



### 內徑

分精密級、一般級和鉸刀用3種

### I.D.

Made in 3 different tolerances for precise drilling, normal drilling and reaming.

### 外徑

以內徑為基準，經精密研磨加工而成，分固定式襯套及插入式襯套

### O.D.

Highly precise finish based on I.D.

(Press Fit Bush...P6) (Renewable Bush...m5)

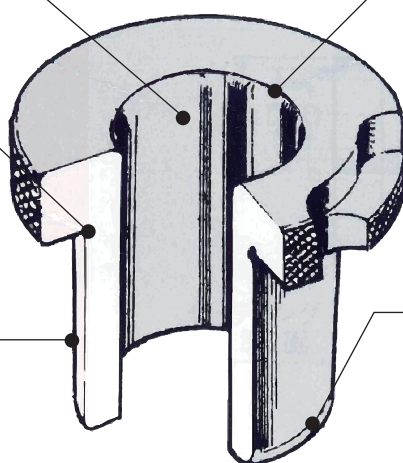
### 硬度

HRC60° 以上耐磨度極高

### HARDNESS

HRC 60° up for long-er life.

## 襯套 BUSH



### R圓

提供容易滑入之引導作用

### RADIUS

For smooth entry of tool.

### 倒角

為了襯套之容易裝配故施以倒角加工

### CHAMFER

Permit easy entry and removal.

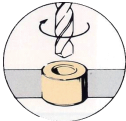
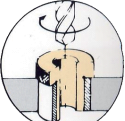
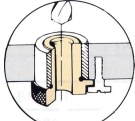
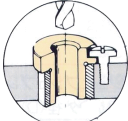
## 治具用襯套 TYPE

## 形狀及種類 TYPE AND APPLICATION

S...精密鉗頭用

R...鉸刀用

S...Precise drilling R...Reaming

| 名稱<br>Designation           |                           | 固定襯套<br>Press Fit                                                                   |                                                                                     | 插入式襯套<br>Renewable Bush                                                             |                                                                                     |                                                                                                                                 |                                                                                       | 引導用<br>固定式襯套<br>Headless Liner<br>bush                                                | 止動螺絲<br>Lock Screw                                                                    | 止動環<br>Round Clamp                                                                    |  |                                                                                       |  |
|-----------------------------|---------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------|--|
|                             |                           | 無帽緣<br>Headless                                                                     | 付帽緣<br>Headed                                                                       | 圓形<br>Round                                                                         | 右向迴轉切口形<br>Right Slip                                                               | 左向迴轉切口形<br>Left Slip                                                                                                            | 切口形<br>Fixed                                                                          |                                                                                       |                                                                                       |                                                                                       |  |                                                                                       |  |
| 形狀<br>Shape                 |                           |  |  |  |  |                                              |  |  |  |  |  |                                                                                       |  |
| 內徑的使用<br>Sort of I.D.       | 精密級鉗頭<br>Precise Drilling | SA                                                                                  | SB                                                                                  | SC                                                                                  | SD                                                                                  | SE                                                                                                                              | SF                                                                                    | G 形                                                                                   | T 形                                                                                   | R 形                                                                                   |  |                                                                                       |  |
|                             | 一般級鉗頭<br>Normal Drilling  | A                                                                                   | B                                                                                   | C                                                                                   | D                                                                                   | E                                                                                                                               | F                                                                                     |                                                                                       |                                                                                       |                                                                                       |  |                                                                                       |  |
|                             | 銹刀<br>Reaming             | -                                                                                   | BR                                                                                  | CR                                                                                  | DR                                                                                  | ER                                                                                                                              | FR                                                                                    |                                                                                       |                                                                                       |                                                                                       |  |                                                                                       |  |
| 使用方法<br>Illustration of use |                           | 無帽緣(A)<br>Headless                                                                  |                                                                                     | 無帽緣(B)<br>Headed                                                                    |                                                                                     | 插入式(C)                                                                                                                          |                                                                                       | 插入式(D)                                                                                |                                                                                       | 插入式(E)                                                                                |  | 插入式(F)                                                                                |  |
|                             |                           | AB型襯套均以緊密配合平均壓入<br>Press the bush into the plate                                    |                                                                                     |                                                                                     |                                                                                     | 先將固定襯套G以緊密配合壓入治具板後再用手裝取插入式襯套並配以T形螺絲固定<br>First press the liner bush into the plate, the insert the bush and set the lock screw. |                                                                                       |                                                                                       |                                                                                       |                                                                                       |  |                                                                                       |  |
|                             |                           |  |                                                                                     |  |                                                                                     |                                              |                                                                                       |   |                                                                                       |  |  |  |  |

## 內徑與外徑的同心度 Concentricity of ID and OD

|                     |                           |          |           |           |
|---------------------|---------------------------|----------|-----------|-----------|
| 內徑 (d) 寸法 ID(d)     |                           | 1.6~18.0 | 18.1~50.0 | 50.1~55.0 |
| 精密級 / 鉗孔            | Precise drilling/ reaming | 0.005    | 0.008     | 0.010     |
| 一般級 Normal Drilling |                           | 0.012    | 0.020     | 0.025     |

## 與治具板之裝配公差 Assembly tolerance with bush plate

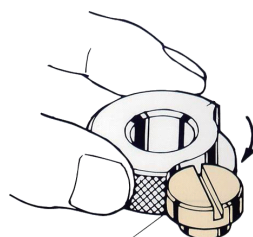
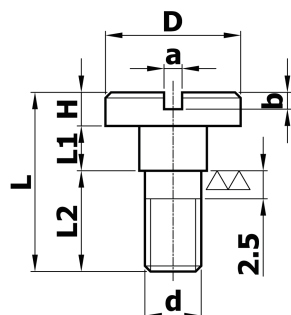
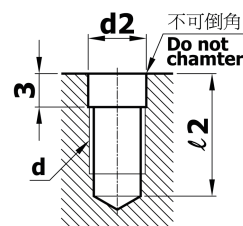
|                                            |             |             |             |             |             |             |             |
|--------------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 襯套承板的內徑尺寸<br>I.D.(d) of hole in bush plate | 0.3~3.0     | 3.1~6.0     | 6.1~10.0    | 10.1~18.0   | 18.1~30.0   | 30.1~50.0   | 50.1~55.0   |
| H7公差<br>Tolerance H7                       | +0.010<br>0 | +0.012<br>0 | +0.015<br>0 | +0.018<br>0 | +0.021<br>0 | +0.025<br>0 | +0.030<br>0 |



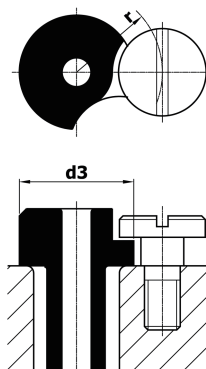
### ■ T.止動螺絲 LOCK SCREW

購買時請告知型式如：T-5。

- T-5 之牙距有0.8(ISO)和0.9(JIS)兩種。
- 本公司標準品採用0.8，如需要0.9時，請說明告知。
- T-5 is available in P=0.8 (ISO) and P=0.9 (JIS)
- When ordering T-5 (P=0.9)，Please specify P (pitch) 0.9



T 型止動螺絲  
T-LOCK SCREW

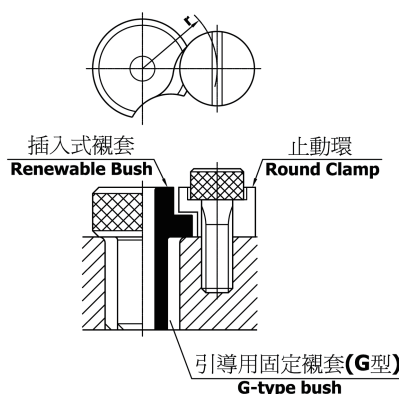
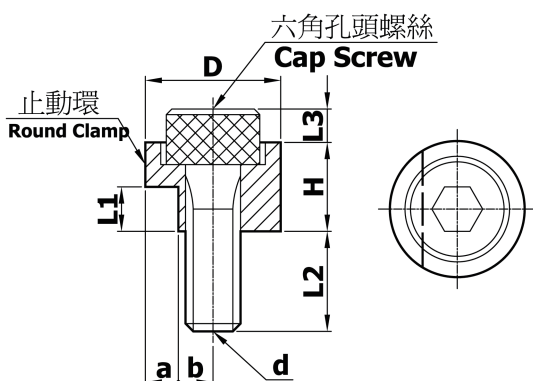


| d3 | d  | 尺寸 Size | 公差 Tolerance | d2  | l2 |
|----|----|---------|--------------|-----|----|
| 16 | M5 | 12      | ±0.2         | 5.2 | 11 |
| 19 |    | 13.5    |              |     |    |
| 22 |    | 15      |              |     |    |
| 26 |    | 17      |              |     |    |
| 30 | M6 | 19      | ±0.3         | 6.2 | 14 |
| 35 |    | 22      |              |     |    |
| 40 |    | 24.5    |              |     |    |
| 47 | M8 | 28      | ±0.3         | 8.2 | 16 |
| 55 |    | 33      |              |     |    |
| 62 |    | 36.5    |              |     |    |
| 69 |    | 40      |              |     |    |
| 77 |    | 44      |              |     |    |

| 規格<br>MODEL | d          |             | d1         |                 | D          |                 | a   | b   | H | L1         |                 | L2   | L  |
|-------------|------------|-------------|------------|-----------------|------------|-----------------|-----|-----|---|------------|-----------------|------|----|
|             | 尺寸<br>SIZE | 牙距<br>Pitch | 尺寸<br>SIZE | 公差<br>Tolerance | 尺寸<br>SIZE | 公差<br>Tolerance |     |     |   | 尺寸<br>SIZE | 公差<br>Tolerance |      |    |
| T-5         | M5         | 0.8(0.9)    | 6          | +0.2            | 12         | +0.2            | 1.6 | 1.5 | 3 | 4          | +0.1            | 9    | 16 |
| T-6         | M6         | 1           | 7          |                 | 15         | +0.2            |     | 2   | 4 | 5.5        | +0.2            | 10.5 | 20 |
| T-8         | M8         | 1.25        | 9          |                 | 18         | +0.3            | 2   | 2.5 | 5 | 6.5        |                 | 12.5 | 24 |

### ■ R.止動環 ROUND CLAMP

- 本止動環請用於高負荷迴轉之插入式襯套。
- 裝置尺寸與位置相同於T 行止動螺絲之裝置尺寸與位置，請參考尺寸圖表。
- The round clamp can be used in place of lock screw Type T to prevent round of renewable bush (Type D、E and f).
- The round clamp is also used in case heavier round is put on renewable bush.



| 規格<br>MODEL | d          |             | D          |                 | a          |                 | b    | H  | L1  | L2   | L3  | 六角孔頭螺絲<br>Cap Screw |
|-------------|------------|-------------|------------|-----------------|------------|-----------------|------|----|-----|------|-----|---------------------|
|             | 尺寸<br>SIZE | 牙距<br>Pitch | 尺寸<br>SIZE | 公差<br>Tolerance | 尺寸<br>SIZE | 公差<br>Tolerance |      |    |     |      |     |                     |
| R-5         | 5          | 0.8         | 12.3       | ±0.05           | 3          | 0<br>-0.1       | 3.15 | 8  | 4   | 9    | 3   | M5x15               |
| R-6         | 6          | 1           | 15.5       |                 | 4          |                 | 3.75 | 12 | 5.5 | 8    | 2   | M6x16               |
| R-8         | 8          | 1.25        | 19.5       |                 | 5          |                 | 4.75 | 15 | 6.5 | 10.5 | 2.5 | M8x20               |