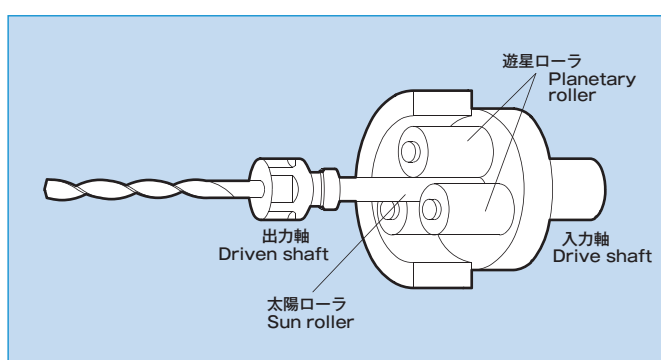


特許取得  
PATENTED

光洋精工との共同開発により実用化された  
世界初の遊星ローラ機構ATC増速スピンドル。

Traction drive (TD) speeder is an A.T.C. type speed accelerator, which employs planetary rollers and is co-developed and introduced to the market by Koyo Seiko and **SHOWA** for the first time in the world.

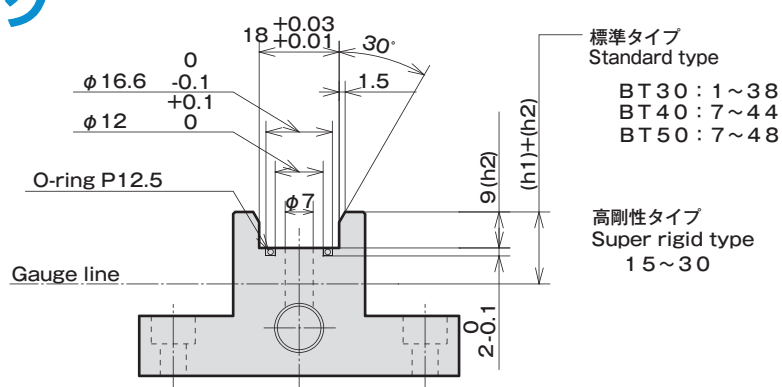


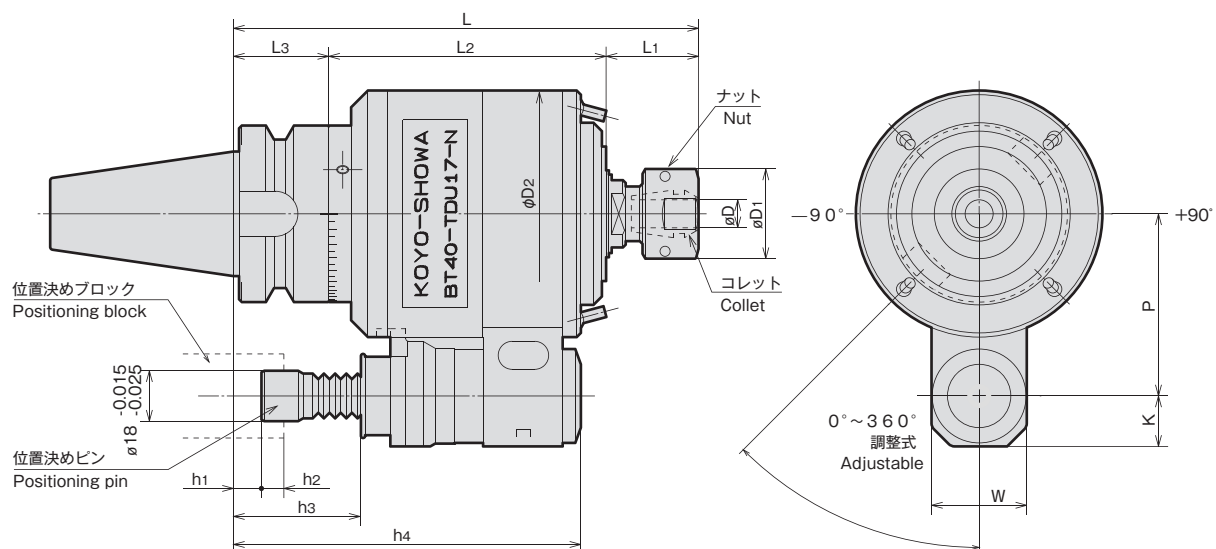
## 特 長

- M/Cで30,000min<sup>-1</sup>の加工が実現。
- 安定したトルクにより小径ドリル・小径エンドミルはもちろん、深リブ加工も可能。
- 騒音、振動が小さいのでM/Cで研削加工もできる。
- 小型軽量ATCタイプ。
- フレキシブルな位置決めピン  
ワンタッチ調整式  
範囲40mm (TDU17)

## FEATURES

- 30,000min<sup>-1</sup> is obtainable on normal M/C.
- High and stable torque transmission enables small diameter drilling and endmilling, as well as deep grooving.
- Capable even for grinding on M/C, with minimum vibration and noise.
- Compact and light weight A.T.C. type.
- Broadly adjustment Positioning Pin  
"One-touch" adjustment,  
and a height range of 40 mm.

位置決めブロック  
POSITIONING BLOCK



| ご注文例 ORDERING EXAMPLE |            |      |
|-----------------------|------------|------|
| ①                     | ②          | ③    |
| BT50                  | - TDU      | 17-N |
| ① シャンクサイズ             | Shank Size |      |
| ② 呼称                  | Name       |      |
| ③ 型式                  | Type       |      |

### 標準タイプ STANDARD TYPE

| MODEL |          | CODE  | SPEED RATIO | MAX. (min <sup>-1</sup> ) | L   | L1 | L2  | L3 | øD      | øD1 | øD2 | h1     | h2   | h3         | h4  | P  | K  | W  | N/W (kg) | MAX. POWER (kw) | STATIC RIGIDITY (N/μm) | COLLET (AA GRADE) | NUT CODE |
|-------|----------|-------|-------------|---------------------------|-----|----|-----|----|---------|-----|-----|--------|------|------------|-----|----|----|----|----------|-----------------|------------------------|-------------------|----------|
| BT30  | -TDU17-N | 10180 | 1:6         | 30,000                    | 159 | 31 | 100 | 28 | 0.5 ~10 | 30  | 88  | -6 ~29 | 7 ~9 | 39.5 ~42.5 | 118 | 65 | 18 | 34 | 4.3      | 3.1             | 8.8                    | CR10-(D)          | RSN10NB  |
| BT40  | -TDU17-N | 11496 | 1:6         | 30,000                    | 165 | 31 | 100 | 34 | 0.5 ~10 | 30  | 88  | -4 ~35 | 7 ~9 | 45.5 ~48.5 | 124 | 65 | 18 | 34 | 5.4      | 3.1             | 9.8                    | CR10-(D)          | RSN10NB  |
| BT50  | -TDU17-N | 13896 | 1:6         | 30,000                    | 169 | 31 | 100 | 38 | 0.5 ~10 | 30  | 88  | 0 ~39  | 7 ~9 | 49.5 ~52.5 | 128 | 80 | 18 | 34 | 7.9      | 3.1             | 12.7                   | CR10-(D)          | RSN10NB  |

### 高剛性タイプ SUPER RIGID TYPE

| MODEL |        | CODE  | SPEED RATIO | MAX. (min <sup>-1</sup> ) | L   | L <sub>1</sub> | L <sub>2</sub> | L <sub>3</sub> | øD      | øD1 | øD2 | h <sub>1</sub> | h <sub>2</sub> | h <sub>3</sub> | h <sub>4</sub> | P  | K  | W  | N/W (kg) | MAX. POWER (kw) | STATIC RIGIDITY (N/ μm) | COLLET (AA GRADE) | NUT CODE |
|-------|--------|-------|-------------|---------------------------|-----|----------------|----------------|----------------|---------|-----|-----|----------------|----------------|----------------|----------------|----|----|----|----------|-----------------|-------------------------|-------------------|----------|
| BT50  | -TDU40 | 13894 | 1:3.4       | 12,000                    | 200 | 42             | 120            | 38             | 1.5 ~20 | 50  | 120 | 6 ~21          | 9              | 15 ~30         | 112            | 80 | 22 | 37 | 11.5     | 8.8             | 30.4                    | CR20-(D)          | RSN20NB  |

### トラクションドライブ増速スピンドル用アクセサリ

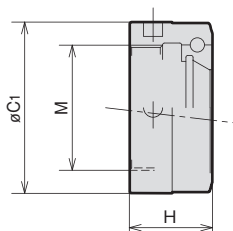
### ACCESSORIES for TRACTION DRIVE SPEED ACCELERATOR



## トラクションドライブ増速スピンドル用ナット

NUT FOR TAP HOLDER FOR SYNCHRONIZED MACHINE & TRACTION DRIVE SPEED ACCELERATOR

RSN<sup>®</sup>No. NB



| CODE          | M      | φC1 | H    | TDU No. |
|---------------|--------|-----|------|---------|
| RSN10NB 30898 | 21×1.0 | 30  | 15.5 | (TDU17) |
| RSN20NB 30899 | 40×1.0 | 50  | 17.5 | (TDU40) |



アクセサリ ACCESSORIES

➡ P.59 コレット COLLETS



アクセサリ ACCESSORIES

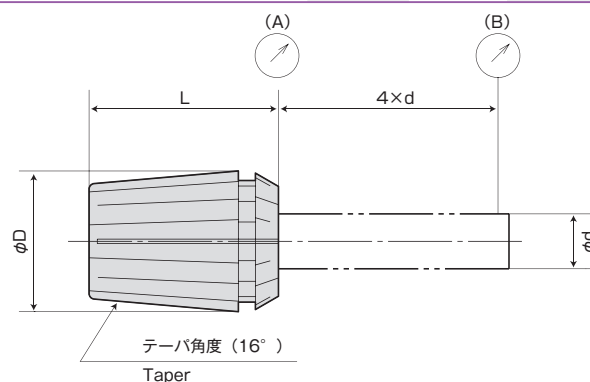
➡ P.56 チャックレンチ CHUCK WRENCH



アクセサリ

## CRコレット

CR COLLET

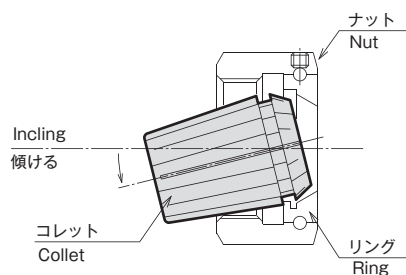
CR<sup>(No.)</sup>-<sup>(d)</sup>

## 簡単で確実なコレット着脱

- リングの内側の約半分が大きくなっていますので、コレットを傾けるだけで、簡単に着脱できます。

## Easy collet setting

- A half of ID of the ring is enlarged. Collet can be mounted easily by inclining it.



| コレット等級 GRADE | 振れ精度 (MAX, μm) RUNOUT |        |
|--------------|-----------------------|--------|
|              | 口元 (A)                | 先端 (B) |
| 超精密級 (AA)    | 1                     | 3      |
| 精密級 (A)      | 2                     | 5      |
| 普通級 (STD)    | 5                     | 15     |

| 等級       | 用途                                                            |
|----------|---------------------------------------------------------------|
| 超精密級・精密級 | リーマ・センタドリル、超硬小径ドリル、エンドミル、内研用砥石、高周波モータ用工具、超硬ドリル、旋盤用回転工具 (工具回転) |
| 普通級      | 一般ドリル、タップ、旋盤用回転工具 (ワーク回転)                                     |

| CHUCK COLLET CODE | RSC07 CR07-d GRADE |            | RSC10 CR10-d GRADE |            | RSC13 CR13-d GRADE |            | RSC16 CR16-d GRADE |            | RSC20 CR20-d GRADE |            |
|-------------------|--------------------|------------|--------------------|------------|--------------------|------------|--------------------|------------|--------------------|------------|
|                   | φd                 | 把握範囲 RANGE | φd                 | 把握範囲 RANGE | φd                 | 把握範囲 RANGE | φd                 | 把握範囲 RANGE | φd                 | 把握範囲 RANGE |
| φd                | 1.0                | 0.5~1.0    | 1.0                | 0.5~1.0    | 1.0                | 0.5~1.0    | 1.5                | 1.0~1.5    | 2.0                | 1.5~2.0    |
|                   | 1.5                | 1.0~1.5    | 1.5                | 1.0~1.5    | 1.5                | 1.0~1.5    | 2.0                | 1.5~2.0    | 2.5                | 2.0~2.5    |
|                   | 2.0                | 1.5~2.0    | 2.0                | 1.5~2.0    | 2.0                | 1.5~2.0    | 2.5                | 2.0~2.5    | 3.0                | 2.5~3.0    |
|                   | 2.5                | 2.0~2.5    | 2.5                | 2.0~2.5    | 2.5                | 2.0~2.5    | 3.0                | 2.5~3.0    | 4.0                | 3.0~4.0    |
|                   | 3.0                | 2.5~3.0    | 3.0                | 2.5~3.0    | 3.0                | 2.5~3.0    | 4.0                | 3.0~4.0    | 5.0                | 4.0~5.0    |
|                   | 3.5                | 3.0~3.5    | 4.0                | 3.0~4.0    | 4.0                | 3.0~4.0    | 5.0                | 4.0~5.0    | 6.0                | 5.0~6.0    |
|                   | 4.0                | 3.5~4.0    | 5.0                | 4.0~5.0    | 5.0                | 4.0~5.0    | 6.0                | 5.0~6.0    | 7.0                | 6.0~7.0    |
|                   | 4.5                | 4.0~4.5    | 6.0                | 5.0~6.0    | 6.0                | 5.0~6.0    | 7.0                | 6.0~7.0    | 8.0                | 7.0~8.0    |
|                   | 5.0                | 4.5~5.0    | 7.0                | 6.0~7.0    | 7.0                | 6.0~7.0    | 8.0                | 7.0~8.0    | 9.0                | 8.0~9.0    |
|                   | 5.5                | 5.0~5.5    | 8.0                | 7.0~8.0    | 8.0                | 7.0~8.0    | 9.0                | 8.0~9.0    | 10.0               | 9.0~10.0   |
|                   | 6.0                | 5.5~6.0    | 9.0                | 8.0~9.0    | 9.0                | 8.0~9.0    | 10.0               | 9.0~10.0   | 11.0               | 10.0~11.0  |
|                   | 6.5                | 6.0~6.5    | 10.0               | 9.0~10.0   | 10.0               | 9.0~10.0   | 11.0               | 10.0~11.0  | 12.0               | 11.0~12.0  |
|                   | 7.0                | 6.5~7.0    |                    |            | 11.0               | 10.0~11.0  | 12.0               | 11.0~12.0  | 13.0               | 12.0~13.0  |
|                   |                    |            |                    |            | 12.0               | 11.0~12.0  | 13.0               | 12.0~13.0  | 14.0               | 13.0~14.0  |
|                   |                    |            |                    |            | 13.0               | 12.0~13.0  | 14.0               | 13.0~14.0  | 15.0               | 14.0~15.0  |
|                   |                    |            |                    |            |                    |            | 15.0               | 14.0~15.0  | 16.0               | 15.0~16.0  |
|                   |                    |            |                    |            |                    |            | 16.0               | 15.0~16.0  | 17.0               | 16.0~17.0  |
|                   |                    |            |                    |            |                    |            |                    |            | 18.0               | 17.0~18.0  |
|                   |                    |            |                    |            |                    |            |                    |            | 19.0               | 18.0~19.0  |
|                   |                    |            |                    |            |                    |            |                    |            | 20.0               | 19.0~20.0  |
| φD                | 11                 |            | 16                 |            | 20                 |            | 25                 |            | 32                 |            |
| L                 | 18                 |            | 27                 |            | 31                 |            | 35                 |            | 40                 |            |

## ご注文例 ORDERING EXAMPLE

|           |             |   |   |     |   |    |
|-----------|-------------|---|---|-----|---|----|
| ①         | CR07        | - | ② | 1.5 | ③ | AA |
| ① コレットタイプ | Collet type |   |   |     |   |    |
| ② φd      | φd          |   |   |     |   |    |
| ③ 等級      | Grade       |   |   |     |   |    |

コレットチャック用アクセサリ

ACCESSORIES for COLLET CHUCK



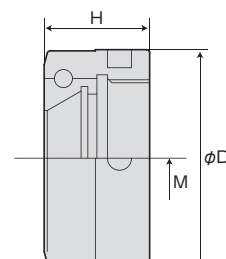
## コレットチャック(小径チャック)用ナット

NUT FOR COLLET CHUCK

RSN<sup>(No.)</sup> - TYPE



BT, ST用 for BT, ST

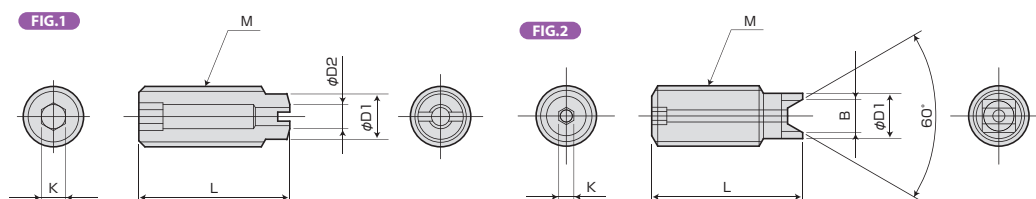


| CODE         |       | M       | φD | H    | CHUCK |
|--------------|-------|---------|----|------|-------|
| RSN07NB (Ni) | 30891 | M16×1.0 | 24 | 11.5 | RSC07 |
| RSN10NB (Ni) | 30892 | M21×1.0 | 30 | 15.5 | RSC10 |
| RSN13NB (Ni) | 30893 | M26×1.0 | 36 | 17.5 | RSC13 |
| RSN16NB (Ni) | 30894 | M32×1.0 | 42 | 17.5 | RSC16 |
| RSN20NB (Ni) | 30895 | M40×1.0 | 50 | 17.5 | RSC20 |



## 調整ネジ(コレットチャック用)

ADJUST SCREW (For COLLET CHUCK)



| MODEL            | FIG | M       | L  | D1   | D2 | K   | B   | HOLDER |
|------------------|-----|---------|----|------|----|-----|-----|--------|
| M6×20L-CTW 注1)   | 1   | M6×1.0  | 20 | 4.5  | 3  | 3   | —   | RSC07  |
| RAS10-25-2.5 注2) | 2   | M10×1.5 | 25 | 7.5  | —  | 2.5 | 5.5 | RSC10  |
| RAS13-25-2.5 注2) |     | M12×1.5 |    | 9.5  |    |     | 7.2 | RSC13  |
| RAS16-25-5 注2)   |     | M18×1.5 |    | 13.5 |    | 5   | 9.5 | RSC16  |
| RAS20-25-5 注2)   |     | M24×1.5 |    | 17.5 |    |     |     | RSC20  |

(注1) φ3未満のドリルは、クーラント穴に入り込む為、突き出し調整用としてご使用できません。  
CTWは2ピース形状ではございません。

(注2) φ2未満のドリルは、クーラント穴に入り込む為、突き出し調整用としてご使用できません。



## チャックレンチ(コレットチャック用)

CHUCK WRENCH for COLLET CHUCK



| CODE |       | CHUCK |
|------|-------|-------|
| FP25 | 35844 | RSC07 |
| FP30 | 35845 | RSC10 |
| FP35 | 35846 | RSC13 |
| FP42 | 35847 | RSC16 |
| FP50 | 35848 | RSC20 |

BT series

HSK series

ST series

Versatile Tool

Cutting Tool

Accessories

Data