

# タップ

総合カタログ

Taps General Catalog



2016  
Vol. 8

# NACHIの提案

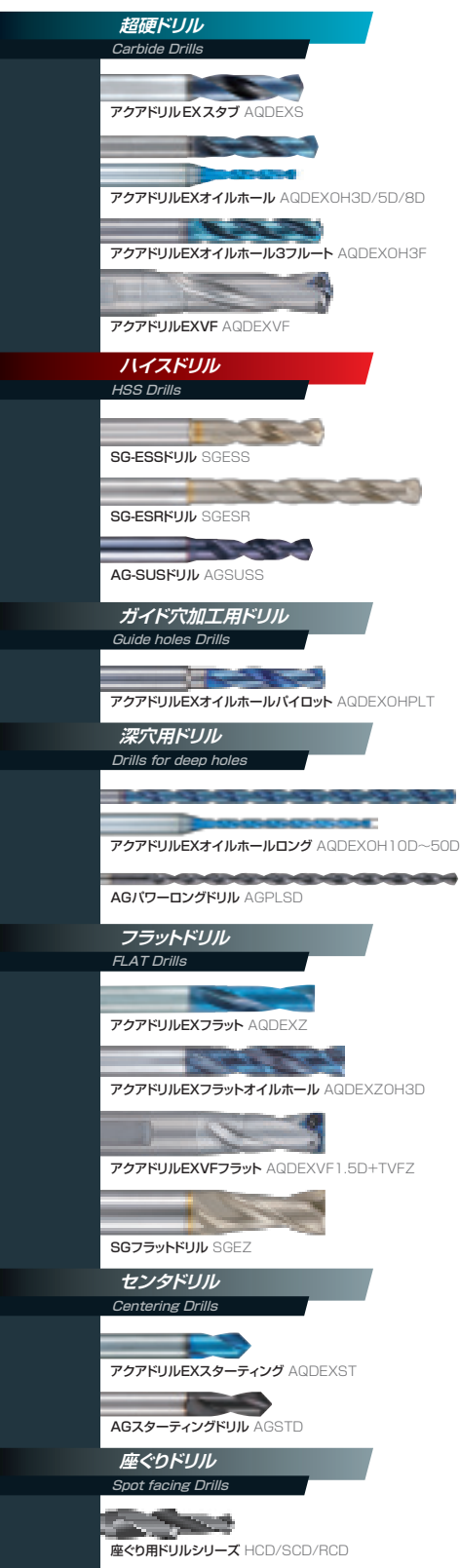
めねじ加工は、面取り・下穴加工・ねじ立てなど複数の工程が必要です。

NACHIは、ドリルとタップをセットにした工程スルーで最適化することをご提案いたします。

NACHI recommends threaded holes cutting tools

Cutting for internal thread needs many processes, Chamfering, Drilling prepared holes, tapping etc.

Drill and Tap with set NACHI proposes that optimize by omitting processes.



|                                      | ドリル<br>Drills                                 |                      | タップ<br>Taps                  |
|--------------------------------------|---|----------------------|------------------------------|
| 止りねじ穴<br>Blind holes                 | AQDEXS/AQDEXOH3F<br>SGESS など                  | AQDEXST<br>AGSTD     | SGSP/SGSSP<br>GSPS/GSP など    |
| 止りねじ穴[深穴]<br>Blind holes(Deep Holes) | AQDEXST<br>AGSTD                              | AQDEXR<br>SGESR など   | SGSPL/GSPS<br>など             |
| 曲面ねじ穴<br>Curved surface              | AQDEXZ<br>AQDEXZOH3D                          | AQDEXST<br>AGSTD     | SGSP/GSP<br>など               |
| 座ぐり・ねじ穴[傾斜面]<br>Slop, Spot facing    | AQDEXZ<br>AQDEXVF1.5D+TVFZ                    | AQDEXST<br>AGSTD     | AQDEXOH3D/AQDEXS<br>SGESS など |
| 座ぐり・ねじ穴[傾斜面]                         |   |                      | 通り穴の場合<br>SGPO/GGN など        |
| 薄板ねじ穴<br>Thin board                  | AQDEXST<br>AGSTD                              | AQDEXZ<br>AQDEXZOH3D | SGPO/GGN<br>など               |
| 止りねじ穴[薄肉]<br>Blind holes(Thin board) | AQDEXST<br>AGSTD                              | AQDEXZ               | SGSP-1.5P/GHT<br>など          |
| ねじ穴付き深穴<br>Deep holes                | AQDEXOHPLT<br>AQDEXOH10D~50D<br>AQDEXST/AGSTD |                      | SGSP<br>SGSSP                |

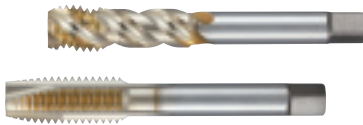
|   |                      |                             |                 |
|---|----------------------|-----------------------------|-----------------|
| 商品紹介<br>選定ガイド                                   |                      | 1-8<br>9-12                 |                 |
| SGSP  | SGスパイラルタップ           | 13-14                       | SG<br>シリーズ      |
| SGSP-1.5P                                       | SGスパイラルタップショートチャンファ  | 15                          |                 |
| SGSPL   | SGスパイラルタップロングシャンク    | 16-17                       |                 |
| SGSSP   | SGシンクロタップ(油穴付き)      | 18                          |                 |
| SGSP-Ti   | SGスパイラルタップ チタン合金用    | 19                          |                 |
| SGPO  | SGポイントタップ            | 20-21                       |                 |
| SGPOL   | SGポイントタップロングシャンク     | 22-23                       | Hyper Z<br>シリーズ |
| SGSPD   | SGシンクロタップ 左ねじれ(油穴付き) | 24                          |                 |
| ZSP   | Hyper Z スパイラルタップ     | 25                          | Hyper Z<br>シリーズ |
| ZPO   | Hyper Z ポイントタップ      | 26                          |                 |
| NSP   | Nスパイラルタップ            | 27-28                       | N<br>シリーズ       |
| NSPL  | Nスパイラルタップロングシャンク     | 29                          |                 |
| NPO   | Nポイントタップ             | 30-31                       |                 |
| NPOL  | Nポイントタップロングシャンク      | 32                          |                 |
| HT  | ハンドタップ               | 33                          |                 |
| GSP   | Gスパイラルタップ            | 34                          | G<br>シリーズ       |
| GSPL  | Gスパイラルタップ ロングシャンク    | 35                          |                 |
| GSPLS   | Gスパイラルタップ ステンレス 深穴用  | 35                          |                 |
| GGN   | Gガンタップ               | 36                          |                 |
| GGNL  | Gガンタップロングシャンク        | 36                          |                 |
| GHT   | Gハンドタップ              | 37                          |                 |
| GHTL  | Gハンドタップ ロングシャンク      | 38                          |                 |
| GOH   | Gオイルホールタップ           | 39                          |                 |
| TSP   | Tスパイラルタップ            | 40                          | T<br>シリーズ       |
| TSPLS   | Tスパイラルタップ ステンレス用     | 41                          |                 |
| TGN   | Tガンタップ               | 42                          |                 |
| TGNS  | Tガンタップ ステンレス用        | 42                          |                 |
| ESP   | エクセルスパイラルタップ         | 43                          | エクセル<br>シリーズ    |
| EHT   | エクセルハンドタップ           | 43                          |                 |
| TFS   | タフレット-S              | 44                          | タフレット<br>シリーズ   |
| TFL   | タフレット-L              | 44                          |                 |
| TFL   | タフレット-L ロングシャンク      | 45                          |                 |
| TFST  | タフレットスチール用           | 45                          |                 |
| TFSTL   | タフレットスチール用ロングシャンク    | 46                          |                 |
| シャンク四角部寸法、突出しセンタ長さ<br>精度等級<br>タップのねじ下穴径<br>切削条件 |                      | 46<br>47-48<br>49-50<br>裏表紙 |                 |

## タップシリーズラインナップ

Lineup

### SGシリーズ

SG series



- 高級粉末ハイスとSGコーティングにより、タップ最高峰の長寿命で安定ねじ加工を実現
- 各種被削材・加工機械、広範囲な切削条件で優れた性能を発揮

- Realized stable cutting screw threads, and have the longest tool life by high grade powder HSS and SG coating
- Superior performance can exert on cutting various materials and machines, and wide range of cutting conditions

### Hyper Zシリーズ

Hyper Z series



- 材料から熱処理、研削技術、表面処理まで、NACHIのもつ歯切工具やブローチのシーズ技術を応用
- 加工メカニズムと摩耗解析による最適設計で、寿命のバラツキが少ない安定加工を実現

- Using the NACHI owned material development technology, heat treatment, grinding technology
- According to the machining principle and abrasion analysis of gear cutting tool and broach processing technology, and adopting the best shape design, it can realize stable processing with small life fluctuation

### Nシリーズ

N series



- コストパフォーマンスが抜群の汎用タップ
- 高バナジウムハイスの採用で長寿命

- High flexibility screw threads have good cost performance
- By using high vanadium HSS, the tool life is longer than before

### Gシリーズ

G series



- 粉末ハイスとGコーティングで高能率・長寿命
- ステンレス・深穴用やオイルホールのバリエーション

- High efficiency and long tool life by high speed steel powder and G coat
- Variation of G tap series has GSPLS (for stainless steel and deep holes), GOH (with oil-hole)

### Tシリーズ

T series



- 鋼用は高バナジウムハイス、ステンレス用はコバルトハイスにホモ処理の組み合わせで高性能

- High vanadium HSS for steel, combination of cobalt HSS and homo-treatment for stainless steel are high precision

### エクセルシリーズ

EXCEL series



- 鋳鉄や非鉄金属に最適
- 高速ねじ加工が可能で長寿命な超硬タップ

- Carbide tap is most suitable for cast iron and nonferrous metals
- High speed cutting screw threads and long tool life

### タフレットシリーズ

TAFLET series



- 切りくずが出ないので、安定加工が可能
- ねじ強度が向上する盛上げタップ

- Stable cutting screw threads because no chips are produced
- Forming taps improves screw strength

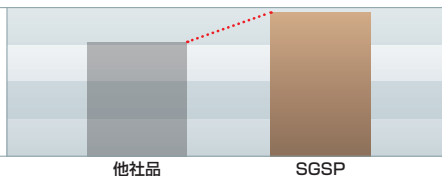


# SGシリーズ

SG series

- 高級粉末ハイスとSGコーティングで、タップ最高峰の長寿命
- 刃先、溝形状の最適化により、高剛性と切りくず処理性を両立し、安定ねじ加工を実現
- 汎用性が高く、各種被削材・加工機械、広範囲な切削条件で優れた性能を発揮
- The longest tool life by high grade powder HSS and SG coat
- Realized stable cutting screw threads, and the high rigidity and chips ejection can coexist by optimizing the edge and flute shape
- With high flexibility, superior performance can exert on cutting various materials, machines, and wide range of cutting conditions

ねじ破壊トルク  
The breaking torsion torque



他社品よりも  
ねじ破壊トルクが  
30%大きく折れにくい

The breaking torque of SGSP is 30% bigger than competitor. SGSP hardly breaks

## SGコーティング

SG-coating



多層膜の境界部で  
クラックの伝搬を抑制  
To control fatigue crack propagation in border parts of the multi-layer

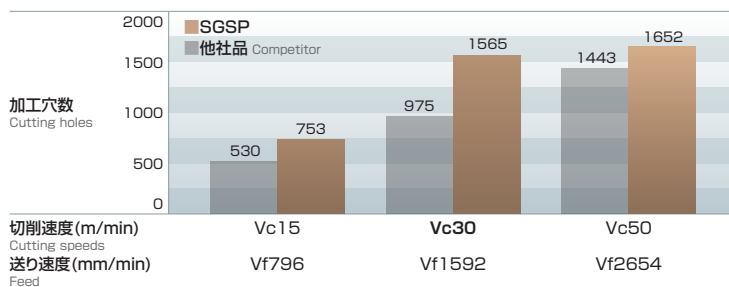
SGスパイラルタップ

## SGSP どんな切削速度でも安定ねじ加工で長寿命

No matter what cutting speeds, stable cutting screw threads and long tool life

### 切削速度による加工穴数比較

Comparison of cutting holes by cutting speeds



### 切削速度Vc30で840穴加工後の摩耗比較

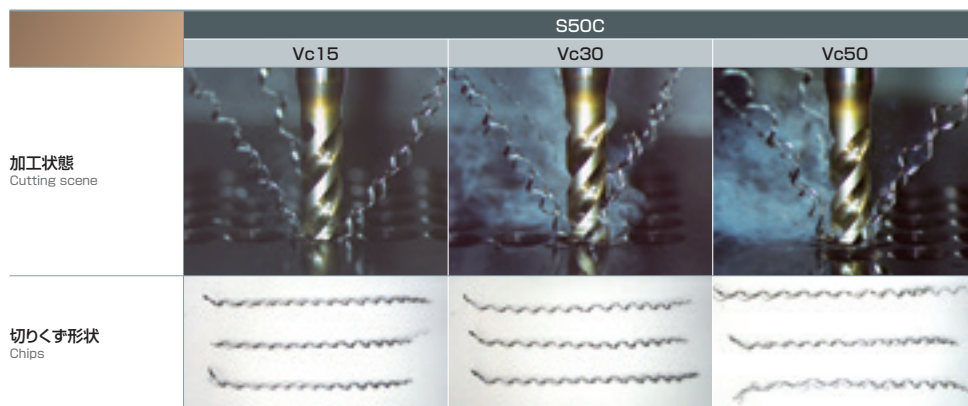
Comparison of wear after cutting 840 holes by cutting speed Vc30



|                   |              |                  |                     |   |
|-------------------|--------------|------------------|---------------------|---|
| 切削条件              | 呼び M6×1      | 下穴径 φ5.1ドリル加工    | 被削材 S50C(180HB)     | 切削油剤 水溶性(外部給油)  |
| Cutting condition | ねじ深さ 12mm    | 下穴深さ 20mm(止り穴)   | ホルダー コレットチャック       | Cutting Fluid/Water-soluble cutting fluid(External coolant) |
|                   | Thread depth | Drill Hole depth | Holder Collet chuck | 使用機械 立形M/C HSK63  |
|                   |              |                  |                     | Machine Vertical Machining Center                           |

### 切削速度による加工状態と切りくず形状

Cutting scenes and chips by every cutting speeds



撮影のため、ドライで加工しています。  
In dry process to take pictures.

WEB VIDEO

スマートフォンや携帯電話で、  
SGタップによる加工動画を  
ご覧になれます。

Please scan QR code by  
smart phones or  
mobile phones.  
You can watch videos of  
SG tap.



SGSP商品紹介



SGSP 1.5Pと  
AQDEXZの組み合わせ

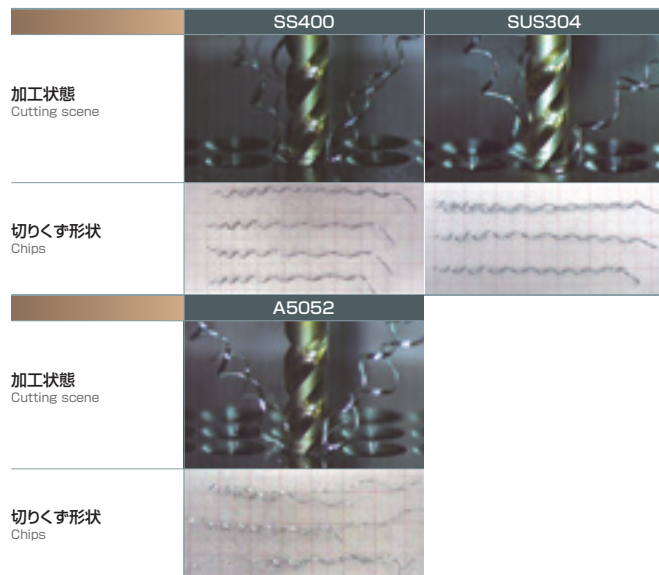
SGスパイラルタップ

# SGSP 一般鋼から、ステンレス鋼、アルミニウム合金にも対応

Corresponding to Structural Steel to Stainless Steel, Aluminum Alloy

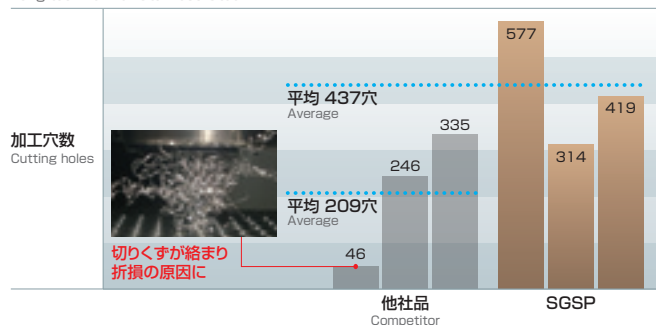
## 安定した切りくず形状と加工状態

Stable chips and cutting scene



## ステンレス鋼でも長寿命

Long tool life with Stainless Steel



|  |   |  |  |  |
|--|---|--|--|--|
| 切削条件<br>Cutting Condition  | 呼び<br>Thread size<br>ねじ深さ<br>Thread depth<br>下穴径<br>Drill Hole Dia.<br>下穴深さ<br>Drill Hole depth | M6X1<br>12mm<br>φ5.1ドリル加工<br>(Through holes) | 切削速度<br>Cutting speed<br>送り速度<br>Feed (Synchronized feed)<br>回転数<br>Rotation<br>被削材<br>Work Material | 8m/min<br>425mm/min (同期送り)<br>425min <sup>-1</sup><br>SUS304 |
| ホルダー<br>Holder<br>コレットチャック<br>Collet chuck<br>切削油剤<br>Cutting Fluid/Water-soluble (External coolant)<br>使用機械<br>Machine<br>Machine | 立形M/C BT30<br>Vertical Machining Center   |  |  |  |

SGスパイラルタップショートチャンファ

# SGSP-1.5P 食付き形状の最適化で長寿命

Optimization shape of chamfer can make tool life longer

## ショートチャンファの切削性能

Cutting performance of short chamfer

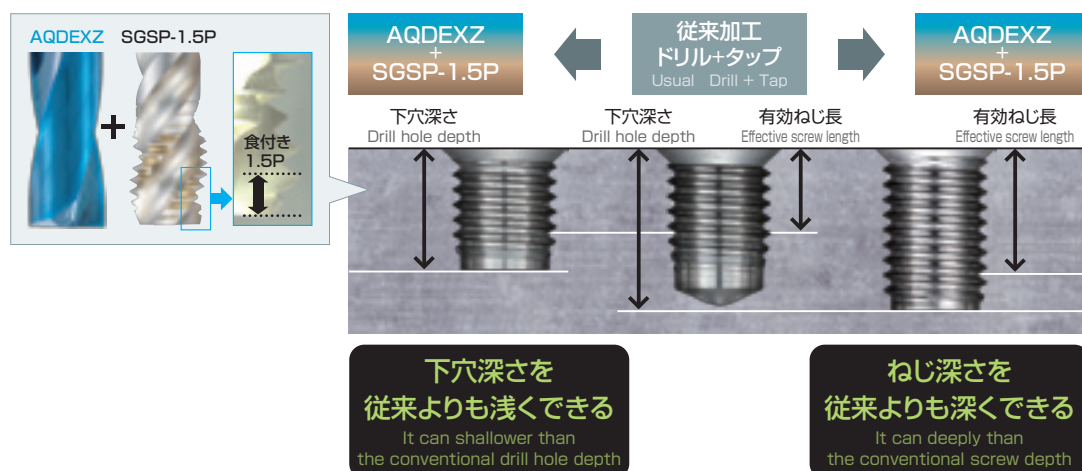


| 切削条件<br>Cutting condition | 呼び<br>Thread size | ねじ深さ<br>Thread depth | 下穴径<br>Drill Hole Dia.      | 切削速度<br>Cutting speed | 送り速度<br>Feed | 回転数<br>Rotation       | 被削材<br>Work Material | 切削油剤<br>Cutting Fluid   | 使用機械<br>Machine                          |
|---------------------------|-------------------|----------------------|-----------------------------|-----------------------|--------------|-----------------------|----------------------|---|--|
|                           | M3x0.5            | 6mm                  | φ2.6ドリル止り穴<br>(Blind holes) | 30m/min               | 1590mm/min   | 3180min <sup>-1</sup> | S50C (180HB)         | 水溶性 (外部給油)<br>Water-soluble cutting fluid<br>(External coolant) | 立形M/C BT30<br>Vertical Machining Center  |
|                           | M6x1              | 12mm                 | φ5.1ドリル止り穴<br>(Blind holes) | 30m/min               | 1591mm/min   | 1591min <sup>-1</sup> | S50C (180HB)         | 水溶性 (外部給油)<br>Water-soluble cutting fluid<br>(External coolant) | 立形M/C HSK63<br>Vertical Machining Center |



## フラットドリルと組み合わせて、下穴深さをより浅く、有効ねじ長をより深く加工することが可能

In combination with Flat drill, more shallow drill hole depth and deeper the effective thread length can be processed



バリレス加工、傾斜面一発加工ドリル  
アクアドリルEXフラット  
AQUA Drill EX FLAT  
カタログ No. 2237-11  
Catalogue

カタログのご案内



# HyperZ Series NEW ZSP / ZPO

## NACHIの技術を結集した、新しいジャンルの革新タップ誕生

- 材料から熱処理、研削技術、表面処理まで、NACHIのもつ歯切工具やブローチのシーズ技術を応用
- 加工メカニズムと摩耗解析による最適設計で、寿命バラツキの少ない安定加工を実現
- 低速～中速領域で高性能を発揮し、無処理タップの2～3倍の長寿命、コーティングタップをも凌駕する長寿命

New style of innovative taps crystallized of the best NACHI technology

- Using the NACHI owned material development technology, heat treatment, grinding technology
- According to the mechanical processing principle and wear analysis of the gear cutting tool and broach processing technology, using the best shape design, small fluctuations in life to achieve stable processing
- Played a superior and efficient performance in the field of low-medium speed, 2x~3x life than non-coated taps. Its long processing life also surpasses the coating taps

## 低速～中速領域でずば抜けた安定性と長寿命を実現

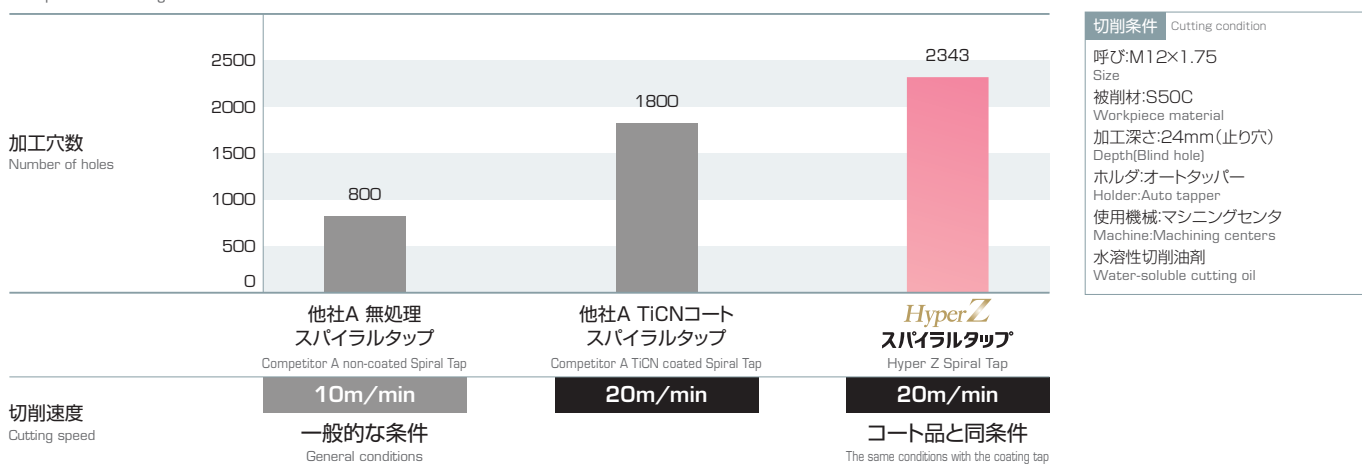
*In the low to medium speed field with outstanding high stability and long life*

他社無処理タップの2倍の切削速度で、2.5倍以上の工具寿命、更に他社コーティング品を超える長寿命を発揮

In 2 times cutting speed of the general non-coated tap, there are more than 2.5 times tool life. There are long tools life of the coating taps over other brands

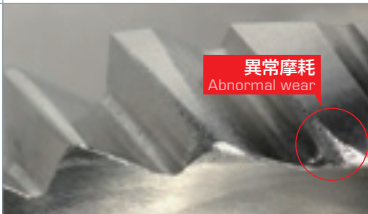
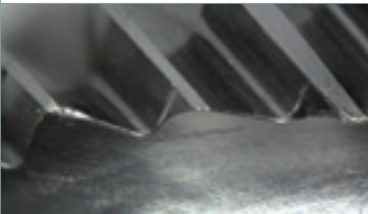

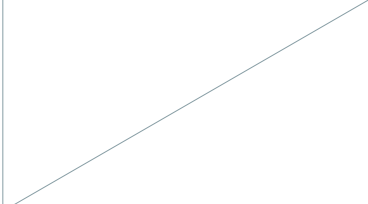


### 寿命比較

Compare machining life



### 損傷比較

Comparison of wear

|                              | 他社A 無処理スパイラルタップ<br>Competitor A non-coated Spiral Tap  | 他社A TiCNコートスパイラルタップ<br>Competitor A TiCN coated Spiral Tap   | HyperZ スパイラルタップ<br>Hyper Z Spiral Tap  |
|------------------------------|--|--|--|
| 800穴加工後<br>After 800 holes   | <br>異常摩耗<br>Abnormal wear |    |   |
| 1800穴加工後<br>After 1800 holes |                           | <br>チッピング<br>Chipping<br>摩耗大<br>Wear large | <br>損傷少なく、継続加工可<br>Wear small,<br>can continue processing |



## コーティングタップを凌駕する安定性と圧倒的な長寿命

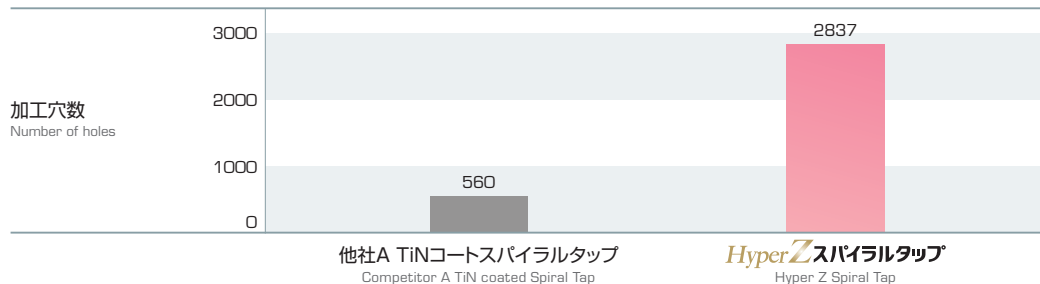
Compared to other brands of coated taps have high stability and overwhelming the long processing life

他社TiNコートスパイラルタップと比較して、刃欠けや異常摩耗がなく圧倒的な長寿命を実現

Compared with other brand coated tap, no chipping, no abnormal wear, and to achieve an overwhelming long processing life

### 寿命比較

Compare machining life



切削条件 Cutting condition

呼び:M3×0.5

Size

被削材:S50C

Workpiece material

切削速度:20m/min

Cutting speed

加工深さ:6mm(止り穴)

Depth(Blind hole)

マシニングセンタ/オートタッパ

Machining centers/Auto tapper

水溶性切削油剤

Water-soluble cutting oil

### 損傷比較

Comparison of wear



## 通り穴用ポイントタップの低速～中速領域でも驚異的な工具寿命

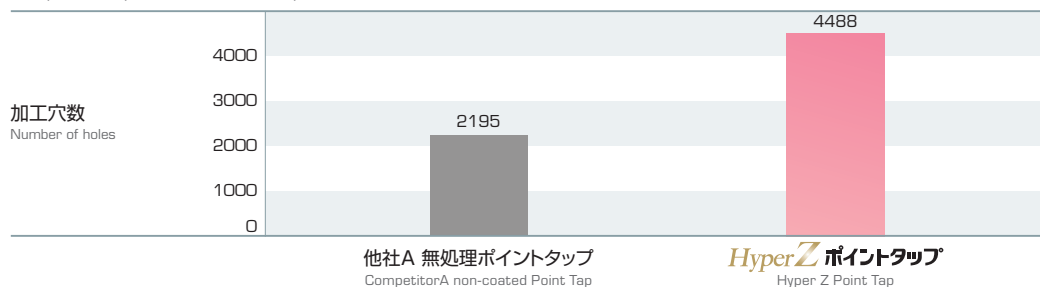
Point taps for through-holes also have excellent tool life performance in medium - and low - speed field

通り穴用のポイントタップでも、他社無処理品に対し2倍以上、コーティング品を凌駕する驚異的な工具寿命

The life of point taps is 2x as high as that of the non-coated taps, and is longer the that of the coating taps

### 他社無処理タップとの比較

Compare Competitor non-coated taps



切削条件 Cutting condition

呼び:M3×0.5

Size

被削材:S50C

Workpiece material

切削速度:10m/min

Cutting speed

加工深さ:6mm(通り穴)

Depth(Through hole)

マシニングセンタ/オートタッパ

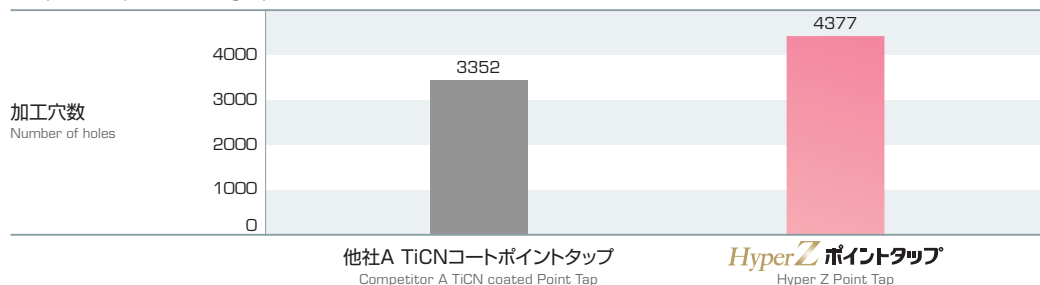
Machining centers/Auto tapper

水溶性切削油剤

Water-soluble cutting oil

### 他社コーティングタップとの比較

Compare Competitor coating taps



切削条件 Cutting condition

呼び:M12×1.75

Size

被削材:S50C

Workpiece material

切削速度:25m/min

Cutting speed

加工深さ:24mm(通り穴)

Depth(Through hole)

マシニングセンタ/オートタッパ

Machining centers/Auto tapper

水溶性切削油剤

Water-soluble cutting oil

# N シリーズ

N series

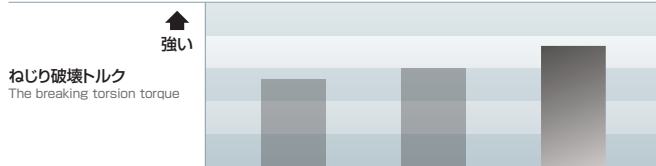


## Nスパイラルタップ

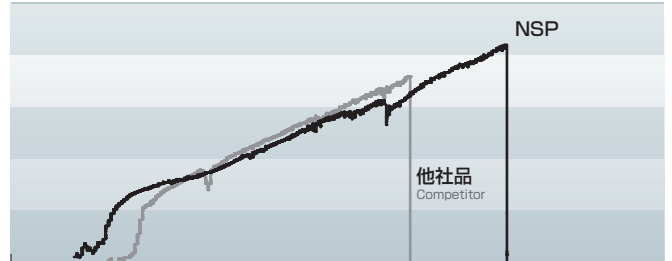
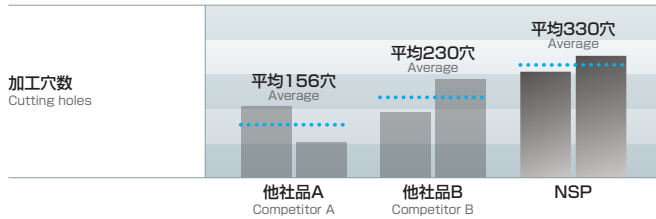
NSP

- ねじ加工に適した高バナジウムハイスの使用により、汎用タップながらも長寿命
- 高剛性設計で安定ねじ加工を実現

■By using high vanadium HSS, which is suitable for cutting screw threads, even flexibility screw threads can have long tool life  
■Stable cutting screw threads by high rigidity design



寿命比較  
Comparison of tool life



ねじり破壊トルクは他社品よりも20%  
剛性が高く、折れにくいため安定加工が実現

The breaking torsion torque of NSP is 20% bigger than competitor  
Rigidity of NSP is high and hardly breaks, so NSP is stable cutting screw threads

切削条件  
Cutting condition

呼び M6×1  
Thread size  
ねじ深さ 12mm  
Thread depth  
下穴径 φ5.1ドリル加工  
Drill Hole Dia.

下穴深さ 20mm(止り穴)  
Drill Hole depth (Blind holes)  
切削速度 10m/min  
Cutting speed  
送り速度 530mm/min(同期送り)  
Feed(Synchronized feed)

回転数 530min<sup>-1</sup>  
Rotation  
被削材 S50C(180HB)  
Work Material  
ホルダー コレットチャック  
Holder Collet chuck

切削油剤 水溶性(外部給油)  
Cutting Fluid Water-soluble(External coolant)  
使用機械 立形M/C HSK63  
Machine Vertical Machining Center

# G シリーズ

G series

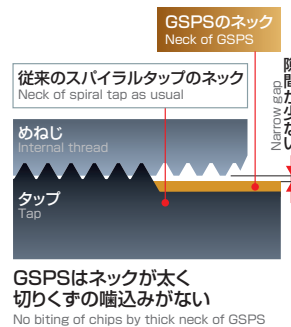


## Gスパイラルタップ ステンレス 深穴用

切りくずの噛込み、巻付きを解消

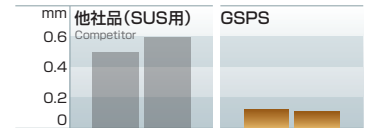
Eliminates biting and winding of chips

太いネック径  
Thick neck diameter



摩耗量(追い側)

Amount of wear (following side)



切削条件  
Cutting condition

呼び M8×1.25  
Thread size  
ねじ深さ 20mm  
Thread depth  
下穴径 φ6.8ドリル  
Drill Hole Dia.  
切削速度 10m/min  
Cutting speed  
送り速度 500mm/min  
Feed

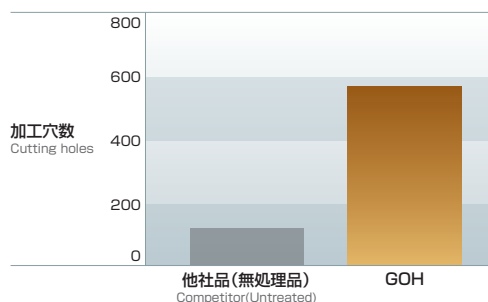
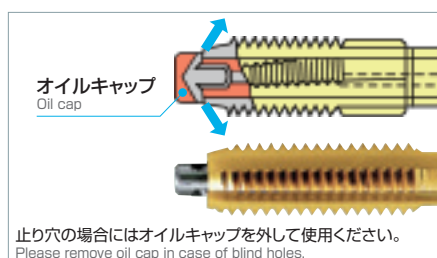
回転数 400min<sup>-1</sup>  
Rotation  
被削材 S50C 250HB  
Work Material  
加工数 50穴  
Cutting holes  
切削油剤 不水溶性  
Cutting Fluid/Non-water Soluble

## Gオイルホールタップ

GOH

通り穴でも加工点に給油が可能

Cutting fluid supplied to work surface even for through holes



切削条件  
Cutting condition

呼び M10×1.5  
Thread size  
ねじ深さ 20mm  
Thread depth  
下穴径 φ8.6ドリル  
Drill Hole Dia.  
切削速度 10m/min  
Cutting speed

送り速度 480mm/min  
Feed  
回転数 320min<sup>-1</sup>  
Rotation  
被削材 ボロン鋼(33HRC)  
Work Material Boron Steel  
切削油剤 不水溶性  
Cutting Fluid/Non-water Soluble



# Tシリーズ

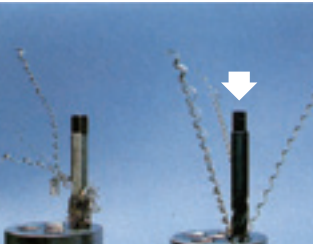
T series



## Tスパイラルタップ

特殊な溝形状により切りくず排出性に優れており、噛込みやタップへの巻付きを解消

TSP has excellent chip discharge by special flute shape. No biting and winding to tap

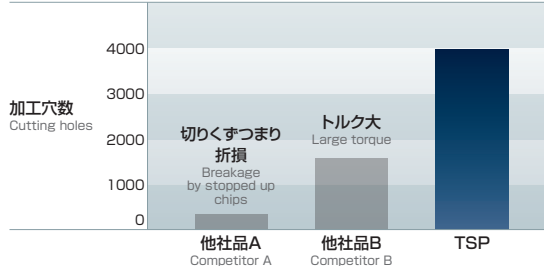


Tスパイラルタップでは細くカールした切りくずが朝顔状にきれいに開いて排出されます。

T spiral tap...Finely curled chips are flared out and discharged

## 圧倒的な切削性能

Overwhelming cutting performance



| 切削条件                  |         | Cutting condition                      |                      |
|-----------------------|---------|--|----------------------|
| 呼び (Thread size)      | M6×1    | 送り速度 (Feed)                            | 320mm/min            |
| ねじ深さ (Thread depth)   | 10mm    | 回転数 (Rotation)                         | 320min <sup>-1</sup> |
| 下穴径 (Drill Hole Dia.) | φ5.1ドリル | 被削材 (Work Material)                    | SS400                |
| 切削速度 (Cutting speed)  | 6m/min  | 切削油剤 (Cutting Fluid/Non-Water Soluble) | 不水溶性                 |

# エクセルシリーズ

EXCEL series

## エクセルハンドタップ

鋳鉄や非鉄金属、樹脂に最適な超硬タップ

Carbide tap is the most suitable for cast iron, nonferrous metal and resin



## 自動車部品の切削事例

Cutting example of car part



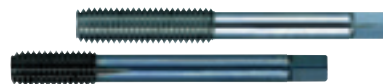
|                              |                        |         |                       |                      |                                |              |
|------------------------------|------------------------|---------|-----------------------|----------------------|--------------------------------|--------------|
| 切削条件<br>Cutting<br>condition | 呼び<br>Thread size      | M3×0.5  | 切削速度<br>Cutting speed | 7m/min               | 被削材<br>Work Material           | FRP(ガラス繊維入り) |
|                              | ねじ深さ<br>Thread depth   | 6mm     | 送り速度<br>Feed          | 370mm/min            | 切削油剤<br>Cutting Fluid/Air blow | エアブロー        |
|                              | 下穴径<br>Drill Hole Dia. | φ2.6ドリル | 回転数<br>Rotation       | 740min <sup>-1</sup> |                                |              |



|                              |                        |         |                       |                      |                                |       |
|------------------------------|------------------------|---------|-----------------------|----------------------|--------------------------------|-------|
| 切削条件<br>Cutting<br>condition | 呼び<br>Thread size      | M6×1    | 切削速度<br>Cutting speed | 7m/min               | 被削材<br>Work Material           | ADC12 |
|                              | ねじ深さ<br>Thread depth   | 15mm    | 送り速度<br>Feed          | 370mm/min            | 切削油剤<br>Cutting Fluid/Air blow | エアブロー |
|                              | 下穴径<br>Drill Hole Dia. | φ5.1ドリル | 回転数<br>Rotation       | 370min <sup>-1</sup> |                                |       |

# タフレットシリーズ

TAFLET series



## タフレット-L

被削材の塑性流動により、ねじ山を盛り上げて、めねじを造る

タフレットシリーズによって加工されためねじは優れた特長をもつ

- Taflet series cuts internal threads by forming the threads by a plastic flow of the work material
- Internal threads are cut by Taflet series has good points

**タフレット** Taflet

ねじ強度アップ! ファイバーフローが切られない  
Higher thread strength! Fiber flow is not cut

ラジアル部 Radial part

レリーフドロップ部 Relief drop part

ランド Land

溝 Flute

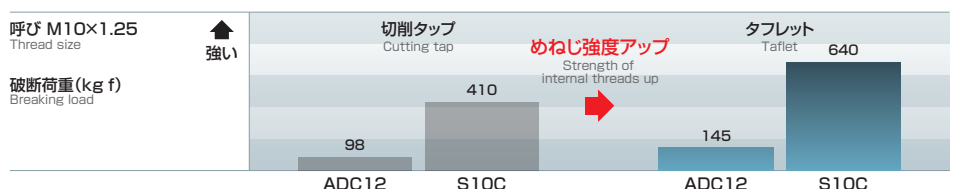
ウェブ Web

**切削タップ** Cutting tap

ファイバーフローが切れる  
Cutting Fiber flow

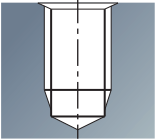

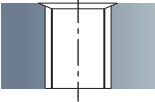

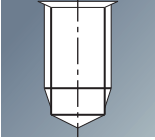
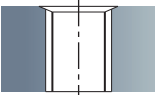

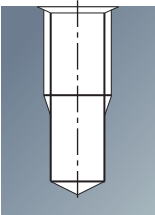
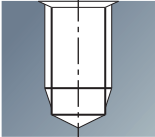
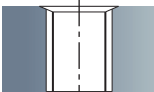
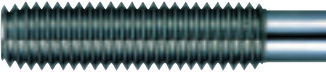
切削タップによって加工されためねじ  
Internal threads are cut by cutting tap

| 項目          | Item                                  | 切削タップ | タフレット | タフレットの特性   |
|-------------|---------------------------------------|-------|-------|--|
| タップの折損      | Breakage                              | ×     | ○     | 溝がないので折れにくい<br>Hardly breaking because there is no flute                                   |
| 切りくずによるトラブル | Chips trouble                         | ×     | ○     | 切りくずが出ないので、トラブルは起きない<br>Free from troubles because no chips are produced                   |
| めねじの精度      | Precision of internal threads         | ×     | ○     | 盛り上げ加工なのでバラツキが少ない<br>Dispersion is small because forming threads                           |
| めねじの表面アラサ   | Surface roughness of internal threads | ×     | ○     | タップの面をすべって山が仕上るので極めて良い<br>Extremely good quality because of sliding on the tap face        |
| タッピングトルク    | Tapping torque                        | ○     | ×     | 切削タップの1.5~2.5倍<br>1.5 to 2.5 times higher than the cutting tap                             |
| めねじの強さ      | Strength of internal threads          | ×     | ◎     | 塑性加工ではファイバーフローが切れていないので強い<br>Strong because fiber flow is not being cut by plastic cutting |
| 被加工材        | Work material                         | ○     | ×     | 展延性に富む材料に限られる<br>Limited to high-ductility materials                                       |



# タップの種類と選定

Types and selection of taps










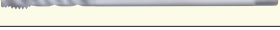

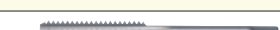



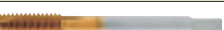



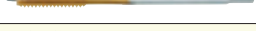


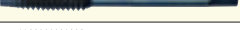

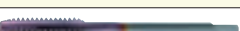
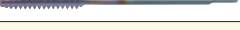


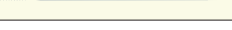
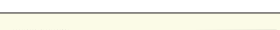


| タップの種類<br>Types of taps      |  | 特長<br>Characteristics   |  |
|------------------------------|--|---|--|
| 切削タップ<br>Cut thread tap      | <b>スパイラルタップ</b><br>Spiral Tap <div>   </div>   | <ul style="list-style-type: none"> <li>■食付きやすく、切れ味がよい</li> <li>■切りくずが加工面上方に排出され、溝内に残らない</li> <li>■コイル状に連続的に排出される</li> <li>■切りくずのからみつきによるトラブルに注意</li> <li>■めねじ有効径が拡大しやすい</li> <li>■刃先強度が弱い</li> <li>■Good bite and a fine edge</li> <li>■Chips are ejected towards the work surface so are not left in groove</li> <li>■Coils of chips are ejected continuously</li> <li>■Be careful of coils of chips getting tangled and causing trouble</li> <li>■Easy to enlarge nominal diameter of female thread</li> <li>■Cutting edge strength is low</li> </ul> |  |
|                              | <b>ポイントタップ(ガンタップ)</b><br>Point Tap (Gun Tap) <div>   </div>   | <ul style="list-style-type: none"> <li>■切りくずがタップ進行方向に押し出される</li> <li>■切りくずのからみつきによるトラブルがない</li> <li>■めねじ精度が安定している</li> <li>■タップの折損強度が高い</li> <li>■高速タッピングに有効</li> <li>■止り穴に使用できない</li> <li>■Chips are pushed out in the direction of the taps advancement</li> <li>■Coils of chips do not get tangled and cause trouble</li> <li>■Accuracy of female threads is consistent</li> <li>■Taps have high breakage strength</li> <li>■Effective for high-speed tapping</li> <li>■Cannot be used for blind holes</li> </ul>                                    |  |
|                              | <b>ハンドタップ</b><br>Hand Tap <div>    </div>   | <ul style="list-style-type: none"> <li>■刃先強度が高く、チップングしにくい</li> <li>■切りくずは分断されやすいが、排出性がわるい</li> <li>■再研削が容易</li> <li>■切りくずが溝内に止まり詰まりが起きやすい</li> <li>■Very strong cutting edge, hard to chip</li> <li>■Easily breaks up chips, but ejectability is low</li> <li>■Re-sharpening is easy</li> <li>■Chips tend to get stuck in grooves</li> </ul>  |  |
| 盛上げタップ<br>Thread forming tap | <b>タフレット</b><br>Taiflet <div>     </div> | <ul style="list-style-type: none"> <li>■切りくずが出ない</li> <li>■めねじ精度が安定している</li> <li>■タップの折損強度が高い</li> <li>■高速タッピングが可能</li> <li>■下穴の管理が難しい</li> <li>■再研削ができない</li> <li>■Chips are not ejected</li> <li>■Accuracy of female threads is consistent</li> <li>■Taps have high breakage strength</li> <li>■High-speed tapping is possible</li> <li>■Difficult to manage thread holes</li> <li>■Regrinding is not possible</li> </ul>   |  |







|  | <p>用途<br/>Applications</p>  | <p>成形機構<br/>Forming process</p> |
|--|---|---------------------------------|
|  | <p>■止り穴<br/>■切りくずがコイル状に排出される被削材</p> <p>■Blind holes<br/>■Work materials whose chips are ejected in coils</p>                              |                                 |
|  | <p>■通り穴<br/>■切りくずがコイル状に排出される被削材</p> <p>■Through holes<br/>■Work materials whose chips are ejected in coils</p>                            |                                 |
|  | <p>■止り穴・通り穴<br/>■切りくずが分断されやすい被削材や高硬度材</p> <p>■Blind holes/through holes<br/>■Hard materials and materials whose chips break up easily</p> |                                 |
|  | <p>■止り穴・通り穴<br/>■展延性のよい被削材</p> <p>■Blind holes/through holes<br/>■Material that has good malleability</p>                                 |                                 |



# 被削材別選定基準表

Selection Chart according to work Material

| シリーズ<br>Series                            | 商品記号<br>Code | 商品名<br>Product Name  | 掲載<br>Page | 寸法範囲<br>Stocked Size |                | 母材<br>Tool Material | 表面<br>処理<br>Coating | 外観写真<br>Appearance  |  |
|---|--------------|--|------------|----------------------|----------------|---------------------|---------------------|---|--|
|   |              |  |            | ◀ MIN                | MAX ▶          |                     |                     |   |  |
|   |              |  |            | 0                    | 1.4 6 12 24 36 |                     |                     |   |  |
| SG<br>シリーズ<br>SG Series                   | SGSP         | SG スパイラルタップ<br>SG Spiral Tap   | 13,14      | M2                   | M24            | FAX                 | SG                  |    |  |
|   | SGSP-1.5P    | SG スパイラルタップショートチャンファ<br>SG Spiral Tap Short Chamfer                  | 15         | M2                   | M24            | FAX                 | SG                  |    |  |
|   | SGSPL        | SG スパイラルタップロングシャンク<br>SG Spiral Tap Long Shank                       | 16,17      | M3                   | M24            | FAX                 | SG                  |    |  |
|   | SGSP-Ti      | SG スパイラルタップ チタン合金用<br>SG Spiral Tap for Titanium Alloy               | 19         | M3                   | M12            | FAX                 | SG                  |    |  |
|   | SGPO         | SG ポイントタップ<br>SG Point Tap   | 20,21      | M1.4                 | M24            | FAX                 | SG                  |    |  |
|   | SGPOL        | SG ポイントタップロングシャンク<br>SG Point Tap Long Shank                         | 22,23      | M3                   | M24            | FAX                 | SG                  |    |  |
| NEW!<br>Hyper Z<br>シリーズ<br>Hyper Z Series | ZSP          | Hyper Z スパイラルタップ<br>Hyper Z Spiral Tap                               | 25         | M3                   | M12            | HSS-E               | —                   |    |  |
|   | ZPO          | Hyper Z ポイントタップ<br>Hyper Z Point Tap                                 | 26         | M3                   | M12            | HSS-E               | —                   |    |  |
| N<br>シリーズ<br>N Series                     | NSP          | N スパイラルタップ<br>N Spiral Tap   | 27,28      | M2                   | M36            | HSS-E               | —                   |    |  |
|   | NSPL         | N スパイラルタップロングシャンク<br>N Spiral Tap Long Shank                         | 29         | M3                   | M24            | HSS-E               | —                   |   |  |
|   | NPO          | N ポイントタップ<br>N Point Tap   | 30,31      | M1.4                 | M36            | HSS-E               | —                   |  |  |
|   | NPOL         | N ポイントタップロングシャンク<br>N Point Tap Long Shank                           | 32         | M3                   | M24            | HSS-E               | —                   |  |  |
|   | HT           | ハンドタップ<br>Hand Tap   | 33         | M3                   | M24            | HSS-E               | —                   |  |  |
| G<br>シリーズ<br>G Series                     | GSP          | G スパイラルタップ<br>G Spiral Tap   | 34         | M2.6                 | M24            | FAX                 | G                   |  |  |
|   | GSPL         | G スパイラルタップロングシャンク<br>G Spiral Tap Long Shank                         | 35         | M3                   | M16            | FAX                 | G                   |  |  |
|   | GSPS         | G スパイラルタップステンレス・深穴用<br>G Spiral Tap for Stainless Steel & Deep Holes | 35         | M3                   | M24            | FAX                 | G                   |  |  |
|   | GGN          | G ガンタップ<br>G Gun Tap   | 36         | M2.6                 | M24            | FAX                 | G                   |  |  |
|   | GGNL         | G ガンタップロングシャンク<br>G Gun Tap Long Shank                               | 36         | M3                   | M16            | FAX                 | G                   |  |  |
|   | GHT          | G ハンドタップ<br>G Hand Tap   | 37         | M2.6                 | M24            | FAX                 | G                   |  |  |
|   | GHTL         | G ハンドタップロングシャンク<br>G Hand Tap Long Shank                             | 38         | M3                   | M16            | FAX                 | G                   |  |  |
|   | GOH          | G オイルホールタップ<br>G Oil-Hole Tap  | 39         | M6                   | M24            | FAX                 | G                   |  |  |
| T<br>シリーズ<br>T Series                     | TSP          | T スパイラルタップ<br>T Spiral Tap   | 40         | M2                   | M30            | HSS-E               | —                   |  |  |
|   | TSPS         | T スパイラルタップステンレス用<br>T Spiral Tap for Stainless Steel                 | 41         | M3                   | M24            | HSS Co              | —                   |  |  |
|   | TGN          | T ガンタップ<br>T Gun Tap   | 42         | M1.4                 | M24            | HSS-E               | —                   |  |  |
|   | TGNS         | T ガンタップステンレス用<br>T Gun Tap for Stainless Steel                       | 42         | M2                   | M20            | HSS Co              | —                   |  |  |
| エクセル<br>シリーズ<br>EXCEL Series              | ESP          | エクセルスパイラルタップ<br>EXCEL Spiral Tap                                     | 43         | M4                   | M12            | 超硬                  | TICN                |  |  |
|   | EHT          | エクセルハンドタップ<br>EXCEL Hand Tap   | 43         | M3                   | M12            | 超硬                  | TICN                |  |  |
| タフレット<br>シリーズ<br>TAFLET Series            | TFS          | タフレット-S<br>TAFLET-S  | 44         | M1.4                 | M6             | HSS-E               | —                   |  |  |
|   | TFL          | タフレット-L<br>TAFLET-L  | 44         | M1.4                 | M10            | HSS-E               | —                   |  |  |
|   | TFLL         | タフレット-L ロングシャンク<br>TAFLET-L Long Shank                               | 45         | M3                   | M10            | HSS-E               | —                   |  |  |
|   | TFST         | タフレットスチール用<br>TAFLET for Steel                                       | 45         | M1.4                 | M10            | HSS-E               | —                   |  |  |
|   | TFSTL        | タフレットスチール用ロングシャンク<br>TAFLET Long Shank for Steel                     | 46         | M3                   | M10            | HSS-E               | —                   |  |  |

|  | 加工形状 Hole Condition   |   |   |   |   |   | 被削材 Work Material          |                          |                             |                           |                    |  |                           |                 |                              |                            |                     |                         |   |   |   |   |
|--|---|---|---|---|---|---|----------------------------|--------------------------|-----------------------------|---------------------------|--------------------|--|---------------------------|-----------------|------------------------------|----------------------------|---------------------|-------------------------|---|---|---|---|
|  | 止り穴 Blind Hole  |   |   | 通り穴 Through Hole  |   |   | 一般構造用鋼<br>Structural Steel | 低炭素鋼<br>Low Carbon Steel | 中炭素鋼<br>Medium Carbon Steel | 高炭素鋼<br>High Carbon Steel | 合金鋼<br>Alloy Steel | 調質鋼、<br>ダイス鋼<br>Heat Treated Steel<br>Mold Steel | ステンレス鋼<br>Stainless Steel | 鋳鉄<br>Cast Iron | ダクタイル鋳鉄<br>Ductile Cast Iron | アルミニウム合金<br>Aluminum Alloy | 銅合金<br>Copper Alloy | チタン合金<br>Titanium Alloy |   |   |   |   |
|  |  |  |  |  |  |  |                            |                          |                             |                           |                    |  |                           |                 |                              |                            |                     |                         |   |   |   |   |
|  |   |   |   |   |   |   |                            |                          |                             |                           |                    |  |                           |                 |                              |                            |                     |                         |   |   |   |   |
|  | < 2D  | ≥ 2D  | 深い位置<br>Deep Hole   | < 2D  | ≥ 2D  | 深い位置<br>Deep Hole   | SS400                      | S15C                     | S40C                        | S50C                      | SCM<br>SCR         | 25 ~<br>40HRC                                    | SUS                       | FC              | FCD                          | Al,AC<br>ADC               | Cu                  | Ti                      |   |   |   |   |
|  | ◎   | ○   | —   | ○   | ○   | —   | ○                          | ○                        | ◎                           | ◎                         | ○                  | ○  | ○                         | —               | ○                            | ○                          | ○                   | —                       |   |   |   |   |
|  | ◎   | ○   | —   | ○   | ○   | —   | ○                          | ○                        | ◎                           | ◎                         | ○                  | ○  | ○                         | —               | ○                            | ○                          | ○                   | —                       |   |   |   |   |
|  | ○   | ○   | ◎   | ○   | ○   | ○   | ○                          | ○                        | ◎                           | ◎                         | ○                  | ○  | ○                         | —               | ○                            | ○                          | ○                   | —                       |   |   |   |   |
|  | ◎   | ○   | —   | ○   | ○   | —   | —                          | —                        | —                           | —                         | —                  | —  | —                         | —               | —                            | —                          | —                   | ◎                       |   |   |   |   |
|  | 適用できません<br>No Use   |   |   | ◎   | ○   | —   | ◎                          | ◎                        | ◎                           | ◎                         | ◎                  | ○  | ◎                         | —               | ○                            | ○                          | ○                   | —                       |   |   |   |   |
|  |   |   |   | ○   | ○   | ◎   | ◎                          | ◎                        | ◎                           | ◎                         | ◎                  | ◎  | ○                         | ○               | —                            | ○                          | ○                   | ○                       | — |   |   |   |
|  | ◎   | ○   | —   | ○   | ○   | —   | ◎                          | ◎                        | ◎                           | ○                         | ○                  | —  | —                         | —               | —                            | —                          | —                   | —                       |   |   |   |   |
|  | 適用できません<br>No Use   |   |   | ◎   | ○   | —   | ◎                          | ◎                        | ◎                           | ○                         | ○                  | —  | —                         | —               | —                            | —                          | —                   | —                       |   |   |   |   |
|  |   |   |   | ○   | ○   | ◎   | ◎                          | ◎                        | ◎                           | ◎                         | ◎                  | ○  | ○                         | —               | —                            | ○                          | ○                   | ○                       | — |   |   |   |
|  | ◎   | ○   | —   | ○   | ○   | —   | ○                          | ○                        | ○                           | ○                         | ○                  | —  | ○                         | —               | ○                            | ○                          | ○                   | —                       |   |   |   |   |
|  | ◎   | ○   | —   | ○   | ○   | —   | ◎                          | ◎                        | ◎                           | ○                         | ○                  | ○  | —                         | —               | —                            | ○                          | ○                   | —                       |   |   |   |   |
|  | ○   | ○   | ◎   | ○   | ○   | ○   | ○                          | ○                        | ○                           | ○                         | ○                  | —  | —                         | —               | —                            | ○                          | ○                   | —                       |   |   |   |   |
|  | 適用できません<br>No Use   |   |   | ◎   | ○   | —   | ◎                          | ◎                        | ◎                           | ○                         | ○                  | —  | —                         | —               | —                            | ○                          | ○                   | —                       |   |   |   |   |
|  |   |   |   | ○   | ○   | ◎   | ◎                          | ◎                        | ◎                           | ◎                         | ◎                  | ○  | ○                         | —               | —                            | ○                          | ○                   | ○                       | — |   |   |   |
|  | ◎   | ○   | —   | ◎   | ○   | —   | ○                          | ○                        | ○                           | ○                         | ○                  | ○  | ○                         | —               | ◎                            | ○                          | ○                   | —                       |   |   |   |   |
|  | ○   | ○   | ◎   | ○   | ○   | ◎   | ○                          | ○                        | ○                           | ○                         | ○                  | ○  | ○                         | —               | ◎                            | ○                          | ○                   | —                       |   |   |   |   |
|  | ◎   | ◎   | —   | ◎   | ◎   | —   | ○                          | ○                        | ◎                           | ◎                         | ○                  | ◎  | —                         | ○               | ◎                            | ○                          | ○                   | —                       |   |   |   |   |
|  | ◎   | ○   | —   | ○   | ○   | —   | ◎                          | ◎                        | ◎                           | ○                         | ○                  | —  | —                         | —               | —                            | —                          | —                   | —                       |   |   |   |   |
|  | ◎   | ○   | —   | ○   | ○   | —   | ◎                          | ◎                        | ○                           | —                         | —                  | —  | ◎                         | —               | —                            | —                          | —                   | —                       |   |   |   |   |
|  | 適用できません<br>No Use   |   |   | ◎   | ◎   | —   | ○                          | ○                        | ○                           | ○                         | ○                  | —  | —                         | —               | ○                            | ○                          | ○                   | —                       |   |   |   |   |
|  |   |   |   | ◎   | ◎   | —   | ○                          | ○                        | ○                           | ○                         | ○                  | ○  | —                         | ◎               | —                            | —                          | ○                   | ○                       | — |   |   |   |
|  | ◎   | ○   | —   | ○   | ○   | —   | —                          | —                        | —                           | —                         | —                  | —  | —                         | ◎               | ◎                            | ◎                          | ◎                   | —                       |   |   |   |   |
|  | ◎   | ○   | —   | ◎   | ○   | —   | —                          | —                        | —                           | —                         | —                  | —  | —                         | ◎               | ◎                            | ◎                          | ◎                   | —                       |   |   |   |   |
|  | ◎   | ○   | —   | ◎   | ○   | —   | —                          | —                        | —                           | 適用できません<br>No Use         |                    |  |                           |                 |                              | ◎                          | ○                   | —                       |   |   |   |   |
|  | ◎   | ○   | —   | ◎   | ○   | —   | —                          | —                        | —                           |                           |                    |  |                           |                 |                              | ◎                          | ○                   | —                       | — | — | — | — |
|  | ○   | ○   | ◎   | ○   | ○   | ◎   | —                          | —                        | —                           |                           |                    |  |                           |                 |                              | ◎                          | ○                   | —                       | — | — | — | — |
|  | ◎   | ○   | —   | ◎   | ○   | —   | ◎                          | ◎                        | ◎                           | ○                         | ○                  | —  | ○                         | —               | —                            | —                          | —                   | —                       |   |   |   |   |
|  | ○   | ○   | ◎   | ○   | ○   | ◎   | ◎                          | ◎                        | ◎                           | ○                         | ○                  | —  | ○                         | —               | —                            | —                          | —                   | —                       |   |   |   |   |

# SGSP

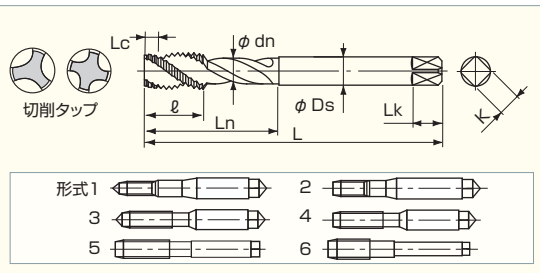
## SGスパイラルタップ

各種被削材・加工機械、広範囲な切削条件で優れた性能を発揮。  
SG Spiral Tap

Superior performance can exert on cutting various materials, machines, and wide range of cutting conditions.



オーダー方法 SGSP 記号



LIST7946

・単位(Unit):mm/円(¥)

| 記号<br>Code No. | 呼び<br>Thread Size | 等級<br>TAP Limit |      | 食付(P)<br>Lc (P) | 全長<br>L | ねじ長<br>ℓ | 溝数<br>Flutes | シャンク径<br>Ds | 首下長さ<br>Ln | 首径<br>dn | 形式<br>Type | 在庫<br>Stock | 参考価格<br>Price |
|----------------|-------------------|-----------------|------|-----------------|---------|----------|--------------|-------------|------------|----------|------------|-------------|---------------|
| 2M0.4R         | M2 × 0.4          | REG             | P1.5 | 2.5             | 40      | 8.0      | 3            | 3.0         | 15.0       | 2.1 *    | 1          | ●           | 3,430         |
| 2M0.4ZR        |                   |                 |      |                 |         |          |              |             |            |          | 2          |             | 3,460         |
| 2M0.25R        | M2 × 0.25         | REG             | P1   | 2.5             | 40      | 8.0      | 3            | 3.0         | 15.0       | 2.1 *    | 1          | ●           | 4,860         |
| 2M0.25ZR       |                   |                 |      |                 |         |          |              |             |            |          | 2          |             | 4,890         |
| 2.2M0.45R      | M2.2 × 0.45       | REG             | P2   | 2.5             | 42      | 9.5      | 3            | 3.0         | 15.0       | 2.3 *    | 1          | ●           | 3,620         |
| 2.2M0.45ZR     |                   |                 |      |                 |         |          |              |             |            |          | 2          |             | 3,660         |
| 2.2M0.25R      | M2.2 × 0.25       | REG             | P1   | 2.5             | 42      | 9.5      | 3            | 3.0         | 15.0       | 2.3 *    | 1          | ●           | 5,440         |
| 2.2M0.25ZR     |                   |                 |      |                 |         |          |              |             |            |          | 2          |             | 5,480         |
| 2.3M0.4R       | M2.3 × 0.4        | REG             | P1.5 | 2.5             | 42      | 9.5      | 3            | 3.0         | 15.0       | 2.4 *    | 1          | ●           | 3,220         |
| 2.3M0.4ZR      |                   |                 |      |                 |         |          |              |             |            |          | 2          |             | 3,260         |
| 2.5M0.45R      | M2.5 × 0.45       | REG             | P2   | 2.5             | 44      | 9.5      | 3            | 3.0         | 16.0       | 2.6 *    | 1          | ●           | 3,010         |
| 2.5M0.45ZR     |                   |                 |      |                 |         |          |              |             |            |          | 2          |             | 3,050         |
| 2.5M0.35R      | M2.5 × 0.35       | REG             | P1.5 | 2.5             | 44      | 9.5      | 3            | 3.0         | 16.0       | 2.6 *    | 1          | ●           | 4,130         |
| 2.5M0.35ZR     |                   |                 |      |                 |         |          |              |             |            |          | 2          |             | 4,170         |
| 2.6M0.45R      | M2.6 × 0.45       | REG             | P2   | 2.5             | 44      | 9.5      | 3            | 3.0         | 16.0       | 2.7 *    | 1          | ●           | 2,820         |
| 2.6M0.45ZR     |                   |                 |      |                 |         |          |              |             |            |          | 2          |             | 2,860         |
| 3M0.5R         | M3 × 0.5          | REG             | P2   | 2.5             | 46      | 3.5      | 3            | 4.0         | 18.0       | 2.5      | 3          | ●           | 2,390         |
| 3M0.5R+1       |                   | REG+1           | P3   |                 |         |          |              |             |            |          |            |             | 2,500         |
| 3M0.5R+2       |                   | REG+2           | P4   |                 |         |          |              |             |            |          |            |             | 2,500         |
| 3M0.5ZR        |                   | REG             | P2   |                 |         |          |              |             |            |          | 4          |             | 2,440         |
| 3M0.35R        | M3 × 0.35         | REG             | P2   | 2.5             | 46      | 3.5      | 3            | 4.0         | 18.0       | 2.5      | 3          | ●           | 3,360         |
| 3M0.35R+1      |                   | REG+1           | P3   |                 |         |          |              |             |            |          |            |             | 3,540         |
| 3M0.35ZR       |                   | REG             | P2   |                 |         |          |              |             |            |          | 4          |             | 3,410         |
| 3.5M0.6R       | M3.5 × 0.6        | REG             | P2   | 2.5             | 48      | 4.2      | 3            | 4.0         | 18.0       | 2.8      | 3          | ●           | 2,670         |
| 3.5M0.35R      | M3.5 × 0.35       | REG             | P2   | 2.5             | 48      | 4.2      | 3            | 4.0         | 18.0       | 2.8      | 3          | ●           | 3,780         |
| 4M0.7R         | M4 × 0.7          | REG             | P3   | 2.5             | 52      | 4.9      | 3            | 5.0         | 20.0       | 3.2      | 3          | ●           | 2,350         |
| 4M0.7R+1       |                   | REG+1           | P4   |                 |         |          |              |             |            |          |            |             | 2,460         |
| 4M0.7R+2       |                   | REG+2           | P5   |                 |         |          |              |             |            |          |            |             | 2,460         |
| 4M0.7ZR        |                   | REG             | P3   |                 |         |          |              |             |            |          | 4          |             | 2,410         |
| 4M0.5R         | M4 × 0.5          | REG             | P2   | 2.5             | 52      | 4.9      | 3            | 5.0         | 20.0       | 3.2      | 3          | ●           | 2,930         |
| 4M0.5R+1       |                   | REG+1           | P3   |                 |         |          |              |             |            |          |            |             | 3,060         |
| 4M0.5ZR        |                   | REG             | P2   |                 |         |          |              |             |            |          | 4          |             | 2,990         |
| 4.5M0.75R      | M4.5 × 0.75       | REG             | P2   | 2.5             | 55      | 5.3      | 3            | 5.0         | 20.0       | 3.6      | 3          | ●           | 2,890         |
| 4.5M0.5R       | M4.5 × 0.5        | REG             | P2   | 2.5             | 55      | 5.3      | 3            | 5.0         | 20.0       | 3.6      | 3          | ●           | 3,400         |
| 5M0.8R         | M5 × 0.8          | REG             | P3   | 2.5             | 60      | 5.6      | 3            | 5.5         | 22.0       | 4.1      | 3          | ●           | 2,370         |
| 5M0.8R+1       |                   | REG+1           | P4   |                 |         |          |              |             |            |          |            |             | 2,480         |
| 5M0.8R+2       |                   | REG+2           | P5   |                 |         |          |              |             |            |          |            |             | 2,480         |
| 5M0.8ZR        |                   | REG             | P3   |                 |         |          |              |             |            |          | 4          |             | 2,450         |
| 5M0.5R         | M5 × 0.5          | REG             | P2   | 2.5             | 60      | 5.6      | 3            | 5.5         | 22.0       | 4.1      | 3          | ●           | 3,040         |
| 5M0.5R+1       |                   | REG+1           | P3   |                 |         |          |              |             |            |          |            |             | 3,190         |
| 5M0.5ZR        |                   | REG             | P2   |                 |         |          |              |             |            |          | 4          |             | 3,120         |
| 5.5M0.5R       | M5.5 × 0.5        | REG             | P2   | 2.5             | 60      | 6.3      | 3            | 5.5         | 23.0       | 4.5      | 3          | ●           | 3,540         |
| 6M1R           | M6 × 1            | REG             | P3   | 2.5             | 62      | 7.0      | 3            | 6.0         | 24.0       | 4.9      | 3          | ●           | 2,440         |
| 6M1R+1         |                   | REG+1           | P4   |                 |         |          |              |             |            |          |            |             | 2,550         |
| 6M1R+2         |                   | REG+2           | P5   |                 |         |          |              |             |            |          |            |             | 2,550         |
| 6M1ZR          |                   | REG             | P3   |                 |         |          |              |             |            |          | 4          |             | 2,530         |
| 6M0.75R        | M6 × 0.75         | REG             | P2   | 2.5             | 62      | 7.0      | 3            | 6.0         | 24.0       | 4.9      | 3          | ●           | 3,040         |
| 6M0.75R+1      |                   | REG+1           | P3   |                 |         |          |              |             |            |          |            |             | 3,190         |
| 6M0.75ZR       |                   | REG             | P2   |                 |         |          |              |             |            |          | 4          |             | 3,130         |
| 6M0.5R         | M6 × 0.5          | REG             | P2   | 2.5             | 62      | 7.0      | 3            | 6.0         | 24.0       | 4.9      | 3          | ●           | 3,400         |
| 6M0.5R+1       |                   | REG+1           | P3   |                 |         |          |              |             |            |          |            |             | 3,570         |
| 6M0.5ZR        |                   | REG             | P2   |                 |         |          |              |             |            |          | 4          |             | 3,490         |
| 7M1R           | M7 × 1            | REG             | P3   | 2.5             | 65      | 7.0      | 3            | 6.2         | 26.0       | 5.9      | 5          | ●           | 3,160         |
| 7M0.75R        | M7 × 0.75         | REG             | P2   | 2.5             | 65      | 7.0      | 3            | 6.2         | 26.0       | 5.9      | 5          | ●           | 3,910         |
| 8M1.25R        | M8 × 1.25         | REG             | P3   | 2.5             | 70      | 8.8      | 3            | 6.2         | 29.8       | 6.6      | 6          | ●           | 3,170         |
| 8M1.25R+1      |                   | REG+1           | P4   |                 |         |          |              |             |            |          |            |             | 3,330         |
| 8M1.25R+2      |                   | REG+2           | P5   |                 |         |          |              |             |            |          |            |             | 3,330         |
| 8M1R           | M8 × 1            | REG             | P3   | 2.5             | 70      | 8.8      | 3            | 6.2         | 29.8       | 6.9      | 6          | ●           | 3,740         |
| 8M1R+1         |                   | REG+1           | P4   |                 |         |          |              |             |            |          |            |             | 3,930         |
| 8M0.75R        |                   | REG             | P3   |                 |         |          |              |             |            |          |            |             | 4,100         |
| 8M0.75R+1      | M8 × 0.75         | REG+1           | P4   | 2.5             | 70      | 8.8      | 3            | 6.2         | 29.8       | 7.1      | 6          | ●           | 4,290         |

●:標準在庫品 Stocked items

M6 以下には突出しセンタありとなし (フラットタイプ) の 2 種類があります。突出しセンタなし (フラットタイプ) の場合は記号の R の前に "Z" が入ります。

Taps of M6 or less have 2 types, which are external center and Flat type.

In the case of Flat type (no external center), the code No. has "Z" in front of "R".

\*:呼び径 < 首径です。めねじ加工深さが深い場合、ねじ長以上入れると折損の危険があります。

\*:Thread Size < Neck diameter (dn) When depth of cutting a female thread is deep, if putting the screw length or more in length, there is a risk of breakage.

・シャンク四角部寸法 K, LkはP.46を参照 Refer to page 46 for the square portion size of shank



・単位(Unit):mm/円(¥)

| 記号<br>Code No. | 呼び<br>Thread Size | 等級<br>TAP Limit |    | 食付(P)<br>Lc (P) | 全長<br>L | ねじ長<br>ℓ | 溝数<br>Flutes | シャンク径<br>Ds | 首下長さ<br>Ln | 首径<br>dn | 形式<br>Type | 在庫<br>Stock | 参考価格<br>Price |
|----------------|-------------------|-----------------|----|-----------------|---------|----------|--------------|-------------|------------|----------|------------|-------------|---------------|
| 9M1.25R        | M9 × 1.25         | REG             | P3 | 2.5             | 72      | 8.8      | 3            | 7.0         | 29.8       | 7.6      | 6          | ●           | 3,880         |
| 9M1R           | M9 × 1            | REG             | P3 | 2.5             | 72      | 8.8      | 3            | 7.0         | 29.8       | 7.9      | 6          | ●           | 4,550         |
| 9M0.75R        | M9 × 0.75         | REG             | P3 | 2.5             | 72      | 8.8      | 3            | 7.0         | 29.8       | 8.1      | 6          | ●           | 4,950         |
| 10M1.5R        | M10 × 1.5         | REG             | P3 | 2.5             | 75      | 10.5     | 3            | 7.0         | 31.4       | 8.3      | 6          | ●           | 3,840         |
| 10M1.5R+1      |                   | REG+1           | P4 |                 |         |          |              |             |            |          |            |             | 4,040         |
| 10M1.5R+2      |                   | REG+2           | P5 |                 |         |          |              |             |            |          |            |             | 4,040         |
| 10M1.25R       | M10 × 1.25        | REG             | P3 | 2.5             | 75      | 10.5     | 3            | 7.0         | 31.4       | 8.7      | 6          | ●           | 3,840         |
| 10M1.25R+1     |                   | REG+1           | P4 |                 |         |          |              |             |            |          |            |             | 4,040         |
| 10M1R          | M10 × 1           | REG             | P3 | 2.5             | 75      | 10.5     | 3            | 7.0         | 31.4       | 8.9      | 6          | ●           | 4,560         |
| 10M1R+1        |                   | REG+1           | P4 |                 |         |          |              |             |            |          |            |             | 4,780         |
| 10M0.75R       |                   | REG             | P3 |                 |         |          |              |             |            |          |            |             | 5,060         |
| 10M0.75R+1     | M10 × 0.75        | REG+1           | P4 | 2.5             | 75      | 10.5     | 3            | 7.0         | 31.4       | 9.1      | 6          | ●           | 5,190         |
| 11M1.5R        | M11 × 1.5         | REG             | P3 | 2.5             | 80      | 10.5     | 3            | 8.0         | 31.4       | 9.3      | 6          | ●           | 4,760         |
| 11M1R          | M11 × 1           | REG             | P3 | 2.5             | 80      | 10.5     | 3            | 8.0         | 31.4       | 9.9      | 6          | ●           | 5,770         |
| 11M0.75R       | M11 × 0.75        | REG             | P3 | 2.5             | 80      | 10.5     | 3            | 8.0         | 31.4       | 10.1     | 6          | ●           | 6,340         |
| 12M1.75R       | M12 × 1.75        | REG             | P4 | 2.5             | 82      | 12.3     | 3            | 8.5         | 36.2       | 10.1     | 6          | ●           | 5,010         |
| 12M1.75R+1     |                   | REG+1           | P5 |                 |         |          |              |             |            |          |            |             | 5,250         |
| 12M1.75R+2     |                   | REG+2           | P6 |                 |         |          |              |             |            |          |            |             | 5,250         |
| 12M1.5R        | M12 × 1.5         | REG             | P3 | 2.5             | 82      | 12.3     | 3            | 8.5         | 36.2       | 10.4     | 6          | ●           | 5,010         |
| 12M1.5R+1      |                   | REG+1           | P4 |                 |         |          |              |             |            |          |            |             | 5,250         |
| 12M1.25R       | M12 × 1.25        | REG             | P3 | 2.5             | 82      | 12.3     | 3            | 8.5         | 36.2       | 10.7     | 6          | ●           | 5,010         |
| 12M1.25R+1     |                   | REG+1           | P4 |                 |         |          |              |             |            |          |            |             | 5,250         |
| 12M1R          | M12 × 1           | REG             | P3 | 2.5             | 82      | 12.3     | 3            | 8.5         | 36.2       | 10.9     | 6          | ●           | 5,560         |
| 12M1R+1        |                   | REG+1           | P4 |                 |         |          |              |             |            |          |            |             | 5,830         |
| 14M2R          | M14 × 2           | REG             | P4 | 2.5             | 88      | 14.0     | 3            | 10.5        | 42.4       | 11.8     | 6          | ●           | 7,150         |
| 14M1.5R        | M14 × 1.5         | REG             | P3 | 2.5             | 88      | 14.0     | 3            | 10.5        | 42.4       | 12.3     | 6          | ●           | 7,150         |
| 14M1.25R       | M14 × 1.25        | REG             | P3 | 2.5             | 88      | 14.0     | 3            | 10.5        | 42.4       | 12.7     | 6          | ●           | 7,480         |
| 14M1R          | M14 × 1           | REG             | P3 | 2.5             | 88      | 14.0     | 3            | 10.5        | 42.4       | 12.9     | 6          | ●           | 7,630         |
| 15M1.5R        | M15 × 1.5         | REG             | P3 | 2.5             | 90      | 10.5     | 3            | 10.5        | 42.4       | 13.3     | 6          | ●           | 9,260         |
| 15M1R          | M15 × 1           | REG             | P3 | 2.5             | 90      | 10.5     | 3            | 10.5        | 42.4       | 13.9     | 6          | ●           | 10,000        |
| 16M2R          | M16 × 2           | REG             | P4 | 2.5             | 95      | 14.0     | 3            | 12.5        | 44.4       | 13.8     | 6          | ●           | 9,230         |
| 16M1.5R        | M16 × 1.5         | REG             | P3 | 2.5             | 95      | 14.0     | 3            | 12.5        | 44.4       | 14.3     | 6          | ●           | 9,230         |
| 16M1R          | M16 × 1           | REG             | P3 | 2.5             | 95      | 14.0     | 3            | 12.5        | 44.4       | 14.9     | 6          | ●           | 9,900         |
| 17M1.5R        | M17 × 1.5         | REG             | P3 | 2.5             | 95      | 10.5     | 3            | 13.0        | 44.4       | 15.3     | 6          | ●           | 12,400        |
| 17M1R          | M17 × 1           | REG             | P3 | 2.5             | 95      | 10.5     | 3            | 13.0        | 44.4       | 15.9     | 6          | ●           | 14,100        |
| 18M2.5R        | M18 × 2.5         | REG             | P5 | 2.5             | 100     | 17.5     | 3            | 14.0        | 49.2       | 15.3     | 6          | ●           | 12,100        |
| 18M2R          | M18 × 2           | REG             | P4 | 2.5             | 100     | 17.5     | 3            | 14.0        | 49.2       | 15.8     | 6          | ●           | 12,400        |
| 18M1.5R        | M18 × 1.5         | REG             | P4 | 2.5             | 100     | 17.5     | 3            | 14.0        | 49.2       | 16.3     | 6          | ●           | 12,100        |
| 18M1R          | M18 × 1           | REG             | P3 | 2.5             | 100     | 17.5     | 3            | 14.0        | 49.2       | 16.9     | 6          | ●           | 14,800        |
| 20M2.5R        | M20 × 2.5         | REG             | P5 | 2.5             | 105     | 17.5     | 4            | 15.0        | 50.7       | 17.3     | 6          | ●           | 15,100        |
| 20M2R          | M20 × 2           | REG             | P4 | 2.5             | 105     | 17.5     | 4            | 15.0        | 50.7       | 17.8     | 6          | ●           | 16,200        |
| 20M1.5R        | M20 × 1.5         | REG             | P4 | 2.5             | 105     | 17.5     | 4            | 15.0        | 50.7       | 18.3     | 6          | ●           | 15,100        |
| 20M1R          | M20 × 1           | REG             | P3 | 2.5             | 105     | 17.5     | 4            | 15.0        | 50.7       | 18.9     | 6          | ●           | 17,300        |
| 22M2.5R        | M22 × 2.5         | REG             | P5 | 2.5             | 115     | 17.5     | 4            | 17.0        | 54.0       | 19.2     | 6          | ●           | 19,300        |
| 22M2R          | M22 × 2           | REG             | P4 | 2.5             | 115     | 17.5     | 4            | 17.0        | 54.0       | 19.8     | 6          | ●           | 20,600        |
| 22M1.5R        | M22 × 1.5         | REG             | P4 | 2.5             | 115     | 17.5     | 4            | 17.0        | 54.0       | 20.3     | 6          | ●           | 19,300        |
| 22M1R          | M22 × 1           | REG             | P3 | 2.5             | 115     | 17.5     | 4            | 17.0        | 54.0       | 20.9     | 6          | ●           | 21,700        |
| 24M3R          | M24 × 3           | REG             | P5 | 2.5             | 120     | 21.0     | 4            | 19.0        | 59.0       | 20.7     | 6          | ●           | 24,400        |
| 24M2R          | M24 × 2           | REG             | P4 | 2.5             | 120     | 21.0     | 4            | 19.0        | 59.0       | 21.8     | 6          | ●           | 25,900        |
| 24M1.5R        | M24 × 1.5         | REG             | P4 | 2.5             | 120     | 21.0     | 4            | 19.0        | 59.0       | 22.3     | 6          | ●           | 24,400        |
| 24M1R          | M24 × 1           | REG             | P3 | 2.5             | 120     | 21.0     | 4            | 19.0        | 59.0       | 22.9     | 6          | ●           | 28,000        |

● : 標準在庫品 Stocked items

・ シャンク四角部寸法 K、LkはP.46を参照 Refer to page 46 for the square portion size of shank

# SGSP-1.5P

## SGスパイラルタップショートチャンファ

食付き形状の最適化で長寿命

**SG Spiral Tap Short Chamfer**

Optimization shape of chamfer can make tool life longer



オーダー方法 **SGSP** 記号 × 1.5P

**FAX**

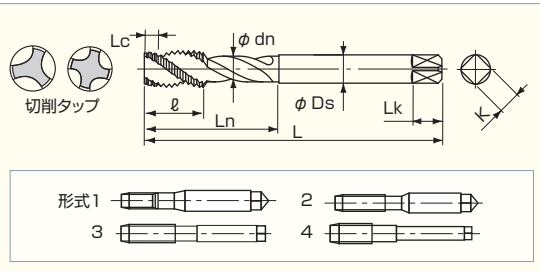
**SG**

**45°**

工具材料

コーティング

ねじれ角



LIST7954

・単位(Unit):mm/円(¥)

| 記号<br>Code No. | 呼び<br>Thread Size | 等級<br>TAP Limit |      | 食付(P)<br>Lc (P) | 全長<br>L | ねじ長<br>ℓ | 溝数<br>Flutes | シャンク径<br>Ds | 首下長さ<br>Ln | 首径<br>dn | 形式<br>Type | 在庫<br>Stock | 参考価格<br>Price |
|----------------|-------------------|-----------------|------|-----------------|---------|----------|--------------|-------------|------------|----------|------------|-------------|---------------|
| 2M0.4R         | M2 × 0.4          | REG             | P1.5 | 1.5             | 40      | 8.0      | 3            | 3.0         | 15.0       | 2.1 *    | 1          | ●           | 3,430         |
| 3M0.5R         | M3 × 0.5          | REG             | P2   | 1.5             | 46      | 3.5      | 3            | 4.0         | 18.0       | 2.5      | 2          | ●           | 2,390         |
| 3.5M0.6R       | M3.5 × 0.6        | REG             | P2   | 1.5             | 48      | 4.2      | 3            | 4.0         | 18.0       | 2.8      | 2          | ●           | 2,670         |
| 4M0.7R         | M4 × 0.7          | REG             | P3   | 1.5             | 52      | 4.9      | 3            | 5.0         | 20.0       | 3.2      | 2          | ●           | 2,350         |
| 5M0.8R         | M5 × 0.8          | REG             | P3   | 1.5             | 60      | 5.6      | 3            | 5.5         | 22.0       | 4.1      | 2          | ●           | 2,370         |
| 6M1R           | M6 × 1            | REG             | P3   | 1.5             | 62      | 7.0      | 3            | 6.0         | 24.0       | 4.9      | 3          | ●           | 2,440         |
| 8M1.25R        | M8 × 1.25         | REG             | P3   | 1.5             | 70      | 8.8      | 3            | 6.2         | 29.8       | 6.6      | 4          | ●           | 3,170         |
| 8M1R           | M8 × 1            | REG             | P3   | 1.5             | 70      | 8.8      | 3            | 6.2         | 29.8       | 6.9      | 4          | ●           | 3,740         |
| 10M1.5R        | M10 × 1.5         | REG             | P3   | 1.5             | 75      | 10.5     | 3            | 7.0         | 31.4       | 8.3      | 4          | ●           | 3,840         |
| 10M1.25R       | M10 × 1.25        | REG             | P3   | 1.5             | 75      | 10.5     | 3            | 7.0         | 31.4       | 8.7      | 4          | ●           | 3,840         |
| 10M1R          | M10 × 1           | REG             | P3   | 1.5             | 75      | 10.5     | 3            | 7.0         | 31.4       | 8.9      | 4          | ●           | 4,560         |
| 12M1.75R       | M12 × 1.75        | REG             | P4   | 1.5             | 82      | 12.3     | 3            | 8.5         | 36.2       | 10.1     | 4          | ●           | 5,010         |
| 12M1.5R        | M12 × 1.5         | REG             | P3   | 1.5             | 82      | 12.3     | 3            | 8.5         | 36.2       | 10.4     | 4          | ●           | 5,010         |
| 12M1.25R       | M12 × 1.25        | REG             | P3   | 1.5             | 82      | 12.3     | 3            | 8.5         | 36.2       | 10.7     | 4          | ●           | 5,010         |
| 14M2R          | M14 × 2           | REG             | P4   | 1.5             | 88      | 14.0     | 3            | 10.5        | 42.4       | 11.8     | 4          | ●           | 7,150         |
| 14M1.5R        | M14 × 1.5         | REG             | P3   | 1.5             | 88      | 14.0     | 3            | 10.5        | 42.4       | 12.3     | 4          | ●           | 7,150         |
| 16M2R          | M16 × 2           | REG             | P4   | 1.5             | 95      | 14.0     | 3            | 12.5        | 44.4       | 13.8     | 4          | ●           | 9,230         |
| 16M1.5R        | M16 × 1.5         | REG             | P3   | 1.5             | 95      | 14.0     | 3            | 12.5        | 44.4       | 14.3     | 4          | ●           | 9,230         |
| 18M2.5R        | M18 × 2.5         | REG             | P5   | 1.5             | 100     | 17.5     | 3            | 14.0        | 49.2       | 15.3     | 4          | ●           | 12,100        |
| 18M1.5R        | M18 × 1.5         | REG             | P4   | 1.5             | 100     | 17.5     | 3            | 14.0        | 49.2       | 16.3     | 4          | ●           | 12,100        |
| 20M2.5R        | M20 × 2.5         | REG             | P5   | 1.5             | 105     | 17.5     | 4            | 15.0        | 50.7       | 17.3     | 4          | ●           | 15,100        |
| 20M1.5R        | M20 × 1.5         | REG             | P4   | 1.5             | 105     | 17.5     | 4            | 15.0        | 50.7       | 18.3     | 4          | ●           | 15,100        |
| 22M2.5R        | M22 × 2.5         | REG             | P5   | 1.5             | 115     | 17.5     | 4            | 17.0        | 54.0       | 19.2     | 4          | ●           | 19,300        |
| 22M1.5R        | M22 × 1.5         | REG             | P4   | 1.5             | 115     | 17.5     | 4            | 17.0        | 54.0       | 20.3     | 4          | ●           | 19,300        |
| 24M3R          | M24 × 3           | REG             | P5   | 1.5             | 120     | 21.0     | 4            | 19.0        | 59.0       | 20.7     | 4          | ●           | 24,400        |
| 24M1.5R        | M24 × 1.5         | REG             | P4   | 1.5             | 120     | 21.0     | 4            | 19.0        | 59.0       | 22.3     | 4          | ●           | 24,400        |

● : 標準在庫品 Stocked items

\*: 呼び径 < 首径です。めねじ加工深さが深い場合、ねじ長以上入れると折損の危険があります。

\*: Thread Size < Neck diameter (dn) When depth of cutting a female thread is deep, if putting the screw length or more in length, there is a risk of breakage.

・シャンク四角部寸法 K、LkはP.46を参照 Refer to page 46 for the square portion size of shank

# SGSPL

## SGスパイラルタップロングシャンク

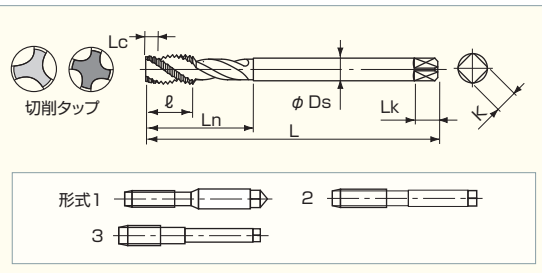
標準寸法では、突出し長さが不足するような場合に使用します。

### SG Spiral Tap Long Shank

This tap is used when a standard SG Spiral Tap is too short.



オーダー方法 **SGSPL** 記号 × 全長



LIST7948

・単位(Unit):mm/(円/¥)

| 記号<br>Code No. | 全長<br>L | 呼び<br>Thread Size | 等級<br>TAP Limit | 食付(P)<br>Lc (P) | ねじ長<br>ℓ | 溝数<br>Flutes | シャンク径<br>Ds | 首下長さ<br>Ln | 形式<br>Type | 在庫<br>Stock | 参考価格<br>Price |
|----------------|---------|-------------------|-----------------|-----------------|----------|--------------|-------------|------------|------------|-------------|---------------|
| 3M0.5R         | 100     | M3×0.5            | REG             | P2              | 2.5      | 3            | 4.0         | 13.0       | 1          | ●           | 4,560         |
| 3M0.5R+1       |         |                   | REG+1           | P3              |          |              |             |            |            |             | 4,670         |
| 3M0.5R+2       |         |                   | REG+2           | P4              |          |              |             |            |            |             | 4,670         |
| 3M0.35R        |         |                   | REG             | P2              |          |              |             |            |            |             | 6,450         |
| 3M0.35R+1      | 100     | M3×0.35           | REG+1           | P3              | 2.5      | 3            | 4.0         | 13.0       | 1          | ●           | 6,630         |
| 3.5M0.6R       | 100     | M3.5×0.6          | REG             | P2              | 2.5      | 3            | 4.0         | 15.0       | 1          | ●           | 4,750         |
| 3.5M0.35R      | 100     | M3.5×0.35         | REG             | P2              | 2.5      | 3            | 4.0         | 15.0       | 1          | ●           | 7,370         |
| 4M0.7R         | 100     | M4×0.7            | REG             | P3              | 2.5      | 3            | 5.0         | 17.0       | 1          | ●           | 4,160         |
| 4M0.7R+1       |         |                   | REG+1           | P4              |          |              |             |            |            |             | 4,270         |
| 4M0.7R+2       |         |                   | REG+2           | P5              |          |              |             |            |            |             | 4,270         |
| 4M0.5R         |         |                   | REG             | P2              |          |              |             |            |            |             | 5,460         |
| 4M0.5R+1       | 100     | M4×0.5            | REG+1           | P3              | 2.5      | 3            | 5.0         | 17.0       | 1          | ●           | 5,590         |
| 4.5M0.75R      | 100     | M4.5×0.75         | REG             | P2              | 2.5      | 3            | 5.0         | 19.0       | 1          | ●           | 4,820         |
| 4.5M0.5R       | 100     | M4.5×0.5          | REG             | P2              | 2.5      | 3            | 5.0         | 19.0       | 1          | ●           | 6,030         |
| 5M0.8R         | 100     | M5×0.8            | REG             | P3              | 2.5      | 3            | 5.5         | 21.0       | 1          | ●           | 3,720         |
| 5M0.8R+1       |         |                   | REG+1           | P4              |          |              |             |            |            |             | 3,830         |
| 5M0.8R+2       |         |                   | REG+2           | P5              |          |              |             |            |            |             | 3,830         |
| 5M0.5R         |         |                   | REG             | P2              |          |              |             |            |            |             | 4,680         |
| 5M0.5R+1       | 100     | M5×0.5            | REG+1           | P3              | 2.5      | 3            | 5.5         | 21.0       | 1          | ●           | 4,830         |
| 5.5M0.5R       | 100     | M5.5×0.5          | REG             | P2              | 2.5      | 3            | 5.5         | 23.0       | 1          | ●           | 5,300         |
| 6M1R           | 100     | M6×1              | REG             | P3              | 2.5      | 3            | 6.0         | 25.0       | 1          | ●           | 3,820         |
| 6M1R           | 150     |                   |                 |                 |          |              |             |            |            |             | 5,100         |
| 6M1R+1         | 100     |                   |                 |                 |          |              |             |            |            |             | 3,930         |
| 6M1R+1         | 150     |                   |                 |                 |          |              |             |            |            |             | 5,210         |
| 6M1R+2         | 100     | M6×0.75           | REG             | P2              | 2.5      | 3            | 6.0         | 25.0       | 1          | ●           | 4,040         |
| 6M1R+2         | 150     |                   |                 |                 |          |              |             |            |            |             | 5,210         |
| 6M0.75R        | 100     |                   |                 |                 |          |              |             |            |            |             | 4,460         |
| 6M0.75R        | 150     |                   |                 |                 |          |              |             |            |            |             | 6,190         |
| 6M0.75R+1      | 100     | M7×1              | REG             | P3              | 2.5      | 3            | 6.2         | 25.3       | 2          | ●           | 4,610         |
| 6M0.75R+1      | 150     |                   |                 |                 |          |              |             |            |            |             | 6,340         |
| 7M1R           | 100     |                   |                 |                 |          |              |             |            |            |             | 4,650         |
| 7M1R           | 150     |                   |                 |                 |          |              |             |            |            |             | 6,250         |
| 7M0.75R        | 100     | M7×0.75           | REG             | P2              | 2.5      | 3            | 6.2         | 25.3       | 2          | ●           | 5,670         |
| 7M0.75R        | 150     |                   |                 |                 |          |              |             |            |            |             | 7,980         |
| 8M1.25R        | 100     |                   |                 |                 |          |              |             |            |            |             | 4,490         |
| 8M1.25R        | 150     |                   |                 |                 |          |              |             |            |            |             | 6,050         |
| 8M1.25R+1      | 100     | M8×1.25           | REG             | P3              | 2.5      | 3            | 6.2         | 28.0       | 3          | ●           | 4,650         |
| 8M1.25R+1      | 150     |                   |                 |                 |          |              |             |            |            |             | 6,210         |
| 8M1.25R+2      | 100     |                   |                 |                 |          |              |             |            |            |             | 4,650         |
| 8M1.25R+2      | 150     |                   |                 |                 |          |              |             |            |            |             | 6,210         |
| 8M1R           | 100     | M8×1              | REG             | P3              | 2.5      | 3            | 6.2         | 28.0       | 3          | ●           | 5,050         |
| 8M1R           | 150     |                   |                 |                 |          |              |             |            |            |             | 7,020         |
| 8M1R+1         | 100     |                   |                 |                 |          |              |             |            |            |             | 5,240         |
| 8M1R+1         | 150     |                   |                 |                 |          |              |             |            |            |             | 7,210         |
| 8M0.75R        | 100     | M8×0.75           | REG             | P3              | 2.5      | 3            | 6.2         | 28.0       | 3          | ●           | 5,480         |
| 8M0.75R        | 150     |                   |                 |                 |          |              |             |            |            |             | 7,760         |
| 8M0.75R+1      | 100     |                   |                 |                 |          |              |             |            |            |             | 5,670         |
| 8M0.75R+1      | 150     |                   |                 |                 |          |              |             |            |            |             | 7,950         |
| 9M1.25R        | 100     | M9×1.25           | REG             | P3              | 2.5      | 3            | 7.0         | 28.6       | 3          | ●           | 5,160         |
| 9M1.25R        | 150     |                   |                 |                 |          |              |             |            |            |             | 7,210         |
| 9M1R           | 100     |                   |                 |                 |          |              |             |            |            |             | 5,970         |
| 9M1R           | 150     |                   |                 |                 |          |              |             |            |            |             | 8,580         |
| 9M0.75R        | 100     | M9×0.75           | REG             | P3              | 2.5      | 3            | 7.0         | 28.6       | 3          | ●           | 6,520         |
| 9M0.75R        | 150     |                   |                 |                 |          |              |             |            |            |             | 9,540         |

● : 標準在庫品 Stocked items

・シャンク四角部寸法 K、LkはP.46を参照 Refer to page 46 for the square portion size of shank

次頁に続く ➡

Continued on the following page



・単位(Unit):mm/円(¥)

| 記号<br>Code No. | 全長<br>L | 呼び<br>Thread Size | 等級<br>TAP Limit |    | 食付(P)<br>Lc (P) | ねじ長<br>ℓ | 溝数<br>Flutes | シャンク径<br>Ds | 首下長さ<br>Ln | 形式<br>Type | 在庫<br>Stock | 参考価格<br>Price |
|----------------|---------|-------------------|-----------------|----|-----------------|----------|--------------|-------------|------------|------------|-------------|---------------|
| 10M1.5R        | 100     | M10×1.5           | REG             | P3 | 2.5             | 18.8     | 3            | 7.0         | 31.9       | 3          | ●           | 5,100         |
| 10M1.5R        | 150     |                   |                 |    |                 |          |              |             |            |            |             | 7,100         |
| 10M1.5R+1      | 100     |                   | REG+1           | P4 |                 |          |              |             |            |            |             | 5,300         |
| 10M1.5R+1      | 150     |                   |                 |    |                 |          |              |             |            |            |             | 7,300         |
| 10M1.5R+2      | 100     |                   | REG+2           | P5 |                 |          |              |             |            |            |             | 5,300         |
| 10M1.5R+2      | 150     |                   |                 |    |                 |          |              |             |            |            |             | 7,300         |
| 10M1.25R       | 100     | M10×1.25          | REG             | P3 | 2.5             | 15.1     | 3            | 7.0         | 31.9       | 3          | ●           | 5,100         |
| 10M1.25R       | 150     |                   |                 |    |                 |          |              |             |            |            |             | 7,100         |
| 10M1.25R+1     | 100     |                   | REG+1           | P4 |                 |          |              |             |            |            |             | 5,300         |
| 10M1.25R+1     | 150     |                   |                 |    |                 |          |              |             |            |            |             | 7,300         |
| 10M1R          | 100     | M10×1             | REG             | P3 | 2.5             | 11.5     | 3            | 7.0         | 31.9       | 3          | ●           | 5,760         |
| 10M1R          | 150     |                   |                 |    |                 |          |              |             |            |            |             | 8,220         |
| 10M1R+1        | 100     |                   | REG+1           | P4 |                 |          |              |             |            |            |             | 5,980         |
| 10M1R+1        | 150     |                   |                 |    |                 |          |              |             |            |            |             | 8,440         |
| 10M0.75R       | 100     | M10×0.75          | REG             | P3 | 2.5             | 9.0      | 3            | 7.0         | 31.9       | 3          | ●           | 6,660         |
| 10M0.75R       | 150     |                   |                 |    |                 |          |              |             |            |            |             | 9,770         |
| 10M0.75R+1     | 100     |                   | REG+1           | P4 |                 |          |              |             |            |            |             | 6,790         |
| 10M0.75R+1     | 150     |                   |                 |    |                 |          |              |             |            |            |             | 9,900         |
| 11M1.5R        | 100     | M11×1.5           | REG             | P3 | 2.5             | 18.8     | 3            | 8.0         | 32.9       | 3          | ●           | 5,800         |
| 11M1.5R        | 150     |                   |                 |    |                 |          |              |             |            |            |             | 8,430         |
| 11M1R          | 100     | M11×1             | REG             | P3 | 2.5             | 11.5     | 3            | 8.0         | 32.9       | 3          | ●           | 7,030         |
| 11M1R          | 150     |                   |                 |    |                 |          |              |             |            |            |             | 10,600        |
| 12M1.75R       | 100     | M12×1.75          | REG             | P4 | 2.5             | 22.4     | 3            | 8.5         | 35.2       | 3          | ●           | 5,880         |
| 12M1.75R       | 150     |                   |                 |    |                 |          |              |             |            |            |             | 8,350         |
| 12M1.75R+1     | 100     |                   | REG+1           | P5 |                 |          |              |             |            |            |             | 6,120         |
| 12M1.75R+1     | 150     |                   |                 |    |                 |          |              |             |            |            |             | 8,590         |
| 12M1.75R+2     | 100     |                   | REG+2           | P6 |                 |          |              |             |            |            |             | 6,120         |
| 12M1.75R+2     | 150     |                   |                 |    |                 |          |              |             |            |            |             | 8,590         |
| 12M1.5R        | 100     | M12×1.5           | REG             | P3 | 2.5             | 19.8     | 3            | 8.5         | 35.2       | 3          | ●           | 5,880         |
| 12M1.5R        | 150     |                   |                 |    |                 |          |              |             |            |            |             | 8,350         |
| 12M1.5R+1      | 100     |                   | REG+1           | P4 |                 |          |              |             |            |            |             | 6,120         |
| 12M1.5R+1      | 150     |                   |                 |    |                 |          |              |             |            |            |             | 8,590         |
| 12M1.25R       | 100     | M12×1.25          | REG             | P3 | 2.5             | 16.1     | 3            | 8.5         | 35.2       | 3          | ●           | 5,880         |
| 12M1.25R       | 150     |                   |                 |    |                 |          |              |             |            |            |             | 8,350         |
| 12M1.25R+1     | 100     |                   | REG+1           | P4 |                 |          |              |             |            |            |             | 6,120         |
| 12M1.25R+1     | 150     |                   |                 |    |                 |          |              |             |            |            |             | 8,590         |
| 12M1R          | 100     | M12×1             | REG             | P3 | 2.5             | 13.5     | 3            | 8.5         | 35.2       | 3          | ●           | 6,660         |
| 12M1R          | 150     |                   |                 |    |                 |          |              |             |            |            |             | 9,710         |
| 12M1R+1        | 100     |                   | REG+1           | P4 |                 |          |              |             |            |            |             | 6,930         |
| 12M1R+1        | 150     |                   |                 |    |                 |          |              |             |            |            |             | 9,980         |
| 14M2R          | 150     | M14×2             | REG             | P4 | 2.5             | 26.0     | 3            | 10.5        | 44.9       | 3          | ●           | 11,200        |
| 14M1.5R        | 150     | M14×1.5           | REG             | P3 | 2.5             | 19.8     | 3            | 10.5        | 44.9       | 3          | ●           | 11,200        |
| 14M1.25R       | 150     | M14×1.25          | REG             | P3 | 2.5             | 16.1     | 3            | 10.5        | 44.9       | 3          | ●           | 13,700        |
| 14M1R          | 150     | M14×1             | REG             | P3 | 2.5             | 13.5     | 3            | 10.5        | 44.9       | 3          | ●           | 14,000        |
| 15M1.5R        | 150     | M15×1.5           | REG             | P3 | 2.5             | 19.8     | 3            | 10.5        | 48.2       | 3          | ●           | 13,300        |
| 15M1R          | 150     | M15×1             | REG             | P3 | 2.5             | 13.5     | 3            | 10.5        | 48.2       | 3          | ●           | 14,400        |
| 16M2R          | 150     | M16×2             | REG             | P4 | 2.5             | 26.0     | 3            | 12.5        | 47.4       | 3          | ●           | 11,800        |
| 16M2R          | 200     |                   |                 |    |                 |          |              |             |            |            |             | 14,300        |
| 16M1.5R        | 150     | M16×1.5           | REG             | P3 | 2.5             | 19.8     | 3            | 12.5        | 47.4       | 3          | ●           | 11,800        |
| 16M1R          | 150     | M16×1             | REG             | P3 | 2.5             | 13.5     | 3            | 12.5        | 47.4       | 3          | ●           | 14,100        |
| 17M1.5R        | 150     | M17×1.5           | REG             | P3 | 2.5             | 19.8     | 3            | 13.0        | 50.4       | 3          | ●           | 17,700        |
| 17M1R          | 150     | M17×1             | REG             | P3 | 2.5             | 13.5     | 3            | 13.0        | 50.4       | 3          | ●           | 20,400        |
| 18M2.5R        | 150     | M18×2.5           | REG             | P5 | 2.5             | 32.5     | 3            | 14.0        | 48.7       | 3          | ●           | 14,700        |
| 18M2R          | 150     | M18×2             | REG             | P4 | 2.5             | 29.0     | 3            | 14.0        | 48.7       | 3          | ●           | 16,800        |
| 18M1.5R        | 150     | M18×1.5           | REG             | P4 | 2.5             | 19.8     | 3            | 14.0        | 48.7       | 3          | ●           | 14,700        |
| 18M1R          | 150     | M18×1             | REG             | P3 | 2.5             | 13.5     | 3            | 14.0        | 48.7       | 3          | ●           | 21,500        |
| 20M2.5R        | 150     | M20×2.5           | REG             | P5 | 2.5             | 32.5     | 4            | 15.0        | 53.7       | 3          | ●           | 17,800        |
| 20M2.5R        | 200     |                   |                 |    |                 |          |              |             |            |            |             | 21,400        |
| 20M2R          | 150     | M20×2             | REG             | P4 | 2.5             | 29.0     | 4            | 15.0        | 53.7       | 3          | ●           | 22,000        |
| 20M1.5R        | 150     | M20×1.5           | REG             | P4 | 2.5             | 19.8     | 4            | 15.0        | 53.7       | 3          | ●           | 17,800        |
| 20M1R          | 150     | M20×1             | REG             | P3 | 2.5             | 13.5     | 4            | 15.0        | 53.7       | 3          | ●           | 23,600        |
| 22M2.5R        | 150     | M22×2.5           | REG             | P5 | 2.5             | 32.5     | 4            | 17.0        | 54.0       | 3          | ●           | 20,300        |
| 22M2R          | 150     | M22×2             | REG             | P4 | 2.5             | 29.0     | 4            | 17.0        | 54.0       | 3          | ●           | 25,000        |
| 22M1.5R        | 150     | M22×1.5           | REG             | P4 | 2.5             | 19.8     | 4            | 17.0        | 54.0       | 3          | ●           | 20,300        |
| 22M1R          | 150     | M22×1             | REG             | P3 | 2.5             | 13.5     | 4            | 17.0        | 54.0       | 3          | ●           | 26,500        |
| 24M3R          | 150     | M24×3             | REG             | P5 | 2.5             | 39.0     | 4            | 19.0        | 59.0       | 3          | ●           | 23,500        |
| 24M3R          | 200     |                   |                 |    |                 |          |              |             |            |            |             | 25,600        |
| 24M2R          | 150     | M24×2             | REG             | P4 | 2.5             | 30.0     | 4            | 19.0        | 59.0       | 3          | ●           | 29,300        |
| 24M1.5R        | 150     | M24×1.5           | REG             | P4 | 2.5             | 22.8     | 4            | 19.0        | 59.0       | 3          | ●           | 23,500        |
| 24M1R          | 150     | M24×1             | REG             | P3 | 2.5             | 14.5     | 4            | 19.0        | 59.0       | 3          | ●           | 31,700        |

● : 標準在庫品 Stocked items

・シャンク四角部寸法 K、LkはP.46を参照 Refer to page 46 for the square portion size of shank

# SGSSP

## SGシンクロタップ(油穴付き)

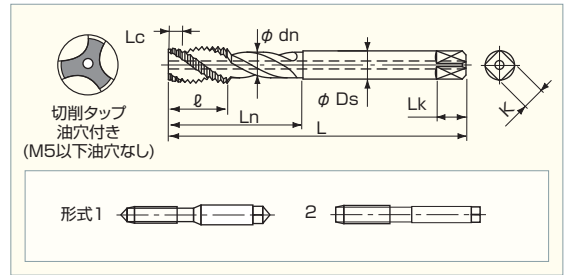
完全同期送り機構の機械で切削速度70m/minの高速加工が可能。

### SG Synchro Tap (Oil-Hole)

By machining center with synchronized feed and rotation, cutting speed is possible to be high speed cutting of 70m/min.



オーダー方法 **SGSSP** × 記号



・単位(Unit):mm

| 記号<br>Code No. | 呼び<br>Thread Size | 等級<br>TAP Limit |    | 食付(P)<br>Lc (P) | 全長<br>L | ねじ長<br>ℓ | 溝数<br>Flutes | シャンク径<br>Ds | 首下長さ<br>Ln | 首径<br>dn | 形式<br>Type | 在庫<br>Stock |
|----------------|-------------------|-----------------|----|-----------------|---------|----------|--------------|-------------|------------|----------|------------|-------------|
| 3M0.5R         | M3 × 0.5          | REG             | P2 | 2.5             | 46      | 5.8      | 3            | 4.0         | 18         | 2.3      | 1          | △           |
| 4M0.7R         | M4 × 0.7          | REG             | P3 | 2.5             | 52      | 7.8      | 3            | 6.0         | 20         | 3.1      | 1          | △           |
| 5M0.8R         | M5 × 0.8          | REG             | P3 | 2.5             | 60      | 9.5      | 3            | 6.0         | 22         | 3.9      | 1          | △           |
| 6M1R           | M6 × 1            | REG             | P3 | 2.5             | 62      | 11.5     | 3            | 6.0         | 25         | 4.7      | 2          | △           |
| 6M0.75R        | M6 × 0.75         | REG             | P2 | 2.5             | 62      | 9.0      | 3            | 6.0         | 25         | 4.7      | 2          | △           |
| 8M1.25R        | M8 × 1.25         | REG             | P3 | 2.5             | 70      | 15.1     | 3            | 8.0         | 34         | 6.4      | 2          | △           |
| 8M1R           | M8 × 1            | REG             | P3 | 2.5             | 70      | 11.5     | 3            | 8.0         | 34         | 6.4      | 2          | △           |
| 10M1.5R        | M10 × 1.5         | REG             | P3 | 2.5             | 75      | 18.8     | 3            | 10.0        | 39         | 8.0      | 2          | △           |
| 10M1.25R       | M10 × 1.25        | REG             | P3 | 2.5             | 75      | 15.1     | 3            | 10.0        | 39         | 8.0      | 2          | △           |
| 12M1.75R       | M12 × 1.75        | REG             | P4 | 2.5             | 82      | 22.4     | 3            | 12.0        | 45         | 9.8      | 2          | △           |
| 12M1.5R        | M12 × 1.5         | REG             | P3 | 2.5             | 82      | 19.8     | 3            | 12.0        | 45         | 9.8      | 2          | △           |
| 12M1.25R       | M12 × 1.25        | REG             | P3 | 2.5             | 82      | 16.1     | 3            | 12.0        | 45         | 9.8      | 2          | △           |

△ : 受注生産品 Manufactured upon request

完全同期送り機構以外の機械では、ねじが拡大することがありますので使用しないでください。

Synchro Taps are not recommended for use on machines without a rigid tapping facility because over size tapping.

・形式1は突出しセンタ Type1 with External Centre

・シャンク四角部寸法 K、LkはP.46を参照 Refer to page 46 for the square portion size of shank

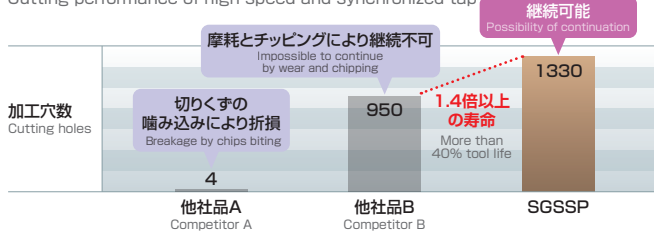
### SGシンクロタップ

## SGSSP 高速タッピングでも長寿命

Long tool life by high speed cutting screw threads

### 高速シンクロタップの切削性能

Cutting performance of high speed and synchronized tap



#### 摩耗状態 Wear



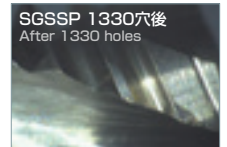
他社品A  
Competitor A

4穴で折損  
Breakage after 4th hole



他社品B 950穴後  
Competitor B  
After 950 holes

刃先に大きな欠けが発生  
Big broken piece on the edge



SGSSP 1330穴後  
After 1330 holes

摩耗小さく継続可能  
Wear is small, Continued tapping is possible

|                           |   |                            |  |   |   |  |  |  |
|---------------------------|---|----------------------------|--|---|---|--|--|--|
| 切削条件<br>Cutting condition | 呼び<br>Thread size<br>ねじ深さ<br>Thread depth<br>下穴径<br>Drill Hole Dia. | M6×1<br>12mm<br>φ5.1ドリル仕上げ | 下穴深さ<br>Drill Hole depth (Blind holes)<br>切削速度<br>Cutting speed<br>送り速度<br>Feed(Synchronized feed) | 20mm (止り穴)<br>70m/min<br>3715mm/min(同期送り) | 回転数<br>Rotation<br>被削材<br>Work material<br>ホルダー<br>Holder | 3715min <sup>-1</sup><br>S50C(180HB)<br>コレットチャック | 切削油剤<br>Cutting Fluid /<br>使用機械<br>Machine | 水溶性(内部給油)<br>Water-soluble (internal coolant)<br>立型M/C BT30<br>Vertical Machining Center |
|---------------------------|---|----------------------------|--|---|---|--|--|--|

# SGSP-Ti **NEW!**

## SG スパイラルタップ チタン合金用

チタン合金の止り穴用タップです。切りくずの凝着や噛み込みを抑制し、長寿命で安定した加工が可能です。

### SG Spiral Tap for Titanium Alloy

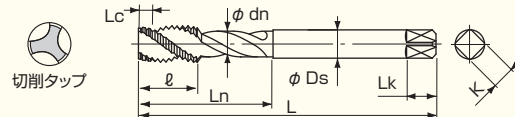
Excellent taps for blind holes on titanium alloy material. Long tool life and stable tapping by less chip welding and jamming.



オーダー方法 **SGSP-Ti** 記号



工具材料 コーティング ねじれ角



形式1 形式2

LIST7948

・単位(Unit):mm

| 記号<br>Code No. | 呼び<br>Thread Size | 等級<br>TAP Limit | 食付(P)<br>Lc (P) | 全長<br>L | ねじ長<br>ℓ | 溝数<br>Flutes | シャンク径<br>Ds | 首下長さ<br>Ln | 首径<br>dn | 形式<br>Type | 在庫<br>Stock |
|----------------|-------------------|-----------------|-----------------|---------|----------|--------------|-------------|------------|----------|------------|-------------|
| 3M0.5R         | M3 × 0.5          | REG             | P3              | 2.5     | 46       | 5.6          | 3           | 4.0        | 20.0     | 2.35       | 1           |
| 3M0.35R        | M3 × 0.35         | REG             | P2              | 2.5     | 46       | 4.4          | 3           | 4.0        | 20.0     | 2.55       | 1           |
| 4M0.7R         | M4 × 0.7          | REG             | P3              | 2.5     | 52       | 8.1          | 3           | 5.0        | 22.5     | 3.15       | 1           |
| 4M0.5R         | M4 × 0.5          | REG             | P3              | 2.5     | 52       | 6.1          | 3           | 5.0        | 22.5     | 3.35       | 1           |
| 5M0.8R         | M5 × 0.8          | REG             | P3              | 2.5     | 60       | 9.4          | 3           | 5.5        | 26.0     | 4.05       | 1           |
| 5M0.5R         | M5 × 0.5          | REG             | P3              | 2.5     | 60       | 6.1          | 3           | 5.5        | 26.0     | 4.35       | 1           |
| 6M1R           | M6 × 1            | REG             | P3              | 2.5     | 62       | 12.0         | 3           | 6.0        | 29.0     | 4.75       | 1           |
| 6M0.75R        | M6 × 0.75         | REG             | P3              | 2.5     | 62       | 9.2          | 3           | 6.0        | 29.0     | 5.05       | 1           |
| 6M0.5R         | M6 × 0.5          | REG             | P3              | 2.5     | 62       | 6.1          | 3           | 6.0        | 29.0     | 5.35       | 1           |
| 8M1.25R        | M8 × 1.25         | REG             | P3              | 2.5     | 70       | 15.4         | 3           | 6.2        | 33.0     | 6.55       | 2           |
| 8M1R           | M8 × 1            | REG             | P3              | 2.5     | 70       | 12.4         | 3           | 6.2        | 27.0     | 6.75       | 2           |
| 8M0.75R        | M8 × 0.75         | REG             | P3              | 2.5     | 70       | 9.2          | 3           | 6.2        | 24.5     | 7.05       | 2           |
| 10M1.5R        | M10 × 1.5         | REG             | P3              | 2.5     | 75       | 18.9         | 3           | 7.0        | 36.5     | 8.25       | 2           |
| 10M1.25R       | M10 × 1.25        | REG             | P3              | 2.5     | 75       | 15.7         | 3           | 7.0        | 33.0     | 8.55       | 2           |
| 10M1R          | M10 × 1           | REG             | P3              | 2.5     | 75       | 12.4         | 3           | 7.0        | 27.0     | 8.75       | 2           |
| 10M0.75R       | M10 × 0.75        | REG             | P3              | 2.5     | 75       | 9.2          | 3           | 7.0        | 24.5     | 9.05       | 2           |
| 12M1.75R       | M12 × 1.75        | REG             | P4              | 2.5     | 82       | 22.4         | 3           | 8.5        | 41.5     | 9.95       | 2           |
| 12M1.5R        | M12 × 1.5         | REG             | P3              | 2.5     | 82       | 20.9         | 3           | 8.5        | 40.0     | 10.25      | 2           |
| 12M1.25R       | M12 × 1.25        | REG             | P3              | 2.5     | 82       | 17.2         | 3           | 8.5        | 34.5     | 10.55      | 2           |
| 12M1R          | M12 × 1           | REG             | P3              | 2.5     | 82       | 13.5         | 3           | 8.5        | 32.5     | 10.75      | 2           |

●: 2017年2月発売予定品 will be released in February, 2017

・シャンク四角部寸法 K、Lk は P46 を参照 Refer to page 46 for the square portion size of shank

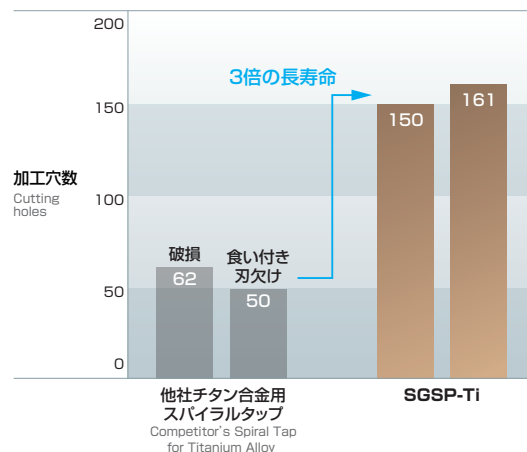
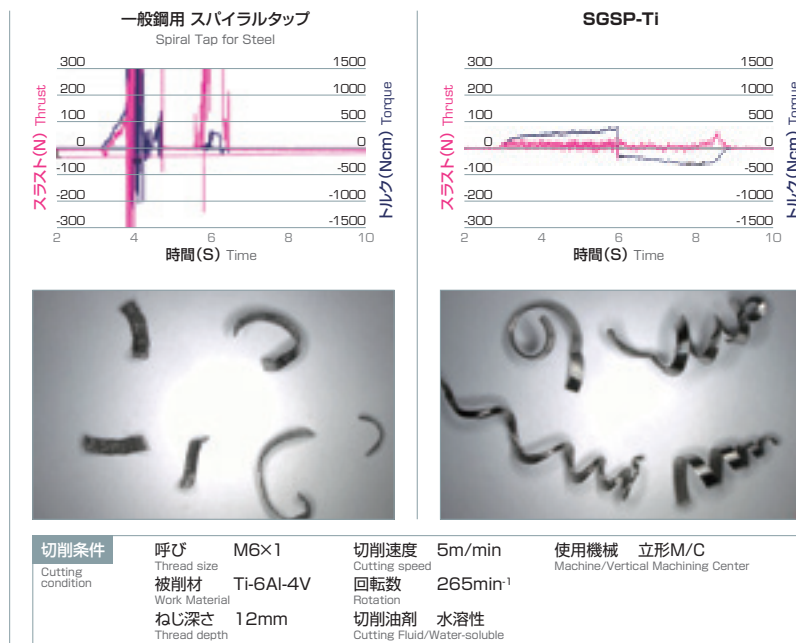
### SGスパイラルタップ チタン合金用

## SGSP-Ti 切りくずの噛み込みもなく安定加工

Stable tapping without biting of cutting chips

### チタン合金での加工比較

Comparison of cutting for Titanium Alloy



| 切削条件                  | 呼び<br>Thread size | 回転数<br>Rotation                           |
|-----------------------|-------------------|---|
| 被削材<br>Work Material  | M3×0.5            | 530min <sup>-1</sup>                      |
| ねじ深さ<br>Thread depth  | Ti-6Al-4V         |   |
| 切削速度<br>Cutting speed | 6mm               | 水溶性<br>Cutting Fluid/Water-soluble        |
|                       | 5m/min            | 使用機械<br>Machine/Vertical Machining Center |



# SGPO

## SGポイントタップ

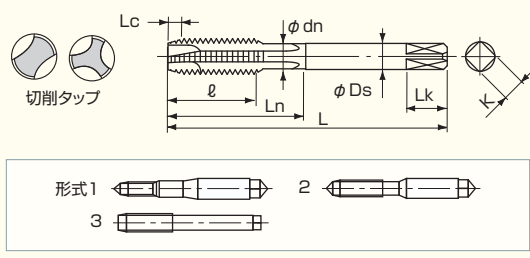
あらゆる切削速度、加工機械、被削材に対応する通り穴用のタップです。

**SG Point Tap**

This tap is used for through holes and corresponding to every tapping speed, machines, work materials.



オーダー方法 **SGPO** 記号



LIST7950

・単位(Unit):mm/(円)(¥)

| 記号<br>Code No. | 呼び<br>Thread Size | 等級<br>TAP Limit | 食付(P)<br>Lc (P) | 全長<br>L | ねじ長<br>ℓ | 溝数<br>Flutes | シャンク径<br>Ds | 首下長さ<br>Ln | 首径<br>dn | 形式<br>Type | 在庫<br>Stock | 参考価格<br>Price |
|----------------|-------------------|-----------------|-----------------|---------|----------|--------------|-------------|------------|----------|------------|-------------|---------------|
| 1.4M0.3R       | M1.4 × 0.3        | REG P1          | 5               | 34      | 7.0      | 2            | 3.0         | 11         | 1.5*     | 1          | ●           | 4,050         |
| 1.6M0.35R      | M1.6 × 0.35       | REG P1.5        | 5               | 36      | 8.0      | 2            | 3.0         | 13         | 1.7*     | 1          | ●           | 4,050         |
| 1.7M0.35R      | M1.7 × 0.35       | REG P1.5        | 5               | 36      | 8.0      | 2            | 3.0         | 13         | 1.8*     | 1          | ●           | 3,820         |
| 2M0.4R         | M2 × 0.4          | REG P1.5        | 5               | 40      | 8.0      | 2            | 3.0         | 15         | 2.1*     | 1          | ●           | 3,380         |
| 2M0.25R        | M2 × 0.25         | REG P1          | 5               | 40      | 8.0      | 2            | 3.0         | 15         | 2.1*     | 1          | ●           | 4,600         |
| 2.2M0.45R      | M2.2 × 0.45       | REG P2          | 5               | 42      | 9.5      | 2            | 3.0         | 15         | 2.3*     | 1          | ●           | 3,770         |
| 2.2M0.25R      | M2.2 × 0.25       | REG P1          | 5               | 42      | 9.5      | 2            | 3.0         | 15         | 2.3*     | 1          | ●           | 5,420         |
| 2.3M0.4R       | M2.3 × 0.4        | REG P1.5        | 5               | 42      | 9.5      | 2            | 3.0         | 15         | 2.4*     | 1          | ●           | 3,160         |
| 2.5M0.45R      | M2.5 × 0.45       | REG P2          | 5               | 44      | 9.5      | 2            | 3.0         | 16         | 2.6*     | 1          | ●           | 2,950         |
| 2.5M0.35R      | M2.5 × 0.35       | REG P2          | 5               | 44      | 9.5      | 2            | 3.0         | 16         | 2.6*     | 1          | ●           | 4,050         |
| 2.6M0.45R      | M2.6 × 0.45       | REG P2          | 5               | 44      | 9.5      | 2            | 3.0         | 16         | 2.7*     | 1          | ●           | 2,810         |
| 3M0.5R         | M3 × 0.5          | REG P3          | 5               | 46      | 11.0     | 3            | 4.0         | 18         | 2.3      | 2          | ●           | 2,370         |
| 3M0.5R+1       |                   | REG+1 P4        |                 |         |          |              |             |            |          |            |             | 2,480         |
| 3M0.5R+2       |                   | REG+2 P5        |                 |         |          |              |             |            |          |            |             | 2,480         |
| 3M0.35R        | M3 × 0.35         | REG P2          | 5               | 46      | 11.0     | 3            | 4.0         | 18         | 2.3      | 2          | ●           | 3,320         |
| 3M0.35R+1      |                   | REG+1 P3        |                 |         |          |              |             |            |          |            |             | 3,480         |
| 3.5M0.6R       | M3.5 × 0.6        | REG P2          | 5               | 48      | 13.0     | 3            | 4.0         | 19         | 2.8      | 2          | ●           | 2,600         |
| 3.5M0.35R      | M3.5 × 0.35       | REG P2          | 5               | 48      | 13.0     | 3            | 4.0         | 19         | 2.8      | 2          | ●           | 3,680         |
| 4M0.7R         | M4 × 0.7          | REG P3          | 5               | 52      | 13.0     | 3            | 5.0         | 21         | 3.1      | 2          | ●           | 2,340         |
| 4M0.7R+1       |                   | REG+1 P4        |                 |         |          |              |             |            |          |            |             | 2,440         |
| 4M0.7R+2       |                   | REG+2 P5        |                 |         |          |              |             |            |          |            |             | 2,440         |
| 4M0.5R         | M4 × 0.5          | REG P3          | 5               | 52      | 13.0     | 3            | 5.0         | 21         | 3.1      | 2          | ●           | 2,890         |
| 4M0.5R+1       |                   | REG+1 P4        |                 |         |          |              |             |            |          |            |             | 3,020         |
| 4.5M0.75R      | M4.5 × 0.75       | REG P3          | 5               | 55      | 13.0     | 3            | 5.0         | 21         | 3.5      | 2          | ●           | 2,840         |
| 4.5M0.5R       | M4.5 × 0.5        | REG P3          | 5               | 55      | 13.0     | 3            | 5.0         | 21         | 3.5      | 2          | ●           | 3,370         |
| 5M0.8R         | M5 × 0.8          | REG P3          | 5               | 60      | 16.0     | 3            | 5.5         | 25         | 3.9      | 2          | ●           | 2,350         |
| 5M0.8R+1       |                   | REG+1 P4        |                 |         |          |              |             |            |          |            |             | 2,460         |
| 5M0.8R+2       |                   | REG+2 P5        |                 |         |          |              |             |            |          |            |             | 2,460         |
| 5M0.5R         | M5 × 0.5          | REG P3          | 5               | 60      | 16.0     | 3            | 5.5         | 25         | 3.9      | 2          | ●           | 3,020         |
| 5M0.5R+1       |                   | REG+1 P4        |                 |         |          |              |             |            |          |            |             | 3,170         |
| 5.5M0.5R       | M5.5 × 0.5        | REG P3          | 5               | 60      | 16.0     | 3            | 5.5         | 25         | 4.4      | 2          | ●           | 3,470         |
| 6M1R           | M6 × 1            | REG P3          | 5               | 62      | 19.0     | 3            | 6.0         | 30         | 4.7      | 2          | ●           | 2,390         |
| 6M1R+1         |                   | REG+1 P4        |                 |         |          |              |             |            |          |            |             | 2,500         |
| 6M1R+2         |                   | REG+2 P5        |                 |         |          |              |             |            |          |            |             | 2,500         |
| 6M0.75R        | M6 × 0.75         | REG P3          | 5               | 62      | 19.0     | 3            | 6.0         | 30         | 4.7      | 2          | ●           | 2,990         |
| 6M0.75R+1      |                   | REG+1 P4        |                 |         |          |              |             |            |          |            |             | 3,130         |
| 6M0.5R         | M6 × 0.5          | REG P3          | 5               | 62      | 19.0     | 3            | 6.0         | 30         | 4.7      | 2          | ●           | 3,350         |
| 6M0.5R+1       |                   | REG+1 P4        |                 |         |          |              |             |            |          |            |             | 3,520         |
| 7M1R           | M7 × 1            | REG P3          | 5               | 65      | 19.0     | 3            | 6.2         | —          | —        | 3          | ●           | 3,250         |
| 7M0.75R        | M7 × 0.75         | REG P3          | 5               | 65      | 19.0     | 3            | 6.2         | —          | —        | 3          | ●           | 3,870         |
| 8M1.25R        | M8 × 1.25         | REG P3          | 5               | 70      | 22.0     | 3            | 6.2         | —          | —        | 3          | ●           | 3,130         |
| 8M1.25R+1      |                   | REG+1 P4        |                 |         |          |              |             |            |          |            |             | 3,280         |
| 8M1.25R+2      |                   | REG+2 P5        |                 |         |          |              |             |            |          |            |             | 3,280         |
| 8M1R           | M8 × 1            | REG P3          | 5               | 70      | 22.0     | 3            | 6.2         | —          | —        | 3          | ●           | 3,460         |
| 8M1R+1         |                   | REG+1 P4        |                 |         |          |              |             |            |          |            |             | 3,620         |
| 8M0.75R        | M8 × 0.75         | REG P3          | 5               | 70      | 22.0     | 3            | 6.2         | —          | —        | 3          | ●           | 4,030         |
| 8M0.75R+1      |                   | REG+1 P4        |                 |         |          |              |             |            |          |            |             | 4,230         |
| 9M1.25R        | M9 × 1.25         | REG P3          | 5               | 72      | 22.0     | 3            | 7.0         | —          | —        | 3          | ●           | 3,810         |
| 9M1R           | M9 × 1            | REG P3          | 5               | 72      | 22.0     | 3            | 7.0         | —          | —        | 3          | ●           | 4,360         |
| 9M0.75R        | M9 × 0.75         | REG P3          | 5               | 72      | 22.0     | 3            | 7.0         | —          | —        | 3          | ●           | 4,750         |
| 10M1.5R        | M10 × 1.5         | REG P4          | 5               | 75      | 24.0     | 3            | 7.0         | —          | —        | 3          | ●           | 3,760         |
| 10M1.5R+1      |                   | REG+1 P5        |                 |         |          |              |             |            |          |            |             | 3,930         |
| 10M1.5R+2      |                   | REG+2 P6        |                 |         |          |              |             |            |          |            |             | 3,930         |
| 10M1.25R       | M10 × 1.25        | REG P3          | 5               | 75      | 24.0     | 3            | 7.0         | —          | —        | 3          | ●           | 3,760         |
| 10M1.25R+1     |                   | REG+1 P4        |                 |         |          |              |             |            |          |            |             | 3,930         |
| 10M1R          | M10 × 1           | REG P3          | 5               | 75      | 24.0     | 3            | 7.0         | —          | —        | 3          | ●           | 4,210         |
| 10M1R+1        |                   | REG+1 P4        |                 |         |          |              |             |            |          |            |             | 4,400         |
| 10M0.75R       | M10 × 0.75        | REG P3          | 5               | 75      | 24.0     | 3            | 7.0         | —          | —        | 3          | ●           | 4,830         |
| 10M0.75R+1     |                   | REG+1 P4        |                 |         |          |              |             |            |          |            |             | 5,080         |

●：標準在庫品 Stocked items

\*：呼び径 < 首径です。めねじ加工深さが深い場合、ねじ長以上入ると折損の危険があります。

\*:Thread Size < Neck diameter (dn) When depth of cutting a female thread is deep, if putting the screw length or more in length, there is a risk of breakage.

・形式1~2は突出しセンタ Type1~2 with External Centre

・シャンク四角部寸法 K、LkはP.46を参照 Refer to page 46 for the square portion size of shank

次頁に続く ➡

Continued on the following page

・単位(Unit):mm/円(¥)

| 記号<br>Code No. | 呼び<br>Thread Size | 等級<br>TAP Limit |    | 食付(P)<br>Lc (P) | 全長<br>L | ねじ長<br>ℓ | 溝数<br>Flutes | シャンク径<br>Ds | 首下長さ<br>Ln | 首径<br>dn | 形式<br>Type | 在庫<br>Stock | 参考価格<br>Price |
|----------------|-------------------|-----------------|----|-----------------|---------|----------|--------------|-------------|------------|----------|------------|-------------|---------------|
| 11M1.5R        | M11 × 1.5         | REG             | P4 | 5               | 80      | 25.0     | 3            | 8.0         | —          | —        | 3          | ●           | 4,650         |
| 11M1R          | M11 × 1           | REG             | P3 | 5               | 80      | 25.0     | 3            | 8.0         | —          | —        | 3          | ●           | 5,640         |
| 11M0.75R       | M11 × 0.75        | REG             | P3 | 5               | 80      | 25.0     | 3            | 8.0         | —          | —        | 3          | ●           | 6,220         |
| 12M1.75R       | M12 × 1.75        | REG             | P4 | 5               | 82      | 29.0     | 3            | 8.5         | —          | —        | 3          | ●           | 4,910         |
| 12M1.75R+1     |                   | REG+1           | P5 |                 |         |          |              |             |            |          |            |             | 5,140         |
| 12M1.75R+2     |                   | REG+2           | P6 |                 |         |          |              |             |            |          |            |             | 5,140         |
| 12M1.5R        | M12 × 1.5         | REG             | P4 | 5               | 82      | 29.0     | 3            | 8.5         | —          | —        | 3          | ●           | 4,910         |
| 12M1.5R+1      |                   | REG+1           | P5 |                 |         |          |              |             |            |          |            |             | 5,140         |
| 12M1.25R       | M12 × 1.25        | REG             | P4 | 5               | 82      | 29.0     | 3            | 8.5         | —          | —        | 3          | ●           | 4,910         |
| 12M1.25R+1     |                   | REG+1           | P5 |                 |         |          |              |             |            |          |            |             | 5,140         |
| 12M1R          | M12 × 1           | REG             | P3 | 5               | 82      | 29.0     | 3            | 8.5         | —          | —        | 3          | ●           | 5,550         |
| 12M1R+1        |                   | REG+1           | P4 |                 |         |          |              |             |            |          |            |             | 5,810         |
| 14M2R          | M14 × 2           | REG             | P4 | 5               | 88      | 30.0     | 3            | 10.5        | —          | —        | 3          | ●           | 7,010         |
| 14M1.5R        | M14 × 1.5         | REG             | P4 | 5               | 88      | 30.0     | 3            | 10.5        | —          | —        | 3          | ●           | 7,010         |
| 14M1.25R       | M14 × 1.25        | REG             | P4 | 5               | 88      | 30.0     | 3            | 10.5        | —          | —        | 3          | ●           | 7,320         |
| 14M1R          | M14 × 1           | REG             | P3 | 5               | 88      | 30.0     | 3            | 10.5        | —          | —        | 3          | ●           | 7,460         |
| 15M1.5R        | M15 × 1.5         | REG             | P4 | 5               | 90      | 30.0     | 3            | 10.5        | —          | —        | 3          | ●           | 9,040         |
| 15M1R          | M15 × 1           | REG             | P3 | 5               | 90      | 30.0     | 3            | 10.5        | —          | —        | 3          | ●           | 9,740         |
| 16M2R          | M16 × 2           | REG             | P4 | 5               | 95      | 32.0     | 3            | 12.5        | —          | —        | 3          | ●           | 9,070         |
| 16M1.5R        | M16 × 1.5         | REG             | P4 | 5               | 95      | 32.0     | 3            | 12.5        | —          | —        | 3          | ●           | 9,070         |
| 16M1R          | M16 × 1           | REG             | P3 | 5               | 95      | 32.0     | 3            | 12.5        | —          | —        | 3          | ●           | 9,670         |
| 17M1.5R        | M17 × 1.5         | REG             | P4 | 5               | 95      | 32.0     | 3            | 13.0        | —          | —        | 3          | ●           | 12,100        |
| 17M1R          | M17 × 1           | REG             | P3 | 5               | 95      | 32.0     | 3            | 13.0        | —          | —        | 3          | ●           | 13,700        |
| 18M2.5R        | M18 × 2.5         | REG             | P5 | 5               | 100     | 37.0     | 3            | 14.0        | —          | —        | 3          | ●           | 11,900        |
| 18M2R          | M18 × 2           | REG             | P4 | 5               | 100     | 37.0     | 3            | 14.0        | —          | —        | 3          | ●           | 12,100        |
| 18M1.5R        | M18 × 1.5         | REG             | P4 | 5               | 100     | 37.0     | 3            | 14.0        | —          | —        | 3          | ●           | 11,900        |
| 18M1R          | M18 × 1           | REG             | P3 | 5               | 100     | 37.0     | 3            | 14.0        | —          | —        | 3          | ●           | 14,400        |
| 20M2.5R        | M20 × 2.5         | REG             | P5 | 5               | 105     | 37.0     | 3            | 15.0        | —          | —        | 3          | ●           | 14,800        |
| 20M2R          | M20 × 2           | REG             | P4 | 5               | 105     | 37.0     | 3            | 15.0        | —          | —        | 3          | ●           | 15,700        |
| 20M1.5R        | M20 × 1.5         | REG             | P4 | 5               | 105     | 37.0     | 3            | 15.0        | —          | —        | 3          | ●           | 14,800        |
| 20M1R          | M20 × 1           | REG             | P3 | 5               | 105     | 37.0     | 3            | 15.0        | —          | —        | 3          | ●           | 16,800        |
| 22M2.5R        | M22 × 2.5         | REG             | P5 | 5               | 115     | 38.0     | 3            | 17.0        | —          | —        | 3          | ●           | 18,900        |
| 22M2R          | M22 × 2           | REG             | P4 | 5               | 115     | 38.0     | 3            | 17.0        | —          | —        | 3          | ●           | 20,000        |
| 22M1.5R        | M22 × 1.5         | REG             | P4 | 5               | 115     | 38.0     | 3            | 17.0        | —          | —        | 3          | ●           | 18,900        |
| 22M1R          | M22 × 1           | REG             | P3 | 5               | 115     | 38.0     | 3            | 17.0        | —          | —        | 3          | ●           | 21,200        |
| 24M3R          | M24 × 3           | REG             | P5 | 5               | 120     | 45.0     | 3            | 19.0        | —          | —        | 3          | ●           | 23,500        |
| 24M2R          | M24 × 2           | REG             | P4 | 5               | 120     | 45.0     | 3            | 19.0        | —          | —        | 3          | ●           | 25,100        |
| 24M1.5R        | M24 × 1.5         | REG             | P4 | 5               | 120     | 45.0     | 3            | 19.0        | —          | —        | 3          | ●           | 23,500        |
| 24M1R          | M24 × 1           | REG             | P3 | 5               | 120     | 45.0     | 3            | 19.0        | —          | —        | 3          | ●           | 27,200        |

●: 標準在庫品 Stocked items

・シャンク四角部寸法 K、LkはP.46を参照 Refer to page 46 for the square portion size of shank

# SGPOL

## SGポイントタップロングシャンク

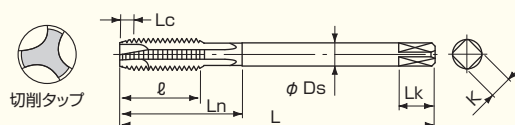
標準寸法では、突出し長さが不足するような場合に使用します。

### SG Point Tap Long Shank

This tap is used when a standard SG Point Tap is too short.



オーダー方法 **SGPOL** 記号 × 全長



形式1 形式2

LIST7952

・単位(Unit):mm/(円/¥)

| 記号<br>Code No. | 全長<br>L | 呼び<br>Thread Size | 等級<br>TAP Limit | 食付(P)<br>Lc (P) | ねじ長<br>ℓ | 溝数<br>Flutes | シャンク径<br>Ds | 首下長さ<br>Ln | 形式<br>Type | 在庫<br>Stock | 参考価格<br>Price |
|----------------|---------|-------------------|-----------------|-----------------|----------|--------------|-------------|------------|------------|-------------|---------------|
| 3M0.5R         |         |                   | REG             | P3              |          |              |             |            |            |             | 4,380         |
| 3M0.5R+1       | 100     | M3×0.5            | REG+1           | P4              | 5        | 11.0         | 4.0         | 18         | 1          | ●           | 4,490         |
| 3M0.5R+2       |         |                   | REG+2           | P5              |          |              |             |            |            |             | 4,490         |
| 3M0.35R        |         |                   | REG             | P2              |          |              |             |            |            |             | 6,200         |
| 3M0.35R+1      | 100     | M3×0.35           | REG+1           | P3              | 5        | 7.8          | 4.0         | 18         | 1          | ●           | 6,360         |
| 3.5M0.6R       | 100     | M3.5×0.6          | REG             | P2              | 5        | 13.0         | 4.0         | 19         | 1          | ●           | 4,570         |
| 3.5M0.35R      | 100     | M3.5×0.35         | REG             | P2              | 5        | 7.8          | 4.0         | 19         | 1          | ●           | 7,100         |
| 4M0.7R         |         |                   | REG             | P3              |          |              |             |            |            |             | 4,000         |
| 4M0.7R+1       | 100     | M4×0.7            | REG+1           | P4              | 5        | 13.0         | 5.0         | 21         | 1          | ●           | 4,100         |
| 4M0.7R+2       |         |                   | REG+2           | P5              |          |              |             |            |            |             | 4,100         |
| 4M0.5R         |         |                   | REG             | P3              |          |              |             |            |            |             | 5,250         |
| 4M0.5R+1       | 100     | M4×0.5            | REG+1           | P4              | 5        | 10.0         | 5.0         | 21         | 1          | ●           | 5,380         |
| 4.5M0.75R      | 100     | M4.5×0.75         | REG             | P3              | 5        | 13.0         | 5.0         | 21         | 1          | ●           | 4,650         |
| 4.5M0.5R       | 100     | M4.5×0.5          | REG             | P3              | 5        | 10.0         | 5.0         | 21         | 1          | ●           | 5,800         |
| 5M0.8R         |         |                   | REG             | P3              |          |              |             |            |            |             | 3,580         |
| 5M0.8R+1       | 100     | M5×0.8            | REG+1           | P4              | 5        | 16.0         | 5.5         | 25         | 1          | ●           | 3,690         |
| 5M0.8R+2       |         |                   | REG+2           | P5              |          |              |             |            |            |             | 3,690         |
| 5M0.5R         |         |                   | REG             | P3              |          |              |             |            |            |             | 4,490         |
| 5M0.5R+1       | 100     | M5×0.5            | REG+1           | P4              | 5        | 10.0         | 5.5         | 25         | 1          | ●           | 4,640         |
| 5.5M0.5R       | 100     | M5.5×0.5          | REG             | P3              | 5        | 10.0         | 5.5         | 25         | 1          | ●           | 5,100         |
| 6M1R           | 100     |                   | REG             | P3              |          |              |             |            |            |             | 3,680         |
| 6M1R           | 150     |                   |                 |                 |          |              |             |            |            |             | 4,900         |
| 6M1R+1         | 100     | M6×1              | REG+1           | P4              | 5        | 19.0         | 6.0         | 30         | 1          | ●           | 3,790         |
| 6M1R+1         | 150     |                   |                 |                 |          |              |             |            |            |             | 5,010         |
| 6M1R+2         | 100     |                   | REG+2           | P5              |          |              |             |            |            |             | 3,790         |
| 6M1R+2         | 150     |                   |                 |                 |          |              |             |            |            |             | 5,010         |
| 6M0.75R        | 100     |                   | REG             | P3              |          |              |             |            |            |             | 4,290         |
| 6M0.75R        | 150     |                   |                 |                 |          |              |             |            |            |             | 5,960         |
| 6M0.75R+1      | 100     | M6×0.75           | REG+1           | P4              | 5        | 13.9         | 6.0         | 30         | 1          | ●           | 4,430         |
| 6M0.75R+1      | 150     |                   |                 |                 |          |              |             |            |            |             | 6,100         |
| 7M1R           | 100     | M7×1              | REG             | P3              | 5        | 19.0         | 6.2         | —          | 2          | ●           | 4,460         |
| 7M1R           | 150     |                   |                 |                 |          |              |             |            |            |             | 6,010         |
| 7M0.75R        | 100     | M7×0.75           | REG             | P3              | 5        | 13.9         | 6.2         | —          | 2          | ●           | 5,450         |
| 7M0.75R        | 150     |                   |                 |                 |          |              |             |            |            |             | 7,670         |
| 8M1.25R        | 100     |                   | REG             | P3              |          |              |             |            |            |             | 4,320         |
| 8M1.25R        | 150     |                   |                 |                 |          |              |             |            |            |             | 5,820         |
| 8M1.25R+1      | 100     | M8×1.25           | REG+1           | P4              | 5        | 22.0         | 6.2         | —          | 2          | ●           | 4,470         |
| 8M1.25R+1      | 150     |                   |                 |                 |          |              |             |            |            |             | 5,970         |
| 8M1.25R+2      | 100     |                   | REG+2           | P5              |          |              |             |            |            |             | 4,470         |
| 8M1.25R+2      | 150     |                   |                 |                 |          |              |             |            |            |             | 5,970         |
| 8M1R           | 100     |                   | REG             | P3              |          |              |             |            |            |             | 4,860         |
| 8M1R           | 150     |                   |                 |                 |          |              |             |            |            |             | 6,750         |
| 8M1R+1         | 100     | M8×1              | REG+1           | P4              | 5        | 17.0         | 6.2         | —          | 2          | ●           | 5,020         |
| 8M1R+1         | 150     |                   |                 |                 |          |              |             |            |            |             | 6,910         |
| 8M0.75R        | 100     |                   | REG             | P3              |          |              |             |            |            |             | 5,270         |
| 8M0.75R        | 150     |                   |                 |                 |          |              |             |            |            |             | 7,460         |
| 8M0.75R+1      | 100     | M8×0.75           | REG+1           | P4              | 5        | 13.9         | 6.2         | —          | 2          | ●           | 5,470         |
| 8M0.75R+1      | 150     |                   |                 |                 |          |              |             |            |            |             | 7,660         |
| 9M1.25R        | 100     | M9×1.25           | REG             | P3              | 5        | 22.0         | 7.0         | —          | 2          | ●           | 4,970         |
| 9M1.25R        | 150     |                   |                 |                 |          |              |             |            |            |             | 6,930         |
| 9M1R           | 100     | M9×1              | REG             | P3              | 5        | 17.0         | 7.0         | —          | 2          | ●           | 5,740         |
| 9M1R           | 150     |                   |                 |                 |          |              |             |            |            |             | 8,250         |
| 9M0.75R        | 100     |                   |                 |                 |          |              |             |            |            |             | 6,270         |
| 9M0.75R        | 150     |                   |                 |                 |          |              |             |            |            |             | 9,170         |

● : 標準在庫品 Stocked items

・形式1は突出しセンタ Type1 with External Centre

・シャンク四角部寸法 K、LkはP.46を参照 Refer to page 46 for the square portion size of shank

次頁に続く ➡

Continued on the following page

・単位(Unit):mm/円(¥)

| 記号<br>Code No. | 全長<br>L | 呼び<br>Thread Size | 等級<br>TAP Limit |    | 食付(P)<br>Lc (P) | ねじ長<br>ℓ | 溝数<br>Flutes | シャンク径<br>Ds | 首下長さ<br>Ln | 形式<br>Type | 在庫<br>Stock | 参考価格<br>Price |
|----------------|---------|-------------------|-----------------|----|-----------------|----------|--------------|-------------|------------|------------|-------------|---------------|
| 10M1.5R        | 100     | M10×1.5           | REG             | P4 | 5               | 24.0     | 3            | 7.0         | —          | 2          | ●           | 4,900         |
| 10M1.5R        | 150     |                   |                 |    |                 |          |              |             |            |            |             | 6,820         |
| 10M1.5R+1      | 100     |                   | REG+1           | P5 |                 |          |              |             |            |            |             | 5,070         |
| 10M1.5R+1      | 150     |                   |                 |    |                 |          |              |             |            |            |             | 6,990         |
| 10M1.5R+2      | 100     |                   | REG+2           | P6 |                 |          |              |             |            |            |             | 5,070         |
| 10M1.5R+2      | 150     |                   |                 |    |                 |          |              |             |            |            |             | 6,990         |
| 10M1.25R       | 100     | M10×1.25          | REG             | P3 | 5               | 22.0     | 3            | 7.0         | —          | 2          | ●           | 4,900         |
| 10M1.25R       | 150     |                   |                 |    |                 |          |              |             |            |            |             | 6,820         |
| 10M1.25R+1     | 100     |                   | REG+1           | P4 |                 |          |              |             |            |            |             | 5,070         |
| 10M1.25R+1     | 150     |                   |                 |    |                 |          |              |             |            |            |             | 6,990         |
| 10M1R          | 100     | M10×1             | REG             | P3 | 5               | 17.0     | 3            | 7.0         | —          | 2          | ●           | 5,540         |
| 10M1R          | 150     |                   |                 |    |                 |          |              |             |            |            |             | 7,900         |
| 10M1R+1        | 100     |                   | REG+1           | P4 |                 |          |              |             |            |            |             | 5,730         |
| 10M1R+1        | 150     |                   |                 |    |                 |          |              |             |            |            |             | 8,090         |
| 10M0.75R       | 100     | M10×0.75          | REG             | P3 | 5               | 13.9     | 3            | 7.0         | —          | 2          | ●           | 6,400         |
| 10M0.75R       | 150     |                   |                 |    |                 |          |              |             |            |            |             | 9,400         |
| 10M0.75R+1     | 100     |                   | REG+1           | P4 |                 |          |              |             |            |            |             | 6,650         |
| 10M0.75R+1     | 150     |                   |                 |    |                 |          |              |             |            |            |             | 9,650         |
| 11M1.5R        | 100     | M11×1.5           | REG             | P4 | 5               | 25.0     | 3            | 8.0         | —          | 2          | ●           | 5,580         |
| 11M1.5R        | 150     |                   |                 |    |                 |          |              |             |            |            |             | 8,100         |
| 11M1R          | 100     | M11×1             | REG             | P3 | 5               | 17.0     | 3            | 8.0         | —          | 2          | ●           | 6,770         |
| 11M1R          | 150     |                   |                 |    |                 |          |              |             |            |            |             | 10,200        |
| 12M1.75R       | 100     | M12×1.75          | REG             | P4 | 5               | 29.0     | 3            | 8.5         | —          | 2          | ●           | 5,660         |
| 12M1.75R       | 150     |                   |                 |    |                 |          |              |             |            |            |             | 8,030         |
| 12M1.75R+1     | 100     |                   | REG+1           | P5 |                 |          |              |             |            |            |             | 5,890         |
| 12M1.75R+1     | 150     |                   | REG+2           | P6 |                 |          |              |             |            |            |             | 8,260         |
| 12M1.75R+2     | 100     |                   |                 |    |                 |          |              |             |            |            |             | 5,890         |
| 12M1.75R+2     | 150     |                   |                 |    |                 |          |              |             |            |            |             | 8,260         |
| 12M1.5R        | 100     | M12×1.5           | REG             | P4 | 5               | 28.0     | 3            | 8.5         | —          | 2          | ●           | 5,660         |
| 12M1.5R        | 150     |                   |                 |    |                 |          |              |             |            |            |             | 8,030         |
| 12M1.5R+1      | 100     |                   | REG+1           | P5 |                 |          |              |             |            |            |             | 5,890         |
| 12M1.5R+1      | 150     |                   |                 |    |                 |          |              |             |            |            |             | 8,260         |
| 12M1.25R       | 100     | M12×1.25          | REG             | P4 | 5               | 23.0     | 3            | 8.5         | —          | 2          | ●           | 5,660         |
| 12M1.25R       | 150     |                   |                 |    |                 |          |              |             |            |            |             | 8,030         |
| 12M1.25R+1     | 100     |                   | REG+1           | P5 |                 |          |              |             |            |            |             | 5,890         |
| 12M1.25R+1     | 150     |                   |                 |    |                 |          |              |             |            |            |             | 8,260         |
| 12M1R          | 100     | M12×1             | REG             | P3 | 5               | 19.0     | 3            | 8.5         | —          | 2          | ●           | 6,400         |
| 12M1R          | 150     |                   |                 |    |                 |          |              |             |            |            |             | 9,330         |
| 12M1R+1        | 100     |                   | REG+1           | P4 |                 |          |              |             |            |            |             | 6,660         |
| 12M1R+1        | 150     |                   |                 |    |                 |          |              |             |            |            |             | 9,590         |
| 14M2R          | 150     | M14×2             | REG             | P4 | 5               | 30.0     | 3            | 10.5        | —          | 2          | ●           | 10,800        |
| 14M1.5R        | 150     | M14×1.5           | REG             | P4 | 5               | 28.0     | 3            | 10.5        | —          | 2          | ●           | 10,800        |
| 14M1.25R       | 150     | M14×1.25          | REG             | P4 | 5               | 23.0     | 3            | 10.5        | —          | 2          | ●           | 13,100        |
| 14M1R          | 150     | M14×1             | REG             | P3 | 5               | 19.0     | 3            | 10.5        | —          | 2          | ●           | 13,400        |
| 15M1.5R        | 150     | M15×1.5           | REG             | P4 | 5               | 28.0     | 3            | 10.5        | —          | 2          | ●           | 12,800        |
| 15M1R          | 150     | M15×1             | REG             | P3 | 5               | 19.0     | 3            | 10.5        | —          | 2          | ●           | 13,900        |
| 16M2R          | 150     | M16×2             | REG             | P4 | 5               | 32.0     | 3            | 12.5        | —          | 2          | ●           | 11,300        |
| 16M2R          | 200     |                   |                 |    |                 |          |              |             |            |            |             | 13,800        |
| 16M1.5R        | 150     | M16×1.5           | REG             | P4 | 5               | 28.0     | 3            | 12.5        | —          | 2          | ●           | 11,300        |
| 16M1R          | 150     | M16×1             | REG             | P3 | 5               | 19.0     | 3            | 12.5        | —          | 2          | ●           | 13,600        |
| 17M1.5R        | 150     | M17×1.5           | REG             | P4 | 5               | 28.0     | 3            | 13.0        | —          | 2          | ●           | 17,100        |
| 17M1R          | 150     | M17×1             | REG             | P3 | 5               | 19.0     | 3            | 13.0        | —          | 2          | ●           | 19,600        |
| 18M2.5R        | 150     | M18×2.5           | REG             | P5 | 5               | 37.0     | 3            | 14.0        | —          | 2          | ●           | 14,100        |
| 18M2R          | 150     | M18×2             | REG             | P4 | 5               | 37.0     | 3            | 14.0        | —          | 2          | ●           | 16,100        |
| 18M1.5R        | 150     | M18×1.5           | REG             | P4 | 5               | 28.0     | 3            | 14.0        | —          | 2          | ●           | 14,100        |
| 18M1R          | 150     | M18×1             | REG             | P3 | 5               | 19.0     | 3            | 14.0        | —          | 2          | ●           | 20,600        |
| 20M2.5R        | 150     | M20×2.5           | REG             | P5 | 5               | 37.0     | 3            | 15.0        | —          | 2          | ●           | 17,100        |
| 20M2.5R        | 200     |                   |                 |    |                 |          |              |             |            |            |             | 20,600        |
| 20M2R          | 150     | M20×2             | REG             | P4 | 5               | 37.0     | 3            | 15.0        | —          | 2          | ●           | 21,200        |
| 20M1.5R        | 150     | M20×1.5           | REG             | P4 | 5               | 28.0     | 3            | 15.0        | —          | 2          | ●           | 17,100        |
| 20M1R          | 150     | M20×1             | REG             | P3 | 5               | 19.0     | 3            | 15.0        | —          | 2          | ●           | 22,700        |
| 22M2.5R        | 150     | M22×2.5           | REG             | P5 | 5               | 38.0     | 3            | 17.0        | —          | 2          | ●           | 19,500        |
| 22M2R          | 150     | M22×2             | REG             | P4 | 5               | 38.0     | 3            | 17.0        | —          | 2          | ●           | 24,100        |
| 22M1.5R        | 150     | M22×1.5           | REG             | P4 | 5               | 28.0     | 3            | 17.0        | —          | 2          | ●           | 19,500        |
| 22M1R          | 150     | M22×1             | REG             | P3 | 5               | 19.0     | 3            | 17.0        | —          | 2          | ●           | 25,500        |
| 24M3R          | 150     | M24×3             | REG             | P5 | 5               | 45.0     | 3            | 19.0        | —          | 2          | ●           | 22,600        |
| 24M3R          | 200     |                   |                 |    |                 |          |              |             |            |            |             | 24,600        |
| 24M2R          | 150     | M24×2             | REG             | P4 | 5               | 41.0     | 3            | 19.0        | —          | 2          | ●           | 28,200        |
| 24M1.5R        | 150     | M24×1.5           | REG             | P4 | 5               | 31.0     | 3            | 19.0        | —          | 2          | ●           | 22,600        |
| 24M1R          | 150     | M24×1             | REG             | P3 | 5               | 20.0     | 3            | 19.0        | —          | 2          | ●           | 30,500        |

●：標準在庫品 Stocked items

・シャンク四角部寸法 K、LkはP.46を参照 Refer to page 46 for the square portion size of shank



# SGSPO

## SGシンクロタップ 左ねじれ(油穴付き)

完全同期送り機構の機械で切削速度70m/minの高速加工が可能。

### SG Synchro Tap Left (Oil-Hole)

By machining center with synchronized feed and rotation, cutting speed is possible to be high speed cutting of 70m/min.



オーダー方法 **SGSPO** × 記号

**FAX**

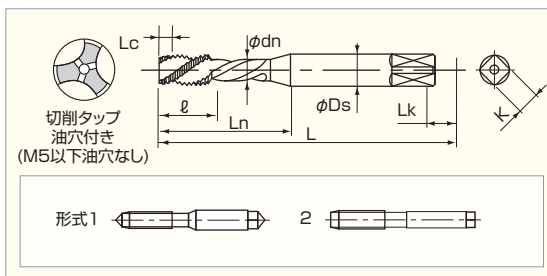
**SG**

**15°**

工具材料

コーティング

ねじれ角



・単位(Unit):mm

| 記号<br>Code No. | 呼び<br>Thread Size | 等級<br>TAP Limit |    | 食付(P)<br>Lc (P) | 全長<br>L | ねじ長<br>ℓ | 溝数<br>Flutes | シャンク径<br>Ds | 首下長さ<br>Ln | 首径<br>dn | 形式<br>Type | 在庫<br>Stock |
|----------------|-------------------|-----------------|----|-----------------|---------|----------|--------------|-------------|------------|----------|------------|-------------|
| 3M0.5R         | M3 × 0.5          | REG             | P2 | 5               | 46      | 11.0     | 3            | 4.0         | 18         | 2.3      | 1          | △           |
| 4M0.7R         | M4 × 0.7          | REG             | P3 | 5               | 52      | 13.0     | 3            | 6.0         | 20         | 3.1      | 1          | △           |
| 5M0.8R         | M5 × 0.8          | REG             | P3 | 5               | 60      | 16.0     | 3            | 6.0         | 22         | 3.9      | 1          | △           |
| 6M1R           | M6 × 1            | REG             | P3 | 5               | 62      | 19.0     | 3            | 6.0         | 25         | 4.7      | 2          | △           |
| 6M0.75R        | M6 × 0.75         | REG             | P2 | 5               | 62      | 13.9     | 3            | 6.0         | 25         | 4.7      | 2          | △           |
| 8M1.25R        | M8 × 1.25         | REG             | P3 | 5               | 70      | 22.0     | 3            | 8.0         | 34         | 6.4      | 2          | △           |
| 8M1R           | M8 × 1            | REG             | P3 | 5               | 70      | 17.0     | 3            | 8.0         | 34         | 6.4      | 2          | △           |
| 10M1.5R        | M10 × 1.5         | REG             | P3 | 5               | 75      | 24.0     | 3            | 10.0        | 39         | 8.0      | 2          | △           |
| 10M1.25R       | M10 × 1.25        | REG             | P3 | 5               | 75      | 22.0     | 3            | 10.0        | 39         | 8.0      | 2          | △           |
| 12M1.75R       | M12 × 1.75        | REG             | P4 | 5               | 82      | 29.0     | 3            | 12.0        | 45         | 9.8      | 2          | △           |
| 12M1.5R        | M12 × 1.5         | REG             | P3 | 5               | 82      | 28.0     | 3            | 12.0        | 45         | 9.8      | 2          | △           |
| 12M1.25R       | M12 × 1.25        | REG             | P3 | 5               | 82      | 23.0     | 3            | 12.0        | 45         | 9.8      | 2          | △           |

△ : 受注生産品 Manufactured upon request

完全同期送り機構以外の機械では、ねじが拡大することがありますので使用しないでください。

Synchro Taps are not recommended for use on machines without a rigid tapping facility because of over size tapping.

・形式1は突出しセンタ Type1 with External Centre

・シャンク四角部寸法 K、LkはP.46を参照 Refer to page 46 for the square portion size of shank

# ZSP **NEW!** Hyper Z スパイラルタップ

広い加工領域で長寿命でバラツキの少ない高性能な新しい汎用タップです。

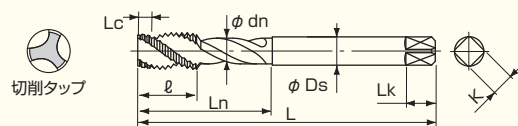
## Hyper Z Spiral Tap

High performance taps which have long tool life and stable tapping in various cutting conditions.  
New general-purpose tap series for blind holes.



オーダー方法 ZSP 記号

**HSS-E** **43°**  
工具材料 ねじれ角



形式1 形式2

LIST6850

・単位(Unit):mm/(円/¥)

| 記号<br>Code No. | 呼び<br>Thread Size | 等級<br>TAP Limit | 食付(P)<br>Lc (P) | 全長<br>L | ねじ長<br>ℓ | 溝数<br>Flutes | シャンク径<br>Ds | 首下長さ<br>Ln | 首径<br>dn | 形式<br>Type | 在庫<br>Stock | 参考価格<br>Price |
|----------------|-------------------|-----------------|-----------------|---------|----------|--------------|-------------|------------|----------|------------|-------------|---------------|
| 3M0.5R         | M3 × 0.5          | REG             | 2.5             | 46      | 5.6      | 3            | 4.0         | 20.0       | 2.35     | 1          | ●           | 1,520         |
| 3M0.5R+1       |                   | REG+1           |                 |         |          |              |             |            |          |            |             | 1,590         |
| 3M0.5R+2       |                   | REG+2           |                 |         |          |              |             |            |          |            |             | 1,590         |
| 3M0.35R        | M3 × 0.35         | REG             | 2.5             | 46      | 4.4      | 3            | 4.0         | 20.0       | 2.55     | 1          | ●           | 2,600         |
| 3M0.35R+1      |                   | REG+1           |                 |         |          |              |             |            |          |            |             | 2,740         |
| 4M0.7R         |                   | REG             |                 |         |          |              |             |            |          |            |             | 1,440         |
| 4M0.7R+1       | M4 × 0.7          | REG+1           | 2.5             | 52      | 8.1      | 3            | 5.0         | 23.0       | 3.15     | 1          | ●           | 1,510         |
| 4M0.7R+2       |                   | REG+2           |                 |         |          |              |             |            |          |            |             | 1,510         |
| 4M0.5R         |                   | REG             |                 |         |          |              |             |            |          |            |             | 2,330         |
| 4M0.5R+1       | M4 × 0.5          | REG+1           | 2.5             | 52      | 6.1      | 3            | 5.0         | 23.0       | 3.35     | 1          | ●           | 2,430         |
| 5M0.8R         |                   | REG             |                 |         |          |              |             |            |          |            |             | 1,430         |
| 5M0.8R+1       |                   | REG+1           |                 |         |          |              |             |            |          |            |             | 1,500         |
| 5M0.8R+2       | M5 × 0.8          | REG+2           | 2.5             | 60      | 9.4      | 3            | 5.5         | 26.0       | 4.05     | 1          | ●           | 1,500         |
| 5M0.5R         |                   | REG             |                 |         |          |              |             |            |          |            |             | 2,250         |
| 5M0.5R+1       |                   | REG+1           |                 |         |          |              |             |            |          |            |             | 2,360         |
| 6M1R           | M6 × 1            | REG             | 2.5             | 62      | 12.0     | 3            | 6.0         | 29.0       | 4.75     | 1          | ●           | 1,530         |
| 6M1R+1         |                   | REG+1           |                 |         |          |              |             |            |          |            |             | 1,600         |
| 6M1R+2         |                   | REG+2           |                 |         |          |              |             |            |          |            |             | 1,600         |
| 6M0.75R        | M6 × 0.75         | REG             | 2.5             | 62      | 9.2      | 3            | 6.0         | 29.0       | 5.05     | 1          | ●           | 2,080         |
| 6M0.75R+1      |                   | REG+1           |                 |         |          |              |             |            |          |            |             | 2,180         |
| 6M0.5R         |                   | REG             |                 |         |          |              |             |            |          |            |             | 2,600         |
| 6M0.5R+1       | M6 × 0.5          | REG+1           | 2.5             | 62      | 6.1      | 3            | 6.0         | 29.0       | 5.35     | 1          | ●           | 2,730         |
| 8M1.25R        |                   | REG             |                 |         |          |              |             |            |          |            |             | 2,180         |
| 8M1.25R+1      |                   | REG+1           |                 |         |          |              |             |            |          |            |             | 2,290         |
| 8M1.25R+2      | M8 × 1.25         | REG+2           | 2.5             | 70      | 15.4     | 3            | 6.2         | 33.0       | 6.55     | 2          | ●           | 2,290         |
| 8M1R           |                   | REG             |                 |         |          |              |             |            |          |            |             | 2,690         |
| 8M1R+1         |                   | REG+1           |                 |         |          |              |             |            |          |            |             | 2,830         |
| 8M0.75R        | M8 × 0.75         | REG             | 2.5             | 70      | 9.2      | 3            | 6.2         | 24.5       | 7.05     | 2          | ●           | 3,130         |
| 8M0.75R+1      |                   | REG+1           |                 |         |          |              |             |            |          |            |             | 3,280         |
| 10M1.5R        |                   | REG             |                 |         |          |              |             |            |          |            |             | 2,720         |
| 10M1.5R+1      | M10 × 1.5         | REG+1           | 2.5             | 75      | 18.9     | 3            | 7.0         | 37.0       | 8.25     | 2          | ●           | 2,860         |
| 10M1.5R+2      |                   | REG+2           |                 |         |          |              |             |            |          |            |             | 2,860         |
| 10M1.25R       |                   | REG             |                 |         |          |              |             |            |          |            |             | 2,720         |
| 10M1.25R+1     | M10 × 1.25        | REG+1           | 2.5             | 75      | 15.7     | 3            | 7.0         | 33.0       | 8.55     | 2          | ●           | 2,860         |
| 10M1R          |                   | REG             |                 |         |          |              |             |            |          |            |             | 3,410         |
| 10M1R+1        |                   | REG+1           |                 |         |          |              |             |            |          |            |             | 3,570         |
| 10M0.75R       | M10 × 0.75        | REG             | 2.5             | 75      | 9.2      | 3            | 7.0         | 25.0       | 9.05     | 2          | ●           | 4,300         |
| 10M0.75R+1     |                   | REG+1           |                 |         |          |              |             |            |          |            |             | 4,410         |
| 12M1.75R       |                   | REG             |                 |         |          |              |             |            |          |            |             | 3,640         |
| 12M1.75R+1     | M12 × 1.75        | REG+1           | 2.5             | 82      | 22.4     | 3            | 8.5         | 42.0       | 9.95     | 2          | ●           | 3,810         |
| 12M1.75R+2     |                   | REG+2           |                 |         |          |              |             |            |          |            |             | 3,810         |
| 12M1.5R        |                   | REG             |                 |         |          |              |             |            |          |            |             | 3,640         |
| 12M1.5R+1      | M12 × 1.5         | REG+1           | 2.5             | 82      | 20.9     | 3            | 8.5         | 40.0       | 10.25    | 2          | ●           | 3,810         |
| 12M1.25R       |                   | REG             |                 |         |          |              |             |            |          |            |             | 3,640         |
| 12M1.25R+1     |                   | REG+1           |                 |         |          |              |             |            |          |            |             | 3,810         |
| 12M1R          | M12 × 1           | REG             | 2.5             | 82      | 13.5     | 3            | 8.5         | 33.0       | 10.75    | 2          | ●           | 4,510         |
| 12M1R+1        |                   | REG+1           |                 |         |          |              |             |            |          |            |             | 4,730         |

●：標準在庫品 Stocked items (2016年11月25日発売 will be released on November 25th, 2016)

・シャンク四角部寸法 K、LkはP.46を参照 Refer to page 46 for the square portion size of shank

# ZPO **NEW!** HyperZ ポイントタップ

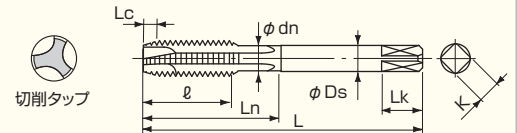
広い加工領域で長寿命でバラツキの少ない高性能な通り穴用の新しい汎用タップです。

## Hyper Z Point Tap

High performance taps which have long tool life and stable tapping in various cutting conditions.  
New general-purpose tap series for through holes.



オーダー方法 ZPO 記号



LIST6852

・単位(Unit):mm/(円/¥)

| 記号<br>Code No. | 呼び<br>Thread Size | 等級<br>TAP Limit |    | 食付(P)<br>Lc (P) | 全長<br>L | ねじ長<br>ℓ | 溝数<br>Flutes | シャンク径<br>Ds | 首下長さ<br>Ln | 首径<br>dn | 形式<br>Type | 在庫<br>Stock | 参考価格<br>Price |
|----------------|-------------------|-----------------|----|-----------------|---------|----------|--------------|-------------|------------|----------|------------|-------------|---------------|
| 3M0.5R         | M3 × 0.5          | REG             | P2 | 5               | 46      | 10.0     | 3            | 4.0         | 18         | 2.4      | 1          | ●           | 1,460         |
| 3M0.5R+1       |                   | REG+1           | P3 |                 |         |          |              |             |            |          |            |             | 1,530         |
| 3M0.5R+2       |                   | REG+2           | P4 |                 |         |          |              |             |            |          |            |             | 1,530         |
| 3M0.35R        | M3 × 0.35         | REG             | P1 | 5               | 46      | 8.0      | 3            | 4.0         | 18         | 2.4      | 1          | ●           | 2,540         |
| 3M0.35R+1      |                   | REG+1           | P2 |                 |         |          |              |             |            |          |            |             | 2,660         |
| 4M0.7R         |                   | REG             | P2 |                 |         |          |              |             |            |          |            |             | 1,390         |
| 4M0.7R+1       | M4 × 0.7          | REG+1           | P3 | 5               | 52      | 12.5     | 3            | 5.0         | 18         | 3.1      | 1          | ●           | 1,450         |
| 4M0.7R+2       |                   | REG+2           | P4 |                 |         |          |              |             |            |          |            |             | 1,450         |
| 4M0.5R         |                   | REG             | P2 | 5               | 52      | 10.0     | 3            | 5.0         | 18         | 3.1      | 1          | ●           | 2,250         |
| 4M0.5R+1       | M4 × 0.5          | REG+1           | P3 |                 |         |          |              |             |            |          |            |             | 2,350         |
| 5M0.8R         |                   | REG             | P2 |                 |         |          |              |             |            |          |            |             | 1,380         |
| 5M0.8R+1       | M5 × 0.8          | REG+1           | P3 | 5               | 60      | 14.5     | 3            | 5.5         | 25         | 4.0      | 1          | ●           | 1,440         |
| 5M0.8R+2       |                   | REG+2           | P4 |                 |         |          |              |             |            |          |            |             | 1,440         |
| 5M0.5R         |                   | REG             | P2 | 5               | 60      | 10.0     | 3            | 5.5         | 25         | 4.0      | 1          | ●           | 2,160         |
| 5M0.5R+1       | M5 × 0.5          | REG+1           | P3 |                 |         |          |              |             |            |          |            |             | 2,270         |
| 6M1R           |                   | REG             | P2 |                 |         |          |              |             |            |          |            |             | 1,480         |
| 6M1R+1         | M6 × 1            | REG+1           | P3 | 5               | 62      | 17.0     | 3            | 6.0         | 28         | 4.8      | 1          | ●           | 1,550         |
| 6M1R+2         |                   | REG+2           | P4 |                 |         |          |              |             |            |          |            |             | 1,550         |
| 6M0.75R        |                   | REG             | P2 | 5               | 62      | 14.0     | 3            | 6.0         | 28         | 4.8      | 1          | ●           | 1,990         |
| 6M0.75R+1      | M6 × 0.75         | REG+1           | P3 |                 |         |          |              |             |            |          |            |             | 2,080         |
| 6M0.5R         |                   | REG             | P2 | 5               | 62      | 10.0     | 3            | 6.0         | 28         | 4.8      | 1          | ●           | 2,510         |
| 6M0.5R+1       | M6 × 0.5          | REG+1           | P3 |                 |         |          |              |             |            |          |            |             | 2,640         |
| 8M1.25R        |                   | REG             | P3 |                 |         |          |              |             |            |          |            |             | 2,090         |
| 8M1.25R+1      | M8 × 1.25         | REG+1           | P4 | 5               | 70      | 22.0     | 3            | 6.2         | -          | -        | 2          | ●           | 2,190         |
| 8M1.25R+2      |                   | REG+2           | P5 |                 |         |          |              |             |            |          |            |             | 2,190         |
| 8M1R           |                   | REG             | P2 |                 |         |          |              |             |            |          |            |             | 2,620         |
| 8M1R+1         | M8 × 1            | REG+1           | P3 | 5               | 70      | 17.0     | 3            | 6.2         | -          | -        | 2          | ●           | 2,740         |
| 8M0.75R        |                   | REG             | P2 |                 |         |          |              |             |            |          |            |             | 3,020         |
| 8M0.75R+1      |                   | REG+1           | P3 |                 |         |          |              |             |            |          |            |             | 3,170         |
| 10M1.5R        | M10 × 1.5         | REG             | P3 | 5               | 75      | 27.0     | 3            | 7.0         | -          | -        | 2          | ●           | 2,660         |
| 10M1.5R+1      |                   | REG+1           | P4 |                 |         |          |              |             |            |          |            |             | 2,780         |
| 10M1.5R+2      |                   | REG+2           | P5 |                 |         |          |              |             |            |          |            |             | 2,780         |
| 10M1.25R       | M10 × 1.25        | REG             | P3 | 5               | 75      | 22.0     | 3            | 7.0         | -          | -        | 2          | ●           | 2,660         |
| 10M1.25R+1     |                   | REG+1           | P4 |                 |         |          |              |             |            |          |            |             | 2,780         |
| 10M1R          |                   | REG             | P2 | 5               | 75      | 17.0     | 3            | 7.0         | -          | -        | 2          | ●           | 3,300         |
| 10M1R+1        | M10 × 1           | REG+1           | P3 |                 |         |          |              |             |            |          |            |             | 3,450         |
| 10M0.75R       |                   | REG             | P2 | 5               | 75      | 14.0     | 3            | 7.0         | -          | -        | 2          | ●           | 4,160         |
| 10M0.75R+1     |                   | REG+1           | P3 |                 |         |          |              |             |            |          |            |             | 4,380         |
| 12M1.75R       | M12 × 1.75        | REG             | P4 | 5               | 82      | 32.0     | 3            | 8.5         | -          | -        | 2          | ●           | 3,540         |
| 12M1.75R+1     |                   | REG+1           | P5 |                 |         |          |              |             |            |          |            |             | 3,710         |
| 12M1.75R+2     |                   | REG+2           | P6 |                 |         |          |              |             |            |          |            |             | 3,710         |
| 12M1.5R        | M12 × 1.5         | REG             | P3 | 5               | 82      | 28.0     | 3            | 8.5         | -          | -        | 2          | ●           | 3,540         |
| 12M1.5R+1      |                   | REG+1           | P4 |                 |         |          |              |             |            |          |            |             | 3,710         |
| 12M1.25R       |                   | REG             | P3 | 5               | 82      | 23.0     | 3            | 8.5         | -          | -        | 2          | ●           | 3,540         |
| 12M1.25R+1     | M12 × 1.25        | REG+1           | P4 |                 |         |          |              |             |            |          |            |             | 3,710         |
| 12M1R          |                   | REG             | P2 | 5               | 82      | 19.0     | 3            | 8.5         | -          | -        | 2          | ●           | 4,350         |
| 12M1R+1        |                   | REG+1           | P3 |                 |         |          |              |             |            |          |            |             | 4,550         |

●：標準在庫品 Stocked items (2016年11月25日発売 will be released on November 25th, 2016)

・形式1は突出しセンタ Type 1 with External Centre

・シャンク四角部寸法 K、LkはP.46を参照 Refer to page 46 for the square portion size of shank

# NSP

## Nスパイラルタップ

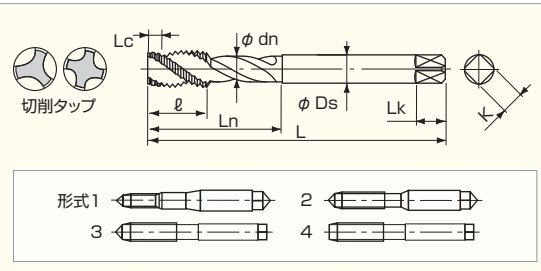
この無処理のタップは汎用的に使用できます。

### N Spiral Tap

This non-coated spiral tap is used universally.



オーダー方法 **NSP** 記号



LIST6900

・単位(Unit):mm/(円)(¥)

| 記号<br>Code No. | 呼び<br>Thread Size | 等級<br>TAP Limit | 食付(P)<br>Lc (P) | 全長<br>L | ねじ長<br>ℓ | 溝数<br>Flutes | シャンク径<br>Ds | 首下長さ<br>Ln | 首径<br>dn | 形式<br>Type | 在庫<br>Stock | 参考価格<br>Price |
|----------------|-------------------|-----------------|-----------------|---------|----------|--------------|-------------|------------|----------|------------|-------------|---------------|
| 2M0.4R         | M2 × 0.4          | REG             | P1              | 2.5     | 40       | 9.0          | 3.0         | 15         | 2.1 *    | 1          | ●           | 1,560         |
| 2M0.4R+1       |                   | REG+1           | P2              |         |          |              |             |            |          |            |             | 1,750         |
| 2M0.4R+2       |                   | REG+2           | P3              |         |          |              |             |            |          |            |             | 1,750         |
| 2.2M0.45R      | M2.2 × 0.45       | REG             | P1              | 2.5     | 42       | 9.5          | 3.0         | 15         | 2.3 *    | 1          | ●           | 1,730         |
| 2.3M0.4R       | M2.3 × 0.4        | REG             | P1              | 2.5     | 42       | 9.5          | 3.0         | 15         | 2.4 *    | 1          | ●           | 1,400         |
| 2.5M0.45R      | M2.5 × 0.45       | REG             | P1              | 2.5     | 44       | 10.0         | 3.0         | 16         | 2.7 *    | 1          | ●           | 1,230         |
| 2.5M0.45R+1    |                   | REG+1           | P2              |         |          |              |             |            |          |            |             | 1,380         |
| 2.5M0.45R+2    |                   | REG+2           | P3              |         |          |              |             |            |          |            |             | 1,380         |
| 2.5M0.35R      | M2.5 × 0.35       | REG             | P1              | 2.5     | 44       | 10.0         | 3.0         | 16         | 2.7 *    | 1          | ●           | 2,170         |
| 2.6M0.45R      | M2.6 × 0.45       | REG             | P1              | 2.5     | 44       | 10.0         | 3.0         | 16         | 2.7 *    | 1          | ●           | 1,070         |
| 2.6M0.45R+1    |                   | REG+1           | P2              |         |          |              |             |            |          |            |             | 1,200         |
| 2.6M0.45R+2    |                   | REG+2           | P3              |         |          |              |             |            |          |            |             | 1,200         |
| 3M0.5R         | M3 × 0.5          | REG             | P2              | 2.5     | 46       | 5.0          | 4.0         | 18         | 2.4      | 2          | ●           | 874           |
| 3M0.5R+1       |                   | REG+1           | P3              |         |          |              |             |            |          |            |             | 979           |
| 3M0.5R+2       |                   | REG+2           | P4              |         |          |              |             |            |          |            |             | 979           |
| 3M0.35R        | M3 × 0.35         | REG             | P1              | 2.5     | 46       | 5.0          | 4.0         | 18         | 2.4      | 2          | ●           | 1,500         |
| 3.5M0.6R       | M3.5 × 0.6        | REG             | P1              | 2.5     | 48       | 6.0          | 4.0         | 18         | 2.8      | 2          | ●           | 943           |
| 3.5M0.6R+1     |                   | REG+1           | P2              |         |          |              |             |            |          |            |             | 1,060         |
| 3.5M0.6R+2     |                   | REG+2           | P3              |         |          |              |             |            |          |            |             | 1,060         |
| 4M0.7R         | M4 × 0.7          | REG             | P2              | 2.5     | 52       | 7.0          | 5.0         | 20         | 3.1      | 2          | ●           | 832           |
| 4M0.7R+1       |                   | REG+1           | P3              |         |          |              |             |            |          |            |             | 932           |
| 4M0.7R+2       |                   | REG+2           | P4              |         |          |              |             |            |          |            |             | 932           |
| 4M0.5R         | M4 × 0.5          | REG             | P2              | 2.5     | 52       | 7.0          | 5.0         | 20         | 3.1      | 2          | ●           | 1,350         |
| 5M0.8R         | M5 × 0.8          | REG             | P2              | 2.5     | 60       | 8.0          | 5.5         | 22         | 4.0      | 2          | ●           | 857           |
| 5M0.8R+1       |                   | REG+1           | P3              |         |          |              |             |            |          |            |             | 960           |
| 5M0.8R+2       |                   | REG+2           | P4              |         |          |              |             |            |          |            |             | 960           |
| 5M0.5R         | M5 × 0.5          | REG             | P2              | 2.5     | 60       | 8.0          | 5.5         | 22         | 4.0      | 2          | ●           | 1,350         |
| 6M1R           | M6 × 1            | REG             | P2              | 2.5     | 62       | 10.0         | 6.0         | 25         | 4.8      | 2          | ●           | 918           |
| 6M1R+1         |                   | REG+1           | P3              |         |          |              |             |            |          |            |             | 1,030         |
| 6M1R+2         |                   | REG+2           | P4              |         |          |              |             |            |          |            |             | 1,030         |
| 6M0.75R        | M6 × 0.75         | REG             | P2              | 2.5     | 62       | 10.0         | 6.0         | 25         | 4.8      | 2          | ●           | 1,240         |
| 6M0.75R+1      |                   | REG+1           | P3              |         |          |              |             |            |          |            |             | 1,390         |
| 6M0.75R+2      |                   | REG+2           | P4              |         |          |              |             |            |          |            |             | 1,390         |
| 6M0.5R         | M6 × 0.5          | REG             | P2              | 2.5     | 62       | 10.0         | 6.0         | 25         | 4.8      | 2          | ●           | 1,550         |
| 7M1R           | M7 × 1            | REG             | P2              | 2.5     | 65       | 10.0         | 6.2         | 26         | 5.8      | 3          | ●           | 1,250         |
| 7M0.75R        | M7 × 0.75         | REG             | P2              | 2.5     | 65       | 10.0         | 6.2         | 26         | 5.8      | 3          | ●           | 1,780         |
| 8M1.25R        | M8 × 1.25         | REG             | P3              | 2.5     | 70       | 12.0         | 6.2         | 34         | 6.0      | 3          | ●           | 1,350         |
| 8M1.25R+1      |                   | REG+1           | P4              |         |          |              |             |            |          |            |             | 1,520         |
| 8M1.25R+2      |                   | REG+2           | P5              |         |          |              |             |            |          |            |             | 1,520         |
| 8M1R           | M8 × 1            | REG             | P2              | 2.5     | 70       | 12.0         | 6.2         | 34         | 6.0      | 3          | ●           | 1,670         |
| 8M1R+1         |                   | REG+1           | P3              |         |          |              |             |            |          |            |             | 1,880         |
| 8M1R+2         |                   | REG+2           | P4              |         |          |              |             |            |          |            |             | 1,880         |
| 8M0.75R        | M8 × 0.75         | REG             | P2              | 2.5     | 72       | 12.0         | 6.2         | 34         | 6.0      | 3          | ●           | 1,950         |
| 8M0.5R         | M8 × 0.5          | REG             | P2              | 2.5     | 72       | 12.0         | 6.2         | 34         | 6.0      | 3          | ●           | 2,420         |
| 9M1.25R        | M9 × 1.25         | REG             | P3              | 2.5     | 72       | 12.0         | 7.0         | 38         | 6.9      | 3          | ●           | 1,750         |
| 9M1R           | M9 × 1            | REG             | P2              | 2.5     | 72       | 12.0         | 7.0         | 38         | 6.9      | 3          | ●           | 2,320         |
| 10M1.5R        | M10 × 1.5         | REG             | P3              | 2.5     | 75       | 15.0         | 7.0         | 39         | 6.8      | 3          | ●           | 1,690         |
| 10M1.5R+1      |                   | REG+1           | P4              |         |          |              |             |            |          |            |             | 1,900         |
| 10M1.5R+2      |                   | REG+2           | P5              |         |          |              |             |            |          |            |             | 1,900         |
| 10M1.25R       | M10 × 1.25        | REG             | P3              | 2.5     | 75       | 15.0         | 7.0         | 39         | 6.8      | 3          | ●           | 1,690         |
| 10M1.25R+1     |                   | REG+1           | P4              |         |          |              |             |            |          |            |             | 1,900         |
| 10M1.25R+2     |                   | REG+2           | P5              |         |          |              |             |            |          |            |             | 1,900         |
| 10M1R          | M10 × 1           | REG             | P2              | 2.5     | 75       | 15.0         | 7.0         | 39         | 6.8      | 3          | ●           | 2,120         |
| 10M1R+1        |                   | REG+1           | P3              |         |          |              |             |            |          |            |             | 2,380         |
| 10M1R+2        |                   | REG+2           | P4              |         |          |              |             |            |          |            |             | 2,380         |
| 10M0.75R       | M10 × 0.75        | REG             | P2              | 2.5     | 75       | 15.0         | 7.0         | 39         | 6.8      | 3          | ●           | 2,670         |
| 12M1.75R       | M12 × 1.75        | REG             | P3              | 2.5     | 82       | 17.0         | 8.5         | 43         | 8.3      | 3          | ●           | 2,350         |
| 12M1.75R+1     |                   | REG+1           | P4              |         |          |              |             |            |          |            |             | 2,640         |
| 12M1.75R+2     |                   | REG+2           | P5              |         |          |              |             |            |          |            |             | 2,640         |
| 12M1.5R        | M12 × 1.5         | REG             | P3              | 2.5     | 82       | 17.0         | 8.5         | 43         | 8.3      | 3          | ●           | 2,350         |
| 12M1.5R+1      |                   | REG+1           | P4              |         |          |              |             |            |          |            |             | 2,640         |
| 12M1.5R+2      |                   | REG+2           | P5              |         |          |              |             |            |          |            |             | 2,640         |
| 12M1.25R       | M12 × 1.25        | REG             | P3              | 2.5     | 82       | 17.0         | 8.5         | 43         | 8.3      | 3          | ●           | 2,350         |
| 12M1.25R+1     |                   | REG+1           | P4              |         |          |              |             |            |          |            |             | 2,640         |
| 12M1.25R+2     |                   | REG+2           | P5              |         |          |              |             |            |          |            |             | 2,640         |
| 12M1R          | M12 × 1           | REG             | P2              | 2.5     | 82       | 17.0         | 8.5         | 43         | 8.3      | 3          | ●           | 2,910         |
| 12M0.75R       | M12 × 0.75        | REG             | P2              | 2.5     | 82       | 17.0         | 8.5         | 43         | 8.3      | 3          | △           | —             |
| 12M0.5R        | M12 × 0.5         | REG             | P2              | 2.5     | 82       | 17.0         | 8.5         | 43         | 8.3      | 3          | △           | —             |
| 13M1.75R       | M13 × 1.75        | REG             | P2              | 2.5     | 88       | 17.0         | 9.5         | 43         | 9.3      | 4          | △           | —             |

●:標準在庫品 Stocked items

△:受注生産品 Manufactured upon request

\*:呼び径 < 首径です。めねじ加工深さが深い場合、ねじ長以上入れると折損の危険があります。

\*:Thread Size < Neck diameter (dn) When depth of cutting a female thread is deep, if putting the screw length or more in length, there is a risk of breakage.

・形式1~3は突出しセンタ Type1~3 with External Centre

・シャンク四角部寸法 K、LkはP.46を参照 Refer to page 46 for the square portion size of shank

・単位(Unit):mm/円(¥)

| 記号<br>Code No. | 呼び<br>Thread Size | 等級<br>TAP Limit |    | 食付(P)<br>Lc (P) | 全長<br>L | ねじ長<br>ℓ | 溝数<br>Flutes | シャンク径<br>Ds | 首下長さ<br>Ln | 首径<br>dn | 形式<br>Type | 在庫<br>Stock | 参考価格<br>Price |
|----------------|-------------------|-----------------|----|-----------------|---------|----------|--------------|-------------|------------|----------|------------|-------------|---------------|
| 14M2R          | M14 × 2           | REG             | P2 | 2.5             | 88      | 20.0     | 3            | 10.5        | 44         | 10.3     | 4          | ●           | 3,290         |
| 14M1.5R        | M14 × 1.5         | REG             | P2 | 2.5             | 88      | 20.0     | 3            | 10.5        | 44         | 10.3     | 4          | ●           | 3,290         |
| 14M1.25R       | M14 × 1.25        | REG             | P2 | 2.5             | 88      | 20.0     | 3            | 10.5        | 44         | 10.3     | 4          | ●           | 4,270         |
| 14M1R          | M14 × 1           | REG             | P2 | 2.5             | 88      | 20.0     | 3            | 10.5        | 44         | 10.3     | 4          | ●           | 4,390         |
| 15M2R          | M15 × 2           | REG             | P2 | 2.5             | 90      | 20.0     | 3            | 10.5        | 47         | 10.3     | 4          | △           | —             |
| 15M1.5R        | M15 × 1.5         | REG             | P2 | 2.5             | 90      | 20.0     | 3            | 10.5        | 47         | 10.3     | 4          | ●           | 5,780         |
| 16M2R          | M16 × 2           | REG             | P2 | 2.5             | 95      | 20.0     | 3            | 12.5        | 50         | 12.3     | 4          | ●           | 4,380         |
| 16M1.5R        | M16 × 1.5         | REG             | P2 | 2.5             | 95      | 20.0     | 3            | 12.5        | 50         | 12.3     | 4          | ●           | 4,380         |
| 16M1R          | M16 × 1           | REG             | P2 | 2.5             | 95      | 20.0     | 3            | 12.5        | 50         | 12.3     | 4          | ●           | 5,700         |
| 18M2.5R        | M18 × 2.5         | REG             | P3 | 2.5             | 100     | 25.0     | 3            | 14.0        | 56         | 13.8     | 4          | ●           | 5,990         |
| 18M2R          | M18 × 2           | REG             | P3 | 2.5             | 100     | 25.0     | 3            | 14.0        | 56         | 13.8     | 4          | ●           | 7,210         |
| 18M1.5R        | M18 × 1.5         | REG             | P2 | 2.5             | 100     | 25.0     | 3            | 14.0        | 56         | 13.8     | 4          | ●           | 5,990         |
| 19M2.5R        | M19 × 2.5         | REG             | P3 | 2.5             | 105     | 25.0     | 3            | 14.0        | 56         | 13.8     | 4          | △           | —             |
| 19M1.5R        | M19 × 1.5         | REG             | P2 | 2.5             | 105     | 25.0     | 3            | 14.0        | 56         | 13.8     | 4          | △           | —             |
| 19M1R          | M19 × 1           | REG             | P2 | 2.5             | 105     | 25.0     | 3            | 14.0        | 56         | 13.8     | 4          | △           | —             |
| 20M2.5R        | M20 × 2.5         | REG             | P3 | 2.5             | 105     | 25.0     | 4            | 15.0        | 57         | 14.8     | 4          | ●           | 7,780         |
| 20M2R          | M20 × 2           | REG             | P3 | 2.5             | 105     | 25.0     | 4            | 15.0        | 57         | 14.8     | 4          | ●           | 10,400        |
| 20M1.5R        | M20 × 1.5         | REG             | P2 | 2.5             | 105     | 25.0     | 4            | 15.0        | 57         | 14.8     | 4          | ●           | 7,780         |
| 22M2.5R        | M22 × 2.5         | REG             | P3 | 2.5             | 115     | 25.0     | 4            | 17.0        | 62         | 16.8     | 4          | ●           | 10,100        |
| 22M2R          | M22 × 2           | REG             | P3 | 2.5             | 115     | 25.0     | 4            | 17.0        | 62         | 16.8     | 4          | ●           | 13,500        |
| 22M1.5R        | M22 × 1.5         | REG             | P2 | 2.5             | 115     | 25.0     | 4            | 17.0        | 62         | 16.8     | 4          | ●           | 10,100        |
| 22M1R          | M22 × 1           | REG             | P2 | 2.5             | 115     | 25.0     | 4            | 17.0        | 62         | 16.8     | 4          | ●           | 14,400        |
| 23M2.5R        | M23 × 2.5         | REG             | P3 | 2.5             | 120     | 25.0     | 4            | 18.0        | 67         | 17.8     | 4          | △           | —             |
| 23M2R          | M23 × 2           | REG             | P3 | 2.5             | 120     | 25.0     | 4            | 18.0        | 67         | 17.8     | 4          | △           | —             |
| 24M3R          | M24 × 3           | REG             | P3 | 2.5             | 120     | 30.0     | 4            | 19.0        | 67         | 18.8     | 4          | ●           | 12,600        |
| 24M2R          | M24 × 2           | REG             | P3 | 2.5             | 120     | 30.0     | 4            | 19.0        | 67         | 18.8     | 4          | ●           | 17,400        |
| 24M1.5R        | M24 × 1.5         | REG             | P2 | 2.5             | 120     | 30.0     | 4            | 19.0        | 67         | 18.8     | 4          | ●           | 12,600        |
| 24M1R          | M24 × 1           | REG             | P2 | 2.5             | 120     | 30.0     | 4            | 19.0        | 67         | 18.8     | 4          | ●           | 19,300        |
| 25M3R          | M25 × 3           | REG             | P3 | 2.5             | 125     | 30.0     | 4            | 19.0        | 67         | 18.8     | 4          | △           | —             |
| 25M1.5R        | M25 × 1.5         | REG             | P2 | 2.5             | 125     | 30.0     | 4            | 19.0        | 67         | 18.8     | 4          | ●           | 18,800        |
| 26M3R          | M26 × 3           | REG             | P3 | 2.5             | 125     | 30.0     | 4            | 20.0        | 67         | 19.7     | 4          | △           | —             |
| 26M1.5R        | M26 × 1.5         | REG             | P2 | 2.5             | 125     | 30.0     | 4            | 20.0        | 67         | 19.7     | 4          | ●           | 17,400        |
| 27M3R          | M27 × 3           | REG             | P3 | 2.5             | 130     | 30.0     | 4            | 20.0        | 67         | 19.7     | 4          | ●           | 18,800        |
| 27M2R          | M27 × 2           | REG             | P3 | 2.5             | 130     | 30.0     | 4            | 20.0        | 67         | 19.7     | 4          | ●           | 21,000        |
| 27M1.5R        | M27 × 1.5         | REG             | P2 | 2.5             | 130     | 30.0     | 4            | 20.0        | 67         | 19.7     | 4          | ●           | 18,800        |
| 28M3R          | M28 × 3           | REG             | P3 | 2.5             | 130     | 30.0     | 4            | 21.0        | 67         | 20.7     | 4          | △           | —             |
| 28M2R          | M28 × 2           | REG             | P3 | 2.5             | 130     | 30.0     | 4            | 21.0        | 67         | 20.7     | 4          | ●           | 24,900        |
| 28M1.5R        | M28 × 1.5         | REG             | P2 | 2.5             | 130     | 30.0     | 4            | 21.0        | 67         | 20.7     | 4          | ●           | 22,200        |
| 30M3.5R        | M30 × 3.5         | REG             | P3 | 2.5             | 135     | 30.0     | 4            | 23.0        | 72         | 22.7     | 4          | ●           | 24,100        |
| 30M3R          | M30 × 3           | REG             | P3 | 2.5             | 135     | 30.0     | 4            | 23.0        | 72         | 22.7     | 4          | ●           | 27,100        |
| 30M2R          | M30 × 2           | REG             | P3 | 2.5             | 135     | 30.0     | 4            | 23.0        | 72         | 22.7     | 4          | ●           | 27,100        |
| 30M1.5R        | M30 × 1.5         | REG             | P2 | 2.5             | 135     | 30.0     | 4            | 23.0        | 72         | 22.7     | 4          | ●           | 24,100        |
| 32M1.5R        | M32 × 1.5         | REG             | P3 | 2.5             | 145     | 30.0     | 4            | 24.0        | 72         | 23.7     | 4          | ●           | 29,200        |
| 33M3.5R        | M33 × 3.5         | REG             | P3 | 2.5             | 145     | 30.0     | 4            | 25.0        | 77         | 24.7     | 4          | ●           | 27,400        |
| 33M2R          | M33 × 2           | REG             | P3 | 2.5             | 145     | 30.0     | 4            | 25.0        | 77         | 24.7     | 4          | ●           | 29,400        |
| 33M1.5R        | M33 × 1.5         | REG             | P3 | 2.5             | 145     | 30.0     | 4            | 25.0        | 77         | 24.7     | 4          | ●           | 27,400        |
| 35M1.5R        | M35 × 1.5         | REG             | P3 | 2.5             | 155     | 30.0     | 4            | 26.0        | 77         | 25.7     | 4          | ●           | 32,100        |
| 36M4R          | M36 × 4           | REG             | P4 | 2.5             | 155     | 30.0     | 4            | 28.0        | 82         | 27.7     | 4          | ●           | 32,100        |
| 36M3R          | M36 × 3           | REG             | P4 | 2.5             | 155     | 30.0     | 4            | 28.0        | 82         | 27.7     | 4          | ●           | 33,700        |
| 36M2R          | M36 × 2           | REG             | P3 | 2.5             | 155     | 30.0     | 4            | 28.0        | 82         | 27.7     | 4          | ●           | 33,700        |
| 36M1.5R        | M36 × 1.5         | REG             | P3 | 2.5             | 155     | 30.0     | 4            | 28.0        | 82         | 27.7     | 4          | ●           | 32,100        |

●：標準在庫品 Stocked items

△：受注生産品 Manufactured upon request

・シャンク四角部寸法 K、LkはP.46を参照 Refer to page 46 for the square portion size of shank



# NSPL

## Nスパイラルタップロングシャンク

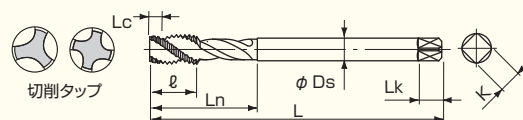
標準寸法では、突出し長さが不足するような場合に使用します。

### N Spiral Tap Long Shank

This tap is used when a standard N Spiral Tap is too short.



オーダー方法 **NSPL** 記号 × 全長



形式1 形式2

LIST6902

・単位(Unit):mm/(円/¥)

| 記号<br>Code No. | 全長<br>L | 呼び<br>Thread Size | 等級<br>TAP Limit | 食付(P)<br>Lc (P) | ねじ長<br>ℓ | 溝数<br>Flutes | シャンク径<br>Ds | 首下長さ<br>Ln | 形式<br>Type | 在庫<br>Stock | 参考価格<br>Price |
|----------------|---------|-------------------|-----------------|-----------------|----------|--------------|-------------|------------|------------|-------------|---------------|
| 3M0.5R         | 100     | M3 × 0.5          | REG             | P2              | 2.5      | 3            | 4.0         | 18.0       | 1          | ●           | 2,500         |
| 3M0.5R         | 120     |                   |                 |                 |          |              |             |            |            |             | 2,820         |
| 3M0.5R         | 150     |                   |                 |                 |          |              |             |            |            |             | 4,840         |
| 4M0.7R         | 100     | M4 × 0.7          | REG             | P2              | 2.5      | 3            | 5.0         | 20.0       | 1          | ●           | 2,250         |
| 4M0.7R         | 120     |                   |                 |                 |          |              |             |            |            |             | 2,820         |
| 4M0.7R         | 150     |                   |                 |                 |          |              |             |            |            |             | 4,570         |
| 5M0.8R         | 100     | M5 × 0.8          | REG             | P2              | 2.5      | 3            | 5.5         | 22.0       | 1          | ●           | 1,940         |
| 5M0.8R         | 120     |                   |                 |                 |          |              |             |            |            |             | 2,580         |
| 5M0.8R         | 150     |                   |                 |                 |          |              |             |            |            |             | 3,470         |
| 6M1R           | 100     | M6 × 1            | REG             | P2              | 2.5      | 3            | 6.0         | 31.0       | 1          | ●           | 1,680         |
| 6M1R           | 120     |                   |                 |                 |          |              |             |            |            |             | 2,310         |
| 6M1R           | 150     |                   |                 |                 |          |              |             |            |            |             | 2,980         |
| 8M1.25R        | 100     | M8 × 1.25         | REG             | P3              | 2.5      | 3            | 6.2         | 30.0       | 2          | ●           | 2,140         |
| 8M1.25R        | 120     |                   |                 |                 |          |              |             |            |            |             | 2,820         |
| 8M1.25R        | 150     |                   |                 |                 |          |              |             |            |            |             | 3,700         |
| 10M1.5R        | 100     | M10 × 1.5         | REG             | P3              | 2.5      | 3            | 7.0         | 31.4       | 2          | ●           | 2,820         |
| 10M1.5R        | 120     |                   |                 |                 |          |              |             |            |            |             | 3,370         |
| 10M1.5R        | 150     |                   |                 |                 |          |              |             |            |            |             | 4,310         |
| 10M1.25R       | 100     | M10 × 1.25        | REG             | P3              | 2.5      | 3            | 7.0         | 31.4       | 2          | ●           | 2,820         |
| 10M1.25R       | 120     |                   |                 |                 |          |              |             |            |            |             | 3,370         |
| 10M1.25R       | 150     |                   |                 |                 |          |              |             |            |            |             | 4,570         |
| 12M1.75R       | 150     | M12 × 1.75        | REG             | P3              | 2.5      | 3            | 8.5         | 38.0       | 2          | ●           | 5,500         |
| 12M1.75R       | 200     |                   |                 |                 |          |              |             |            |            |             | 6,830         |
| 12M1.5R        | 150     | M12 × 1.5         | REG             | P3              | 2.5      | 3            | 8.5         | 38.0       | 2          | ●           | 5,810         |
| 12M1.25R       | 150     |                   |                 |                 |          |              |             |            |            |             | 5,810         |
| 14M2R          | 150     | M14 × 2           | REG             | P2              | 2.5      | 3            | 10.5        | 42.0       | 2          | ●           | 7,230         |
| 14M2R          | 200     |                   |                 |                 |          |              |             |            |            |             | 8,450         |
| 14M1.5R        | 150     |                   |                 |                 |          |              |             |            |            |             | 7,230         |
| 16M2R          | 150     | M16 × 2           | REG             | P2              | 2.5      | 3            | 12.5        | 45.0       | 2          | ●           | 7,780         |
| 16M2R          | 200     |                   |                 |                 |          |              |             |            |            |             | 10,200        |
| 16M1.5R        | 150     | M16 × 1.5         | REG             | P2              | 2.5      | 3            | 12.5        | 45.0       | 2          | ●           | 7,780         |
| 16M1.5R        | 200     |                   |                 |                 |          |              |             |            |            |             | 10,200        |
| 18M2.5R        | 150     | M18 × 2.5         | REG             | P3              | 2.5      | 3            | 14.0        | 48.0       | 2          | ●           | 10,600        |
| 18M2.5R        | 200     |                   |                 |                 |          |              |             |            |            |             | 13,200        |
| 18M1.5R        | 150     | M18 × 1.5         | REG             | P2              | 2.5      | 3            | 14.0        | 48.0       | 2          | ●           | 10,600        |
| 18M1.5R        | 200     |                   |                 |                 |          |              |             |            |            |             | 13,200        |
| 20M2.5R        | 150     | M20 × 2.5         | REG             | P3              | 2.5      | 4            | 15.0        | 50.0       | 2          | ●           | 13,200        |
| 20M2.5R        | 200     |                   |                 |                 |          |              |             |            |            |             | 16,800        |
| 20M1.5R        | 150     | M20 × 1.5         | REG             | P2              | 2.5      | 4            | 15.0        | 50.0       | 2          | ●           | 13,200        |
| 20M1.5R        | 200     |                   |                 |                 |          |              |             |            |            |             | 16,800        |
| 22M2.5R        | 200     | M22 × 2.5         | REG             | P3              | 2.5      | 4            | 17.0        | 55.0       | 2          | ●           | 18,300        |
| 22M1.5R        | 150     |                   |                 |                 |          |              |             |            |            |             | 15,000        |
| 22M1.5R        | 200     |                   |                 |                 |          |              |             |            |            |             | 18,300        |
| 24M3R          | 150     | M24 × 3           | REG             | P3              | 2.5      | 4            | 19.0        | 58.0       | 2          | ●           | 17,400        |
| 24M3R          | 200     |                   |                 |                 |          |              |             |            |            |             | 21,100        |
| 24M1.5R        | 150     | M24 × 1.5         | REG             | P2              | 2.5      | 4            | 19.0        | 58.0       | 2          | ●           | 17,400        |
| 24M1.5R        | 200     |                   |                 |                 |          |              |             |            |            |             | 21,100        |

● : 標準在庫品 Stocked items

・形式1は突出しセンタ Type1 with External Centre

・シャンク四角部寸法 K、LkはP.46を参照 Refer to page 46 for the square portion size of shank

# NPO

## Nポイントタップ

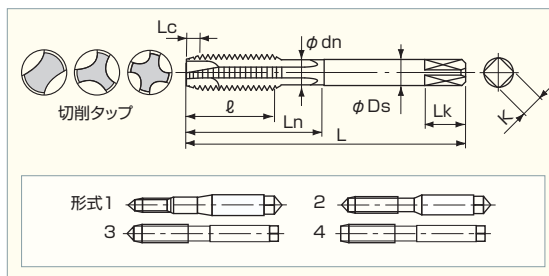
この無処理のタップは汎用的に使用できます。

### N Point Tap

This non-coated point tap is used universally.



オーダー方法 **NPO** 記号



LIST6906

・単位(Unit):mm/(円)(¥)

| 記号<br>Code No. | 呼び<br>Thread Size | 等級<br>TAP Limit | 食付(P)<br>Lc (P) | 全長<br>L | ねじ長<br>ℓ | 溝数<br>Flutes | シャンク径<br>Ds | 首下長さ<br>Ln | 首径<br>dn | 形式<br>Type | 在庫<br>Stock | 参考価格<br>Price |
|----------------|-------------------|-----------------|-----------------|---------|----------|--------------|-------------|------------|----------|------------|-------------|---------------|
| 1.4M0.3R       | M1.4 × 0.3        | REG             | P1              | 5       | 34       | 7.0          | 2           | 3.0        | 11       | 1.5*       | ●           | 2,050         |
| 1.4M0.3R+1     |                   | REG+1           | P2              |         |          |              |             |            |          |            |             | 2,300         |
| 1.4M0.3R+2     |                   | REG+2           | P3              |         |          |              |             |            |          |            |             | 2,300         |
| 1.6M0.35R      | M1.6 × 0.35       | REG             | P1              | 5       | 36       | 8.0          | 2           | 3.0        | 13       | 1.7*       | ●           | 2,050         |
| 1.6M0.35R+1    |                   | REG+1           | P2              |         |          |              |             |            |          |            |             | 2,300         |
| 1.6M0.35R+2    |                   | REG+2           | P3              |         |          |              |             |            |          |            |             | 2,300         |
| 1.7M0.35R      | M1.7 × 0.35       | REG             | P1              | 5       | 36       | 8.0          | 2           | 3.0        | 13       | 1.8*       | ●           | 1,840         |
| 1.7M0.35R+1    |                   | REG+1           | P2              |         |          |              |             |            |          |            |             | 2,070         |
| 1.7M0.35R+2    |                   | REG+2           | P3              |         |          |              |             |            |          |            |             | 2,070         |
| 2M0.4R         | M2 × 0.4          | REG             | P1              | 5       | 40       | 9.0          | 2           | 3.0        | 15       | 2.1*       | ●           | 1,500         |
| 2M0.4R+1       |                   | REG+1           | P2              |         |          |              |             |            |          |            |             | 1,680         |
| 2M0.4R+2       |                   | REG+2           | P3              |         |          |              |             |            |          |            |             | 1,680         |
| 2.2M0.45R      | M2.2 × 0.45       | REG             | P2              | 5       | 42       | 9.5          | 2           | 3.0        | 15       | 2.3*       | ●           | 1,850         |
| 2.3M0.4R       | M2.3 × 0.4        | REG             | P1              | 5       | 42       | 9.5          | 2           | 3.0        | 15       | 2.4*       | ●           | 1,360         |
| 2.3M0.4R+1     |                   | REG+1           | P2              |         |          |              |             |            |          |            |             | 1,530         |
| 2.3M0.4R+2     |                   | REG+2           | P3              |         |          |              |             |            |          |            |             | 1,530         |
| 2.5M0.45R      | M2.5 × 0.45       | REG             | P2              | 5       | 44       | 10.0         | 2           | 3.0        | 16       | 2.7*       | ●           | 1,180         |
| 2.5M0.45R+1    |                   | REG+1           | P3              |         |          |              |             |            |          |            |             | 1,330         |
| 2.5M0.45R+2    |                   | REG+2           | P4              |         |          |              |             |            |          |            |             | 1,330         |
| 2.6M0.45R      | M2.6 × 0.45       | REG             | P2              | 5       | 44       | 10.0         | 2           | 3.0        | 16       | 2.7*       | ●           | 1,040         |
| 2.6M0.45R+1    |                   | REG+1           | P3              |         |          |              |             |            |          |            |             | 1,170         |
| 2.6M0.45R+2    |                   | REG+2           | P4              |         |          |              |             |            |          |            |             | 1,170         |
| 3M0.5R         | M3 × 0.5          | REG             | P2              | 5       | 46       | 11.0         | 3           | 4.0        | 18       | 2.4        | ●           | 842           |
| 3M0.5R+1       |                   | REG+1           | P3              |         |          |              |             |            |          |            |             | 944           |
| 3M0.5R+2       |                   | REG+2           | P4              |         |          |              |             |            |          |            |             | 944           |
| 3.5M0.6R       | M3.5 × 0.6        | REG             | P2              | 5       | 48       | 13.0         | 3           | 4.0        | 18       | 2.8        | ●           | 909           |
| 3.5M0.6R+1     |                   | REG+1           | P3              |         |          |              |             |            |          |            |             | 1,020         |
| 3.5M0.6R+2     |                   | REG+2           | P4              |         |          |              |             |            |          |            |             | 1,020         |
| 4M0.7R         | M4 × 0.7          | REG             | P2              | 5       | 52       | 13.0         | 3           | 5.0        | 20       | 3.1        | ●           | 806           |
| 4M0.7R+1       |                   | REG+1           | P3              |         |          |              |             |            |          |            |             | 903           |
| 4M0.7R+2       |                   | REG+2           | P4              |         |          |              |             |            |          |            |             | 903           |
| 4M0.5R         | M4 × 0.5          | REG             | P2              | 5       | 52       | 13.0         | 3           | 5.0        | 20       | 3.1        | ●           | 1,300         |
| 5M0.8R         | M5 × 0.8          | REG             | P2              | 5       | 60       | 16.0         | 3           | 5.5        | 22       | 4.0        | ●           | 829           |
| 5M0.8R+1       |                   | REG+1           | P3              |         |          |              |             |            |          |            |             | 929           |
| 5M0.8R+2       |                   | REG+2           | P4              |         |          |              |             |            |          |            |             | 929           |
| 6M1R           | M6 × 1            | REG             | P2              | 5       | 62       | 19.0         | 3           | 6.0        | 27       | 4.8        | ●           | 884           |
| 6M1R+1         |                   | REG+1           | P3              |         |          |              |             |            |          |            |             | 1,000         |
| 6M1R+2         |                   | REG+2           | P4              |         |          |              |             |            |          |            |             | 1,000         |
| 6M0.75R        | M6 × 0.75         | REG             | P2              | 5       | 62       | 19.0         | 3           | 6.0        | 27       | 4.8        | ●           | 1,190         |
| 6M0.75R+1      |                   | REG+1           | P3              |         |          |              |             |            |          |            |             | 1,340         |
| 6M0.75R+2      |                   | REG+2           | P4              |         |          |              |             |            |          |            |             | 1,340         |
| 8M1.25R        | M8 × 1.25         | REG             | P3              | 5       | 70       | 22.0         | 3           | 6.2        | 34       | 6.0        | ●           | 1,300         |
| 8M1.25R+1      |                   | REG+1           | P4              |         |          |              |             |            |          |            |             | 1,460         |
| 8M1.25R+2      |                   | REG+2           | P5              |         |          |              |             |            |          |            |             | 1,460         |
| 8M1R           | M8 × 1            | REG             | P2              | 5       | 70       | 22.0         | 3           | 6.2        | 34       | 6.0        | ●           | 1,630         |
| 8M1R+1         |                   | REG+1           | P3              |         |          |              |             |            |          |            |             | 1,830         |
| 8M1R+2         |                   | REG+2           | P4              |         |          |              |             |            |          |            |             | 1,830         |
| 10M1.5R        | M10 × 1.5         | REG             | P3              | 5       | 75       | 24.0         | 3           | 7.0        | 39       | 6.8        | ●           | 1,660         |
| 10M1.5R+1      |                   | REG+1           | P4              |         |          |              |             |            |          |            |             | 1,860         |
| 10M1.5R+2      |                   | REG+2           | P5              |         |          |              |             |            |          |            |             | 1,860         |
| 10M1.25R       | M10 × 1.25        | REG             | P3              | 5       | 75       | 24.0         | 3           | 7.0        | 39       | 6.8        | ●           | 1,660         |
| 10M1.25R+1     |                   | REG+1           | P4              |         |          |              |             |            |          |            |             | 1,860         |
| 10M1.25R+2     |                   | REG+2           | P5              |         |          |              |             |            |          |            |             | 1,860         |
| 10M1R          | M10 × 1           | REG             | P3              | 5       | 75       | 24.0         | 3           | 7.0        | 39       | 6.8        | ●           | 2,050         |
| 10M1R+1        |                   | REG+1           | P4              |         |          |              |             |            |          |            |             | 2,300         |
| 10M1R+2        |                   | REG+2           | P5              |         |          |              |             |            |          |            |             | 2,300         |

●：標準在庫品 Stocked items

\*：呼び径 < 首径です。めねじ加工深さが深い場合、ねじ長以上入れると折損の危険があります。

\*:Thread Size < Neck diameter (dn) When depth of cutting a female thread is deep, if putting the screw length or more in length, there is a risk of breakage.

・形式1～3は突出しセンタ Type1～3 with External Centre

・シャンク四角部寸法 K、LkはP.46を参照 Refer to page 46 for the square portion size of shank

次頁に続く ➡

Continued on the following page

・単位(Unit):mm/円(¥)

| 記号<br>Code No. | 呼び<br>Thread Size | 等級<br>TAP Limit |    | 食付(P)<br>Lc (P) | 全長<br>L | ねじ長<br>ℓ | 溝数<br>Flutes | シャンク径<br>Ds | 首下長さ<br>Ln | 首径<br>dn | 形式<br>Type | 在庫<br>Stock | 参考価格<br>Price |
|----------------|-------------------|-----------------|----|-----------------|---------|----------|--------------|-------------|------------|----------|------------|-------------|---------------|
| 12M1.75R       | M12 × 1.75        | REG             | P4 | 5               | 82      | 29.0     | 3            | 8.5         | 43         | 8.3      | 3          | ●           | 2,290         |
| 12M1.75R+1     |                   | REG+1           | P5 |                 |         |          |              |             |            |          |            |             | 2,570         |
| 12M1.75R+2     |                   | REG+2           | P6 |                 |         |          |              |             |            |          |            |             | 2,570         |
| 12M1.5R        | M12 × 1.5         | REG             | P3 | 5               | 82      | 29.0     | 3            | 8.5         | 43         | 8.3      | 3          | ●           | 2,290         |
| 12M1.5R+1      |                   | REG+1           | P4 |                 |         |          |              |             |            |          |            |             | 2,570         |
| 12M1.5R+2      |                   | REG+2           | P5 |                 |         |          |              |             |            |          |            |             | 2,570         |
| 12M1.25R       | M12 × 1.25        | REG             | P4 | 5               | 82      | 29.0     | 3            | 8.5         | 43         | 8.3      | 3          | ●           | 2,290         |
| 12M1.25R+1     |                   | REG+1           | P5 |                 |         |          |              |             |            |          |            |             | 2,570         |
| 12M1.25R+2     |                   | REG+2           | P6 |                 |         |          |              |             |            |          |            |             | 2,570         |
| 12M1R          | M12 × 1           | REG             | P3 | 5               | 82      | 29.0     | 3            | 8.5         | 43         | 8.3      | 3          | ●           | 2,810         |
| 12M1R+1        |                   | REG+1           | P4 |                 |         |          |              |             |            |          |            |             | 3,150         |
| 12M1R+2        |                   | REG+2           | P5 |                 |         |          |              |             |            |          |            |             | 3,150         |
| 14M2R          | M14 × 2           | REG             | P4 | 5               | 88      | 30.0     | 3            | 10.5        | 49         | 10.3     | 4          | ●           | 3,160         |
| 14M1.5R        | M14 × 1.5         | REG             | P3 | 5               | 88      | 30.0     | 3            | 10.5        | 49         | 10.3     | 4          | ●           | 3,160         |
| 14M1R          | M14 × 1           | REG             | P3 | 5               | 88      | 30.0     | 3            | 10.5        | 49         | 10.3     | 4          | ●           | 4,240         |
| 16M2R          | M16 × 2           | REG             | P4 | 5               | 95      | 32.0     | 3            | 12.5        | 52         | 12.3     | 4          | ●           | 4,230         |
| 16M1.5R        | M16 × 1.5         | REG             | P3 | 5               | 95      | 32.0     | 3            | 12.5        | 52         | 12.3     | 4          | ●           | 4,230         |
| 18M2.5R        | M18 × 2.5         | REG             | P4 | 5               | 100     | 37.0     | 3            | 14.0        | 56         | 13.8     | 4          | ●           | 5,800         |
| 18M1.5R        | M18 × 1.5         | REG             | P4 | 5               | 100     | 37.0     | 3            | 14.0        | 56         | 13.8     | 4          | ●           | 5,800         |
| 18M1R          | M18 × 1           | REG             | P3 | 5               | 100     | 37.0     | 3            | 14.0        | 56         | 13.8     | 4          | ●           | 9,600         |
| 20M2.5R        | M20 × 2.5         | REG             | P4 | 5               | 105     | 37.0     | 3            | 15.0        | 57         | 14.8     | 4          | ●           | 7,520         |
| 20M1.5R        | M20 × 1.5         | REG             | P4 | 5               | 105     | 37.0     | 3            | 15.0        | 57         | 14.8     | 4          | ●           | 7,520         |
| 20M1R          | M20 × 1           | REG             | P3 | 5               | 105     | 37.0     | 3            | 15.0        | 57         | 14.8     | 4          | ●           | 11,000        |
| 22M2.5R        | M22 × 2.5         | REG             | P4 | 5               | 115     | 38.0     | 3            | 17.0        | 62         | 16.8     | 4          | ●           | 9,770         |
| 22M1.5R        | M22 × 1.5         | REG             | P4 | 5               | 115     | 38.0     | 3            | 17.0        | 62         | 16.8     | 4          | ●           | 9,770         |
| 24M3R          | M24 × 3           | REG             | P4 | 5               | 120     | 45.0     | 3            | 19.0        | 67         | 18.8     | 4          | ●           | 12,300        |
| 24M2R          | M24 × 2           | REG             | P4 | 5               | 120     | 45.0     | 3            | 19.0        | 67         | 18.8     | 4          | ●           | 16,700        |
| 24M1.5R        | M24 × 1.5         | REG             | P4 | 5               | 120     | 45.0     | 3            | 19.0        | 67         | 18.8     | 4          | ●           | 12,300        |
| 25M1.5R        | M25 × 1.5         | REG             | P4 | 5               | 125     | 45.0     | 3            | 19.0        | 67         | 18.8     | 4          | ●           | 18,300        |
| 26M1.5R        | M26 × 1.5         | REG             | P4 | 5               | 125     | 45.0     | 4            | 20.0        | 67         | 19.7     | 4          | ●           | 16,800        |
| 27M3R          | M27 × 3           | REG             | P4 | 5               | 130     | 45.0     | 4            | 20.0        | 67         | 19.7     | 4          | ●           | 18,300        |
| 27M1.5R        | M27 × 1.5         | REG             | P4 | 5               | 130     | 45.0     | 4            | 20.0        | 67         | 19.7     | 4          | ●           | 18,300        |
| 30M3.5R        | M30 × 3.5         | REG             | P5 | 5               | 135     | 48.0     | 4            | 23.0        | 72         | 22.7     | 4          | ●           | 23,100        |
| 30M3R          | M30 × 3           | REG             | P4 | 5               | 135     | 48.0     | 4            | 23.0        | 72         | 22.7     | 4          | ●           | 26,300        |
| 30M2R          | M30 × 2           | REG             | P4 | 5               | 135     | 48.0     | 4            | 23.0        | 72         | 22.7     | 4          | ●           | 26,300        |
| 30M1.5R        | M30 × 1.5         | REG             | P4 | 5               | 135     | 48.0     | 4            | 23.0        | 72         | 22.7     | 4          | ●           | 23,100        |
| 30M1R          | M30 × 1           | REG             | P2 | 5               | 135     | 48.0     | 4            | 23.0        | 72         | 22.7     | 4          | ●           | 28,900        |
| 32M1.5R        | M32 × 1.5         | REG             | P4 | 5               | 145     | 51.0     | 4            | 24.0        | 72         | 23.7     | 4          | ●           | 28,100        |
| 33M3.5R        | M33 × 3.5         | REG             | P5 | 5               | 145     | 51.0     | 4            | 25.0        | 77         | 24.7     | 4          | ●           | 26,700        |
| 33M2R          | M33 × 2           | REG             | P3 | 5               | 145     | 51.0     | 4            | 25.0        | 77         | 24.7     | 4          | ●           | 28,800        |
| 33M1.5R        | M33 × 1.5         | REG             | P4 | 5               | 145     | 51.0     | 4            | 25.0        | 77         | 24.7     | 4          | ●           | 26,700        |
| 35M1.5R        | M35 × 1.5         | REG             | P4 | 5               | 155     | 51.0     | 4            | 26.0        | 77         | 25.7     | 4          | ●           | 31,000        |
| 36M4R          | M36 × 4           | REG             | P5 | 5               | 155     | 57.0     | 4            | 28.0        | 82         | 27.7     | 4          | ●           | 31,000        |
| 36M3R          | M36 × 3           | REG             | P4 | 5               | 155     | 57.0     | 4            | 28.0        | 82         | 27.7     | 4          | ●           | 32,600        |
| 36M2R          | M36 × 2           | REG             | P3 | 5               | 155     | 57.0     | 4            | 28.0        | 82         | 27.7     | 4          | ●           | 32,600        |
| 36M1.5R        | M36 × 1.5         | REG             | P4 | 5               | 155     | 57.0     | 4            | 28.0        | 82         | 27.7     | 4          | ●           | 31,000        |

● : 標準在庫品 Stocked items

・形式1〜3は突出しセンタ Type1〜3 with External Centre

・シャンク四角部寸法 K、LkはP.46を参照 Refer to page 46 for the square portion size of shank

# NPOL

## Nポイントタップロングシャンク

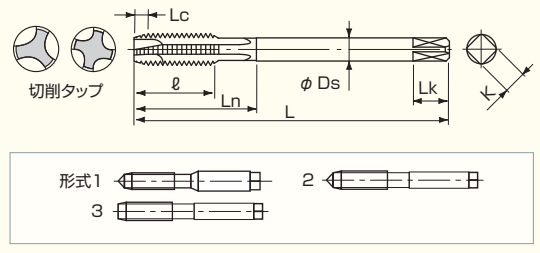
標準寸法では、突出し長さが不足するような場合に使用します。

**N Point Tap Long Shank**

This tap is used when a standard N Point Tap is too short.



オーダー方法 **NPOL** 記号 × 全長



LIST6908

・単位(Unit):mm/(円/¥)

| 記号<br>Code No. | 全長<br>L | 呼び<br>Thread Size | 等級<br>TAP Limit |    | 食付(P)<br>Lc (P) | ねじ長<br>l | 溝数<br>Flutes | シャンク径<br>Ds | 首下長さ<br>Ln | 形式<br>Type | 在庫<br>Stock | 参考価格<br>Price |
|----------------|---------|-------------------|-----------------|----|-----------------|----------|--------------|-------------|------------|------------|-------------|---------------|
| 3M0.5R         | 100     |                   |                 |    |                 |          |              |             |            |            |             | 2,430         |
| 3M0.5R         | 120     | M3 × 0.5          | REG             | P2 | 5               | 11       | 3            | 4.0         | 18         | 1          | ●           | 2,710         |
| 3M0.5R         | 150     |                   |                 |    |                 |          |              |             |            |            |             | 4,660         |
| 4M0.7R         | 100     |                   |                 |    |                 |          |              |             |            |            |             | 2,190         |
| 4M0.7R         | 120     | M4 × 0.7          | REG             | P2 | 5               | 13       | 3            | 5.0         | 20         | 1          | ●           | 2,710         |
| 4M0.7R         | 150     |                   |                 |    |                 |          |              |             |            |            |             | 4,660         |
| 5M0.8R         | 100     |                   |                 |    |                 |          |              |             |            |            |             | 1,880         |
| 5M0.8R         | 120     | M5 × 0.8          | REG             | P2 | 5               | 16       | 3            | 5.5         | 22         | 1          | ●           | 2,490         |
| 5M0.8R         | 150     |                   |                 |    |                 |          |              |             |            |            |             | 3,370         |
| 6M1R           | 100     |                   |                 |    |                 |          |              |             |            |            |             | 1,630         |
| 6M1R           | 120     | M6 × 1            | REG             | P2 | 5               | 19       | 3            | 6.0         | 27         | 1          | ●           | 2,210         |
| 6M1R           | 150     |                   |                 |    |                 |          |              |             |            |            |             | 2,900         |
| 8M1.25R        | 100     |                   |                 |    |                 |          |              |             |            |            |             | 2,070         |
| 8M1.25R        | 120     | M8 × 1.25         | REG             | P3 | 5               | 22       | 3            | 6.2         | 34         | 2          | ●           | 2,710         |
| 8M1.25R        | 150     |                   |                 |    |                 |          |              |             |            |            |             | 3,580         |
| 10M1.5R        | 100     |                   |                 |    |                 |          |              |             |            |            |             | 2,710         |
| 10M1.5R        | 120     | M10 × 1.5         | REG             | P3 | 5               | 24       | 3            | 7.0         | 39         | 2          | ●           | 3,270         |
| 10M1.5R        | 150     |                   |                 |    |                 |          |              |             |            |            |             | 4,170         |
| 10M1.25R       | 100     |                   |                 |    |                 |          |              |             |            |            |             | 2,710         |
| 10M1.25R       | 120     | M10 × 1.25        | REG             | P3 | 5               | 24       | 3            | 7.0         | 39         | 2          | ●           | 3,270         |
| 10M1.25R       | 150     |                   |                 |    |                 |          |              |             |            |            |             | 4,410         |
| 12M1.75R       | 150     |                   |                 |    |                 |          |              |             |            |            |             | 5,320         |
| 12M1.75R       | 200     | M12 × 1.75        | REG             | P3 | 5               | 29       | 3            | 8.5         | 45         | 3          | ●           | 6,600         |
| 12M1.5R        | 150     | M12 × 1.5         | REG             | P3 | 5               | 29       | 3            | 8.5         | 45         | 3          | ●           | 5,620         |
| 12M1.25R       | 150     | M12 × 1.25        | REG             | P3 | 5               | 29       | 3            | 8.5         | 45         | 3          | ●           | 5,620         |
| 14M2R          | 150     |                   |                 |    |                 |          |              |             |            |            |             | 7,010         |
| 14M2R          | 200     | M14 × 2           | REG             | P3 | 5               | 30       | 3            | 10.5        | 49         | 3          | ●           | 8,170         |
| 14M1.5R        | 150     | M14 × 1.5         | REG             | P3 | 5               | 30       | 3            | 10.5        | 49         | 3          | ●           | 7,010         |
| 16M2R          | 150     |                   |                 |    |                 |          |              |             |            |            |             | 7,520         |
| 16M2R          | 200     | M16 × 2           | REG             | P3 | 5               | 32       | 3            | 12.5        | 52         | 3          | ●           | 9,860         |
| 16M1.5R        | 150     | M16 × 1.5         | REG             | P3 | 5               | 32       | 3            | 12.5        | 52         | 3          | ●           | 7,520         |
| 16M1.5R        | 200     |                   |                 |    |                 |          |              |             |            |            |             | 9,860         |
| 18M2.5R        | 150     |                   |                 |    |                 |          |              |             |            |            |             | 10,200        |
| 18M2.5R        | 200     | M18 × 2.5         | REG             | P3 | 5               | 37       | 3            | 14.0        | 56         | 3          | ●           | 12,900        |
| 18M1.5R        | 150     | M18 × 1.5         | REG             | P3 | 5               | 37       | 3            | 14.0        | 56         | 3          | ●           | 10,200        |
| 18M1.5R        | 200     |                   |                 |    |                 |          |              |             |            |            |             | 12,900        |
| 20M2.5R        | 150     |                   |                 |    |                 |          |              |             |            |            |             | 12,900        |
| 20M2.5R        | 200     | M20 × 2.5         | REG             | P3 | 5               | 37       | 3            | 15.0        | 57         | 3          | ●           | 16,200        |
| 20M1.5R        | 150     | M20 × 1.5         | REG             | P3 | 5               | 37       | 3            | 15.0        | 57         | 3          | ●           | 12,900        |
| 20M1.5R        | 200     |                   |                 |    |                 |          |              |             |            |            |             | 16,200        |
| 22M2.5R        | 200     | M22 × 2.5         | REG             | P3 | 5               | 38       | 3            | 17.0        | 62         | 3          | ●           | 17,500        |
| 22M1.5R        | 150     | M22 × 1.5         | REG             | P3 | 5               | 38       | 3            | 17.0        | 62         | 3          | ●           | 14,400        |
| 22M1.5R        | 200     |                   |                 |    |                 |          |              |             |            |            |             | 17,500        |
| 24M3R          | 150     |                   |                 |    |                 |          |              |             |            |            |             | 16,800        |
| 24M3R          | 200     | M24 × 3           | REG             | P4 | 5               | 45       | 3            | 19.0        | 67         | 3          | ●           | 20,200        |
| 24M1.5R        | 150     | M24 × 1.5         | REG             | P3 | 5               | 45       | 3            | 19.0        | 67         | 3          | ●           | 16,800        |
| 24M1.5R        | 200     |                   |                 |    |                 |          |              |             |            |            |             | 20,200        |

● : 標準在庫品 Stocked items

・形式1~2は突出しセンタ Type1~2 with External Centre

・シャンク四角部寸法 K、LkはP.46を参照 Refer to page 46 for the square portion size of shank

# HT

## ハンドタップ

あらゆる方面で使用される汎用タップです。

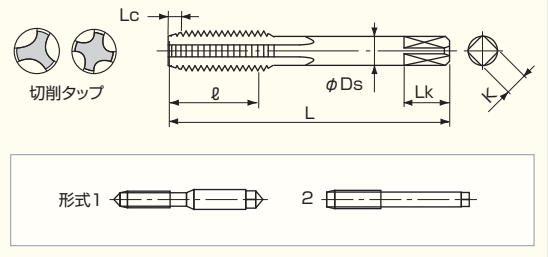
### Hand Tap

This is standard taps that can be used in all applications.



オーダー方法 HT 記号 × 食付

HSS-E  
工具材料



LIST908

・単位(Unit):mm/(円/¥)

| 記号<br>Code No. | 食付(P)<br>Lc (P) | 呼び<br>Thread Size | 等級<br>TAP Limit | 全長<br>L | ねじ長<br>ℓ | 溝数<br>Flutes | シャンク径<br>Ds | 形式<br>Type | 在庫<br>Stock | 参考価格<br>Price |
|----------------|-----------------|-------------------|-----------------|---------|----------|--------------|-------------|------------|-------------|---------------|
| 3M0.5          | 5               | M3 × 0.5          | JIS2 級          | 46      | 18       | 3            | 4.0         | 1          | ●           | 781           |
| 3M0.5          | 1.5             |                   |                 |         |          |              |             |            |             | 781           |
| 4M0.7          | 5               | M4 × 0.7          | JIS2 級          | 52      | 20       | 3            | 5.0         | 1          | ●           | 745           |
| 4M0.7          | 1.5             |                   |                 |         |          |              |             |            |             | 745           |
| 5M0.8          | 5               | M5 × 0.8          | JIS2 級          | 60      | 22       | 3            | 5.5         | 1          | ●           | 765           |
| 5M0.8          | 1.5             |                   |                 |         |          |              |             |            |             | 765           |
| 6M1            | 5               | M6 × 1            | JIS2 級          | 62      | 24       | 3            | 6.0         | 1          | ●           | 815           |
| 6M1            | 1.5             |                   |                 |         |          |              |             |            |             | 815           |
| 8M1.25         | 5               | M8 × 1.25         | JIS2 級          | 70      | 30       | 4            | 6.2         | 2          | ●           | 1,180         |
| 8M1.25         | 1.5             |                   |                 |         |          |              |             |            |             | 1,180         |
| 8M1            | 5               | M8 × 1            | JIS2 級          | 70      | 30       | 4            | 6.2         | 2          | ●           | 1,480         |
| 8M1            | 1.5             |                   |                 |         |          |              |             |            |             | 1,480         |
| 10M1.5         | 5               | M10 × 1.5         | JIS2 級          | 75      | 32       | 4            | 7.0         | 2          | ●           | 1,510         |
| 10M1.5         | 1.5             |                   |                 |         |          |              |             |            |             | 1,510         |
| 10M1.25        | 5               | M10 × 1.25        | JIS2 級          | 75      | 32       | 4            | 7.0         | 2          | ●           | 1,510         |
| 10M1.25        | 1.5             |                   |                 |         |          |              |             |            |             | 1,510         |
| 10M1           | 5               | M10 × 1           | JIS2 級          | 70      | 30       | 4            | 7.0         | 2          | ●           | 1,890         |
| 10M1           | 1.5             |                   |                 |         |          |              |             |            |             | 1,890         |
| 12M1.75        | 5               | M12 × 1.75        | JIS2 級          | 82      | 38       | 4            | 8.5         | 2          | ●           | 2,090         |
| 12M1.75        | 1.5             |                   |                 |         |          |              |             |            |             | 2,090         |
| 12M1.5         | 5               | M12 × 1.5         | JIS2 級          | 82      | 38       | 4            | 8.5         | 2          | ●           | 2,090         |
| 12M1.5         | 1.5             |                   |                 |         |          |              |             |            |             | 2,090         |
| 12M1.25        | 5               | M12 × 1.25        | JIS2 級          | 80      | 38       | 4            | 8.5         | 2          | ●           | 2,090         |
| 12M1.25        | 1.5             |                   |                 |         |          |              |             |            |             | 2,090         |
| 14M2           | 5               | M14 × 2           | JIS2 級          | 88      | 42       | 4            | 10.5        | 2          | ●           | 2,910         |
| 14M2           | 1.5             |                   |                 |         |          |              |             |            |             | 2,910         |
| 14M1.5         | 5               | M14 × 1.5         | JIS2 級          | 88      | 42       | 4            | 10.5        | 2          | ●           | 2,910         |
| 14M1.5         | 1.5             |                   |                 |         |          |              |             |            |             | 2,910         |
| 16M2           | 5               | M16 × 2           | JIS2 級          | 95      | 45       | 4            | 12.5        | 2          | ●           | 3,860         |
| 16M2           | 1.5             |                   |                 |         |          |              |             |            |             | 3,860         |
| 16M1.5         | 5               | M16 × 1.5         | JIS2 級          | 95      | 45       | 4            | 12.5        | 2          | ●           | 3,860         |
| 16M1.5         | 1.5             |                   |                 |         |          |              |             |            |             | 3,860         |
| 18M2.5         | 5               | M18 × 2.5         | JIS2 級          | 100     | 48       | 4            | 14.0        | 2          | ●           | 5,280         |
| 18M2.5         | 1.5             |                   |                 |         |          |              |             |            |             | 5,280         |
| 18M1.5         | 5               | M18 × 1.5         | JIS2 級          | 95      | 45       | 4            | 14.0        | 2          | ●           | 5,280         |
| 18M1.5         | 1.5             |                   |                 |         |          |              |             |            |             | 5,280         |
| 20M2.5         | 5               | M20 × 2.5         | JIS2 級          | 105     | 50       | 4            | 15.0        | 2          | ●           | 6,830         |
| 20M2.5         | 1.5             |                   |                 |         |          |              |             |            |             | 6,830         |
| 20M1.5         | 5               | M20 × 1.5         | JIS2 級          | 95      | 45       | 4            | 15.0        | 2          | ●           | 6,830         |
| 20M1.5         | 1.5             |                   |                 |         |          |              |             |            |             | 6,830         |
| 22M2.5         | 5               | M22 × 2.5         | JIS2 級          | 115     | 55       | 4            | 17.0        | 2          | ●           | 8,830         |
| 22M2.5         | 1.5             |                   |                 |         |          |              |             |            |             | 8,830         |
| 24M3           | 5               | M24 × 3           | JIS2 級          | 120     | 58       | 4            | 19.0        | 2          | ●           | 11,200        |
| 24M3           | 1.5             |                   |                 |         |          |              |             |            |             | 11,200        |

●：標準在庫品 Stocked items

・形式1は突出しセンタ Type1 with External Centre

・シャンク四角部寸法 K、LkはP.46を参照 Refer to page 46 for the square portion size of shank



# GSP

## Gスパイラルタップ

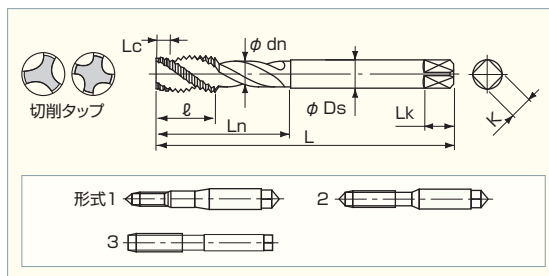
切りくずの排出性に優れ、止り穴の高速・高能率ねじ加工ができます。

**G Spiral Tap**

Great chip ejection, for fast and highly effective of blind hole work.



オーダー方法 **GSP** 記号



LIST7904P

・単位(Unit):mm/(円(¥))

| 記号<br>Code No. | 呼び<br>Thread Size | 食付(P)<br>Lc (P) | 等級<br>TAP Limit | 全長<br>L | ねじ長<br>ℓ | 溝数<br>Flutes | シャンク径<br>Ds | 首下長さ<br>Ln | 首径<br>dn | 形式<br>Type | 在庫<br>Stock | 参考価格<br>Price |
|----------------|-------------------|-----------------|-----------------|---------|----------|--------------|-------------|------------|----------|------------|-------------|---------------|
| 2.6M0.45       | M2.6 × 0.45       | 2.5             | GT3             | 44      | 9.5      | 3            | 3.0         | 16         | 2.7*     | 1          | ●           | 2,320         |
| 3M0.5          | M3 × 0.5          | 2.5             | GT5             | 46      | 3.5      | 3            | 4.0         | 18         | 2.3      | 2          | ●           | 1,970         |
| 4M0.7          | M4 × 0.7          | 2.5             | GT5             | 52      | 4.9      | 3            | 5.0         | 20         | 3.1      | 2          | ●           | 1,910         |
| 5M0.8          | M5 × 0.8          | 2.5             | GT5             | 60      | 5.6      | 3            | 5.5         | 22         | 3.9      | 2          | ●           | 1,960         |
| 6M1            | M6 × 1            | 2.5             | GT5             | 62      | 7.0      | 3            | 6.0         | 24         | 4.7      | 2          | ●           | 2,080         |
| 8M1.25         | M8 × 1.25         | 2.5             | GT7             | 70      | 8.8      | 3            | 6.2         | 34         | 6.0      | 3          | ●           | 2,770         |
| 8M1            | M8 × 1            | 2.5             | GT7             | 70      | 8.8      | 3            | 6.2         | 34         | 6.0      | 3          | ●           | 2,970         |
| 10M1.5         | M10 × 1.5         | 2.5             | GT7             | 75      | 10.5     | 3            | 7.0         | 39         | 6.8      | 3          | ●           | 3,500         |
| 10M1.25        | M10 × 1.25        | 2.5             | GT7             | 75      | 10.5     | 3            | 7.0         | 39         | 6.8      | 3          | ●           | 3,500         |
| 10M1           | M10 × 1           | 2.5             | GT7             | 75      | 10.5     | 3            | 7.0         | 39         | 6.8      | 3          | ●           | 3,960         |
| 12M1.75        | M12 × 1.75        | 2.5             | GT8             | 82      | 12.3     | 3            | 8.5         | 44         | 8.3      | 3          | ●           | 4,850         |
| 12M1.5         | M12 × 1.5         | 2.5             | GT8             | 82      | 12.3     | 3            | 8.5         | 44         | 8.3      | 3          | ●           | 4,850         |
| 12M1.25        | M12 × 1.25        | 2.5             | GT8             | 82      | 12.3     | 3            | 8.5         | 44         | 8.3      | 3          | ●           | 4,850         |
| 14M2           | M14 × 2           | 2.5             | GT8             | 88      | 14.0     | 3            | 10.5        | 45         | 10.3     | 3          | ●           | 6,610         |
| 14M1.5         | M14 × 1.5         | 2.5             | GT8             | 88      | 14.0     | 3            | 10.5        | 45         | 10.3     | 3          | ●           | 6,610         |
| 16M2           | M16 × 2           | 2.5             | GT8             | 95      | 14.0     | 3            | 12.5        | 47         | 12.3     | 3          | ●           | 8,460         |
| 16M1.5         | M16 × 1.5         | 2.5             | GT8             | 95      | 14.0     | 3            | 12.5        | 47         | 12.3     | 3          | ●           | 8,460         |
| 18M2.5         | M18 × 2.5         | 2.5             | GT9             | 100     | 17.5     | 3            | 14.0        | 52         | 13.8     | 3          | ●           | 11,200        |
| 18M1.5         | M18 × 1.5         | 2.5             | GT9             | 100     | 17.5     | 3            | 14.0        | 52         | 13.8     | 3          | ●           | 11,200        |
| 20M2.5         | M20 × 2.5         | 2.5             | GT9             | 105     | 17.5     | 4            | 15.0        | 54         | 14.8     | 3          | ●           | 14,000        |
| 20M1.5         | M20 × 1.5         | 2.5             | GT9             | 105     | 17.5     | 4            | 15.0        | 54         | 14.8     | 3          | ●           | 14,000        |
| 22M2.5         | M22 × 2.5         | 2.5             | GT9             | 115     | 17.5     | 4            | 17.0        | 55         | 16.8     | 3          | ●           | 17,900        |
| 24M3           | M24 × 3           | 2.5             | GT9             | 120     | 21.0     | 4            | 19.0        | 62         | 18.8     | 3          | ●           | 22,300        |

● : 標準在庫品 Stocked items

\* : 呼び径 < 首径です。めねじ加工深さが深い場合、ねじ長以上入れると折損の危険があります。

\*: Thread Size < Neck diameter (dn) When depth of cutting a female thread is deep, if putting the screw length or more in length, there is a risk of breakage.

・形式1~2は突出しセンタ Type1~2 with External Centre

・シャンク四角部寸法 K、LkはP.46を参照 Refer to page 46 for the square portion size of shank

# GSPL

## Gスパイラルタップ ロングシャンク

標準寸法では、突出し長さが不足するような場合に使用します。

**G Spiral Tap Long Shank**

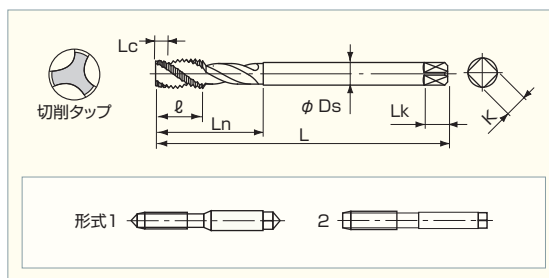
This tap is used when a standard G Spiral Tap is too short.



オーダー方法 **GSPL** 記号 × 全長



工具材料 コーティング ねじれ角



LIST7916P

・単位(Unit):mm/円(¥)

| 記号<br>Code No. | 全長<br>L | 呼び<br>Thread Size | 食付(P)<br>Lc (P) | 等級<br>TAP Limit | ねじ長<br>ℓ | 溝数<br>Flutes | シャンク径<br>Ds | 首下長さ<br>Ln | 形式<br>Type | 在庫<br>Stock | 参考価格<br>Price |
|----------------|---------|-------------------|-----------------|-----------------|----------|--------------|-------------|------------|------------|-------------|---------------|
| 3M0.5          | 100     | M3 × 0.5          | 2.5             | GT6             | 3.5      | 3            | 4.0         | 18         | 1          | ●           | 5,310         |
| 4M0.7          | 100     | M4 × 0.7          | 2.5             | GT6             | 4.9      | 3            | 5.0         | 20         | 1          | ●           | 4,800         |
| 5M0.8          | 100     | M5 × 0.8          | 2.5             | GT6             | 5.6      | 3            | 5.5         | 22         | 1          | ●           | 4,140         |
| 5M0.8          | 120     |                   |                 |                 |          |              |             |            |            |             | 5,110         |
| 6M1            | 100     | M6 × 1            | 2.5             | GT6             | 7.0      | 3            | 6.0         | 24         | 1          | ●           | 3,580         |
| 6M1            | 120     |                   |                 |                 |          |              |             |            |            |             | 4,620         |
| 8M1.25         | 100     | M8 × 1.25         | 2.5             | GT7             | 8.8      | 3            | 6.2         | 34         | 2          | ●           | 4,500         |
| 8M1.25         | 120     |                   |                 |                 |          |              |             |            |            |             | 5,620         |
| 8M1.25         | 150     | M8 × 1            | 2.5             | GT7             | 8.8      | 3            | 6.2         | 34         | 2          | ●           | 7,600         |
| 8M1            | 100     |                   |                 |                 |          |              |             |            |            |             | 4,500         |
| 8M1            | 120     | M8 × 1            | 2.5             | GT7             | 8.8      | 3            | 6.2         | 34         | 2          | ●           | 5,620         |
| 8M1            | 150     |                   |                 |                 |          |              |             |            |            |             | 7,600         |
| 10M1.5         | 100     | M10 × 1.5         | 2.5             | GT7             | 10.5     | 3            | 7.0         | 39         | 2          | ●           | 5,510         |
| 10M1.5         | 120     |                   |                 |                 |          |              |             |            |            |             | 6,660         |
| 10M1.5         | 150     | M10 × 1.25        | 2.5             | GT7             | 10.5     | 3            | 7.0         | 39         | 2          | ●           | 8,910         |
| 10M1.25        | 100     |                   |                 |                 |          |              |             |            |            |             | 5,510         |
| 10M1.25        | 120     | M10 × 1.25        | 2.5             | GT7             | 10.5     | 3            | 7.0         | 39         | 2          | ●           | 6,660         |
| 10M1.25        | 150     |                   |                 |                 |          |              |             |            |            |             | 8,910         |
| 12M1.75        | 100     | M12 × 1.75        | 2.5             | GT8             | 12.3     | 3            | 8.5         | 44         | 2          | ●           | 7,120         |
| 12M1.75        | 150     |                   |                 |                 |          |              |             |            |            |             | 11,400        |
| 12M1.5         | 100     | M12 × 1.5         | 2.5             | GT8             | 12.3     | 3            | 8.5         | 44         | 2          | ●           | 7,120         |
| 12M1.5         | 150     |                   |                 |                 |          |              |             |            |            |             | 11,400        |
| 14M2           | 150     | M14 × 2           | 2.5             | GT8             | 14.0     | 3            | 10.5        | 45         | 2          | ●           | 14,300        |
| 16M2           | 150     | M16 × 2           | 2.5             | GT8             | 14.0     | 3            | 12.5        | 47         | 2          | ●           | 14,600        |

●：標準在庫品 Stocked items

・形式1は突出しセンタ Type1 with External Centre

・シャンク四角部寸法 K、LkはP.46を参照 Refer to page 46 for the square portion size of shank

# GSPLS

## Gスパイラルタップ ステンレス 深穴用

ステンレス鋼や切りくずづまりが発生しやすい場合に適しています。

**G Spiral Tap for Stainless Steel & Deep Holes**

This tap is suitable for tapping blind holes such as in Stainless Steel.

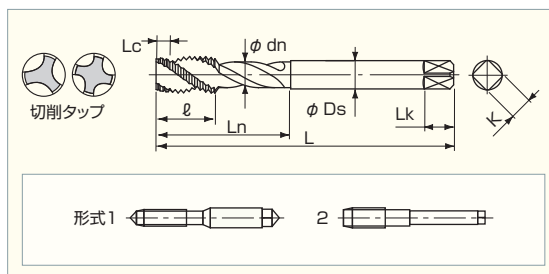
It is also suited for materials that often have chip jams.



オーダー方法 **GSPLS** 記号



工具材料 コーティング ねじれ角



LIST7934P

・単位(Unit):mm/円(¥)

| 記号<br>Code No. | 呼び<br>Thread Size | 食付(P)<br>Lc (P) | 等級<br>TAP Limit | 全長<br>L | ねじ長<br>ℓ | 溝数<br>Flutes | シャンク径<br>Ds | 首下長さ<br>Ln | 首径<br>dn | 形式<br>Type | 在庫<br>Stock | 参考価格<br>Price |
|----------------|-------------------|-----------------|-----------------|---------|----------|--------------|-------------|------------|----------|------------|-------------|---------------|
| 3M0.5          | M3 × 0.5          | 2.5             | GT6             | 46      | 3.5      | 3            | 4.0         | 18         | 2.5      | 1          | ●           | 2,050         |
| 4M0.7          | M4 × 0.7          | 2.5             | GT6             | 52      | 4.9      | 3            | 5.0         | 20         | 3.2      | 1          | ●           | 1,980         |
| 5M0.8          | M5 × 0.8          | 2.5             | GT6             | 60      | 5.6      | 3            | 5.5         | 22         | 4.1      | 1          | ●           | 2,040         |
| 6M1            | M6 × 1            | 2.5             | GT6             | 62      | 7.0      | 3            | 6.0         | 24         | 4.9      | 1          | ●           | 2,160         |
| 8M1.25         | M8 × 1.25         | 2.5             | GT7             | 70      | 8.8      | 3            | 6.2         | 30         | 6.6      | 2          | ●           | 2,890         |
| 8M1            | M8 × 1            | 2.5             | GT7             | 70      | 8.8      | 3            | 6.2         | 30         | 6.9      | 2          | ●           | 3,120         |
| 10M1.5         | M10 × 1.5         | 2.5             | GT7             | 75      | 10.5     | 3            | 7.0         | 32         | 8.3      | 2          | ●           | 3,690         |
| 10M1.25        | M10 × 1.25        | 2.5             | GT7             | 75      | 10.5     | 3            | 7.0         | 32         | 8.7      | 2          | ●           | 3,690         |
| 12M1.75        | M12 × 1.75        | 2.5             | GT8             | 82      | 12.3     | 3            | 8.5         | 37         | 10.1     | 2          | ●           | 5,090         |
| 12M1.5         | M12 × 1.5         | 2.5             | GT8             | 82      | 12.3     | 3            | 8.5         | 37         | 10.4     | 2          | ●           | 5,090         |
| 14M2           | M14 × 2           | 2.5             | GT8             | 88      | 14.0     | 3            | 10.5        | 43         | 11.8     | 2          | ●           | 7,140         |
| 16M2           | M16 × 2           | 2.5             | GT8             | 95      | 14.0     | 3            | 12.5        | 43         | 13.8     | 2          | ●           | 8,930         |
| 18M2.5         | M18 × 2.5         | 2.5             | GT9             | 100     | 17.5     | 3            | 14.0        | 50         | 15.3     | 2          | ●           | 12,300        |
| 20M2.5         | M20 × 2.5         | 2.5             | GT9             | 105     | 17.5     | 4            | 15.0        | 52         | 17.3     | 2          | ●           | 15,200        |
| 22M2.5         | M22 × 2.5         | 2.5             | GT9             | 115     | 17.5     | 4            | 17.0        | —          | —        | 2          | ●           | 19,600        |
| 24M3           | M24 × 3           | 2.5             | GT9             | 120     | 21.0     | 4            | 19.0        | 60         | 20.7     | 2          | ●           | 24,300        |

●：標準在庫品 Stocked items

・形式1は突出しセンタ Type1 with External Centre

・シャンク四角部寸法 K、LkはP.46を参照 Refer to page 46 for the square portion size of shank

GGN

## Gガンタップ

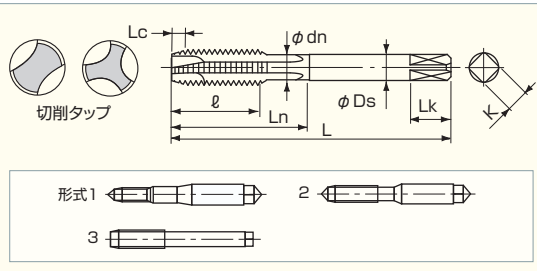
一般鋼から難削材まで、通り穴の高速・高効率ねじ加工ができます。

G Gun Tap

From regular steel to difficult materials, for fast and highly effective through hole work.



オーダー方法 GGN 記号



LIST7912P

・単位(Unit):mm/円(¥)

| 記号<br>Code No. | 呼び<br>Thread Size | 食付(P)<br>Lc (P) | 等級<br>TAP Limit | 全長<br>L | ねじ長<br>ℓ | 溝数<br>Flutes | シャンク径<br>Ds | 首下長さ<br>Ln | 首径<br>dn | 形式<br>Type | 在庫<br>Stock | 参考価格<br>Price |
|----------------|-------------------|-----------------|-----------------|---------|----------|--------------|-------------|------------|----------|------------|-------------|---------------|
| 2.6M0.45       | M2.6 × 0.45       | 5               | GT3             | 44      | 9.5      | 2            | 3.0         | 16         | 2.7*     | 1          | ●           | 2,230         |
| 3M0.5          | M3 × 0.5          | 5               | GT5             | 46      | 11.0     | 3            | 4.0         | 18         | 2.3      | 2          | ●           | 1,930         |
| 4M0.7          | M4 × 0.7          | 5               | GT5             | 52      | 13.0     | 3            | 5.0         | 21         | 3.1      | 2          | ●           | 1,840         |
| 5M0.8          | M5 × 0.8          | 5               | GT5             | 60      | 16.0     | 3            | 5.5         | 25         | 3.9      | 2          | ●           | 1,910         |
| 6M1            | M6 × 1            | 5               | GT5             | 62      | 19.0     | 3            | 6.0         | 30         | 4.7      | 2          | ●           | 2,000         |
| 8M1.25         | M8 × 1.25         | 5               | GT6             | 70      | 22.0     | 3            | 6.2         | —          | —        | 3          | ●           | 2,670         |
| 8M1            | M8 × 1            | 5               | GT6             | 70      | 22.0     | 3            | 6.2         | —          | —        | 3          | ●           | 2,890         |
| 10M1.5         | M10 × 1.5         | 5               | GT6             | 75      | 24.0     | 3            | 7.0         | —          | —        | 3          | ●           | 3,400         |
| 10M1.25        | M10 × 1.25        | 5               | GT6             | 75      | 24.0     | 3            | 7.0         | —          | —        | 3          | ●           | 3,400         |
| 10M1           | M10 × 1           | 5               | GT6             | 75      | 24.0     | 3            | 7.0         | —          | —        | 3          | ●           | 3,900         |
| 12M1.75        | M12 × 1.75        | 5               | GT7             | 82      | 29.0     | 3            | 8.5         | —          | —        | 3          | ●           | 4,700         |
| 12M1.5         | M12 × 1.5         | 5               | GT7             | 82      | 29.0     | 3            | 8.5         | —          | —        | 3          | ●           | 4,700         |
| 12M1.25        | M12 × 1.25        | 5               | GT7             | 82      | 29.0     | 3            | 8.5         | —          | —        | 3          | ●           | 4,700         |
| 14M2           | M14 × 2           | 5               | GT7             | 88      | 30.0     | 3            | 10.5        | —          | —        | 3          | ●           | 6,430         |
| 14M1.5         | M14 × 1.5         | 5               | GT7             | 88      | 30.0     | 3            | 10.5        | —          | —        | 3          | ●           | 6,430         |
| 16M2           | M16 × 2           | 5               | GT7             | 95      | 32.0     | 3            | 12.5        | —          | —        | 3          | ●           | 8,230         |
| 16M1.5         | M16 × 1.5         | 5               | GT7             | 95      | 32.0     | 3            | 12.5        | —          | —        | 3          | ●           | 8,230         |
| 18M2.5         | M18 × 2.5         | 5               | GT8             | 100     | 37.0     | 3            | 14.0        | —          | —        | 3          | ●           | 11,000        |
| 18M1.5         | M18 × 1.5         | 5               | GT8             | 100     | 37.0     | 3            | 14.0        | —          | —        | 3          | ●           | 11,000        |
| 20M2.5         | M20 × 2.5         | 5               | GT8             | 105     | 37.0     | 3            | 15.0        | —          | —        | 3          | ●           | 13,400        |
| 20M1.5         | M20 × 1.5         | 5               | GT8             | 105     | 37.0     | 3            | 15.0        | —          | —        | 3          | ●           | 13,400        |
| 22M2.5         | M22 × 2.5         | 5               | GT8             | 115     | 38.0     | 3            | 17.0        | —          | —        | 3          | ●           | 17,400        |
| 24M3           | M24 × 3           | 5               | GT8             | 120     | 45.0     | 3            | 19.0        | —          | —        | 3          | ●           | 21,600        |

●：標準在庫品 Stocked items

\*：呼び径 &lt; 首径です。めねじ加工深さが深い場合、ねじ長以上入れると折損の危険があります。

\*:Thread Size &lt; Neck diameter (dn) When depth of cutting a female thread is deep, if putting the screw length or more in length, there is a risk of breakage.

・形式1～2は突出しセンタ Type1～2 with External Centre

・シャンク四角部寸法 K、LkはP.46を参照 Refer to page 46 for the square portion size of shank

GGNL

## Gガンタップロングシャンク

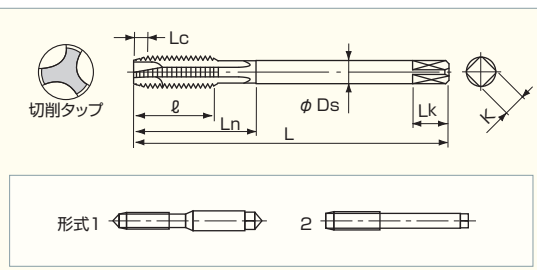
標準寸法では、突出し長さが不足するような場合に使用します。

G Gun Tap Long Shank

This tap is used when a standard G Gun Tap is too short.



オーダー方法 GGNL 記号 × 全長



LIST7928P

・単位(Unit):mm/円(¥)

| 記号<br>Code No. | 全長<br>L | 呼び<br>Thread Size | 食付(P)<br>Lc (P) | 等級<br>TAP Limit | ねじ長<br>ℓ | 溝数<br>Flutes | シャンク径<br>Ds | 首下長さ<br>Ln | 形式<br>Type | 在庫<br>Stock | 参考価格<br>Price |
|----------------|---------|-------------------|-----------------|-----------------|----------|--------------|-------------|------------|------------|-------------|---------------|
| 3M0.5          | 100     | M3 × 0.5          | 5               | GT5             | 11       | 3            | 4.0         | 18         | 1          | ●           | 5,110         |
| 4M0.7          | 100     | M4 × 0.7          | 5               | GT5             | 13       | 3            | 5.0         | 21         | 1          | ●           | 4,650         |
| 5M0.8          | 100     | M5 × 0.8          | 5               | GT5             | 16       | 3            | 5.5         | 25         | 1          | ●           | 4,020         |
| 5M0.8          | 120     | M5 × 0.8          | 5               | GT5             | 16       | 3            | 5.5         | 25         | 1          | ●           | 4,960         |
| 6M1            | 100     | M6 × 1            | 5               | GT5             | 19       | 3            | 6.0         | 30         | 1          | ●           | 3,470         |
| 6M1            | 120     | M6 × 1            | 5               | GT5             | 19       | 3            | 6.0         | 30         | 1          | ●           | 4,450         |
| 8M1.25         | 100     | M8 × 1.25         | 5               | GT6             | 22       | 3            | 6.2         | —          | 2          | ●           | 4,350         |
| 8M1.25         | 120     | M8 × 1.25         | 5               | GT6             | 22       | 3            | 6.2         | —          | 2          | ●           | 5,420         |
| 8M1.25         | 150     | M8 × 1.25         | 5               | GT6             | 22       | 3            | 6.2         | —          | 2          | ●           | 7,280         |
| 8M1            | 100     | M8 × 1            | 5               | GT6             | 22       | 3            | 6.2         | —          | 2          | ●           | 4,350         |
| 8M1            | 120     | M8 × 1            | 5               | GT6             | 22       | 3            | 6.2         | —          | 2          | ●           | 5,420         |
| 8M1            | 150     | M8 × 1            | 5               | GT6             | 22       | 3            | 6.2         | —          | 2          | ●           | 7,280         |
| 10M1.5         | 100     | M10 × 1.5         | 5               | GT6             | 24       | 3            | 7.0         | —          | 2          | ●           | 5,310         |
| 10M1.5         | 120     | M10 × 1.5         | 5               | GT6             | 24       | 3            | 7.0         | —          | 2          | ●           | 6,430         |
| 10M1.5         | 150     | M10 × 1.5         | 5               | GT6             | 24       | 3            | 7.0         | —          | 2          | ●           | 8,590         |
| 10M1.25        | 100     | M10 × 1.25        | 5               | GT6             | 24       | 3            | 7.0         | —          | 2          | ●           | 5,310         |
| 10M1.25        | 120     | M10 × 1.25        | 5               | GT6             | 24       | 3            | 7.0         | —          | 2          | ●           | 6,430         |
| 10M1.25        | 150     | M10 × 1.25        | 5               | GT6             | 24       | 3            | 7.0         | —          | 2          | ●           | 8,590         |
| 12M1.75        | 100     | M12 × 1.75        | 5               | GT7             | 29       | 3            | 8.5         | —          | 2          | ●           | 6,880         |
| 12M1.75        | 150     | M12 × 1.75        | 5               | GT7             | 29       | 3            | 8.5         | —          | 2          | ●           | 11,000        |
| 12M1.5         | 100     | M12 × 1.5         | 5               | GT7             | 29       | 3            | 8.5         | —          | 2          | ●           | 6,880         |
| 12M1.5         | 150     | M12 × 1.5         | 5               | GT7             | 29       | 3            | 8.5         | —          | 2          | ●           | 11,000        |
| 14M2           | 150     | M14 × 2           | 5               | GT7             | 30       | 3            | 10.5        | —          | 2          | ●           | 13,900        |
| 16M2           | 150     | M16 × 2           | 5               | GT7             | 32       | 3            | 12.5        | —          | 2          | ●           | 14,200        |

●：標準在庫品 Stocked items

・形式1は突出しセンタ Type1 with External Centre

・シャンク四角部寸法 K、LkはP.46を参照 Refer to page 46 for the square portion size of shank

# GHT

## Gハンドタップ

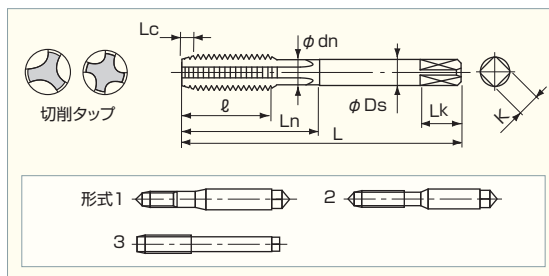
高硬度材や長寿命加工に適しています。

**G Hand Tap**

This tap is suitable for tapping hardened and increasing tool life



オーダー方法 **GHT** 記号 × 食付



LIST7908P

・単位(Unit):mm/(円/¥)

| 記号<br>Code No. | 食付(P)<br>Lc (P) | 呼び<br>Thread Size | 等級<br>TAP Limit | 全長<br>L | ねじ長<br>ℓ | 溝数<br>Flutes | シャンク径<br>Ds | 首下長さ<br>Ln | 首径<br>dn | 形式<br>Type | 在庫<br>Stock | 参考価格<br>Price |
|----------------|-----------------|-------------------|-----------------|---------|----------|--------------|-------------|------------|----------|------------|-------------|---------------|
| 2.6M0.45       | 3               | M2.6 × 0.45       | GT3             | 44      | 9.5      | 3            | 3.0         | 16         | 2.6      | 1          | ●           | 2,090         |
| 2.6M0.45       | 1.5             |                   |                 |         |          |              |             |            |          |            |             | 2,090         |
| 3M0.5          | 3               | M3 × 0.5          | GT5             | 46      | 11.0     | 3            | 4.0         | 18         | 2.3      | 2          | ●           | 1,720         |
| 3M0.5          | 1.5             |                   |                 |         |          |              |             |            |          |            |             | 1,720         |
| 4M0.7          | 3               | M4 × 0.7          | GT5             | 52      | 13.0     | 3            | 5.0         | 21         | 3.1      | 2          | ●           | 1,660         |
| 4M0.7          | 1.5             |                   |                 |         |          |              |             |            |          |            |             | 1,660         |
| 5M0.8          | 3               | M5 × 0.8          | GT5             | 60      | 16.0     | 3            | 5.5         | 25         | 3.9      | 2          | ●           | 1,710         |
| 5M0.8          | 1.5             |                   |                 |         |          |              |             |            |          |            |             | 1,710         |
| 6M1            | 3               | M6 × 1            | GT5             | 62      | 19.0     | 3            | 6.0         | 30         | 4.7      | 2          | ●           | 1,800         |
| 6M1            | 1.5             |                   |                 |         |          |              |             |            |          |            |             | 1,800         |
| 8M1.25         | 3               | M8 × 1.25         | GT6             | 70      | 22.0     | 3            | 6.2         | -          | -        | 3          | ●           | 2,480         |
| 8M1.25         | 1.5             |                   |                 |         |          |              |             |            |          |            |             | 2,480         |
| 8M1            | 3               | M8 × 1            | GT6             | 70      | 22.0     | 3            | 6.2         | -          | -        | 3          | ●           | 2,610         |
| 8M1            | 1.5             |                   |                 |         |          |              |             |            |          |            |             | 2,610         |
| 10M1.5         | 3               | M10 × 1.5         | GT6             | 75      | 24.0     | 3            | 7.0         | -          | -        | 3          | ●           | 3,060         |
| 10M1.5         | 1.5             |                   |                 |         |          |              |             |            |          |            |             | 3,060         |
| 10M1.25        | 3               | M10 × 1.25        | GT6             | 75      | 24.0     | 3            | 7.0         | -          | -        | 3          | ●           | 3,060         |
| 10M1.25        | 1.5             |                   |                 |         |          |              |             |            |          |            |             | 3,060         |
| 10M1           | 3               | M10 × 1           | GT6             | 75      | 24.0     | 3            | 7.0         | -          | -        | 3          | ●           | 3,840         |
| 10M1           | 1.5             |                   |                 |         |          |              |             |            |          |            |             | 3,840         |
| 12M1.75        | 3               | M12 × 1.75        | GT7             | 82      | 29.0     | 4            | 8.5         | -          | -        | 3          | ●           | 4,230         |
| 12M1.75        | 1.5             |                   |                 |         |          |              |             |            |          |            |             | 4,230         |
| 12M1.5         | 3               | M12 × 1.5         | GT7             | 82      | 29.0     | 4            | 8.5         | -          | -        | 3          | ●           | 4,230         |
| 12M1.5         | 1.5             |                   |                 |         |          |              |             |            |          |            |             | 4,230         |
| 12M1.25        | 3               | M12 × 1.25        | GT7             | 82      | 29.0     | 4            | 8.5         | -          | -        | 3          | ●           | 4,230         |
| 12M1.25        | 1.5             |                   |                 |         |          |              |             |            |          |            |             | 4,230         |
| 14M2           | 3               | M14 × 2           | GT7             | 88      | 30.0     | 4            | 10.5        | -          | -        | 3          | ●           | 5,770         |
| 14M2           | 1.5             |                   |                 |         |          |              |             |            |          |            |             | 5,770         |
| 14M1.5         | 3               | M14 × 1.5         | GT7             | 88      | 30.0     | 4            | 10.5        | -          | -        | 3          | ●           | 5,770         |
| 14M1.5         | 1.5             |                   |                 |         |          |              |             |            |          |            |             | 5,770         |
| 16M2           | 3               | M16 × 2           | GT7             | 95      | 32.0     | 4            | 12.5        | -          | -        | 3          | ●           | 7,380         |
| 16M2           | 1.5             |                   |                 |         |          |              |             |            |          |            |             | 7,380         |
| 16M1.5         | 3               | M16 × 1.5         | GT7             | 95      | 32.0     | 4            | 12.5        | -          | -        | 3          | ●           | 7,380         |
| 16M1.5         | 1.5             |                   |                 |         |          |              |             |            |          |            |             | 7,380         |
| 18M2.5         | 3               | M18 × 2.5         | GT8             | 100     | 37.0     | 4            | 14.0        | -          | -        | 3          | ●           | 9,660         |
| 18M2.5         | 1.5             |                   |                 |         |          |              |             |            |          |            |             | 9,660         |
| 18M1.5         | 3               | M18 × 1.5         | GT8             | 100     | 37.0     | 4            | 14.0        | -          | -        | 3          | ●           | 9,660         |
| 18M1.5         | 1.5             |                   |                 |         |          |              |             |            |          |            |             | 9,660         |
| 20M2.5         | 3               | M20 × 2.5         | GT8             | 105     | 37.0     | 4            | 15.0        | -          | -        | 3          | ●           | 12,100        |
| 20M2.5         | 1.5             |                   |                 |         |          |              |             |            |          |            |             | 12,100        |
| 20M1.5         | 3               | M20 × 1.5         | GT8             | 105     | 37.0     | 4            | 15.0        | -          | -        | 3          | ●           | 12,100        |
| 20M1.5         | 1.5             |                   |                 |         |          |              |             |            |          |            |             | 12,100        |
| 22M2.5         | 3               | M22 × 2.5         | GT8             | 115     | 38.0     | 4            | 17.0        | -          | -        | 3          | ●           | 15,500        |
| 22M2.5         | 1.5             |                   |                 |         |          |              |             |            |          |            |             | 15,500        |
| 24M3           | 3               | M24 × 3           | GT8             | 120     | 45.0     | 4            | 19.0        | -          | -        | 3          | ●           | 19,400        |
| 24M3           | 1.5             |                   |                 |         |          |              |             |            |          |            |             | 19,400        |

● : 標準在庫品 Stocked items

・形式1～2は突出しセンタ Type1～2 with External Centre

・シャンク四角部寸法 K、LkはP.46を参照 Refer to page 46 for the square portion size of shank

# GHTL

## Gハンドタップ ロングシャンク

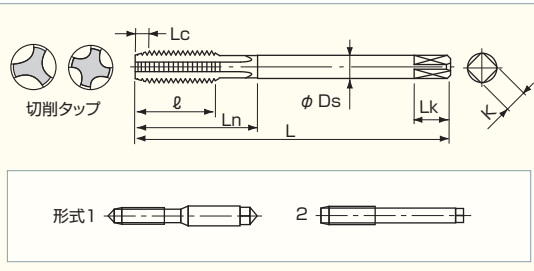
標準寸法では、突出し長さが不足するような場合に使用します。

**G Hand Tap Long Shank**

This tap is used when a standard G Hand Tap is too short.



オーダー方法 **GHTL** 記号 × 食付 × 全長



LIST7922P

・単位(Unit):mm/円(¥)

| 記号<br>Code No. | 食付(P)<br>Lc (P) | 全長<br>L | 呼び<br>Thread Size | 等級<br>TAP Limit | ねじ長<br>ℓ | 溝数<br>Flutes | シャンク径<br>Ds | 首下長さ<br>Ln | 形式<br>Type | 在庫<br>Stock | 参考価格<br>Price |
|----------------|-----------------|---------|-------------------|-----------------|----------|--------------|-------------|------------|------------|-------------|---------------|
| 3M0.5          | 3               | 100     | M3 × 0.5          | GT5             | 11       | 3            | 4.0         | 18         | 1          | ●           | 4,500         |
| 3M0.5          | 1.5             |         |                   |                 |          |              |             |            |            |             | 4,500         |
| 4M0.7          | 3               | 100     | M4 × 0.7          | GT5             | 13       | 3            | 5.0         | 20         | 1          | ●           | 4,070         |
| 4M0.7          | 1.5             |         |                   |                 |          |              |             |            |            |             | 4,070         |
| 5M0.8          | 3               | 100     | M5 × 0.8          | GT5             | 16       | 3            | 5.5         | 22         | 1          | ●           | 3,540         |
| 5M0.8          | 1.5             |         |                   |                 |          |              |             |            |            |             | 3,540         |
| 5M0.8          | 3               | 120     |                   |                 |          |              |             |            |            |             | 4,350         |
| 5M0.8          | 1.5             |         |                   |                 |          |              |             |            |            |             | 4,350         |
| 6M1            | 3               | 100     | M6 × 1            | GT5             | 19       | 3            | 6.0         | 24         | 1          | ●           | 3,040         |
| 6M1            | 1.5             |         |                   |                 |          |              |             |            |            |             | 3,040         |
| 6M1            | 3               | 120     |                   |                 |          |              |             |            |            |             | 3,910         |
| 6M1            | 1.5             |         |                   |                 |          |              |             |            |            |             | 3,910         |
| 8M1.25         | 3               | 100     | M8 × 1.25         | GT6             | 22       | 3            | 6.2         | -          | 2          | ●           | 3,810         |
| 8M1.25         | 1.5             |         |                   |                 |          |              |             |            |            |             | 3,810         |
| 8M1.25         | 3               | 120     |                   |                 |          |              |             |            |            |             | 4,760         |
| 8M1.25         | 1.5             |         |                   |                 |          |              |             |            |            |             | 4,760         |
| 8M1.25         | 3               | 150     |                   |                 |          |              |             |            |            |             | 6,400         |
| 8M1.25         | 1.5             |         |                   |                 |          |              |             |            |            |             | 6,400         |
| 8M1            | 3               | 100     | M8 × 1            | GT6             | 22       | 3            | 6.2         | -          | 2          | ●           | 3,810         |
| 8M1            | 1.5             |         |                   |                 |          |              |             |            |            |             | 3,810         |
| 8M1            | 3               | 120     |                   |                 |          |              |             |            |            |             | 4,760         |
| 8M1            | 1.5             |         |                   |                 |          |              |             |            |            |             | 4,760         |
| 8M1            | 3               | 150     |                   |                 |          |              |             |            |            |             | 6,400         |
| 8M1            | 1.5             |         |                   |                 |          |              |             |            |            |             | 6,400         |
| 10M1.5         | 3               | 100     | M10 × 1.5         | GT6             | 24       | 3            | 7.0         | -          | 2          | ●           | 4,650         |
| 10M1.5         | 1.5             |         |                   |                 |          |              |             |            |            |             | 4,650         |
| 10M1.5         | 3               | 120     |                   |                 |          |              |             |            |            |             | 5,650         |
| 10M1.5         | 1.5             |         |                   |                 |          |              |             |            |            |             | 5,650         |
| 10M1.5         | 3               | 150     |                   |                 |          |              |             |            |            |             | 7,540         |
| 10M1.5         | 1.5             |         |                   |                 |          |              |             |            |            |             | 7,540         |
| 10M1.25        | 3               | 100     | M10 × 1.25        | GT6             | 24       | 3            | 7.0         | -          | 2          | ●           | 4,650         |
| 10M1.25        | 1.5             |         |                   |                 |          |              |             |            |            |             | 4,650         |
| 10M1.25        | 3               | 120     |                   |                 |          |              |             |            |            |             | 5,650         |
| 10M1.25        | 1.5             |         |                   |                 |          |              |             |            |            |             | 5,650         |
| 10M1.25        | 3               | 150     |                   |                 |          |              |             |            |            |             | 7,540         |
| 10M1.25        | 1.5             |         |                   |                 |          |              |             |            |            |             | 7,540         |
| 12M1.75        | 3               | 100     | M12 × 1.75        | GT7             | 29       | 4            | 8.5         | -          | 2          | ●           | 6,040         |
| 12M1.75        | 1.5             |         |                   |                 |          |              |             |            |            |             | 6,040         |
| 12M1.75        | 3               | 150     |                   |                 |          |              |             |            |            |             | 9,550         |
| 12M1.75        | 1.5             |         |                   |                 |          |              |             |            |            |             | 9,550         |
| 12M1.5         | 3               | 100     | M12 × 1.5         | GT7             | 29       | 4            | 8.5         | -          | 2          | ●           | 6,040         |
| 12M1.5         | 1.5             |         |                   |                 |          |              |             |            |            |             | 6,040         |
| 12M1.5         | 3               | 150     |                   |                 |          |              |             |            |            |             | 9,550         |
| 12M1.5         | 1.5             |         |                   |                 |          |              |             |            |            |             | 9,550         |
| 14M2           | 3               | 150     | M14 × 2           | GT7             | 30       | 4            | 10.5        | -          | 2          | ●           | 12,100        |
| 14M2           | 1.5             |         |                   |                 |          |              |             |            |            |             | 12,100        |
| 16M2           | 3               | 150     | M16 × 2           | GT7             | 32       | 4            | 12.5        | -          | 2          | ●           | 12,500        |
| 16M2           | 1.5             |         |                   |                 |          |              |             |            |            |             | 12,500        |

● : 標準在庫品 Stocked items

・形式1は突出しセンタ Type1 with External Centre

・シャンク四角部寸法 K、LkはP.46を参照 Refer to page 46 for the square portion size of shank



# GOH

## Gオイルホールタップ

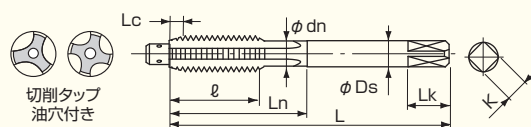
特許のオイルキャップにより、通り穴と止り穴を共用できます。

**G Oil-Hole Tap**

This tap can be used in both through holes and blind holes by using Oil-Cap.



オーダー方法 **GOH** 記号



形式 1 2

LIST7900P

・単位(Unit):mm/(円)(¥)

| 記号<br>Code No. | 呼び<br>Thread Size | 食付(P)<br>Lc (P) | 等級<br>TAP Limit | 全長<br>L | ねじ長<br>ℓ | 溝数<br>Flutes | シャンク径<br>Ds | 首下長さ<br>Ln | 首径<br>dn | 形式<br>Type | 在庫<br>Stock | 参考価格<br>Price |
|----------------|-------------------|-----------------|-----------------|---------|----------|--------------|-------------|------------|----------|------------|-------------|---------------|
| 6M1            | M6 × 1            | 3               | GT5             | 80      | 19       | 3            | 6.0         | 34         | 4.7      | 1          | ●           | 4,310         |
| 8M1.25         | M8 × 1.25         | 3               | GT6             | 80      | 22       | 3            | 6.2         | —          | —        | 2          | ●           | 5,150         |
| 8M1            | M8 × 1            | 3               | GT6             | 80      | 22       | 3            | 6.2         | —          | —        | 2          | ●           | 5,150         |
| 10M1.5         | M10 × 1.5         | 3               | GT6             | 80      | 24       | 3            | 7.0         | —          | —        | 2          | ●           | 5,970         |
| 10M1.25        | M10 × 1.25        | 3               | GT6             | 80      | 24       | 3            | 7.0         | —          | —        | 2          | ●           | 5,970         |
| 12M1.75        | M12 × 1.75        | 3               | GT7             | 100     | 29       | 3            | 8.5         | —          | —        | 2          | ●           | 8,340         |
| 12M1.5         | M12 × 1.5         | 3               | GT7             | 100     | 29       | 3            | 8.5         | —          | —        | 2          | ●           | 8,340         |
| 14M2           | M14 × 2           | 3               | GT7             | 100     | 30       | 4            | 10.5        | —          | —        | 2          | ●           | 10,800        |
| 14M1.5         | M14 × 1.5         | 3               | GT7             | 100     | 30       | 4            | 10.5        | —          | —        | 2          | ●           | 10,800        |
| 16M2           | M16 × 2           | 3               | GT7             | 100     | 32       | 4            | 12.5        | —          | —        | 2          | ●           | 12,800        |
| 16M1.5         | M16 × 1.5         | 3               | GT7             | 100     | 32       | 4            | 12.5        | —          | —        | 2          | ●           | 12,800        |
| 18M2.5         | M18 × 2.5         | 3               | GT8             | 100     | 37       | 4            | 14.0        | —          | —        | 2          | ●           | 14,500        |
| 18M1.5         | M18 × 1.5         | 3               | GT8             | 100     | 37       | 4            | 14.0        | —          | —        | 2          | ●           | 14,500        |
| 20M2.5         | M20 × 2.5         | 3               | GT8             | 120     | 37       | 4            | 15.0        | —          | —        | 2          | ●           | 18,900        |
| 20M1.5         | M20 × 1.5         | 3               | GT8             | 120     | 37       | 4            | 15.0        | —          | —        | 2          | ●           | 18,900        |
| 22M2.5         | M22 × 2.5         | 3               | GT8             | 120     | 38       | 4            | 17.0        | —          | —        | 2          | ●           | 22,200        |
| 24M3           | M24 × 3           | 3               | GT8             | 120     | 45       | 4            | 19.0        | —          | —        | 2          | ●           | 26,600        |

● : 標準在庫品 Stocked items

・ M6はオイルホールキャップがありません。 M6 Tap does not need Oil-Cap.

・ シャンク四角部寸法 K、LkはP.46を参照 Refer to page 46 for the square portion size of shank

# TSP

## Tスパイラルタップ

止り穴のねじ加工に用いる汎用タップです。

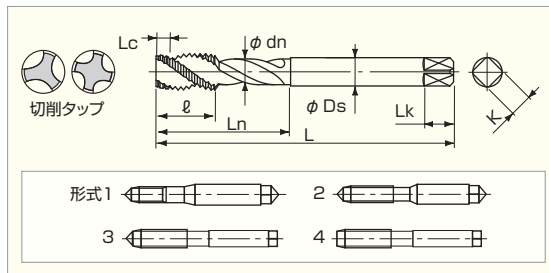
**T Spiral Tap**

This is a general spiral tap for tapping blind holes.



オーダー方法 **TSP** 記号

**HSS-E** **43.5°**  
工具材料 ねじれ角



LIST6904

・単位(Unit):mm/円(¥)

| 記号<br>Code No. | 呼び<br>Thread Size | 食付(P)<br>Lc (P) | 等級<br>TAP Limit | 全長<br>L | ねじ長<br>ℓ | 溝数<br>Flutes | シャンク径<br>Ds | 首下長さ<br>Ln | 首径<br>dn | 形式<br>Type | 在庫<br>Stock | 参考価格<br>Price |
|----------------|-------------------|-----------------|-----------------|---------|----------|--------------|-------------|------------|----------|------------|-------------|---------------|
| 2M0.4          | M2 × 0.4          | 2.5             | GT3             | 40      | 8.0      | 3            | 3.0         | 15         | 2.0      | 1          | ●           | 1,650         |
| 2.3M0.4        | M2.3 × 0.4        | 2.5             | GT3             | 42      | 9.5      | 3            | 3.0         | 15         | 2.3      | 1          | ●           | 1,480         |
| 2.5M0.45       | M2.5 × 0.45       | 2.5             | GT3             | 44      | 9.5      | 3            | 3.0         | 16         | 2.5      | 1          | ●           | 1,300         |
| 2.6M0.45       | M2.6 × 0.45       | 2.5             | GT3             | 44      | 9.5      | 3            | 3.0         | 16         | 2.6      | 1          | ●           | 1,150         |
| 3M0.5          | M3 × 0.5          | 2.5             | GT6             | 46      | 5.0      | 3            | 4.0         | 18         | 2.3      | 2          | ●           | 922           |
| 3.5M0.6        | M3.5 × 0.6        | 2.5             | GT6             | 48      | 5.0      | 3            | 4.0         | 18         | 2.7      | 2          | ●           | 991           |
| 4M0.7          | M4 × 0.7          | 2.5             | GT6             | 52      | 7.0      | 3            | 5.0         | 20         | 3.1      | 2          | ●           | 881           |
| 5M0.8          | M5 × 0.8          | 2.5             | GT6             | 60      | 8.0      | 3            | 5.5         | 22         | 3.9      | 2          | ●           | 904           |
| 6M1            | M6 × 1            | 2.5             | GT6             | 62      | 10.0     | 3            | 6.0         | 25         | 4.7      | 2          | ●           | 964           |
| 6M0.75         | M6 × 0.75         | 2.5             | GT6             | 62      | 10.0     | 3            | 6.0         | 25         | 4.7      | 2          | ●           | 1,310         |
| 7M1            | M7 × 1            | 2.5             | GT6             | 65      | 10.0     | 3            | 6.2         | 26         | 5.7      | 3          | ●           | 1,270         |
| 8M1.25         | M8 × 1.25         | 2.5             | GT7             | 70      | 12.0     | 3            | 6.2         | 34         | 6.0      | 3          | ●           | 1,400         |
| 8M1            | M8 × 1            | 2.5             | GT7             | 70      | 12.0     | 3            | 6.2         | 34         | 6.0      | 3          | ●           | 1,750         |
| 10M1.5         | M10 × 1.5         | 2.5             | GT7             | 75      | 15.0     | 3            | 7.0         | 39         | 6.8      | 3          | ●           | 1,770         |
| 10M1.25        | M10 × 1.25        | 2.5             | GT7             | 75      | 15.0     | 3            | 7.0         | 39         | 6.8      | 3          | ●           | 1,770         |
| 10M1           | M10 × 1           | 2.5             | GT7             | 75      | 15.0     | 3            | 7.0         | 39         | 6.8      | 3          | ●           | 2,220         |
| 12M1.75        | M12 × 1.75        | 2.5             | GT8             | 82      | 17.0     | 3            | 8.5         | 43         | 8.3      | 3          | ●           | 2,460         |
| 12M1.5         | M12 × 1.5         | 2.5             | GT8             | 82      | 17.0     | 3            | 8.5         | 43         | 8.3      | 3          | ●           | 2,460         |
| 12M1.25        | M12 × 1.25        | 2.5             | GT8             | 82      | 17.0     | 3            | 8.5         | 43         | 8.3      | 3          | ●           | 2,460         |
| 14M2           | M14 × 2           | 2.5             | GT8             | 88      | 20.0     | 3            | 10.5        | 44         | 10.3     | 4          | ●           | 3,420         |
| 14M1.5         | M14 × 1.5         | 2.5             | GT8             | 88      | 20.0     | 3            | 10.5        | 44         | 10.3     | 4          | ●           | 3,420         |
| 16M2           | M16 × 2           | 2.5             | GT8             | 95      | 20.0     | 3            | 12.5        | 50         | 12.3     | 4          | ●           | 4,560         |
| 16M1.5         | M16 × 1.5         | 2.5             | GT8             | 95      | 20.0     | 3            | 12.5        | 50         | 12.3     | 4          | ●           | 4,560         |
| 18M2.5         | M18 × 2.5         | 2.5             | GT9             | 100     | 25.0     | 3            | 14.0        | 56         | 13.8     | 4          | ●           | 6,230         |
| 18M1.5         | M18 × 1.5         | 2.5             | GT8             | 100     | 25.0     | 3            | 14.0        | 56         | 13.8     | 4          | ●           | 6,230         |
| 20M2.5         | M20 × 2.5         | 2.5             | GT9             | 105     | 25.0     | 4            | 15.0        | 57         | 14.8     | 4          | ●           | 8,080         |
| 20M1.5         | M20 × 1.5         | 2.5             | GT8             | 105     | 25.0     | 4            | 15.0        | 57         | 14.8     | 4          | ●           | 8,080         |
| 22M2.5         | M22 × 2.5         | 2.5             | GT9             | 115     | 25.0     | 4            | 17.0        | 62         | 16.8     | 4          | ●           | 10,500        |
| 22M1.5         | M22 × 1.5         | 2.5             | GT8             | 115     | 25.0     | 4            | 17.0        | 62         | 16.8     | 4          | ●           | 10,500        |
| 24M3           | M24 × 3           | 2.5             | GT9             | 120     | 30.0     | 4            | 19.0        | 67         | 18.8     | 4          | ●           | 13,100        |
| 24M1.5         | M24 × 1.5         | 2.5             | GT8             | 120     | 30.0     | 4            | 19.0        | 67         | 18.8     | 4          | ●           | 13,100        |
| 27M3           | M27 × 3           | 2.5             | GT9             | 130     | 30.0     | 4            | 20.0        | 67         | 19.8     | 4          | ●           | 18,600        |
| 27M1.5         | M27 × 1.5         | 2.5             | GT8             | 130     | 30.0     | 4            | 20.0        | 67         | 19.8     | 4          | ●           | 18,600        |
| 30M3.5         | M30 × 3.5         | 2.5             | GT9             | 135     | 35.0     | 4            | 23.0        | 72         | 22.8     | 4          | ●           | 23,800        |
| 30M1.5         | M30 × 1.5         | 2.5             | GT8             | 135     | 35.0     | 4            | 23.0        | 72         | 22.8     | 4          | ●           | 23,800        |

●:標準在庫品 Stocked items

・形式1～3は突出しセンタ Type1～3 with External Centre

・シャンク四角部寸法 K、LkはP.46を参照 Refer to page 46 for the square portion size of shank

# TSPS

## Tスパイラルタップ ステンレス用

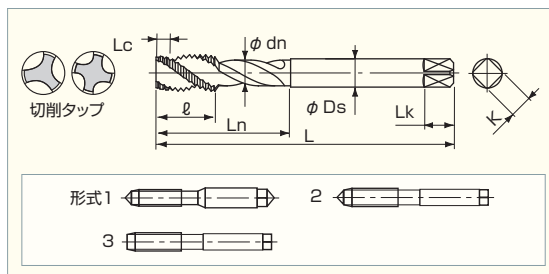
ステンレス鋼、耐熱鋼などで止り穴のねじ加工に適します。

**T Spiral Tap for Stainless Steel**

This tap is suitable for tapping blind holes in stainless steel.



オーダー方法 **TSPS** 記号



LIST6934

・単位(Unit):mm/(円(¥))

| 記号<br>Code No. | 呼び<br>Thread Size | 食付(P)<br>Lc (P) | 等級<br>TAP Limit | 全長<br>L | ねじ長<br>ℓ | 溝数<br>Flutes | シャンク径<br>Ds | 首下長さ<br>Ln | 首径<br>dn | 形式<br>Type | 在庫<br>Stock | 参考価格<br>Price |
|----------------|-------------------|-----------------|-----------------|---------|----------|--------------|-------------|------------|----------|------------|-------------|---------------|
| 3M0.5          | M3 × 0.5          | 2.5             | GT6             | 46      | 5        | 3            | 4.0         | 18         | 2.3      | 1          | ●           | 1,030         |
| 3.5M0.6        | M3.5 × 0.6        | 2.5             | GT6             | 48      | 5        | 3            | 4.0         | 18         | 2.7      | 1          | ●           | 1,120         |
| 4M0.7          | M4 × 0.7          | 2.5             | GT6             | 52      | 7        | 3            | 5.0         | 20         | 3.1      | 1          | ●           | 987           |
| 5M0.8          | M5 × 0.8          | 2.5             | GT6             | 60      | 8        | 3            | 5.5         | 22         | 3.9      | 1          | ●           | 1,020         |
| 6M1            | M6 × 1            | 2.5             | GT6             | 62      | 10       | 3            | 6.0         | 25         | 4.7      | 1          | ●           | 1,080         |
| 7M1            | M7 × 1            | 2.5             | GT6             | 65      | 10       | 3            | 6.2         | 26         | 5.7      | 3          | ●           | 1,460         |
| 8M1.25         | M8 × 1.25         | 2.5             | GT7             | 70      | 12       | 3            | 6.2         | 34         | 6.0      | 2          | ●           | 1,570         |
| 10M1.5         | M10 × 1.5         | 2.5             | GT7             | 75      | 15       | 3            | 7.0         | 39         | 6.8      | 2          | ●           | 1,990         |
| 10M1.25        | M10 × 1.25        | 2.5             | GT7             | 75      | 15       | 3            | 7.0         | 39         | 6.8      | 2          | ●           | 1,990         |
| 12M1.75        | M12 × 1.75        | 2.5             | GT8             | 82      | 17       | 3            | 8.5         | 43         | 8.3      | 2          | ●           | 2,760         |
| 12M1.5         | M12 × 1.5         | 2.5             | GT8             | 82      | 17       | 3            | 8.5         | 43         | 8.3      | 2          | ●           | 2,760         |
| 12M1.25        | M12 × 1.25        | 2.5             | GT8             | 82      | 17       | 3            | 8.5         | 43         | 8.3      | 2          | ●           | 2,760         |
| 14M2           | M14 × 2           | 2.5             | GT8             | 88      | 20       | 3            | 10.5        | 44         | 10.3     | 3          | ●           | 3,820         |
| 14M1.5         | M14 × 1.5         | 2.5             | GT8             | 88      | 20       | 3            | 10.5        | 44         | 10.3     | 3          | ●           | 3,820         |
| 16M2           | M16 × 2           | 2.5             | GT8             | 95      | 20       | 3            | 12.5        | 50         | 12.3     | 3          | ●           | 5,080         |
| 16M1.5         | M16 × 1.5         | 2.5             | GT8             | 95      | 20       | 3            | 12.5        | 50         | 12.3     | 3          | ●           | 5,080         |
| 18M2.5         | M18 × 2.5         | 2.5             | GT9             | 100     | 25       | 3            | 14.0        | 56         | 13.8     | 3          | ●           | 6,980         |
| 18M1.5         | M18 × 1.5         | 2.5             | GT8             | 100     | 25       | 3            | 14.0        | 56         | 13.8     | 3          | ●           | 6,980         |
| 20M2.5         | M20 × 2.5         | 2.5             | GT9             | 105     | 25       | 4            | 15.0        | 57         | 14.8     | 3          | ●           | 9,020         |
| 20M1.5         | M20 × 1.5         | 2.5             | GT8             | 105     | 25       | 4            | 15.0        | 57         | 14.8     | 3          | ●           | 9,020         |
| 22M2.5         | M22 × 2.5         | 2.5             | GT9             | 115     | 25       | 4            | 17.0        | 62         | 16.8     | 3          | ●           | 11,700        |
| 24M3           | M24 × 3           | 2.5             | GT9             | 120     | 30       | 4            | 19.0        | 67         | 18.8     | 3          | ●           | 14,700        |

● : 標準在庫品 Stocked items

・形式1~2は突出しセンタ Type1~2 with External Centre

・シャンク四角部寸法 K、LkはP.46を参照 Refer to page 46 for the square portion size of shank

# TGN

## Tガンタップ

通り穴のねじ加工に用いる汎用タップです。

### T Gun Tap

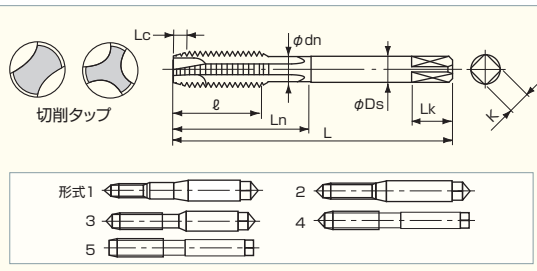
This is a general spiral point tap for tapping through holes.



オーダー方法 **TGN** 記号



工具材料



LIST6912

・単位(Unit):mm/(円/¥)

| 記号<br>Code No. | 呼び<br>Thread Size | 食付(P)<br>Lc (P) | 等級<br>TAP Limit | 全長<br>L | ねじ長<br>ℓ | 溝数<br>Flutes | シャンク径<br>Ds | 首下長さ<br>Ln | 首径<br>dn | 形式<br>Type | 在庫<br>Stock | 参考価格<br>Price |
|----------------|-------------------|-----------------|-----------------|---------|----------|--------------|-------------|------------|----------|------------|-------------|---------------|
| 1.4M0.3        | M1.4 × 0.3        | 5               | GT3             | 34      | 7.0      | 2            | 3.0         | 11         | 1.5*     | 1          | ●           | 2,190         |
| 1.7M0.35       | M1.7 × 0.35       | 5               | GT3             | 36      | 8.0      | 2            | 3.0         | 13         | 1.8*     | 1          | ●           | 1,960         |
| 2M0.4          | M2 × 0.4          | 5               | GT3             | 40      | 8.0      | 2            | 3.0         | 15         | 2.0      | 2          | ●           | 1,600         |
| 2.3M0.4        | M2.3 × 0.4        | 5               | GT3             | 42      | 9.5      | 2            | 3.0         | 15         | 2.3      | 2          | ●           | 1,440         |
| 2.5M0.45       | M2.5 × 0.45       | 5               | GT3             | 44      | 9.5      | 2            | 3.0         | 16         | 2.5      | 2          | ●           | 1,260         |
| 2.6M0.45       | M2.6 × 0.45       | 5               | GT3             | 44      | 9.5      | 2            | 3.0         | 16         | 2.6      | 2          | ●           | 1,110         |
| 3M0.5          | M3 × 0.5          | 5               | GT5             | 46      | 11.0     | 3            | 4.0         | 18         | 2.3      | 3          | ●           | 890           |
| 3.5M0.6        | M3.5 × 0.6        | 5               | GT5             | 48      | 13.0     | 3            | 4.0         | 18         | 2.8      | 3          | ●           | 955           |
| 4M0.7          | M4 × 0.7          | 5               | GT5             | 52      | 13.0     | 3            | 5.0         | 20         | 3.1      | 3          | ●           | 850           |
| 5M0.8          | M5 × 0.8          | 5               | GT6             | 60      | 16.0     | 3            | 5.5         | 22         | 3.9      | 3          | ●           | 876           |
| 6M1            | M6 × 1            | 5               | GT6             | 62      | 19.0     | 3            | 6.0         | 27         | 4.7      | 3          | ●           | 929           |
| 6M0.75         | M6 × 0.75         | 5               | GT5             | 62      | 19.0     | 3            | 6.0         | 27         | 4.7      | 3          | ●           | 1,270         |
| 7M1            | M7 × 1            | 5               | GT6             | 65      | 19.0     | 3            | 6.2         | 30         | 5.7      | 3          | ●           | 1,190         |
| 8M1.25         | M8 × 1.25         | 5               | GT6             | 70      | 22.0     | 3            | 6.2         | 34         | 6.0      | 4          | ●           | 1,370         |
| 8M1            | M8 × 1            | 5               | GT6             | 70      | 22.0     | 3            | 6.2         | 34         | 6.0      | 4          | ●           | 1,690         |
| 10M1.5         | M10 × 1.5         | 5               | GT7             | 75      | 24.0     | 3            | 7.0         | 39         | 6.8      | 4          | ●           | 1,730         |
| 10M1.25        | M10 × 1.25        | 5               | GT6             | 75      | 24.0     | 3            | 7.0         | 39         | 6.8      | 4          | ●           | 1,730         |
| 10M1           | M10 × 1           | 5               | GT6             | 75      | 24.0     | 3            | 7.0         | 39         | 6.8      | 4          | ●           | 2,150         |
| 12M1.75        | M12 × 1.75        | 5               | GT8             | 82      | 29.0     | 3            | 8.5         | 43         | 8.3      | 4          | ●           | 2,380         |
| 12M1.5         | M12 × 1.5         | 5               | GT7             | 82      | 29.0     | 3            | 8.5         | 43         | 8.3      | 4          | ●           | 2,380         |
| 12M1.25        | M12 × 1.25        | 5               | GT8             | 82      | 29.0     | 3            | 8.5         | 43         | 8.3      | 4          | ●           | 2,380         |
| 14M2           | M14 × 2           | 5               | GT8             | 88      | 30.0     | 3            | 10.5        | 49         | 10.3     | 5          | ●           | 3,300         |
| 14M1.5         | M14 × 1.5         | 5               | GT7             | 88      | 30.0     | 3            | 10.5        | 49         | 10.3     | 5          | ●           | 3,300         |
| 16M2           | M16 × 2           | 5               | GT8             | 95      | 32.0     | 3            | 12.5        | 52         | 12.3     | 5          | ●           | 4,400         |
| 16M1.5         | M16 × 1.5         | 5               | GT7             | 95      | 32.0     | 3            | 12.5        | 52         | 12.3     | 5          | ●           | 4,400         |
| 18M2.5         | M18 × 2.5         | 5               | GT9             | 100     | 37.0     | 3            | 14.0        | 56         | 13.8     | 5          | ●           | 6,030         |
| 18M1.5         | M18 × 1.5         | 5               | GT8             | 100     | 37.0     | 3            | 14.0        | 56         | 13.8     | 5          | ●           | 6,030         |
| 20M2.5         | M20 × 2.5         | 5               | GT9             | 105     | 37.0     | 3            | 15.0        | 57         | 14.8     | 5          | ●           | 7,810         |
| 20M1.5         | M20 × 1.5         | 5               | GT8             | 105     | 37.0     | 3            | 15.0        | 57         | 14.8     | 5          | ●           | 7,810         |
| 22M2.5         | M22 × 2.5         | 5               | GT9             | 115     | 38.0     | 3            | 17.0        | 62         | 16.8     | 5          | ●           | 10,100        |
| 22M1.5         | M22 × 1.5         | 5               | GT8             | 115     | 38.0     | 3            | 17.0        | 62         | 16.8     | 5          | ●           | 10,100        |
| 24M3           | M24 × 3           | 5               | GT9             | 120     | 45.0     | 3            | 19.0        | 67         | 18.8     | 5          | ●           | 12,800        |
| 24M1.5         | M24 × 1.5         | 5               | GT8             | 120     | 45.0     | 3            | 19.0        | 67         | 18.8     | 5          | ●           | 12,800        |

●：標準在庫品 Stocked items

\*：呼び径 < 首径です。めねじ加工深さが深い場合、ねじ長以上入れると折損の危険があります。

\*:Thread Size < Neck diameter (dn) When depth of cutting a female thread is deep, if putting the screw length or more in length, there is a risk of breakage.

・形式1～4は突出しセンタ Type1～4 with External Centre

・シャンク四角部寸法 K, LkはP.46を参照 Refer to page 46 for the square portion size of shank

# TGNS

## Tガンタップ ステンレス用

ステンレス鋼、耐熱鋼などで通り穴のねじ加工に適します。

### T Gun Tap for Stainless Steel

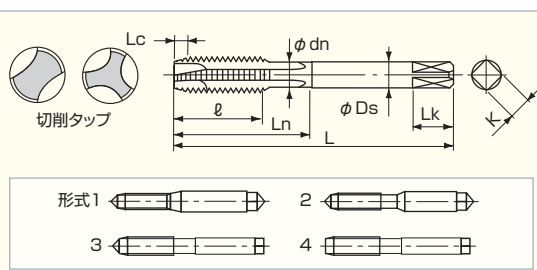
This tap is suitable for tapping through holes in Stainless Steel.



オーダー方法 **TGNS** 記号



工具材料



LIST6932

・単位(Unit):mm/(円/¥)

| 記号<br>Code No. | 呼び<br>Thread Size | 食付(P)<br>Lc (P) | 等級<br>TAP Limit | 全長<br>L | ねじ長<br>ℓ | 溝数<br>Flutes | シャンク径<br>Ds | 首下長さ<br>Ln | 首径<br>dn | 形式<br>Type | 在庫<br>Stock | 参考価格<br>Price |
|----------------|-------------------|-----------------|-----------------|---------|----------|--------------|-------------|------------|----------|------------|-------------|---------------|
| 2M0.4          | M2 × 0.4          | 5               | GT3             | 40      | 8.0      | 2            | 3.0         | 15         | 2.0      | 1          | ●           | 1,790         |
| 2.6M0.45       | M2.6 × 0.45       | 5               | GT3             | 44      | 9.5      | 2            | 3.0         | 16         | 2.6      | 1          | ●           | 1,250         |
| 3M0.5          | M3 × 0.5          | 5               | GT5             | 46      | 11.0     | 3            | 4.0         | 18         | 2.3      | 2          | ●           | 997           |
| 3.5M0.6        | M3.5 × 0.6        | 5               | GT5             | 48      | 13.0     | 3            | 4.0         | 18         | 2.8      | 2          | ●           | 1,080         |
| 4M0.7          | M4 × 0.7          | 5               | GT5             | 52      | 13.0     | 3            | 5.0         | 20         | 3.1      | 2          | ●           | 953           |
| 5M0.8          | M5 × 0.8          | 5               | GT6             | 60      | 16.0     | 3            | 5.5         | 22         | 3.9      | 2          | ●           | 980           |
| 6M1            | M6 × 1            | 5               | GT6             | 62      | 19.0     | 3            | 6.0         | 27         | 4.7      | 2          | ●           | 1,050         |
| 8M1.25         | M8 × 1.25         | 5               | GT6             | 70      | 22.0     | 3            | 6.2         | 34         | 6.0      | 3          | ●           | 1,520         |
| 10M1.5         | M10 × 1.5         | 5               | GT7             | 75      | 24.0     | 3            | 7.0         | 39         | 6.8      | 3          | ●           | 1,920         |
| 10M1.25        | M10 × 1.25        | 5               | GT6             | 75      | 24.0     | 3            | 7.0         | 39         | 6.8      | 3          | ●           | 1,920         |
| 12M1.75        | M12 × 1.75        | 5               | GT8             | 82      | 29.0     | 3            | 8.5         | 43         | 8.3      | 3          | ●           | 2,680         |
| 12M1.5         | M12 × 1.5         | 5               | GT7             | 82      | 29.0     | 3            | 8.5         | 43         | 8.3      | 3          | ●           | 2,680         |
| 12M1.25        | M12 × 1.25        | 5               | GT8             | 82      | 29.0     | 3            | 8.5         | 43         | 8.3      | 3          | ●           | 2,680         |
| 14M2           | M14 × 2           | 5               | GT8             | 88      | 30.0     | 3            | 10.5        | 49         | 10.3     | 4          | ●           | 3,710         |
| 14M1.5         | M14 × 1.5         | 5               | GT7             | 88      | 30.0     | 3            | 10.5        | 49         | 10.3     | 4          | ●           | 3,710         |
| 16M2           | M16 × 2           | 5               | GT8             | 95      | 32.0     | 3            | 12.5        | 52         | 12.3     | 4          | ●           | 4,960         |
| 16M1.5         | M16 × 1.5         | 5               | GT7             | 95      | 32.0     | 3            | 12.5        | 52         | 12.3     | 4          | ●           | 4,960         |
| 18M2.5         | M18 × 2.5         | 5               | GT9             | 100     | 37.0     | 3            | 14.0        | 56         | 13.8     | 4          | ●           | 6,740         |
| 18M1.5         | M18 × 1.5         | 5               | GT8             | 100     | 37.0     | 3            | 14.0        | 56         | 13.8     | 4          | ●           | 6,740         |
| 20M2.5         | M20 × 2.5         | 5               | GT9             | 105     | 37.0     | 3            | 15.0        | 57         | 14.8     | 4          | ●           | 8,760         |
| 20M1.5         | M20 × 1.5         | 5               | GT8             | 105     | 37.0     | 3            | 15.0        | 57         | 14.8     | 4          | ●           | 8,760         |

●：標準在庫品 Stocked items

・形式1～3は突出しセンタ Type1～3 with External Centre

・シャンク四角部寸法 K, LkはP.46を参照 Refer to page 46 for the square portion size of shank

# ESP

## エクセルスパイラルタップ

アルミニウム・鋳鉄などの長寿命ねじ加工に適しています。

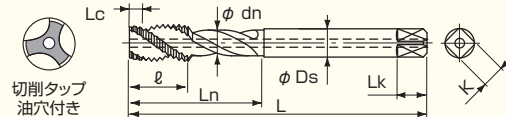
**EXCEL Spiral Tap**

This tap made of carbide is suitable for long life tapping of Aluminum, Cast Iron.



オーダー方法 **ESP** 記号

**超硬** **TICN** **15°**  
工具材料 コーティング ねじれ角



形式1 形式2

LIST9238

・単位(Unit):mm/円(¥)

| 記号<br>Code No. | 呼び<br>Thread Size | 食付(P)<br>Lc (P) | 等級<br>TAP Limit | 全長<br>L | ねじ長<br>ℓ | 溝数<br>Flutes | シャンク径<br>Ds | 首下長さ<br>Ln | 首径<br>dn | 形式<br>Type | 在庫<br>Stock | 参考価格<br>Price |
|----------------|-------------------|-----------------|-----------------|---------|----------|--------------|-------------|------------|----------|------------|-------------|---------------|
| 4M0.7          | M4 × 0.7          | 2.5             | GT5             | 52      | 7        | 3            | 5.0         | 20         | 3.1      | 1          | ●           | 17,300        |
| 5M0.8          | M5 × 0.8          | 2.5             | GT5             | 60      | 8        | 3            | 5.5         | 22         | 3.9      | 1          | ●           | 18,300        |
| 6M1            | M6 × 1            | 2.5             | GT5             | 62      | 10       | 3            | 6.0         | 25         | 4.7      | 1          | ●           | 19,700        |
| 8M1.25         | M8 × 1.25         | 2.5             | GT6             | 70      | 13       | 3            | 6.2         | —          | —        | 2          | ●           | 25,300        |
| 10M1.5         | M10 × 1.5         | 2.5             | GT6             | 75      | 15       | 3            | 7.0         | —          | —        | 2          | ●           | 35,100        |
| 12M1.75        | M12 × 1.75        | 2.5             | GT7             | 82      | 18       | 3            | 8.5         | —          | —        | 2          | ●           | 46,200        |

● : 標準在庫品 Stocked items

・油穴付きです。With Oil Hole.

・シャンク四角部寸法 K、LkはP.46を参照 Refer to page 46 for the square portion size of shank

# EHT

## エクセルハンドタップ

アルミニウム・鋳鉄などの大量ねじ立てに適しています。

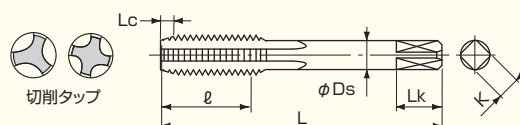
**EXCEL Hand Tap**

This tap made of carbide is suitable for long life tapping of Aluminum, Cast Iron.



オーダー方法 **EHT** 記号 × 食付

**超硬** **TICN**  
工具材料 コーティング



形式1 形式2  
形式3

LIST9236

・単位(Unit):mm/円(¥)

| 記号<br>Code No. | 食付(P)<br>Lc (P) | 呼び<br>Thread Size | 等級<br>TAP Limit | 全長<br>L | ねじ長<br>ℓ | 溝数<br>Flutes | シャンク径<br>Ds | 形式<br>Type | 在庫<br>Stock | 参考価格<br>Price |
|----------------|-----------------|-------------------|-----------------|---------|----------|--------------|-------------|------------|-------------|---------------|
| 3M0.5          | 3               | M3 × 0.5          | GT5             | 46      | 11       | 3            | 4.0         | 1          | ●           | 12,100        |
| 3M0.5          | 1.5             |                   |                 |         |          |              |             |            |             | 12,100        |
| 4M0.7          | 3               | M4 × 0.7          | GT5             | 52      | 13       | 3            | 5.0         | 1          | ●           | 12,700        |
| 4M0.7          | 1.5             |                   |                 |         |          |              |             |            |             | 12,700        |
| 5M0.8          | 3               | M5 × 0.8          | GT5             | 60      | 16       | 3            | 5.5         | 1          | ●           | 13,400        |
| 5M0.8          | 1.5             |                   |                 |         |          |              |             |            |             | 13,400        |
| 6M1            | 3               | M6 × 1            | GT5             | 62      | 19       | 3            | 6.0         | 2          | ●           | 14,500        |
| 6M1            | 1.5             |                   |                 |         |          |              |             |            |             | 14,500        |
| 8M1.25         | 3               | M8 × 1.25         | GT6             | 70      | 22       | 3            | 6.2         | 3          | ●           | 18,700        |
| 8M1.25         | 1.5             |                   |                 |         |          |              |             |            |             | 18,700        |
| 10M1.5         | 3               | M10 × 1.5         | GT6             | 75      | 24       | 3            | 7.0         | 3          | ●           | 25,800        |
| 10M1.5         | 1.5             |                   |                 |         |          |              |             |            |             | 25,800        |
| 12M1.75        | 3               | M12 × 1.75        | GT7             | 82      | 29       | 4            | 8.5         | 3          | ●           | 34,100        |
| 12M1.75        | 1.5             |                   |                 |         |          |              |             |            |             | 34,100        |

● : 標準在庫品 Stocked items

・形式1は突出しセンタ Type1 with External Centre

・シャンク四角部寸法 K、LkはP.46を参照 Refer to page 46 for the square portion size of shank



# TFS

## タフレット-S

アルミニウムなど非鉄金属の転造ねじ加工に適しています。

### TAFLET-S

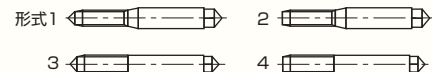
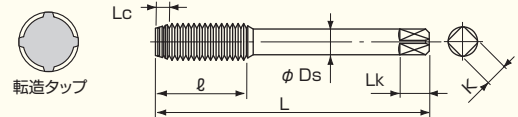
This forming tap is suited to tap Aluminum, Magnesium, and nonferrous materials.



オーダー方法 **TFS** 記号 × 等級 × 食付



工具材料



LIST6952

・単位(Unit):mm/円(¥)

| 記号<br>Code No. | 等級<br>TAP Limit | 食付(P)<br>Lc (P) | 呼び<br>Thread Size | 全長<br>L | ねじ長<br>ℓ | ラジアル数<br>Radial | シャンク径<br>Ds | 形式<br>Type | 在庫<br>Stock | 参考価格<br>Price |
|----------------|-----------------|-----------------|-------------------|---------|----------|-----------------|-------------|------------|-------------|---------------|
| 1.4M0.3        | 4               | P               | M1.4 × 0.3        | 34      | 7        | 4               | 3.0         | 1          | ●           | 1,670         |
| 1.7M0.35       | 4               | P               | M1.7 × 0.35       | 36      | 8        | 4               | 3.0         | 1          | ●           | 1,550         |
| 2M0.4          | 4               | P               | M2 × 0.4          | 40      | 9        | 4               | 3.0         | 1          | ●           | 1,370         |
| 2M0.4          |                 | B               |                   |         |          |                 |             | 1          | ●           | 1,370         |
| 2.3M0.4        | 4               | P               | M2.3 × 0.4        | 42      | 9        | 4               | 3.0         | 1          | ●           | 1,280         |
| 2.3M0.4        |                 | B               |                   |         |          |                 |             | 2          | ●           | 1,280         |
| 2.5M0.45       | 4               | P               | M2.5 × 0.45       | 44      | 10       | 4               | 3.0         | 1          | ●           | 1,280         |
| 2.5M0.45       |                 | B               |                   |         |          |                 |             | 2          | ●           | 1,280         |
| 2.6M0.45       | 4               | P               | M2.6 × 0.45       | 44      | 10       | 4               | 3.0         | 1          | ●           | 1,200         |
| 2.6M0.45       |                 | B               |                   |         |          |                 |             | 2          | ●           | 1,200         |
| 3M0.5          | 5               | P               | M3 × 0.5          | 46      | 11       | 4               | 4.0         | 1          | ●           | 1,100         |
| 3M0.5          |                 | B               |                   |         |          |                 |             | 2          | ●           | 1,100         |
| 3.5M0.6        | 5               | P               | M3.5 × 0.6        | 48      | 11       | 4               | 4.0         | 1          | ●           | 1,100         |
| 3.5M0.6        |                 | B               |                   |         |          |                 |             | 2          | ●           | 1,100         |
| 4M0.7          | 6               | P               | M4 × 0.7          | 52      | 12       | 4               | 5.0         | 1          | ●           | 1,100         |
| 4M0.7          |                 | B               |                   |         |          |                 |             | 2          | ●           | 1,100         |
| 5M0.8          | 6               | P               | M5 × 0.8          | 60      | 13       | 4               | 5.5         | 1          | ●           | 1,200         |
| 5M0.8          |                 | B               |                   |         |          |                 |             | 2          | ●           | 1,200         |
| 6M1            | 7               | P               | M6 × 1            | 62      | 14       | 4               | 6.0         | 3          | ●           | 1,310         |
| 6M1            |                 | B               |                   |         |          |                 |             | 4          | ●           | 1,310         |

● : 標準在庫品 Stocked items

・食付B形はM2以下が突出しセンタ、P形はM6以下が突出しセンタ B:M2 or less with External Centre/P:M6 or less with External Centre

・食付はB形=2P、P形=4P Lc:B=2P/P=4P ・シャンク四角部寸法 K、LkはP.46を参照 Refer to page 46 for the square portion size of shank

# TFL

## タフレット-L

アルミニウムなど非鉄金属の転造ねじ加工に適しています。

### TAFLET-L

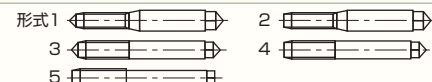
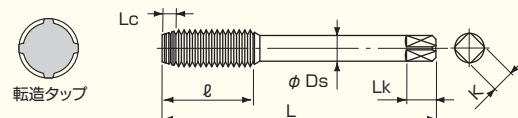
This forming tap is suited to tap Aluminum, Magnesium, and nonferrous materials.



オーダー方法 **TFL** 記号 × 等級 × 食付



工具材料



LIST6950

・単位(Unit):mm/円(¥)

| 記号<br>Code No. | 等級<br>TAP Limit | 食付(P)<br>Lc (P) | 呼び<br>Thread Size | 全長<br>L | ねじ長<br>ℓ | ラジアル数<br>Radial | シャンク径<br>Ds | 形式<br>Type | 在庫<br>Stock | 参考価格<br>Price |
|----------------|-----------------|-----------------|-------------------|---------|----------|-----------------|-------------|------------|-------------|---------------|
| 1.4M0.3        | 4               | P               | M1.4 × 0.3        | 34      | 11       | 4               | 3.0         | 1          | ●           | 2,060         |
| 1.7M0.35       | 4               | P               | M1.7 × 0.35       | 36      | 13       | 4               | 3.0         | 1          | ●           | 1,920         |
| 2M0.4          | 4               | P               | M2 × 0.4          | 40      | 15       | 4               | 3.0         | 1          | ●           | 1,840         |
| 2M0.4          |                 | B               |                   |         |          |                 |             | 1          | ●           | 1,840         |
| 2.3M0.4        | 4               | P               | M2.3 × 0.4        | 42      | 15       | 4               | 3.0         | 1          | ●           | 1,710         |
| 2.3M0.4        |                 | B               |                   |         |          |                 |             | 2          | ●           | 1,710         |
| 2.5M0.45       | 4               | P               | M2.5 × 0.45       | 44      | 16       | 4               | 3.0         | 1          | ●           | 1,610         |
| 2.5M0.45       |                 | B               |                   |         |          |                 |             | 2          | ●           | 1,610         |
| 2.6M0.45       | 4               | P               | M2.6 × 0.45       | 44      | 16       | 4               | 3.0         | 1          | ●           | 1,610         |
| 2.6M0.45       |                 | B               |                   |         |          |                 |             | 2          | ●           | 1,610         |
| 3M0.5          | 5               | P               | M3 × 0.5          | 46      | 18       | 4               | 4.0         | 1          | ●           | 1,480         |
| 3M0.5          |                 | B               |                   |         |          |                 |             | 2          | ●           | 1,480         |
| 3.5M0.6        | 5               | P               | M3.5 × 0.6        | 48      | 18       | 4               | 4.0         | 1          | ●           | 1,460         |
| 3.5M0.6        |                 | B               |                   |         |          |                 |             | 2          | ●           | 1,460         |
| 4M0.7          | 6               | P               | M4 × 0.7          | 52      | 20       | 4               | 5.0         | 1          | ●           | 1,430         |
| 4M0.7          |                 | B               |                   |         |          |                 |             | 2          | ●           | 1,430         |
| 4M0.5          | 6               | P               | M4 × 0.5          | 52      | 15       | 4               | 5.0         | 1          | ●           | 1,580         |
| 4M0.5          |                 | B               |                   |         |          |                 |             | 2          | ●           | 1,580         |
| 5M0.8          | 6               | P               | M5 × 0.8          | 60      | 22       | 4               | 5.5         | 1          | ●           | 1,480         |
| 5M0.8          |                 | B               |                   |         |          |                 |             | 2          | ●           | 1,480         |
| 5M0.5          | 6               | P               | M5 × 0.5          | 52      | 15       | 4               | 5.5         | 1          | ●           | 1,660         |
| 5M0.5          |                 | B               |                   |         |          |                 |             | 2          | ●           | 1,660         |
| 6M1            | 7               | P               | M6 × 1            | 62      | 24       | 4               | 6.0         | 3          | ●           | 1,610         |
| 6M1            |                 | B               |                   |         |          |                 |             | 4          | ●           | 1,610         |
| 6M0.75         | 6               | P               | M6 × 0.75         | 62      | 20       | 4               | 6.0         | 3          | ●           | 1,690         |
| 6M0.75         |                 | B               |                   |         |          |                 |             | 4          | ●           | 1,690         |
| 6M0.5          | 6               | P               | M6 × 0.5          | 55      | 15       | 4               | 6.0         | 3          | ●           | 1,770         |
| 6M0.5          |                 | B               |                   |         |          |                 |             | 4          | ●           | 1,770         |
| 8M1.25         | 7               | P               | M8 × 1.25         | 70      | 30       | 4               | 6.2         | 5          | ●           | 1,960         |
| 8M1.25         |                 | B               |                   |         |          |                 |             | 5          | ●           | 1,960         |
| 8M1            | 7               | P               | M8 × 1            | 70      | 30       | 4               | 6.2         | 5          | ●           | 2,060         |
| 8M1            |                 | B               |                   |         |          |                 |             | 5          | ●           | 2,060         |
| 10M1.5         | 7               | P               | M10 × 1.5         | 75      | 32       | 4               | 7.0         | 5          | ●           | 2,500         |
| 10M1.5         |                 | B               |                   |         |          |                 |             | 5          | ●           | 2,500         |
| 10M1.25        | 7               | P               | M10 × 1.25        | 75      | 32       | 4               | 7.0         | 5          | ●           | 2,500         |
| 10M1.25        |                 | B               |                   |         |          |                 |             | 5          | ●           | 2,500         |
| 10M1           | 7               | P               | M10 × 1           | 70      | 30       | 4               | 7.0         | 5          | ●           | 2,620         |
| 10M1           |                 | B               |                   |         |          |                 |             | 5          | ●           | 2,620         |

● : 標準在庫品 Stocked items

・食付B形はM2以下が突出しセンタ、P形はM6以下が突出しセンタ B:M2 or less with External Centre/P:M6 or less with External Centre

・食付はB形=2P、P形=4P Lc:B=2P/P=4P ・シャンク四角部寸法 K、LkはP.46を参照 Refer to page 46 for the square portion size of shank

# TFL

## タフレット-L ロングシャンク

標準寸法では、突出し長さが不足するような場合に使用します。

**TAFLET-L Long Shank**

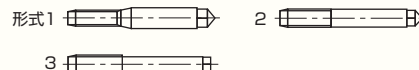
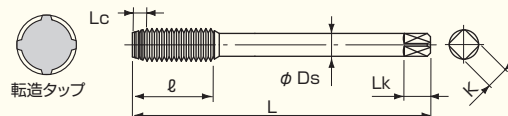
This tap is used when a standard TAFLET-L is too short.



オーダー方法 **TFL** 記号 × 等級 × 食付 × 全長



工具材料



LIST6970

・単位(Unit):mm/円(¥)

| 記号<br>Code No. | 等級<br>TAP Limit | 食付(P)<br>Lc (P) | 全長<br>L | 呼び<br>Thread Size | ねじ長<br>ℓ | ラジアル数<br>Radial | シャンク径<br>Ds | 形式<br>Type | 在庫<br>Stock | 参考価格<br>Price |
|----------------|-----------------|-----------------|---------|-------------------|----------|-----------------|-------------|------------|-------------|---------------|
| 3M0.5          | 5               | B               | 70      | M3 × 0.5          | 18       | 4               | 4.0         | 1          | ●           | 1,950         |
| 3M0.5          |                 |                 | 100     |                   |          |                 |             |            |             | 2,680         |
| 3M0.5          |                 |                 | 120     |                   |          |                 |             |            |             | 3,100         |
| 4M0.7          | 6               | B               | 70      | M4 × 0.7          | 20       | 4               | 5.0         | 1          | ●           | 1,710         |
| 4M0.7          |                 |                 | 100     |                   |          |                 |             |            |             | 2,420         |
| 4M0.7          |                 |                 | 120     |                   |          |                 |             |            |             | 2,920         |
| 5M0.8          | 6               | B               | 100     | M5 × 0.8          | 22       | 4               | 5.5         | 1          | ●           | 2,180         |
| 5M0.8          |                 |                 | 120     |                   |          |                 |             |            |             | 2,680         |
| 5M0.8          |                 |                 | 150     |                   |          |                 |             |            |             | 3,400         |
| 6M1            | 7               | B               | 100     | M6 × 1            | 24       | 4               | 6.0         | 2          | ●           | 2,070         |
| 6M1            |                 |                 | 120     |                   |          |                 |             |            |             | 2,180         |
| 6M1            |                 |                 | 150     |                   |          |                 |             |            |             | 3,130         |
| 8M1.25         | 7               | B               | 100     | M8 × 1.25         | 30       | 4               | 6.2         | 3          | ●           | 2,310         |
| 8M1.25         |                 |                 | 120     |                   |          |                 |             |            |             | 2,560         |
| 8M1.25         |                 |                 | 150     |                   |          |                 |             |            |             | 3,770         |
| 10M1.5         | 7               | B               | 100     | M10 × 1.5         | 32       | 4               | 7.0         | 3          | ●           | 2,810         |
| 10M1.5         |                 |                 | 120     |                   |          |                 |             |            |             | 3,130         |
| 10M1.5         |                 |                 | 150     |                   |          |                 |             |            |             | 4,370         |
| 10M1.25        | 7               | B               | 100     | M10 × 1.25        | 32       | 4               | 7.0         | 3          | ●           | 2,810         |
| 10M1.25        |                 |                 | 120     |                   |          |                 |             |            |             | 3,130         |
| 10M1.25        |                 |                 | 150     |                   |          |                 |             |            |             | 4,370         |

●：標準在庫品 Stocked items

・食付はB形=2P Lc:B=2P ・シャンク四角部寸法 K、LkはP.46を参照 Refer to page 46 for the square portion size of shank

# TFST

## タフレットスチール用

軟鋼、ステンレス鋼などの硬度20HRC以下の転造ねじ加工に適しています。

**TAFLET for Steel**

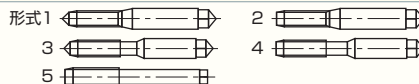
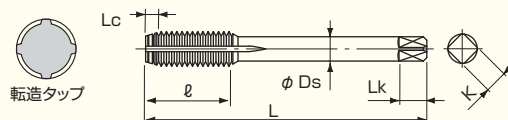
This forming tap is suited to tap Mild Steel, Alloy Steel, and Stainless Steel.



オーダー方法 **TFST** 記号 × 等級 × 食付



工具材料



LIST6954

・単位(Unit):mm/円(¥)

| 記号<br>Code No. | 等級<br>TAP Limit | 食付(P)<br>Lc (P) | 呼び<br>Thread Size | 全長<br>L | ねじ長<br>ℓ | ラジアル数<br>Radial | シャンク径<br>Ds | 形式<br>Type | 在庫<br>Stock | 参考価格<br>Price |
|----------------|-----------------|-----------------|-------------------|---------|----------|-----------------|-------------|------------|-------------|---------------|
| 1.4M0.3        | 4               | P               | M1.4 × 0.3        | 34      | 7.0      | 4               | 3.0         | 1          | ●           | 1,730         |
| 1.6M0.35       | 4               | P               | M1.6 × 0.35       | 36      | 8.0      | 4               | 3.0         | 1          | ●           | 1,660         |
| 1.7M0.35       | 4               | P               | M1.7 × 0.35       | 36      | 8.0      | 4               | 3.0         | 1          | ●           | 1,580         |
| 2M0.4          | 4               | P               | M2 × 0.4          | 40      | 9.0      | 4               | 3.0         | 1          | ●           | 1,540         |
| 2M0.4          |                 | B               |                   |         |          |                 |             |            |             | 1,540         |
| 2.3M0.4        | 4               | P               | M2.3 × 0.4        | 42      | 9.0      | 4               | 3.0         | 1          | ●           | 1,410         |
| 2.3M0.4        |                 | B               |                   |         |          |                 |             | 2          |             | 1,410         |
| 2.5M0.45       | 4               | P               | M2.5 × 0.45       | 44      | 9.0      | 4               | 3.0         | 1          | ●           | 1,410         |
| 2.5M0.45       |                 | B               |                   |         |          |                 |             | 2          |             | 1,410         |
| 2.6M0.45       | 4               | P               | M2.6 × 0.45       | 44      | 10.0     | 4               | 3.0         | 1          | ●           | 1,330         |
| 2.6M0.45       |                 | B               |                   |         |          |                 |             | 2          |             | 1,330         |
| 3M0.5          | 5               | P               | M3 × 0.5          | 46      | 12.5     | 4               | 4.0         | 1          | ●           | 1,210         |
| 3M0.5          |                 | B               |                   |         |          |                 |             | 2          |             | 1,210         |
| 3.5M0.6        | 5               | P               | M3.5 × 0.6        | 48      | 12.5     | 4               | 4.0         | 1          | ●           | 1,210         |
| 3.5M0.6        |                 | B               |                   |         |          |                 |             | 2          |             | 1,210         |
| 4M0.7          | 6               | P               | M4 × 0.7          | 52      | 14.0     | 4               | 5.0         | 1          | ●           | 1,210         |
| 4M0.7          |                 | B               |                   |         |          |                 |             | 2          |             | 1,210         |
| 5M0.8          | 6               | P               | M5 × 0.8          | 60      | 10.0     | 4               | 5.5         | 3          | ●           | 1,330         |
| 5M0.8          |                 | B               |                   |         |          |                 |             | 4          |             | 1,330         |
| 6M1            | 7               | P               | M6 × 1            | 62      | 10.0     | 4               | 6.0         | 3          | ●           | 1,450         |
| 6M1            |                 | B               |                   |         |          |                 |             | 4          |             | 1,450         |
| 8M1.25         | 7               | P               | M8 × 1.25         | 70      | 18.0     | 6               | 6.2         | 5          | ●           | 2,070         |
| 8M1.25         |                 | B               |                   |         |          |                 |             |            |             | 2,070         |
| 8M1            | 7               | P               | M8 × 1            | 70      | 18.0     | 6               | 6.2         | 5          | ●           | 2,250         |
| 8M1            |                 | B               |                   |         |          |                 |             |            |             | 2,250         |
| 10M1.5         | 7               | P               | M10 × 1.5         | 75      | 19.0     | 8               | 7.0         | 5          | ●           | 2,620         |
| 10M1.5         |                 | B               |                   |         |          |                 |             |            |             | 2,620         |
| 10M1.25        | 7               | P               | M10 × 1.25        | 75      | 19.0     | 8               | 7.0         | 5          | ●           | 2,620         |
| 10M1.25        |                 | B               |                   |         |          |                 |             |            |             | 2,620         |
| 10M1           | 7               | P               | M10 × 1           | 70      | 19.0     | 8               | 7.0         | 5          | ●           | 2,860         |
| 10M1           |                 | B               |                   |         |          |                 |             |            |             | 2,860         |

●：標準在庫品 Stocked items

・食付B形はM2以下が突出しセンタ、P形はM6以下が突出しセンタ B:M2 or less with External Centre/P:M6 or less with External Centre  
・食付はB形=2P、P形=4P Lc:B=2P/P=4P ・シャンク四角部寸法 K、LkはP.46を参照 Refer to page 46 for the square portion size of shank

# TFSTL

## タフレットスチール用ロングシャンク

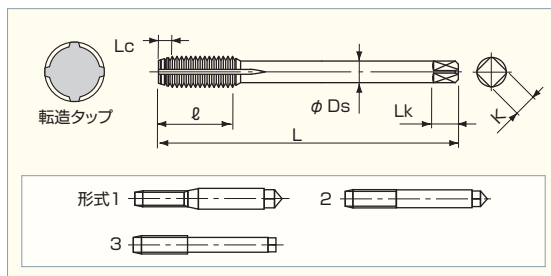
標準寸法では、突出し長さが不足するような場合に使用します。

**TAFLET Long Shank for Steel**

This tap is used when a standard TAFLET for Steel is too short.



オーダー方法 **TFSTL** 記号 × 等級 × 食付 × 全長



LIST6974

・単位(Unit):mm/(円(¥))

| 記号<br>Code No. | 等級<br>TAP Limit | 食付(P)<br>Lc (P) | 全長<br>L | 呼び<br>Thread Size | ねじ長<br>ℓ | ラジアル数<br>Radial | シャンク径<br>Ds | 形式<br>Type | 在庫<br>Stock | 参考価格<br>Price |
|----------------|-----------------|-----------------|---------|-------------------|----------|-----------------|-------------|------------|-------------|---------------|
| 3M0.5          | 5               | B               | 70      | M3 × 0.5          | 18       | 4               | 4.0         | 1          | ●           | 2,140         |
| 3M0.5          |                 |                 | 100     |                   |          |                 |             |            |             | 2,950         |
| 3M0.5          |                 |                 | 120     |                   |          |                 |             |            |             | 3,420         |
| 4M0.7          | 6               | B               | 70      | M4 × 0.7          | 20       | 4               | 5.0         | 1          | ●           | 1,870         |
| 4M0.7          |                 |                 | 100     |                   |          |                 |             |            |             | 2,680         |
| 4M0.7          |                 |                 | 120     |                   |          |                 |             |            |             | 3,190         |
| 5M0.8          | 6               | B               | 100     | M5 × 0.8          | 22       | 4               | 5.5         | 1          | ●           | 2,400         |
| 5M0.8          |                 |                 | 120     |                   |          |                 |             |            |             | 2,950         |
| 5M0.8          |                 |                 | 150     |                   |          |                 |             |            |             | 3,750         |
| 6M1            | 7               | B               | 100     | M6 × 1            | 24       | 4               | 6.0         | 2          | ●           | 2,270         |
| 6M1            |                 |                 | 120     |                   |          |                 |             |            |             | 2,400         |
| 6M1            |                 |                 | 150     |                   |          |                 |             |            |             | 3,480         |
| 8M1.25         | 7               | B               | 100     | M8 × 1.25         | 30       | 6               | 6.2         | 3          | ●           | 2,560         |
| 8M1.25         |                 |                 | 120     |                   |          |                 |             |            |             | 2,810         |
| 8M1.25         |                 |                 | 150     |                   |          |                 |             |            |             | 4,130         |
| 10M1.5         | 7               | B               | 100     | M10 × 1.5         | 32       | 8               | 7.0         | 3          | ●           | 3,100         |
| 10M1.5         |                 |                 | 120     |                   |          |                 |             |            |             | 3,480         |
| 10M1.5         |                 |                 | 150     |                   |          |                 |             |            |             | 4,790         |
| 10M1.25        | 7               | B               | 100     | M10 × 1.25        | 32       | 8               | 7.0         | 3          | ●           | 3,100         |
| 10M1.25        |                 |                 | 120     |                   |          |                 |             |            |             | 3,480         |
| 10M1.25        |                 |                 | 150     |                   |          |                 |             |            |             | 4,790         |

● : 標準在庫品 Stocked items

・食付はB形=2P Lc:B=2P

・シャンク四角部寸法 K, LkはP.46を参照 Refer to page 46 for the square portion size of shank

## シャンク四角部寸法

Square portion size of shank

| シャンク径 | シャンク四角部 |      |
|-------|---------|------|
| Ds    | K       | Lk   |
| 3.0   | 2.5     | 5.0  |
| 4.0   | 3.2     | 6.0  |
| 5.0   | 4.0     | 7.0  |
| 5.5   | 4.5     | 7.0  |
| 6.0   | 4.5     | 7.0  |
| 6.2   | 5.0     | 8.0  |
| 7.0   | 5.5     | 8.0  |
| 8.0   | 6.0     | 9.0  |
| 8.5   | 6.5     | 9.0  |
| 9.5   | 7.0     | 10.0 |
| 10.0  | 8.0     | 11.0 |
| 10.5  | 8.0     | 11.0 |
| 12.0  | 9.0     | 12.0 |
| 12.5  | 10.0    | 13.0 |

| シャンク径 | シャンク四角部 |      |
|-------|---------|------|
| Ds    | K       | Lk   |
| 13.0  | 10.0    | 13.0 |
| 14.0  | 11.0    | 14.0 |
| 15.0  | 12.0    | 15.0 |
| 17.0  | 13.0    | 16.0 |
| 18.0  | 14.0    | 17.0 |
| 19.0  | 15.0    | 18.0 |
| 20.0  | 15.0    | 18.0 |
| 21.0  | 17.0    | 20.0 |
| 23.0  | 17.0    | 20.0 |
| 24.0  | 19.0    | 22.0 |
| 25.0  | 19.0    | 22.0 |
| 26.0  | 21.0    | 24.0 |
| 28.0  | 21.0    | 24.0 |

## 突出しセンタ長さ

Length of external center

| サイズ  | 長さ     |
|------|--------|
| Size | Length |
| M1.4 | (0.7)  |
| M1.6 | (0.8)  |
| M1.7 | (0.8)  |
| M2   | (1.0)  |
| M2.2 | (1.1)  |
| M2.3 | (1.2)  |
| M2.5 | (1.2)  |
| M2.6 | (1.3)  |
| M3   | (1.5)  |

| サイズ  | 長さ     |
|------|--------|
| Size | Length |
| M3.5 | (1.7)  |
| M4   | (2.0)  |
| M4.5 | (2.2)  |
| M5   | (2.5)  |
| M5.5 | (3.0)  |
| M6   | (3.0)  |
| M8   | (4.0)  |
| M10  | (5.0)  |

※突出しセンタ長さは参考値です。

The lengths above are for reference only.

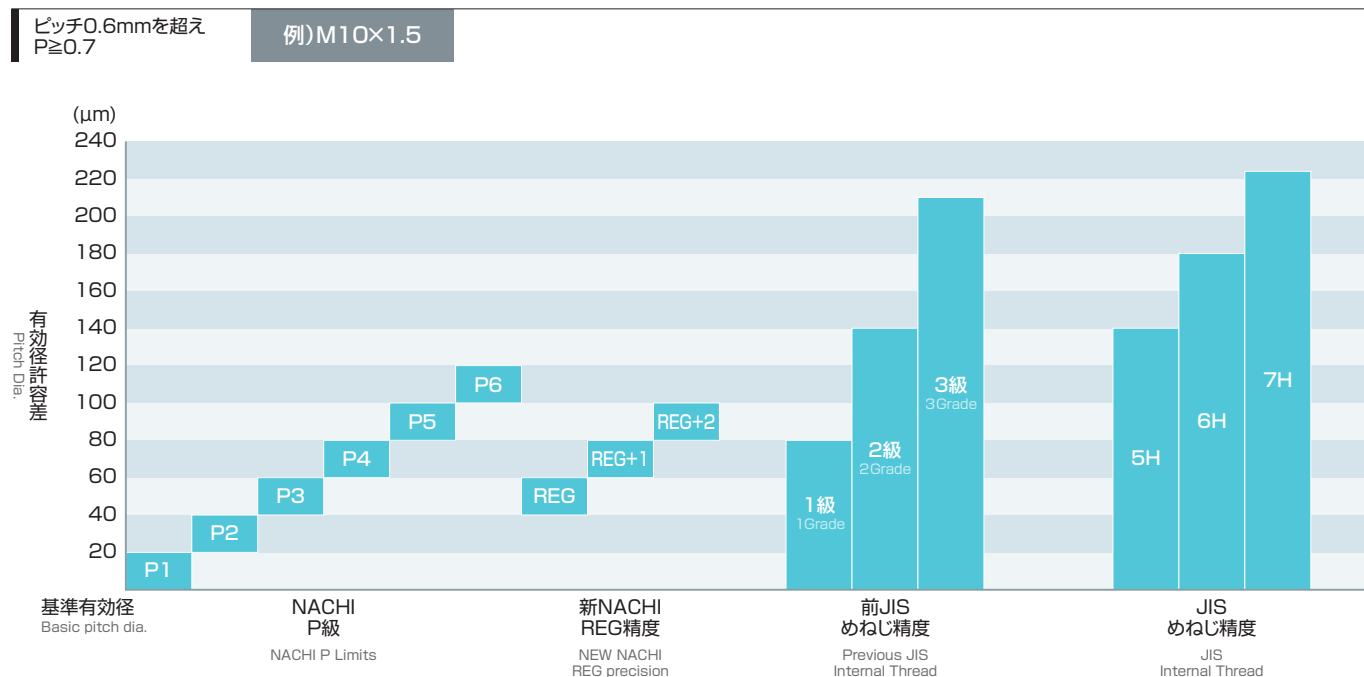
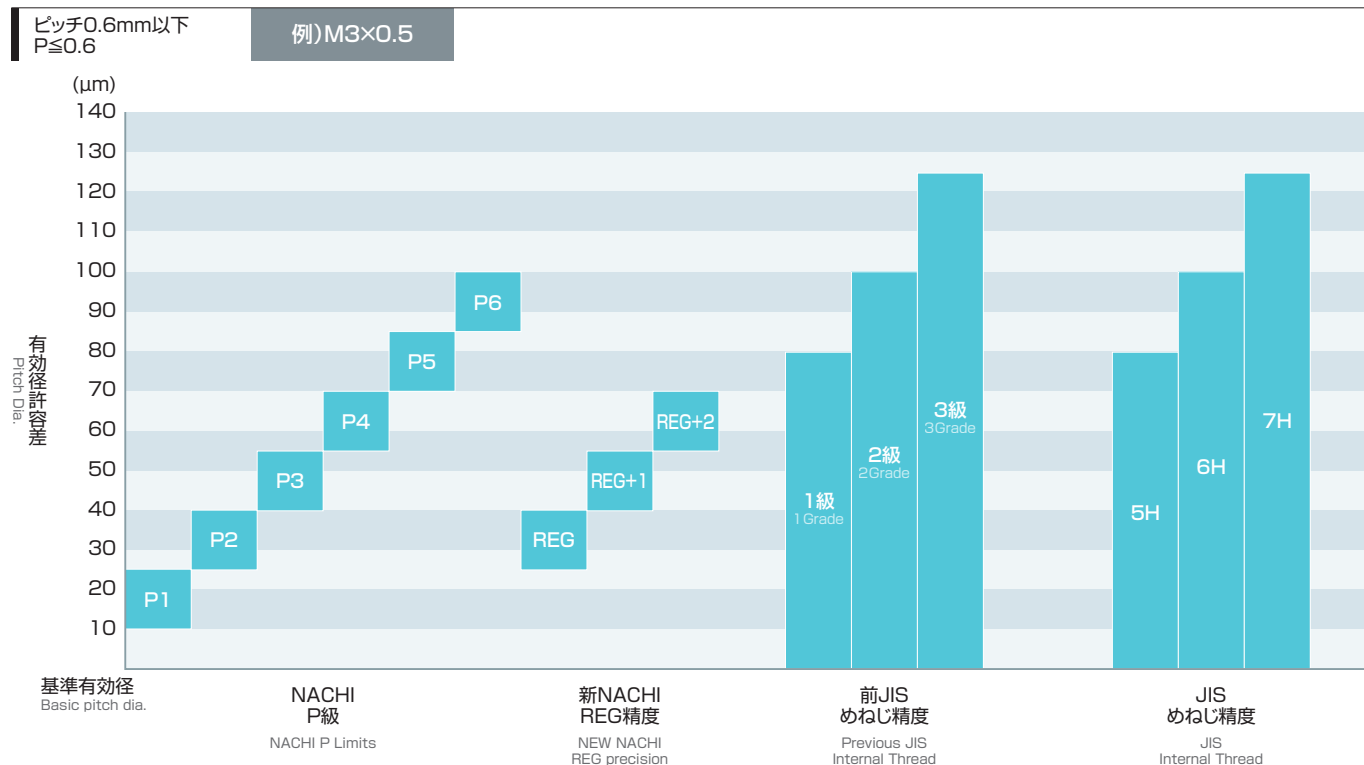
# 精度等級

NACHI Tap Limit System

## SGシリーズ、Hyper Zシリーズ、Nシリーズの精度等級 P級

NACHI P Limits (SG series, Hyper Z series, N series)

- NACHI P級は切削式タップの有効径の精度等級を表しています。
- 精度等級は基準有効径に対して、段階的に公差域を設定しています。
- NACHI REG精度は、前JIS 2級もしくは、前JIS 2級以上のめねじ精度が得られるP級をREG (REGULARの略) としています。  
(+1, +2はオーバーサイズを表します。)
- タップ精度はめねじ精度を保証するものではありません。
- NACHI P Limit System is applied to Cutting Taps.(SG series, Hyper Z series, N series)
- NACHI P Limit System uses the step method to basic pitch diameter.
- NACHI REG precision expresses REG:REGULAR as P grade satisfies internal thread precision of previous JIS 2 grade or over.  
(\*+1, +2 expresses over size.)
- Tap limit does not guarantee thread limit for the internal thread after tapping.

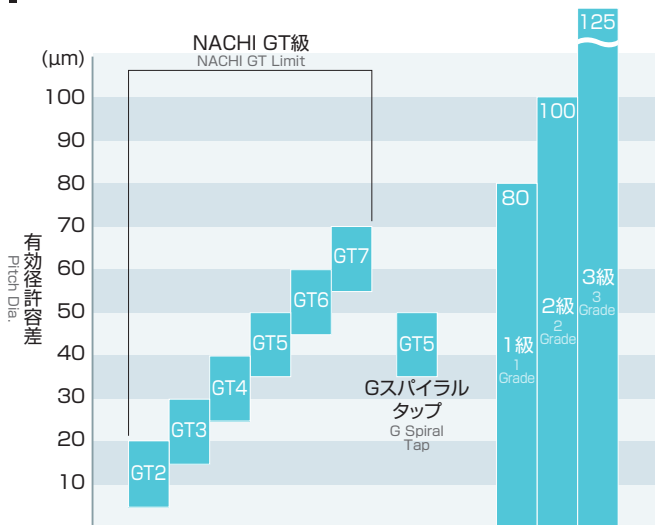


## Gシリーズ、エクセルシリーズ、Tシリーズの精度等級 NACHI GT級

NACHI GT Limits (G series, EXCEL series, T series)

- NACHI GT級は、切削式タップの有効径の精度等級を表しています。
- 精度等級は基準有効径に対して、階段式に公差域を設定しています。
- Gシリーズ、エクセルシリーズ、Tシリーズの標準在庫品は、前JIS 2級もしくは、前2級以上のめねじ精度が得られるようにNACHI GT級を設定しています。
- タップ精度はめねじ精度を保証するものではありません。
- NACHI GT Limit System is applied to Cutting Taps. (G series, EXCEL series, T series)
- NACHI GT Limit System uses the step method to basic pitch diameter.
- Stocked Taps (G series, EXCEL series, T series) satisfy previous JIS 2 grade precision.
- Tap limit does not guarantee thread limit for the internal thread after tapping.

ピッチ0.6mm以下  
P≤0.6

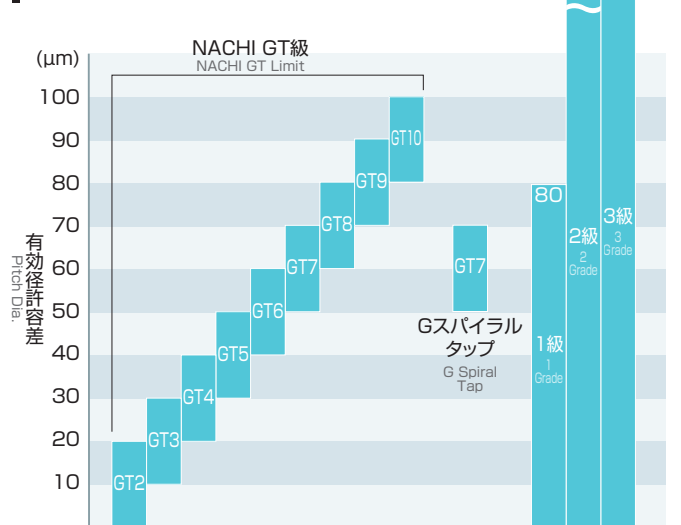


基準有効径  
Basic pitch dia.

例) M3×0.5  
Ex.

前JISめねじ精度  
Previous JIS Internal Thread

ピッチ0.6mmを超え  
P≥0.7



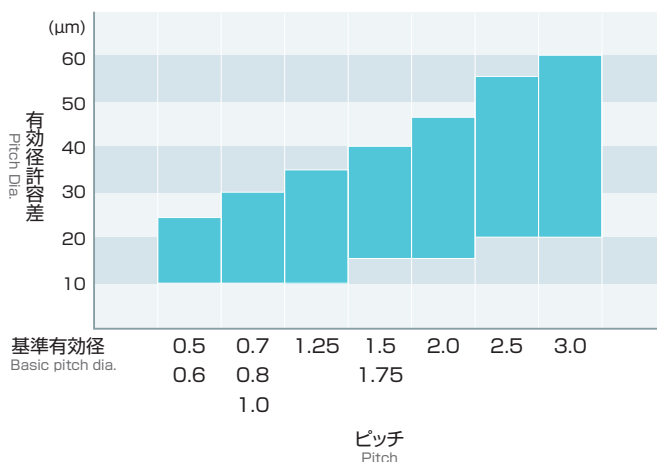
基準有効径  
Basic pitch dia.

例) M10×1.5  
Ex.

前JISめねじ精度  
Previous JIS Internal Thread

## ハンドタップの精度 (JIS2級)

Limits of Hand Tap (JIS 2 grade)



基準有効径  
Basic pitch dia.

0.5 0.7 1.0 1.25 1.5 2.0 2.5 3.0

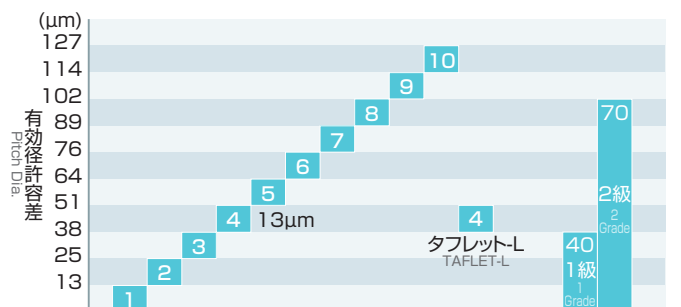
0.6 0.8 1.75

ピッチ  
Pitch

## タフレットシリーズの精度

Limits of TAFLET

- 溝なしタップタフレットシリーズの有効径の精度等級は、等級番号で表わします。
- 精度等級は基準有効径に対して、13μmの公差幅で階段式に設定しています。
- タフレットシリーズの標準在庫品は、前JIS 2級めねじ精度に対応しています。
- めねじ盛り上りは、被削材質やタッピング条件で異なるため、場合によってはタップの精度等級を変える必要があります。
- タップ精度はめねじ精度を保証するものではありません。
- Tap limit of TAFLET is indicated by class number.
- The limits are established by increments of 13μm.
- Stocked sizes of TAFLET satisfy previous JIS 2 grade precision.
- You may change Tap limit to satisfy the precision because minor diameter is changed by tapping condition or work material.
- Tap limit does not guarantee thread limit for the internal thread after tapping.



基準有効径  
Basic pitch dia.

例) M2×0.4  
Ex.

前JISめねじ精度  
Previous JIS Internal Thread

# タップのねじ下穴径

Recommended tap drill sizes

## メートルねじ用

For Metric screw thread

単位(Unit): mm

| ねじの呼び<br>Thread size | 推奨ドリル径<br>Recommended drill dia. |                                  | 最小めねじ<br>内径<br>Minimum internal<br>thread inner dia. | 最大めねじ内径D <sub>i</sub><br>Maximum internal thread inner dia. D <sub>i</sub> |        |        |
|----------------------|----------------------------------|----------------------------------|--|--|--------|--------|
|                      | 標準ドリル<br>Standard Drill          | 高性能ドリル<br>High performance drill |  | 4H   | 5H     | 6H     |
| <b>M1×0.25</b>       | 0.75                             | 0.78                             | 0.729  | 0.774  | 0.785  | 0.799  |
| M1×0.2               | 0.8                              | 0.83                             | 0.783  | 0.821  | 0.831  | 0.843  |
| <b>M1.1×0.25</b>     | 0.85                             | 0.88                             | 0.829  | 0.874  | 0.885  | 0.899  |
| M1.1×0.2             | 0.9                              | 0.93                             | 0.883  | 0.921  | 0.931  | 0.943  |
| <b>M1.2×0.25</b>     | 0.95                             | 0.98                             | 0.929  | 0.974  | 0.985  | 0.999  |
| M1.2×0.2             | 1.0                              | 1.03                             | 0.983  | 1.021  | 1.031  | 1.043  |
| <b>M1.4×0.3</b>      | 1.1                              | 1.15                             | 1.075  | 1.128  | 1.142  | 1.160  |
| M1.4×0.2             | 1.2                              | 1.23                             | 1.183  | 1.221  | 1.231  | 1.243  |
| <b>M1.6×0.35</b>     | 1.25                             | 1.3                              | 1.221  | 1.284  | 1.301  | 1.321  |
| M1.6×0.2             | 1.4                              | 1.44                             | 1.383  | 1.421  | 1.431  | 1.443  |
| <b>*M1.7×0.35</b>    | 1.35                             | 1.4                              | 1.321  | 1.384  | 1.401  | 1.421  |
| *M1.7×0.2            | 1.5                              | 1.54                             | 1.483  | 1.521  | 1.531  | 1.543  |
| <b>M1.8×0.35</b>     | 1.45                             | 1.52                             | 1.421  | 1.484  | 1.501  | 1.521  |
| M1.8×0.2             | 1.6                              | 1.64                             | 1.583  | 1.621  | 1.631  | 1.643  |
| <b>M2×0.4</b>        | 1.6                              | 1.65                             | 1.567  | 1.638  | 1.657  | 1.679  |
| M2×0.25              | 1.75                             | 1.79                             | 1.729  | 1.774  | 1.785  | 1.799  |
| <b>M2.2×0.45</b>     | 1.75                             | 1.8                              | 1.713  | 1.793  | 1.813  | 1.838  |
| M2.2×0.25            | 1.95                             | 1.99                             | 1.929  | 1.974  | 1.985  | 1.999  |
| <b>*M2.3×0.4</b>     | 1.9                              | 1.95                             | 1.867  | 1.938  | 1.957  | 1.979  |
| *M2.3×0.25           | 2.05                             | 2.09                             | 2.029  | 2.074  | 2.085  | 2.099  |
| <b>M2.5×0.45</b>     | 2.05                             | 2.1                              | 2.013  | 2.093  | 2.113  | 2.138  |
| M2.5×0.35            | 2.15                             | 2.2                              | 2.121  | 2.184  | 2.201  | 2.221  |
| <b>*M2.6×0.45</b>    | 2.15                             | 2.2                              | 2.113  | 2.193  | 2.213  | 2.238  |
| *M2.6×0.35           | 2.25                             | 2.32                             | 2.221  | 2.284  | 2.301  | 2.321  |
| <b>M3×0.5</b>        | 2.5                              | 2.55                             | 2.459  | 2.549  | 2.571  | 2.599  |
| M3×0.35              | 2.65                             | 2.7                              | 2.621  | 2.684  | 2.701  | 2.721  |
| <b>M3.5×0.6</b>      | 2.9                              | 2.95                             | 2.850  | 2.950  | 2.975  | 3.010  |
| M3.5×0.35            | 3.15                             | 3.22                             | 3.121  | 3.184  | 3.201  | 3.221  |
| <b>M4×0.7</b>        | 3.3                              | 3.4                              | 3.242  | 3.354  | 3.382  | 3.422  |
| M4×0.5               | 3.5                              | 3.55                             | 3.459  | 3.549  | 3.571  | 3.599  |
| <b>M4.5×0.75</b>     | 3.8                              | 3.87                             | 3.688  | 3.806  | 3.838  | 3.878  |
| M4.5×0.5             | 4.0                              | 4.09                             | 3.959  | 4.049  | 4.071  | 4.099  |
| <b>M5×0.8</b>        | 4.2                              | 4.3                              | 4.134  | 4.259  | 4.294  | 4.334  |
| M5×0.5               | 4.5                              | 4.55                             | 4.459  | 4.549  | 4.571  | 4.599  |
| <b>M5.5×0.5</b>      | 5.0                              | 5.09                             | 4.959  | 5.049  | 5.071  | 5.099  |
| <b>M6×1</b>          | 5.0                              | 5.1                              | 4.917  | 5.067  | 5.107  | 5.153  |
| M6×0.75              | 5.3                              | 5.35                             | 5.188  | 5.306  | 5.338  | 5.378  |
| *M6×0.5              | 5.5                              | 5.5                              | 5.459  | 5.549  | 5.571  | 5.599  |
| <b>M7×1</b>          | 6.0                              | 6.1                              | 5.917  | 6.067  | 6.107  | 6.153  |
| M7×0.75              | 6.3                              | 6.35                             | 6.188  | 6.306  | 6.338  | 6.378  |
| *M7×0.5              | 6.4                              | 6.5                              | 6.459  | 6.549  | 6.571  | 6.599  |
| <b>M8×1.25</b>       | 6.8                              | 6.9                              | 6.647  | 6.817  | 6.859  | 6.912  |
| M8×1                 | 7.0                              | 7.1                              | 6.917  | 7.067  | 7.107  | 7.153  |
| M8×0.75              | 7.3                              | 7.35                             | 7.188  | 7.306  | 7.338  | 7.378  |
| *M8×0.5              | 7.5                              | 7.55                             | 7.459  | 7.549  | 7.571  | 7.599  |
| <b>M9×1.25</b>       | 7.8                              | 7.9                              | 7.647  | 7.817  | 7.859  | 7.912  |
| M9×1                 | 8.0                              | 8.1                              | 7.917  | 8.067  | 8.107  | 8.153  |
| M9×0.75              | 8.3                              | 8.35                             | 8.188  | 8.306  | 8.338  | 8.378  |
| <b>M10×1.5</b>       | 8.5                              | 8.6                              | 8.376  | 8.566  | 8.612  | 8.676  |
| M10×1.25             | 8.8                              | 8.9                              | 8.647  | 8.817  | 8.859  | 8.912  |
| M10×1                | 9.0                              | 9.1                              | 8.917  | 9.067  | 9.107  | 9.153  |
| M10×0.75             | 9.3                              | 9.35                             | 9.188  | 9.306  | 9.338  | 9.378  |
| *M10×0.5             | 9.5                              | 9.60                             | 9.459  | 9.549  | 9.571  | 9.599  |
| <b>M11×1.5</b>       | 9.6                              | 9.65                             | 9.376  | 9.566  | 9.612  | 9.676  |
| M11×1                | 10.0                             | 10.1                             | 9.917  | 10.067   | 10.107 | 10.153 |
| M11×0.75             | 10.2                             | 10.3                             | 10.188   | 10.306   | 10.338 | 10.378 |
| <b>M12×1.75</b>      | 10.2                             | 10.3                             | 10.106   | 10.318   | 10.371 | 10.441 |
| M12×1.5              | 10.5                             | 10.6                             | 10.376   | 10.566   | 10.612 | 10.676 |
| M12×1.25             | 10.8                             | 10.9                             | 10.647   | 10.817   | 10.859 | 10.912 |
| M12×1                | 11.0                             | 11.1                             | 10.917   | 11.067   | 11.107 | 11.153 |
| M12×0.75             | 11.3                             | 11.35                            | 11.188   | 11.306   | 11.338 | 11.378 |

| ねじの呼び<br>Thread size | 推奨ドリル径<br>Recommended drill dia. |                                  | 最小めねじ<br>内径<br>Minimum internal<br>thread inner dia. | 最大めねじ内径D <sub>i</sub><br>Maximum internal thread inner dia. D <sub>i</sub> |        |        |
|----------------------|----------------------------------|----------------------------------|--|--|--------|--------|
|                      | 標準ドリル<br>Standard Drill          | 高性能ドリル<br>High performance drill |  | 4H   | 5H     | 6H     |
| *M12×0.5             | 11.5                             | 11.55                            | 11.459   | 11.549   | 11.571 | 11.599 |
| <b>M13×1.75</b>      | 11.2                             | 11.3                             | 11.106   | 11.318   | 11.371 | 11.441 |
| <b>M14×2</b>         | 12.0                             | 12.1                             | 11.835   | 12.071   | 12.135 | 12.210 |
| M14×1.5              | 12.5                             | 12.6                             | 12.376   | 12.566   | 12.612 | 12.676 |
| M14×1.25             | 12.8                             | 12.85                            | 12.647   | 12.817   | 12.859 | 12.912 |
| M14×1                | 13.0                             | 13.1                             | 12.917   | 13.067   | 13.107 | 13.153 |
| <b>M15×2</b>         | 13.0                             | 13.1                             | 12.835   | 13.071   | 13.135 | 13.210 |
| M15×1.5              | 13.5                             | 13.6                             | 13.376   | 13.566   | 13.612 | 13.676 |
| M15×1                | 14.0                             | 14.1                             | 13.917   | 14.067   | 14.107 | 14.153 |
| <b>M16×2</b>         | 14.0                             | 14.1                             | 13.835   | 14.071   | 14.135 | 14.210 |
| M16×1.5              | 14.5                             | 14.6                             | 14.376   | 14.566   | 14.612 | 14.676 |
| M16×1                | 15.0                             | 15.1                             | 14.917   | 15.067   | 15.107 | 15.153 |
| <b>M17×1.5</b>       | 15.5                             | 15.6                             | 15.376   | 15.566   | 15.612 | 15.676 |
| M17×1                | 16.0                             | 16.1                             | 15.917   | 16.067   | 16.107 | 16.153 |
| <b>M18×2.5</b>       | 15.5                             | 15.6                             | 15.294   | 15.574   | 15.649 | 15.744 |
| M18×2                | 16.0                             | 16.1                             | 15.835   | 16.071   | 16.135 | 16.210 |
| M18×1.5              | 16.5                             | 16.6                             | 16.376   | 16.566   | 16.612 | 16.676 |
| M18×1                | 17.0                             | 17.1                             | 16.917   | 17.067   | 17.107 | 17.153 |
| <b>M19×2.5</b>       | 16.5                             | 16.6                             | 16.294   | 16.574   | 16.649 | 16.744 |
| M19×1.5              | 17.5                             | 17.6                             | 17.376   | 17.566   | 17.612 | 17.676 |
| M19×1                | 18.0                             | 18.1                             | 17.917   | 18.067   | 18.107 | 18.153 |
| <b>M20×2.5</b>       | 17.5                             | 17.6                             | 17.294   | 17.574   | 17.649 | 17.744 |
| M20×2                | 18.0                             | 18.1                             | 17.835   | 18.071   | 18.135 | 18.210 |
| M20×1.5              | 18.5                             | 18.6                             | 18.376   | 18.566   | 18.612 | 18.676 |
| M20×1                | 19.0                             | 19.1                             | 18.917   | 19.067   | 19.107 | 19.153 |
| <b>M22×2.5</b>       | 19.5                             | 19.6                             | 19.294   | 19.574   | 19.649 | 19.744 |
| M22×2                | 20.0                             | 20.0                             | 19.835   | 20.071   | 20.135 | 20.210 |
| M22×1.5              | 20.5                             | 20.6                             | 20.376   | 20.566   | 20.612 | 20.676 |
| M22×1                | 21.0                             | 21.0                             | 20.917   | 21.067   | 21.107 | 21.153 |
| <b>M23×2.5</b>       | 20.5                             | 20.5                             | 20.294   | 20.574   | 20.649 | 20.744 |
| M23×2                | 21.0                             | 21.0                             | 20.835   | 21.071   | 21.135 | 21.210 |
| <b>M24×3</b>         | 21.0                             | 21.1                             | 20.752   | 21.067   | 21.152 | 21.252 |
| M24×2                | 22.0                             | 22.0                             | 21.835   | 22.071   | 22.135 | 22.210 |
| M24×1.5              | 22.5                             | 22.6                             | 22.376   | 22.566   | 22.612 | 22.676 |
| M24×1                | 23.0                             | 23.0                             | 22.917   | 23.067   | 23.107 | 23.153 |
| <b>M25×3</b>         | 22.0                             | 22.0                             | 21.752   | 22.067   | 22.152 | 22.252 |
| M25×2                | 23.0                             | 23.0                             | 22.835   | 23.071   | 23.135 | 23.210 |
| M25×1.5              | 23.5                             | 23.5                             | 23.376   | 23.566   | 23.612 | 23.676 |
| M25×1                | 24.0                             | 24.0                             | 23.917   | 24.067   | 24.107 | 24.153 |
| <b>M26×3</b>         | 23.0                             | 23.0                             | 22.752   | 23.067   | 23.152 | 23.252 |
| M26×1.5              | 24.5                             | 24.5                             | 24.376   | 24.566   | 24.612 | 24.676 |
| <b>M27×3</b>         | 24.0                             | 24.1                             | 23.752   | 24.067   | 24.152 | 24.252 |
| M27×2                | 25.0                             | 25.0                             | 24.835   | 25.071   | 25.135 | 25.210 |
| M27×1.5              | 25.5                             | 25.6                             | 25.376   | 25.566   | 25.612 | 25.676 |
| M27×1                | 26.0                             | 26.0                             | 25.917   | 26.067   | 26.107 | 26.153 |
| <b>M28×3</b>         | 25.0                             | 25.0                             | 24.752   | 25.067   | 25.152 | 25.252 |
| M28×2                | 26.0                             | 26.0                             | 25.835   | 26.071   | 26.135 | 26.210 |
| M28×1.5              | 26.5                             | 26.5                             | 26.376   | 26.566   | 26.612 | 26.676 |
| M28×1                | 27.0                             | 27.0                             | 26.917   | 27.067   | 27.107 | 27.153 |
| <b>M30×3.5</b>       | 26.5                             | 26.6                             | 26.211   | 26.566   | 26.661 | 26.771 |
| M30×3                | 27.0                             | 27.0                             | 26.752   | 27.067   | 27.152 | 27.252 |
| M30×2                | 28.0                             | 28.0                             | 27.835   | 28.071   | 28.135 | 28.210 |
| M30×1.5              | 28.5                             | 28.6                             | 28.376   | 28.566   | 28.612 | 28.676 |
| M30×1                | 29.0                             | 29.0                             | 28.917   | 29.067   | 29.107 | 29.153 |
| <b>M32×2</b>         | 30.0                             | 30.0                             | 29.835   | 30.071   | 30.135 | 30.210 |
| M32×1.5              | 30.5                             | 30.5                             | 30.376   | 30.566   | 30.612 | 30.676 |
| <b>M33×3.5</b>       | 29.5                             | 29.5                             | 29.211   | 29.566   | 29.661 | 29.771 |
| M33×3                | 30.0                             | 30.0                             | 29.752   | 30.067   | 30.152 | 30.252 |
| M33×2                | 31.0                             | 31.0                             | 30.835   | 31.071   | 31.135 | 31.210 |
| M33×1.5              | 31.5                             | 31.5                             | 31.376   | 31.566   | 31.612 | 31.676 |
| <b>M35×1.5</b>       | 33.5                             | 33.5                             | 33.376   | 33.566   | 33.612 | 33.676 |



単位(Unit): mm

| ねじの呼び<br>Thread size | 推奨ドリル径<br>Recommended drill dia. |                                  | 最小めねじ<br>内径<br>Minimum internal<br>thread inner dia. | 最大めねじ内径D <sub>1</sub><br>Maximum internal thread inner dia. D <sub>1</sub> |        |        |
|----------------------|----------------------------------|----------------------------------|--|--|--------|--------|
|                      | 標準ドリル<br>Standard Drill          | 高性能ドリル<br>High performance drill |  | 4H   | 5H     | 6H     |
| M36×4                | 32.0                             | 32.0                             | 31.670   | 32.045   | 32.145 | 32.270 |
| M36×3                | 33.0                             | 33.0                             | 32.752   | 33.067   | 33.152 | 33.252 |
| M36×2                | 34.0                             | 34.0                             | 33.835   | 34.071   | 34.135 | 34.210 |
| M36×1.5              | 34.5                             | 34.5                             | 34.376   | 34.566   | 34.612 | 34.676 |
| M38×1.5              | 36.5                             | 36.5                             | 36.376   | 36.566   | 36.612 | 36.676 |
| M39×4                | 35.0                             | 35.0                             | 34.670   | 35.045   | 35.145 | 35.270 |
| M39×3                | 36.0                             | 36.0                             | 35.752   | 36.067   | 36.152 | 36.252 |
| M39×2                | 37.0                             | 37.0                             | 36.835   | 37.071   | 37.135 | 37.210 |
| M39×1.5              | 37.5                             | 37.5                             | 37.376   | 37.566   | 37.612 | 37.676 |
| M40×3                | 37.0                             | 37.0                             | 36.752   | 37.067   | 37.152 | 37.252 |
| M40×2                | 38.0                             | 38.0                             | 37.835   | 38.071   | 38.135 | 38.210 |
| M40×1.5              | 38.5                             | 38.5                             | 38.376   | 38.566   | 38.612 | 38.676 |
| M42×4.5              | 37.5                             | 37.5                             | 37.129   | 37.554   | 37.659 | 37.799 |
| M42×4                | 38.0                             | 38.0                             | 37.670   | 38.045   | 38.145 | 38.270 |
| M42×3                | 39.0                             | 39.0                             | 38.752   | 39.067   | 39.152 | 39.252 |
| M42×2                | 40.0                             | 40.0                             | 39.835   | 40.071   | 40.135 | 40.210 |
| M42×1.5              | 40.5                             | —                                | 40.376   | 40.566   | 40.612 | 40.676 |
| M45×4.5              | 40.5                             | —                                | 40.129   | 40.554   | 40.659 | 40.799 |
| M45×4                | 41.0                             | 41.0                             | 40.670   | 41.045   | 41.145 | 41.270 |
| M45×3                | 42.0                             | 42.0                             | 41.752   | 42.067   | 42.152 | 42.252 |
| M45×2                | 43.0                             | 43.0                             | 42.835   | 43.071   | 43.135 | 43.210 |
| M45×1.5              | 43.5                             | —                                | 43.376   | 43.566   | 43.612 | 43.676 |
| M48×5                | 43.0                             | 43.0                             | 42.587   | 43.037   | 43.147 | 43.297 |
| M48×4                | 44.0                             | 44.0                             | 43.670   | 44.045   | 44.145 | 44.270 |

| ねじの呼び<br>Thread size | 推奨ドリル径<br>Recommended drill dia. |                                  | 最小めねじ<br>内径<br>Minimum internal<br>thread inner dia. | 最大めねじ内径D <sub>1</sub><br>Maximum internal thread inner dia. D <sub>1</sub> |        |        |
|----------------------|----------------------------------|----------------------------------|--|--|--------|--------|
|                      | 標準ドリル<br>Standard Drill          | 高性能ドリル<br>High performance drill |  | 4H   | 5H     | 6H     |
| M48×3                | 45.0                             | 45.0                             | 44.752   | 45.067   | 45.152 | 45.252 |
| M48×2                | 46.0                             | 46.0                             | 45.835   | 46.071   | 46.135 | 46.210 |
| M48×1.5              | 46.5                             | —                                | 46.376   | 46.566   | 46.612 | 46.676 |
| M50×3                | 47.0                             | 47.0                             | 46.752   | 47.067   | 47.152 | 47.252 |
| M50×2                | 48.0                             | 48.0                             | 47.835   | 48.071   | 48.135 | 48.210 |
| M50×1.5              | 48.5                             | —                                | 48.376   | 48.566   | 48.612 | 48.676 |
| M52×5                | 47.0                             | 47.0                             | 46.587   | 47.037   | 47.147 | 47.297 |
| M52×4                | 48.0                             | 48.0                             | 47.670   | 48.045   | 48.145 | 48.270 |
| M52×3                | 49.0                             | 49.0                             | 48.752   | 49.067   | 49.152 | 49.252 |
| M52×2                | 50.0                             | 50.0                             | 49.835   | 50.071   | 50.135 | 50.210 |
| M52×1.5              | 50.5                             | —                                | 50.376   | 50.566   | 50.612 | 50.676 |
| M55×4                | 51.0                             | 51.0                             | 50.670   | 51.045   | 51.145 | 51.270 |
| M55×3                | 52.0                             | 52.0                             | 51.752   | 52.067   | 52.152 | 52.252 |
| M55×2                | 53.0                             | —                                | 52.835   | 53.071   | 53.135 | 53.210 |
| M55×1.5              | 53.5                             | —                                | 53.376   | 53.566   | 53.612 | 53.676 |
| M56×5.5              | 50.5                             | —                                | 50.046   | 50.521   | 50.646 | 50.796 |
| M56×4                | 52.0                             | —                                | 51.670   | 52.045   | 52.145 | 52.270 |
| M56×3                | 53.0                             | —                                | 52.752   | 53.067   | 53.152 | 53.252 |
| M56×2                | 54.0                             | —                                | 53.835   | 54.071   | 54.135 | 54.210 |
| M56×1.5              | 54.5                             | —                                | 54.376   | 54.566   | 54.612 | 54.676 |
| M60×5.5              | 54.5                             | —                                | 54.046   | 54.521   | 54.646 | 54.796 |
| M64×6                | 58.0                             | —                                | 57.505   | 58.005   | 58.135 | 58.305 |
| M68×6                | 62.0                             | —                                | 61.505   | 62.005   | 62.135 | 62.305 |

## タフレットシリーズのねじ下穴径

Tap drill hole of TAFLET series

### 並目

Coarse screw thread

単位(Unit): mm

| ねじの呼び<br>Thread size | ピッチ<br>Pitch | 等級<br>Class | ねじ下穴径<br>(ひっかかり率)<br>Tap drill hole<br>(percentage of thread engagement)<br>70%~100% |
|----------------------|--------------|-------------|--|
| M1.4                 | 0.30         | 4           | 1.28~1.23  |
| M1.7                 | 0.35         | 4           | 1.56~1.50  |
| M2                   | 0.40         | 4           | 1.84~1.77  |
| M2.3                 | 0.40         | 4           | 2.14~2.07  |
| M2.5                 | 0.45         | 4           | 2.32~2.24  |
| M2.6                 | 0.45         | 4           | 2.42~2.34  |
| M3                   | 0.50         | 5           | 2.80~2.72  |
| M3.5                 | 0.60         | 5           | 3.26~3.16  |
| M4                   | 0.70         | 6           | 3.72~3.60  |
| M5                   | 0.80         | 6           | 4.68~4.55  |
| M6                   | 1.00         | 7           | 5.60~5.43  |
| M8                   | 1.25         | 7           | 7.50~7.29  |
| M10                  | 1.50         | 7           | 9.40~9.15  |

### 細目

Fine screw thread

単位(Unit): mm

| ねじの呼び<br>Thread size | ピッチ<br>Pitch | 等級<br>Class | ねじ下穴径<br>(ひっかかり率)<br>Tap drill hole<br>(percentage of thread engagement)<br>70%~100% |
|----------------------|--------------|-------------|--|
| M4                   | 0.50         | 6           | 3.80~3.72  |
| M5                   | 0.50         | 6           | 4.80~4.72  |
| M6                   | 0.75         | 7           | 5.70~5.57  |
| M6                   | 0.50         | 7           | 5.80~5.72  |
| M8                   | 1.00         | 7           | 7.60~7.43  |
| M10                  | 1.25         | 7           | 9.50~9.29  |
| M10                  | 1.00         | 7           | 9.60~9.43  |

#### タップ下穴径表について

About the list of tap drill hole

D<sub>1</sub>: JIS 6H(2級)のめねじ内径を表しています。

D<sub>1</sub>: is expressing JIS 6H (class 2) of internal thread inner dia.

ピッチ0.3以下は、並目ねじは5H(2級)を、細目ねじは4H・5H(1級)を表しています。

For pitch below 0.3, please check JIS 5H (class2) in coarse screw thread; check JIS 4H/5H (class 1) in fine screw thread.

\*: JISより削除された寸法です。

\*: removed size from JIS

ねじ下穴径のひっかかり率算出式  
Formula of the percentage of thread engagement per tapped hole size

ひっかかり率(%) =  $\frac{\text{外径の基準寸法} - \text{下穴径}}{2 \times (\text{基準のひっかかり高さ})} \times 100$   
Percentage of thread engagement

基準のひっかかり高さ: メートル 0.5413P  
Standard height of percentage of thread engagement: Metric 0.5413P

管 用 0.6403P P=ピッチ  
Pipe 0.6403P P=pitch

# 切削条件

Cutting Condition

# 基準切削速度と切削油剤

Recommended Cutting Speed & Cutting fluids

|   |                              | 切削速度(m/min) Recommended Cutting Speed                         |                                  |                                     |                                   |                                |          |                        |                                  |                          |                        |   |
|---|------------------------------|---|----------------------------------|-------------------------------------|-----------------------------------|--------------------------------|----------|------------------------|----------------------------------|--------------------------|------------------------|---|
| シリーズ<br>Series                            | 被削材<br>Work materials        | 一般構造用鋼<br>SS<br>Structural Steel                              | 低炭素鋼<br>S15C<br>Low Carbon Steel | 中炭素鋼<br>S40C<br>Medium Carbon Steel | 高炭素鋼<br>S50C<br>High Carbon Steel | 合金鋼<br>SCM, SCR<br>Alloy Steel |          | 高硬度鋼<br>Hardened Steel | ステンレス鋼<br>SUS<br>Stainless Steel | 鋳鉄<br>FC<br>Cast Iron    | 鋳鉄<br>FCD<br>Cast Iron | アルミニウム<br>合金<br>AC, ADC<br>Aluminum Alloy |
|   | 商品記号<br>Code                 | ～200HB  | ～200HB                           | ～200HB                              | ～200HB                            | ～200HB                         | 20～30HRC | 25～40HRC               |                                  |                          |                        |   |
| SG<br>シリーズ<br>SG Series                   | SGSP/SGSPL                   | 15～30   | 15～30                            | 10～50                               | 10～50                             | 15～50                          | 8～15     | 5～15                   | 5～10                             | 10～50                    | 10～30                  | 15～50                                     |
|   | SGSP-1.5P                    | 10～20   | 15～30                            | 10～30                               | 10～30                             | 10～30                          | 8～15     | 5～15                   | 5～10                             | 10～50                    | 10～30                  | 15～50                                     |
|   | SGPO/SGPOL                   | 15～50   | 15～30                            | 15～50                               | 10～50                             | 15～50                          | 10～30    | 8～20                   | 5～15                             | 15～50                    | 15～30                  | 15～50                                     |
| NEW!<br>Hyper Z<br>シリーズ<br>Hyper Z Series | ZSP                          | 5～20  | 5～20                             | 5～20                                | 5～20                              | 5～20                           | 5～10     | －                      | －                                | －                        | 5～20                   | 10～25                                     |
|   | ZPO                          | 8～25  | 10～25                            | 6～25                                | 6～25                              | 6～25                           | 5～10     | －                      | －                                | 8～20                     | 6～25                   | 10～30                                     |
| N<br>シリーズ<br>N Series                     | NSP/NSPL                     | 5～10  | 5～15                             | 5～10                                | 5～10                              | 5～10                           | 5～8      | －                      | －                                | －                        | 5～10                   | 10～20                                     |
|   | NPO/NPOL                     | 6～12  | 10～18                            | 6～12                                | 6～12                              | 6～12                           | 5～10     | －                      | 5～10                             | 8～15                     | 6～12                   | 10～20                                     |
|   | HT                           | 6～12  | 6～12                             | 6～12                                | 6～10                              | 6～12                           | 4～8      | －                      | 4～6                              | 5～15                     | 5～10                   | 10～20                                     |
| G<br>シリーズ<br>G Series                     | GSP/GSPL<br>GSPS             | 8～15  | 12～20                            | 8～15                                | 8～15                              | 8～15                           | 6～12     | 5～10                   | 6～12                             | 10～30                    | 10～20                  | 15～30                                     |
|   | GGN/GGNL                     | 10～20   | 15～25                            | 10～20                               | 10～20                             | 10～20                          | 10～15    | 6～12                   | 6～12                             | 12～25                    | 12～20                  | 15～30                                     |
|   | GHT/GHTL                     | 10～18   | 8～18                             | 8～18                                | 8～18                              | 8～18                           | 4～8      | 4～8                    | 5～10                             | 10～20                    | 10～15                  | 12～30                                     |
|   | GOH                          | 10～25   | 15～25                            | 10～25                               | 10～25                             | 10～20                          | 10～15    | 6～15                   | 8～20                             | 15～30                    | 10～20                  | 15～40                                     |
| T<br>シリーズ<br>T Series                     | TSP/TSPS                     | 5～10  | 8～15                             | 5～10                                | 5～10                              | 5～10                           | 5～8      | －                      | 4～8                              | 6～12                     | 5～10                   | 10～20                                     |
|   | TGN/TGNS                     | 6～12  | 10～18                            | 6～12                                | 6～12                              | 6～12                           | 5～10     | －                      | 5～10                             | 8～15                     | 6～12                   | 10～20                                     |
| エクセル<br>シリーズ<br>EXCEL Series              | ESP/EHT                      | －   | －                                | －                                   | －                                 | －                              | －        | －                      | －                                | 12～30                    | 12～20                  | 15～50                                     |
| タフレット<br>シリーズ<br>TAFLET Series            | TFS/TFL<br>TFL<br>TFST/TFSTL | 8～15  | 10～20                            | 8～15                                | －                                 | 8～15                           | 5～10     | －                      | 5～10                             | －                        | －                      | 15～30                                     |
| 推奨切削油剤<br>Cutting Fluids                  |                              | 極圧活性型不水溶性<br>Sulfochlorinated Oil<br>水溶性<br>Water soluble Oil |                                  |                                     |                                   |                                |          |                        |                                  | 水溶性<br>Water soluble Oil |                        |   |

注) 1. 表中の数値は一般的な基準であり、ご使用条件により切削条件を変更してください。  
2. 表中の数値はねじの深さ2Dc(ねじの呼び径の2倍)が基準です。  
3. ステンレス鋼の加工には、不水溶性切削油剤がより適しています。

1. These are general Cutting condition, and may be altered by your conditions.  
2. These conditions are for thread depth of 2 × Dc.  
3. Recommend non water soluble cutting fluid for Stainless Steel.

# NACHI

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CATALOG NO. 2501-8

2016.11O-MD-SE