |
| M5 | x 0.8 | T2829282-C | YH2 | 60.0 | 16.0 | 5.5 | 4.5 | 7.0 | 3 |
| M5 | x 0.5 | T2829292-C | YH2 | 60.0 | 16.0 | 5.5 | 4.5 | 7.0 | 3 |
| M5.5 | x 0.5 | T2829302-C | YH2 | 60.0 | 16.0 | 5.5 | 4.5 | 7.0 | 3 |
| M6 | x 1.0 | T2829312-C | YH2 | 62.0 | 19.0 | 6.0 | 4.5 | 7.0 | 3 |

* The other Coating(TiCN or TiAlN) is available on your request. 涂层(TiCN or TiAlN)可根据要求定制
 ► 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)

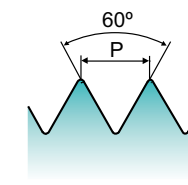
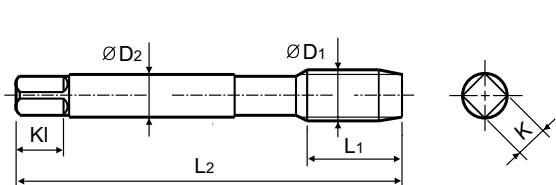
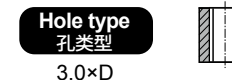
| ISO | P | | | | | | | | | | M | | | | K | | | | | |
|----------------------|-----------------|-----|-----|-----|-----|-----------------|-----|-----|-----|-----|------------------------------------|-----|-----|-----|-----------------|-----|----------------|-------------------|---------------------|----|
| | 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 | 38 | 40 | 42 | 45 | 48 | 50 | 52 | 54 | 56 | 58 | 60 | 62 | 64 | 66 | 68 |
| HB | 125 | 190 | 250 | 270 | 300 | 180 | 275 | 300 | 350 | 200 | 240 | 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 I-GP SPIRAL POINT TAPS for Multi Purpose
I-GP 多用途先端丝锥

► 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



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 | Bright | | L2 | L1 | ØD2 | K | KI | |
| M6 | x 0.75 | T2829322-C | YH2 | 62.0 | 19.0 | 6.0 | 4.5 | 7.0 | 3 |
| M6 | x 0.5 | T2829332-C | YH2 | 62.0 | 19.0 | 6.0 | 4.5 | 7.0 | 3 |
| M7 | x 1.0 | T2829342-C | YH2 | 65.0 | 19.0 | 6.2 | 5.0 | 8.0 | 3 |
| M7 | x 0.75 | T2829352-C | YH2 | 65.0 | 19.0 | 6.2 | 5.0 | 8.0 | 3 |
| M8 | x 1.25 | T2829363-C | YH3 | 70.0 | 22.0 | 6.2 | 5.0 | 8.0 | 3 |
| M8 | x 1.0 | T2829373-C | YH3 | 70.0 | 22.0 | 6.2 | 5.0 | 8.0 | 3 |
| M8 | x 0.75 | T2829383-C | YH3 | 70.0 | 22.0 | 6.2 | 5.0 | 8.0 | 3 |
| M9 | x 1.25 | T2829393-C | YH3 | 72.0 | 22.0 | 7.0 | 5.5 | 8.0 | 3 |
| M9 | x 1.0 | T2829403-C | YH3 | 72.0 | 22.0 | 7.0 | 5.5 | 8.0 | 3 |
| M9 | x 0.75 | T2829413-C | YH3 | 72.0 | 22.0 | 7.0 | 5.5 | 8.0 | 3 |
| M10 | x 1.5 | T2829423-C | YH3 | 75.0 | 24.0 | 7.0 | 5.5 | 8.0 | 3 |
| M10 | x 1.25 | T2829433-C | YH3 | 75.0 | 24.0 | 7.0 | 5.5 | 8.0 | 3 |
| M10 | x 1.0 | T2829443-C | YH3 | 75.0 | 24.0 | 7.0 | 5.5 | 8.0 | 3 |
| M11 | x 1.5 | T2829463-C | YH3 | 80.0 | 25.0 | 8.0 | 6.0 | 9.0 | 3 |
| M11 | x 1.0 | T2829473-C | YH3 | 80.0 | 25.0 | 8.0 | 6.0 | 9.0 | 3 |
| M11 | x 0.75 | T2829483-C | YH3 | 80.0 | 25.0 | 8.0 | 6.0 | 9.0 | 3 |
| M12 | x 1.75 | T2829504-C | YH4 | 82.0 | 29.0 | 8.5 | 6.5 | 9.0 | 3 |
| M12 | x 1.5 | T2829513-C | YH3 | 82.0 | 29.0 | 8.5 | 6.5 | 9.0 | 3 |
| M12 | x 1.25 | T2829523-C | YH3 | 82.0 | 29.0 | 8.5 | 6.5 | 9.0 | 3 |
| M12 | x 1.0 | T2829533-C | YH3 | 82.0 | 29.0 | 8.5 | 6.5 | 9.0 | 3 |
| M14 | x 2.0 | T2829544 | YH4 | 88.0 | 30.0 | 10.5 | 8.0 | 11.0 | 3 |
| M14 | x 1.5 | T2829553 | YH3 | 88.0 | 30.0 | 10.5 | 8.0 | 11.0 | 3 |
| M14 | x 1.25 | T2829563 | YH3 | 88.0 | 30.0 | 10.5 | 8.0 | 11.0 | 3 |
| M14 | x 1.0 | T2829573 | YH3 | 88.0 | 30.0 | 10.5 | 8.0 | 11.0 | 3 |

* The other Coating(TiCN or TiAlN) is available on your request. 涂层(TiCN or TiAlN)可根据要求定制
 ► 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)

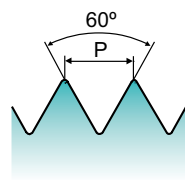
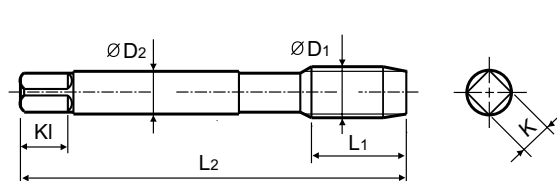
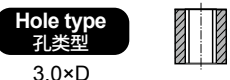
| ISO | P | | | | | | | | | | M | | | | K | | | | | |
|----------------------|-----------------|-----|-----|-----|-----|-----------------|-----|-----|-----|-----|------------------------------------|-----|-----|-----|-----------------|-----|----------------|-------------------|---------------------|----|
| | 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 | 38 | 40 | 42 | 45 | 48 | 50 | 52 | 54 | 56 | 58 | 60 | 62 | 64 | 66 | 68 |
| HB | 125 | 190 | 250 | 270 | 300 | 180 | 275 | 300 | 350 | 200 | 240 | 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 I-GP SPIRAL POINT TAPS for Multi Purpose
I-GP 多用途先端丝锥

▶ 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



Material groups: **MU** HSS-E I YH 60° 5.0P Bright p. B46

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 | Bright | | L2 | L1 | ØD2 | K | KI | |
| M15 x 1.5 | | T2829583 | YH3 | 90.0 | 30.0 | 10.5 | 8.0 | 11.0 | 3 |
| M15 x 1.0 | | T2829593 | YH3 | 90.0 | 30.0 | 10.5 | 8.0 | 11.0 | 3 |
| M16 x 2.0 | | T2829604 | YH4 | 95.0 | 32.0 | 12.5 | 10.0 | 13.0 | 3 |
| M16 x 1.5 | | T2829613 | YH3 | 95.0 | 32.0 | 12.5 | 10.0 | 13.0 | 3 |
| M16 x 1.0 | | T2829623 | YH3 | 95.0 | 32.0 | 12.5 | 10.0 | 13.0 | 3 |
| M18 x 2.5 | | T2829654 | YH4 | 100.0 | 37.0 | 14.0 | 11.0 | 14.0 | 3 |
| M18 x 2.0 | | T2829664 | YH4 | 100.0 | 37.0 | 14.0 | 11.0 | 14.0 | 3 |
| M18 x 1.5 | | T2829674 | YH4 | 100.0 | 37.0 | 14.0 | 11.0 | 14.0 | 3 |
| M18 x 1.0 | | T2829683 | YH3 | 100.0 | 37.0 | 14.0 | 11.0 | 14.0 | 3 |
| M20 x 2.5 | | T2829704 | YH4 | 105.0 | 37.0 | 15.0 | 12.0 | 15.0 | 3 |
| M20 x 2.0 | | T2829714 | YH4 | 105.0 | 37.0 | 15.0 | 12.0 | 15.0 | 3 |
| M20 x 1.5 | | T2829724 | YH4 | 105.0 | 37.0 | 15.0 | 12.0 | 15.0 | 3 |
| M20 x 1.0 | | T2829733 | YH3 | 105.0 | 37.0 | 15.0 | 12.0 | 15.0 | 3 |
| M22 x 2.5 | | T2829744 | YH4 | 115.0 | 38.0 | 17.0 | 13.0 | 16.0 | 3 |
| M22 x 2.0 | | T2829754 | YH4 | 115.0 | 38.0 | 17.0 | 13.0 | 16.0 | 3 |
| M22 x 1.5 | | T2829764 | YH4 | 115.0 | 38.0 | 17.0 | 13.0 | 16.0 | 3 |
| M22 x 1.0 | | T2829773 | YH3 | 115.0 | 38.0 | 17.0 | 13.0 | 16.0 | 3 |
| M24 x 3.0 | | T2829784 | YH4 | 120.0 | 45.0 | 19.0 | 15.0 | 18.0 | 3 |
| M24 x 2.0 | | T2829794 | YH4 | 120.0 | 45.0 | 19.0 | 15.0 | 18.0 | 3 |
| M24 x 1.5 | | T2829804 | YH4 | 120.0 | 45.0 | 19.0 | 15.0 | 18.0 | 3 |
| M24 x 1.0 | | T2829813 | YH3 | 120.0 | 45.0 | 19.0 | 15.0 | 18.0 | 3 |
| M25 x 2.0 | | T2829824 | YH4 | 125.0 | 45.0 | 19.0 | 15.0 | 18.0 | 3 |
| M25 x 1.5 | | T2829834 | YH4 | 125.0 | 45.0 | 19.0 | 15.0 | 18.0 | 3 |
| M26 x 2.0 | | T2829N44 | YH4 | 125.0 | 45.0 | 20.0 | 15.0 | 18.0 | 4 |

* The other Coating(TiCN or TiAlN) is available on your request. 涂层(TiCN or TiAlN)可根据要求定制
▶ 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)

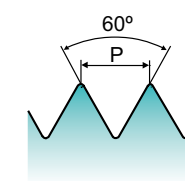
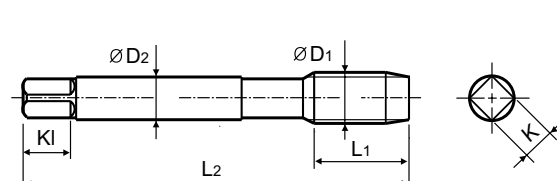
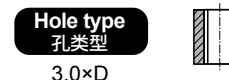
| ISO | P | | | | | | | | | | M | | | | K | | | | | |
|----------------------|-----------------|-----|-----|-----|-----|-----------------|-----|-----|-----|-----|------------------------------------|-----|-----------------|-----|----------------|-------------------|-----|---------------------|-----|-----|
| | 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 | 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 | 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 | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ |

M I-GP SPIRAL POINT TAPS for Multi Purpose
I-GP 多用途先端丝锥

▶ 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



Material groups: **MU** HSS-E I YH 60° 5.0P Bright p. B46

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 | Bright | | L2 | L1 | ØD2 | K | KI | |
| M26 x 1.5 | | T2829854 | YH4 | 125.0 | 45.0 | 20.0 | 15.0 | 18.0 | 4 |
| M26 x 1.0 | | T2829N53 | YH3 | 125.0 | 45.0 | 20.0 | 15.0 | 18.0 | 4 |
| M27 x 3.0 | | T2829864 | YH4 | 130.0 | 45.0 | 20.0 | 15.0 | 18.0 | 4 |
| M27 x 2.0 | | T2829874 | YH4 | 130.0 | 45.0 | 20.0 | 15.0 | 18.0 | 4 |
| M27 x 1.5 | | T2829884 | YH4 | 130.0 | 45.0 | 20.0 | 15.0 | 18.0 | 4 |
| M28 x 2.0 | | T2829904 | YH4 | 130.0 | 45.0 | 21.0 | 17.0 | 20.0 | 4 |
| M28 x 1.5 | | T2829914 | YH4 | 130.0 | 45.0 | 21.0 | 17.0 | 20.0 | 4 |
| M30 x 3.5 | | T2829945 | YH5 | 135.0 | 48.0 | 23.0 | 17.0 | 20.0 | 4 |
| M30 x 3.0 | | T2829954 | YH4 | 135.0 | 48.0 | 23.0 | 17.0 | 20.0 | 4 |
| M30 x 2.0 | | T2829964 | YH4 | 135.0 | 48.0 | 23.0 | 17.0 | 20.0 | 4 |
| M30 x 1.5 | | T2829974 | YH4 | 135.0 | 48.0 | 23.0 | 17.0 | 20.0 | 4 |
| M30 x 1.0 | | T2829982 | YH2 | 135.0 | 48.0 | 23.0 | 17.0 | 20.0 | 4 |
| M33 x 3.5 | | T2829A45 | YH5 | 145.0 | 51.0 | 25.0 | 19.0 | 22.0 | 4 |
| M33 x 3.0 | | T2829A54 | YH4 | 145.0 | 51.0 | 25.0 | 19.0 | 22.0 | 4 |
| M33 x 2.0 | | T2829A63 | YH3 | 145.0 | 45.0 | 25.0 | 19.0 | 22.0 | 4 |
| M33 x 1.5 | | T2829A74 | YH4 | 145.0 | 45.0 | 25.0 | 19.0 | 22.0 | 4 |
| M36 x 4.0 | | T2829B35 | YH5 | 155.0 | 57.0 | 28.0 | 21.0 | 24.0 | 4 |
| M36 x 3.0 | | T2829B44 | YH4 | 155.0 | 57.0 | 28.0 | 21.0 | 24.0 | 4 |
| M36 x 2.0 | | T2829B53 | YH3 | 155.0 | 45.0 | 28.0 | 21.0 | 24.0 | 4 |
| M36 x 1.5 | | T2829B64 | YH4 | 155.0 | 45.0 | 28.0 | 21.0 | 24.0 | 4 |

* The other Coating(TiCN or TiAlN) is available on your request. 涂层(TiCN or TiAlN)可根据要求定制
▶ 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 | 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 | 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 | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ |



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)

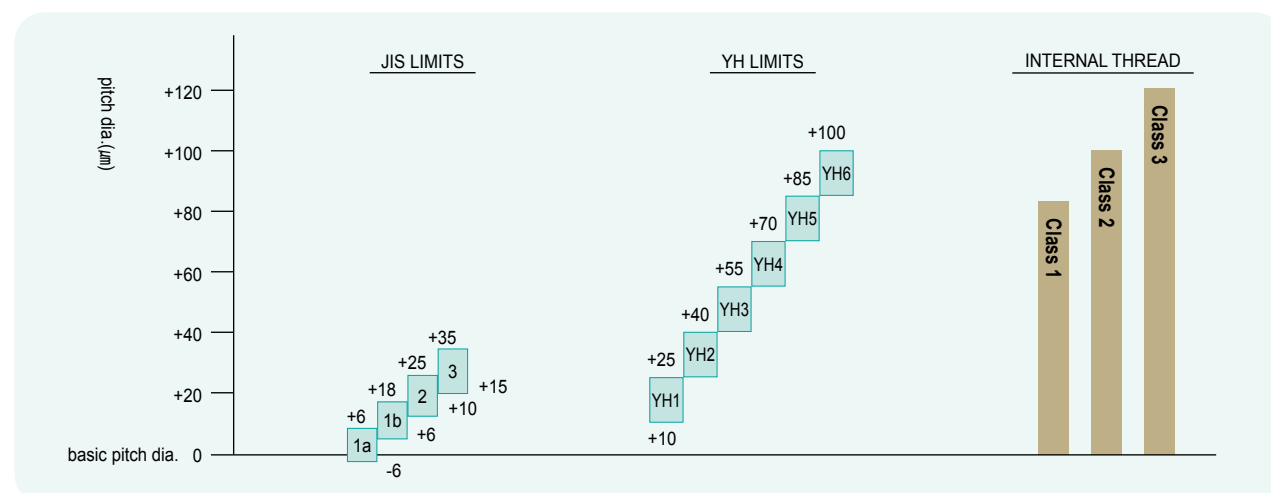
upper limits : $10\mu\text{m} + 15\mu\text{m} \times n$
lower limit : (upper limits) - $15\mu\text{m}$

n=YH No.

2. Above 0.7P (36TPI)

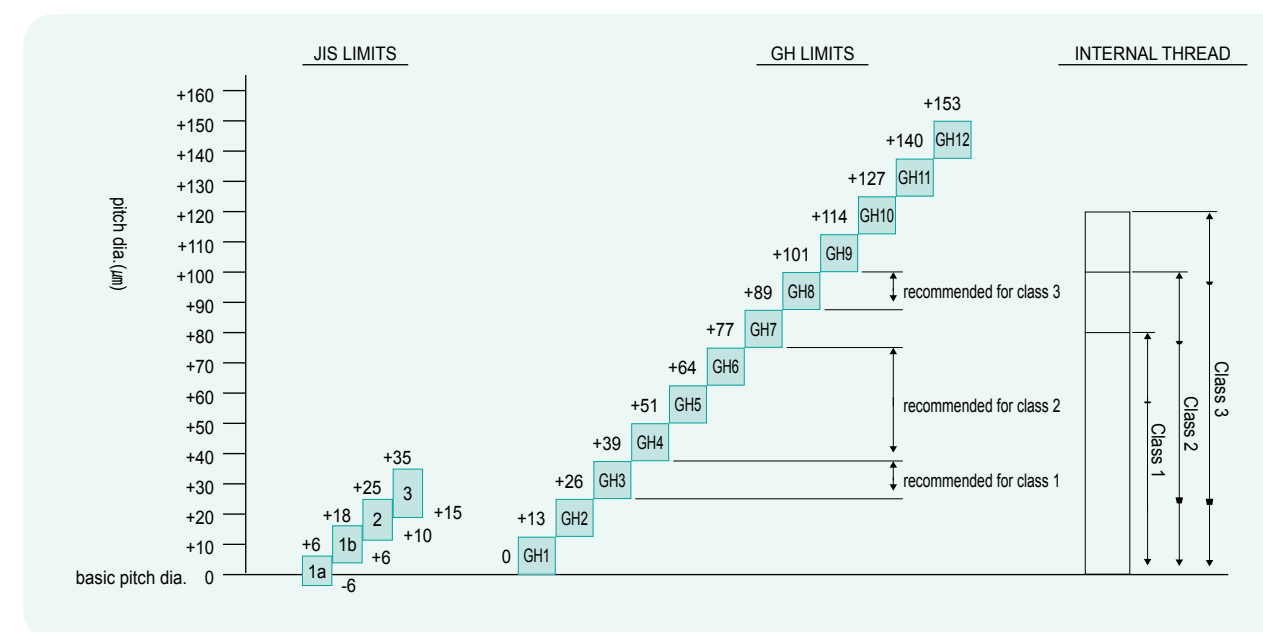
upper limits : $20\mu\text{m} \times n$
lower limit : (upper limits) - $20\mu\text{m}$

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**