



ISSOKU

PRECISION MACHINE PARTS

精密機械部品

BALL SCREW/ROLLED BALL SCREW/LEAD SCREW
LINEAR POSITIONING TABLE/SPINDLE UNIT

ボールねじ/転造ボールねじ/送りねじ/直動テーブル/精密スピンドルユニット

ボールねじの選定 SELECTION OF BALL SCREW

ねじ径とリードの組合せ [Combination of nominal dia and nominal lead]

単位:mm Unit:mm

| ねじ径 Dia | リ ー ド Lead | | | | | | | | | | | | | | |
|------------|---------------|-----|---|-----|---|---|---|---|---|----|----|----|----|----|----|
| | 1 | 1.5 | 2 | 2.5 | 3 | 4 | 5 | 6 | 8 | 10 | 12 | 15 | 16 | 20 | 25 |
| 4 | ◎ | | | | | | | | | | | | | | |
| 5 | ○ | | | | | | | | | | | | | | |
| 6 | ◎ | ○ | ◎ | | | | | | | | | | | | |
| 8 | ◎ | ○ | ◎ | | ○ | ○ | ◎ | ○ | ◎ | | | | | | |
| 10 | ○ | ○ | ◎ | ○ | ○ | ◎ | ◎ | ○ | ○ | ◎ | | | | | |
| 12 | ○ | | ◎ | ○ | ○ | ◎ | ◎ | ○ | ○ | ◎ | | | ○ | ◎ | |
| 14 | ○ | | ◎ | ○ | ○ | ◎ | ◎ | ○ | ○ | | | | ○ | | |
| 15 | | | ○ | | | ◎ | ◎ | | | ◎ | | ◎ | | ◎ | |
| 16 | | | ◎ | ○ | ○ | ◎ | ○ | ○ | ○ | | | | ◎ | ○ | |
| 18 | | | ○ | | | ○ | | ○ | | | | | | | |
| 20 | | | ○ | | ○ | ○ | ◎ | ○ | ○ | ◎ | ○ | | ○ | ◎ | |
| 25 | | | ○ | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | ○ | ○ | ○ |
| 28 | | | | | | | ○ | ○ | ○ | | | | | | |
| 32 | | | | | | | ○ | ○ | ○ | ○ | | | | | |
| 36 | | | | | | | ○ | ○ | ○ | ○ | | | | | |
| 40 | | | | | | | ○ | ○ | ○ | ○ | | | | | |

- ISSOKUでは表中の◎、○のサイズを製作しています。
- ◎のサイズは標準ボールねじとしてC3等級品を在庫してありますので短納期、廉価にてご利用いただけます。
- この表以外のサイズも製作しています(特殊リード、インチサイズ)。

- ISSOKU produce ◎ ○ in the chart.
- ISSOKU has stock grade C3 ball screws marked ◎ in the chart, for quick delivery with low price.
- Other size can be also made (non standard lead inch size etc).



軸方向すきま [Axial clearance]

1) 軸方向すきま Axial clearance

単位:mm Unit:mm

| 軸方向すきま記号 Axial clearance mark | Z | T | S | N |
|----------------------------------|---|---------|---------|---------|
| 軸方向すきま量 Axial clearance | 0 | 0.005以下 | 0.020以下 | 0.050以下 |

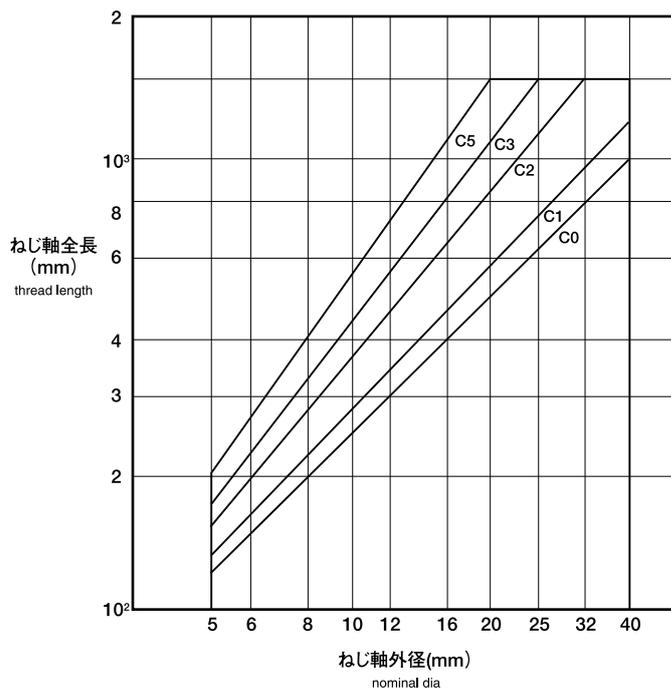
2) 精度等級と軸方向すきま Accuracy grade and axial clearance

| 軸方向すきま記号 Axial clearance mark | Z | T | S | N | |
|----------------------------------|----|-----|-----|-----|-----|
| 精度等級 Accuracy grade | C0 | C0Z | C0T | | |
| | C1 | C1Z | C1T | | |
| | C2 | C2Z | C2T | C2S | |
| | C3 | C3Z | C3T | C3S | C3N |
| | C5 | C5Z | C5T | C5S | C5N |

ねじ軸の製作範囲 [Production range of screw shaft]

表は標準の作業で製作できるねじ軸の最大長さを示します。製作範囲を超える場合はご相談下さい。

Maximum length with standard procedure is shown in below. Please ask for out of this range.



潤滑と保守 [Lubrication and maintenance]

グリス潤滑:リチウム石鹼基 NLG No.1
オイル潤滑:ISOグレードタービン油

Grease lubrication: Lithium soap based grease NLG No.1
Oil lubrication: Turbine oil (ISO grade)

| 潤滑方法 | 定期点検 | 点検内容 | 保守内容 |
|---------------|---------------|-------------|----------------------------------|
| グリス | 稼働初期 1~2ヶ月 | 汚 れ 異物混入 | 通常6ヶ月~1年 又は1000~2000時間 で補給 |
| オイル (自動給油) | 1週間毎 | 油 量 | 油切れにならないこと |

| Method | Periodic inspection | Check item | Maintenance item (replenish interval) |
|-----------------------------------|-------------------------|--|---|
| Grease | Initially 1-2 months | Dirt particles contamination entry of chip | Replenish normally with the interval of 6-12 months or after 1000-2000 hours usage |
| Oil (automatic lubrication) | Every week | Quantity of oil | Never be short of oil |

位置決め用ボールねじの代表移動量誤差と変動の許容値 [Cumulative representative lead errors and travel variations (permissible values)]

単位:µm unit:µm

| 精度等級 及び項目 ねじ部 有効長さ (mm) Effective thread length | | C0 | | C1 | | C2 | | C3 | | C5 | |
|---|-------------------|---|---|---|---|---|---|---|---|---|---|
| | | 代表移動量 誤差 Cumulative representative lead error | 変動 ⁽¹⁾ Travel variation ⁽¹⁾ |
| を 超え above | 以 下 include | | | | | | | | | | |
| — | 125 | 3 | 3 | 3.5 | 5 | 5 | 7 | 8 | 8 | 18 | 18 |
| 125 | 200 | 3.5 | 3 | 4.5 | 5 | 7 | 7 | 10 | 8 | 20 | 18 |
| 200 | 315 | 4 | 3.5 | 6 | 5 | 8 | 7 | 12 | 8 | 23 | 18 |
| 315 | 400 | 5 | 3.5 | 7 | 5 | 9 | 7 | 13 | 10 | 25 | 20 |
| 400 | 500 | 6 | 4 | 8 | 5 | 10 | 7 | 15 | 10 | 27 | 20 |
| 500 | 630 | 6 | 4 | 9 | 6 | 11 | 8 | 16 | 12 | 30 | 23 |
| 630 | 800 | 7 | 5 | 10 | 7 | 13 | 9 | 18 | 13 | 35 | 25 |
| 800 | 1000 | 8 | 6 | 11 | 8 | 15 | 10 | 21 | 15 | 40 | 27 |
| 1000 | 1250 | 9 | 6 | 13 | 9 | 18 | 11 | 24 | 16 | 46 | 30 |
| 1250 | 1600 | 11 | 7 | 15 | 10 | 21 | 13 | 29 | 18 | 54 | 35 |

注⁽¹⁾ ナットの有効移動距離又はねじ軸のねじ部有効長さに対する変動

Note⁽¹⁾ Travel variation in respect to the effective travelling distance of nut or to the effective thread length of screw shaft.

変 動 (許容値) [Travel variations (permissible values)]

単位:µm unit:µm

| 精度等級 Accuracy grade | C0 | | C1 | | C2 | | C3 | | C5 | |
|--------------------------|--|---|--|---|--|---|--|---|--|---|
| 項 目 Item | 変 動 Travel variation300 ⁽²⁾ | 変 動 Travel variation2π ⁽³⁾ |
| 許容値 Permissible value | 3.5 | 3 | 5 | 4 | 6 | 5 | 8 | 6 | 18 | 8 |
| | | | | | | | | | | |

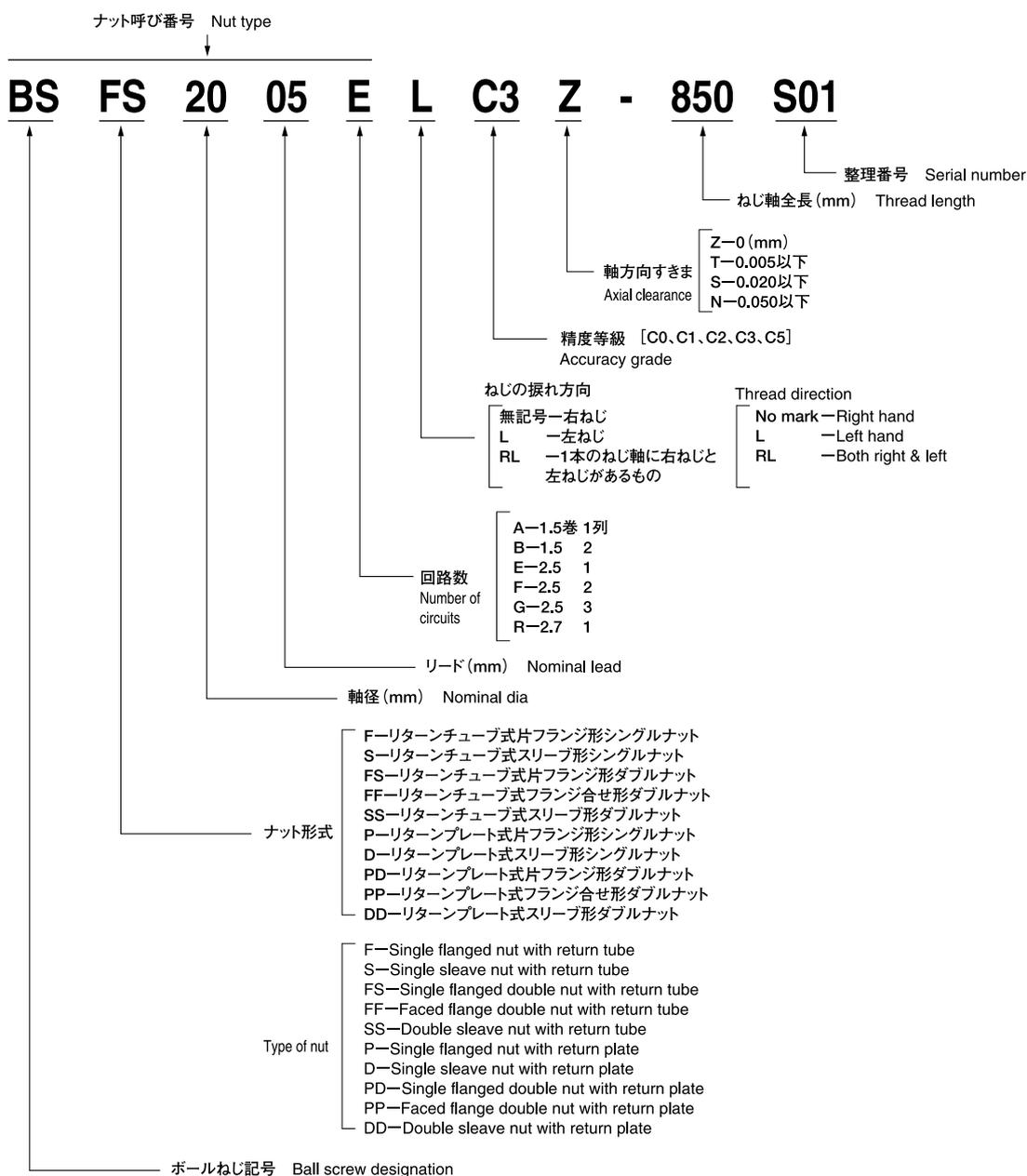
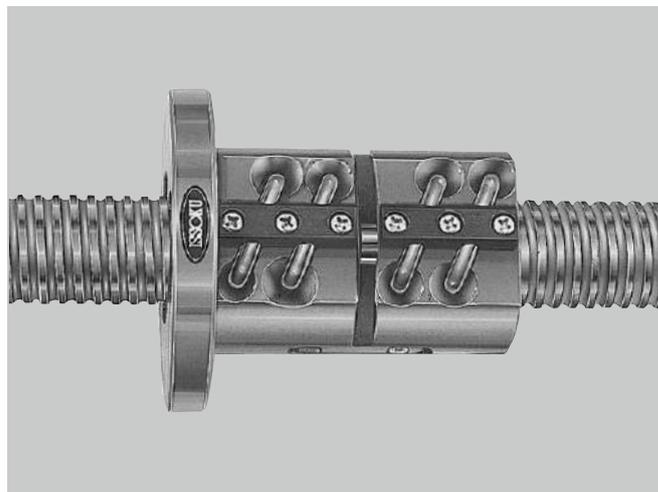
注⁽²⁾ ねじ軸のねじ部有効長さの間に任意にとった300mmに対する変動。

⁽³⁾ ねじ軸のねじ部有効長さの間の1回転 (2π rad) に対する変動。

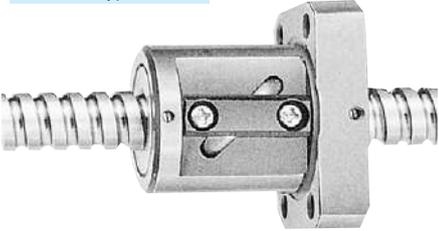
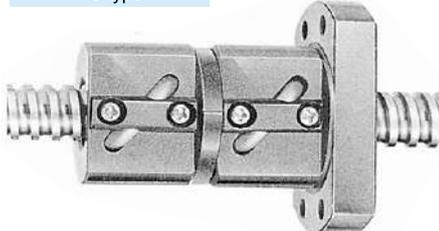
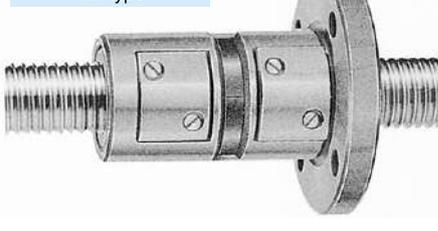
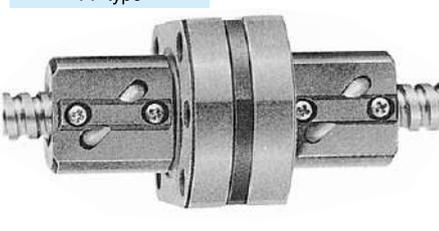
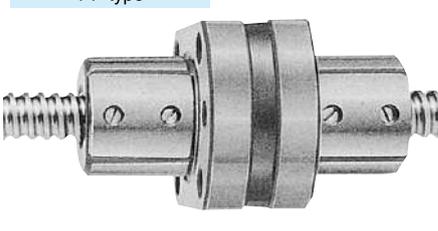
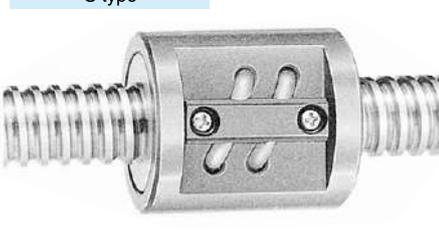
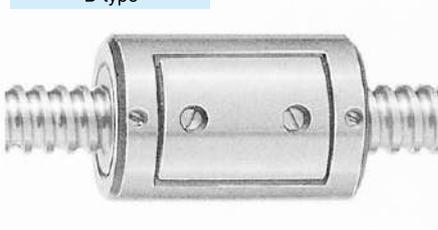
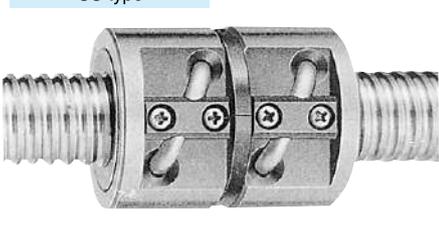
Note⁽²⁾ Travel variation in respect to 300mm taken arbitrarily within the effective thread length of screw shaft.

Note⁽³⁾ Travel variation in respect to one arbitrary revolution (2π rad) within the effective thread length of screw shaft.

ボールねじ呼び番号 IDENTIFICATION NUMBERS



ボールねじナット形式 TYPE OF NUT

| リターンチューブ方式 Return tube type | 特 長 Advantages | リターンプレート方式 Return plate type |
|--|---|--|
| <p>F型ナット F type</p>  | <p>ナット1個の最も簡単なタイプです。通常わずかな軸方向すきまで使用します。又、オーバーサイズボールを使用することにより、軽予圧を与え軸方向すきまをゼロにすることもできます。ナットの取付けはフランジ面のボルト穴を使用します。</p> <p>Simple single nut type. Normally used with axial clearance. Light preload can be applied with over sized ball. Use bolt holes on flange for mounting.</p> | <p>P型ナット P type</p>  |
| <p>FS型ナット FS type</p>  | <p>2個のナットの間には予圧量分の厚いスペーサを入れ軸方向すきまを除去します。又、予圧を与えることにより剛性を高めることができます。ナットの取付けはフランジ面のボルト穴を使用します。</p> <p>Put spacer between two nuts to give preload for rigidity. Use bolt holes on flange for mounting.</p> | <p>PD型ナット PD type</p>  |
| <p>FF型ナット FF type</p>  | <p>2個のナットのフランジ面の間にスペーサを入れ予圧を与えます。FS型・PD型と同様に軸方向すきまを除去し、剛性を高めることができます。ナットの取付けはフランジ面のボルト穴を使用します。(ナット寸法についてはISSOKUまでお問い合わせ下さい。)</p> <p>Put spacer between two flange face. As FS and PD, axial clearance is removed and preload for rigidity. Use bolt holes on flange for mounting. (Please ask ISSOKU for dimation of nut)</p> | <p>PP型ナット PP type</p>  |
| <p>S型ナット S type</p>  | <p>円筒型ナット1個のもので、F型・P型と同様に通常わずかな軸方向すきまで使用しますがオーバーサイズボールにより軽予圧を与えることもできます。ナットの取付けは円筒面に設けたキーとナット両端面で固定します。</p> <p>Normally used with axial clealance as F and P. Light preload can be applied with over sized ball. Key way and both ends are used for mounting.</p> | <p>D型ナット D type</p>  |
| <p>SS型ナット SS type</p>  | <p>円筒型ナットを2個使用し、中間にスペーサを入れ予圧を与えます。ナットの取付けは円筒面に設けたキーとナット両端面で固定します。</p> <p>Put spacer between two nut for preload. Key way and both ends are used for mounting.</p> | <p>DD型ナット DD type</p>  |

標準シリーズ STANDARD BALL SCREWS

特徴 [Features]

- [1] 永年のねじゲージ製造技術を基に全館恒温、恒湿に管理された工場にて製作しております。
 - [2] ねじゲージのJIS表示認定工場であり、高精度、高品質により高い信頼を受けております。
 - [3] 短納期、即納品、豊富な種類、ストロークを用意しました。
 - [4] 精度等級はJIS B 1192に基づき、C3級とし、軸方向すきまは0.005mm以下(記号T)を選定しております。
 - [5] ナット両端にはワイパーシール(樹脂製)を内蔵しています。より完璧な防塵にはカバー等が必要ですので当社までご相談下さい。
- [1] ISSOKU is producing Precision Ball Screws in the temperature and humidity controlled factory, based on the traditional production technology of high precision Thread Gauges.
 - [2] ISSOKU has been allowed to mark "JIS (Japanese industrial Standard)" mark for high accuracy and high quality of its products.
 - [3] ISSOKU is promoting prompt and short delivery from stock with wide variations in sizes and strokes.
 - [4] Standard Precision Ball Screws are supplied with C3 accuracy grade and Max. 0.005mm (mark T) axial clearance, according to JIS B 1192.
 - [5] Plastic seals (synthetic resin made) are prepared at both nut ends. For more complete dust protection, covers and other means of protection are required. Please ask ISSOKU.

軸径と呼びリードの組合せ [Combination of nominal dia. and nominal lead.]

単位:mm unit:mm

| 軸径 Nominal dia. | 呼びリード Nominal lead | | | | | | | | | |
|--------------------|--------------------|-----|-----|-----|---|-----|----|----|-----|-----|
| | 1 | 2 | 4 | 5 | 8 | 10 | 15 | 16 | 20 | |
| 4 | ● | | | | | | | | | |
| 6 | ○ ● | ○ ● | | | | | | | | |
| 8 | ○ ● | ○ ● | | ● | ● | | | | | |
| 10 | | ○ ● | ○ ● | ○ ● | | ○ ● | | | | |
| 12 | | ○ ● | ○ ● | ○ ● | | ○ ● | | | ○ ● | |
| 14 | | ○ ● | ○ | ○ ● | | | | | | ○ ● |
| 15 | | | ● | ● | | ○ ● | ● | | ○ ● | |
| 16 | | ● | ○ | | | | | ○ | | |
| 20 | | | | ● | | ○ ● | | | ○ ● | |

- :軸端完成品 Finished shaft ends
- :軸端末加工品 Un-worked shaft ends

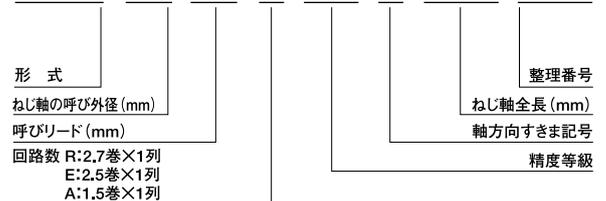
形式 [Type]

- BSP 完成品 プレート式
- BSF 完成品 チューブ式
- GPR 軸端末加工品 プレート式
- GTR 軸端末加工品 チューブ式

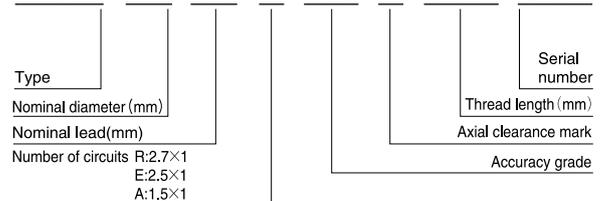
- BSP Plate type standard series
- BSF Tube type standard series
- GPR Plate type series with un-worked shaft ends
- GTR Tube type series with un-worked shaft ends

呼び番号 [Identification numbers]

BSF 12 05 E C3 T-380 S01



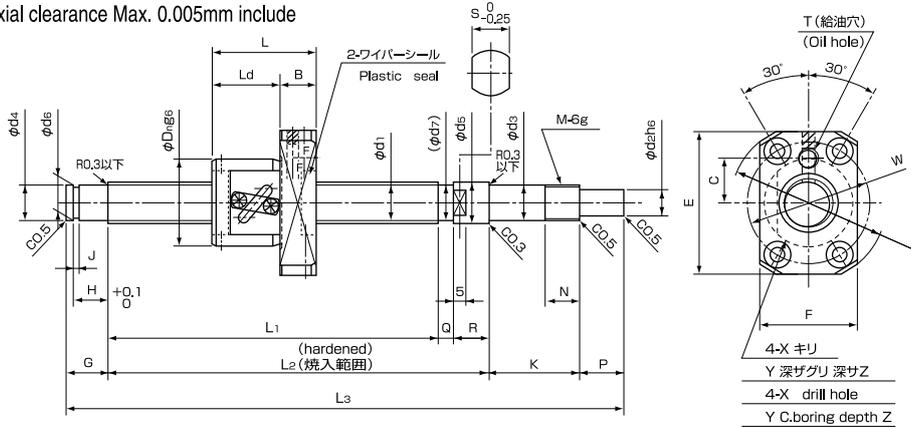
BSF 12 05 E C3 T-380 S01



軸端完成品 FINISHED SHAFT ENDS

精度等級 JIS C3級
Accuracy grade JIS C3

軸方向すきま 0.005mm以下
Axial clearance Max. 0.005mm include



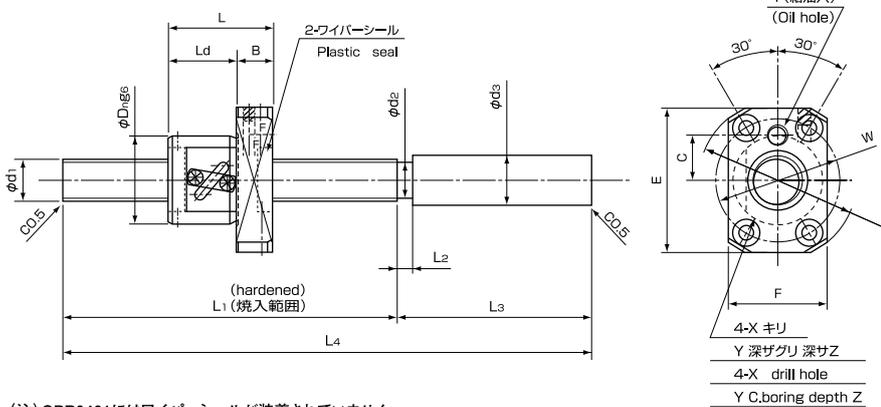
- I 材質 Material
軸、ナット:SCM415H
Shaft, Nut:JIS SCM415H
- II 特別仕様品についてはご相談下さい。
φ4~φ40、長さ1500mm以下
ステンレス製ボールねじも製作いたします。
Other specifications are also available.
Dia.φ4~φ40,Length up to 1500mm Stainless ball screw is also available.
- III 基本定格荷重欄のCaは動定格、Coaは静定格を表わします。尚、この場合の単位はNとなります。
“Ca” in Basic Load Ratings means Dynamic Load Ratings and “Coa” does Static Load Ratings. Unit in Newton.

単位:mm unit:mm

| 呼び番号 Identification number | 軸径 Nominal dia.d1 | リード Nominal lead | ストローク Stroke | ねじ軸寸法 Screw shaft dimensions | | | | | | | | | | | | | | | | | ナット寸法 Nut dimensions | | | | | | | | | | | 基本定格荷重(N) Basic load ratings (N) | | | | | | | |
|---|----------------------|---------------------|-----------------|---------------------------------|-----|-----|----|-------|------|------------|----|----|----|----|----|----|------------------|------------------|------------|----|-------------------------|------|----|------------------|----|----|----|----|----|----|----|-------------------------------------|----|----|-----|-----|-----|------|-------|
| | | | | L1 | L2 | L3 | G | H | J | K | N | P | Q | R | d2 | d3 | d4 | d5 | d6 | d7 | S | M | Dn | A | L | Ld | B | E | F | W | C | T | X | Y | Z | Ca | Coa | | |
| BSF1220AC3T -377 -427 -477 -527 | 12 | 20 | 200 | 302 | 322 | 377 | 10 | 7.9 | 0.9 | +0.06 0 | 30 | 10 | 15 | 10 | 10 | 8 | -0.002 -0.008 | -0.004 -0.012 | 0 -0.09 | 14 | 7.6 | 9.9 | 12 | M10 X 0.75 | 30 | 50 | 62 | 50 | 12 | 45 | 32 | 40 | 15 | M6 | 4.5 | 8 | 4.5 | 2410 | 3920 |
| | | | 250 | 352 | 372 | 427 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | 300 | 402 | 422 | 477 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | 350 | 452 | 472 | 527 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BSP1402RC3T -222 -272 -322 | 14 | 2 | 100 | 140 | 155 | 222 | 22 | 9.15 | 1.15 | +0.14 0 | 30 | 10 | 15 | 5 | 10 | 10 | -0.003 -0.011 | -0.004 -0.012 | 0 -0.09 | 15 | 9.6 | 12 | 12 | M12 X 1.0 | 26 | 49 | 30 | 19 | 11 | 44 | 30 | 37 | 14 | M6 | 5.5 | 9.5 | 5.4 | 2470 | 5290 |
| | | | 150 | 190 | 205 | 272 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | 200 | 240 | 255 | 322 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BSF1404EC3T -287 -337 -387 | 14 | 4 | 150 | 205 | 220 | 287 | 22 | 9.15 | 1.15 | +0.14 0 | 30 | 10 | 15 | 5 | 10 | 10 | -0.003 -0.011 | -0.004 -0.012 | 0 -0.09 | 15 | 9.6 | 11.7 | 12 | M12 X 1.0 | 34 | 57 | 37 | 26 | 11 | 50 | 34 | 45 | 17 | M6 | 5.5 | 9.5 | 5.4 | 4220 | 7150 |
| | | | 200 | 255 | 270 | 337 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | 250 | 305 | 320 | 387 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | 250 | 305 | 320 | 387 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BSF1405EC3T -293 -343 -393 -443 | 14 | 5 | 150 | 211 | 226 | 293 | 22 | 9.15 | 1.15 | +0.14 0 | 30 | 10 | 15 | 5 | 10 | 10 | -0.003 -0.011 | -0.004 -0.012 | 0 -0.09 | 15 | 9.6 | 11.1 | 12 | M12 X 1.0 | 34 | 57 | 41 | 30 | 11 | 50 | 34 | 45 | 17 | M6 | 5.5 | 9.5 | 5.4 | 6270 | 11660 |
| | | | 200 | 261 | 276 | 343 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | 250 | 311 | 326 | 393 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | 300 | 361 | 376 | 443 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BSF1510EC3T -371 -471 -571 -671 | 15 | 10 | 200 | 289 | 304 | 371 | 22 | 9.15 | 1.15 | +0.14 0 | 30 | 10 | 15 | 5 | 10 | 10 | -0.003 -0.011 | -0.004 -0.012 | 0 -0.09 | 15 | 9.6 | 12 | 12 | M12 X 1.0 | 34 | 57 | 51 | 40 | 11 | 50 | 34 | 45 | 17 | M6 | 5.5 | 9.5 | 5.4 | 6610 | 12540 |
| | | | 300 | 389 | 404 | 471 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | 400 | 489 | 504 | 571 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | 500 | 589 | 604 | 671 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BSF1520AC3T -484 -584 -684 -784 | 15 | 20 | 300 | 402 | 417 | 484 | 22 | 9.15 | 1.15 | +0.14 0 | 30 | 10 | 15 | 5 | 10 | 10 | -0.003 -0.011 | -0.004 -0.012 | 0 -0.09 | 15 | 9.6 | 12 | 12 | M12 X 1.0 | 34 | 57 | 62 | 50 | 12 | 50 | 34 | 45 | 17 | M6 | 5.5 | 9.5 | 5.4 | 4230 | 7840 |
| | | | 400 | 502 | 517 | 584 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | 500 | 602 | 617 | 684 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | 600 | 702 | 717 | 784 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BSF1604EC3T -339 -439 -539 | 16 | 4 | 200 | 257 | 272 | 339 | 22 | 9.15 | 1.15 | +0.14 0 | 30 | 10 | 15 | 5 | 10 | 10 | -0.003 -0.011 | -0.004 -0.012 | 0 -0.09 | 15 | 9.6 | 12 | 12 | M12 X 1.0 | 36 | 59 | 37 | 26 | 11 | 53 | 36 | 47 | 18 | M6 | 5.5 | 9.5 | 5.4 | 4640 | 8530 |
| | | | 300 | 357 | 372 | 439 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | 400 | 457 | 472 | 539 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BSF1616AC3T -371 -471 -571 -671 -771 | 16 | 16 | 200 | 284 | 304 | 371 | 22 | 9.15 | 1.15 | +0.14 0 | 30 | 10 | 15 | 10 | 10 | 10 | -0.003 -0.011 | -0.004 -0.012 | 0 -0.09 | 15 | 9.6 | 12 | 12 | M12 X 1.0 | 40 | 63 | 56 | 44 | 12 | 56 | 40 | 51 | 20 | M6 | 5.5 | 9.5 | 5.4 | 4380 | 8230 |
| | | | 300 | 384 | 404 | 471 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | 400 | 484 | 504 | 571 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | 500 | 584 | 604 | 671 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | 600 | 684 | 704 | 771 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BSF2010EC3T -399 -499 -599 -699 -799 | 20 | 10 | 200 | 289 | 314 | 399 | 25 | 10.15 | 1.15 | +0.14 0 | 40 | 15 | 20 | 10 | 15 | 12 | -0.004 -0.012 | -0.004 -0.012 | 0 -0.11 | 20 | 14.3 | 17 | 17 | M15 X 1.0 | 44 | 67 | 54 | 41 | 13 | 60 | 44 | 55 | 22 | M6 | 5.5 | 9.5 | 5.4 | 8150 | 17150 |
| | | | 300 | 389 | 414 | 499 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | 400 | 489 | 514 | 599 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | 500 | 589 | 614 | 699 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BSF2020AC3T -520 -620 -720 -820 -920 | 20 | 20 | 300 | 410 | 435 | 520 | 25 | 10.15 | 1.15 | +0.14 0 | 40 | 15 | 20 | 10 | 15 | 12 | -0.004 -0.012 | -0.004 -0.012 | 0 -0.11 | 20 | 14.3 | 16.5 | 17 | M15 X 1.0 | 46 | 74 | 70 | 55 | 15 | 66 | 46 | 59 | 24 | M6 | 6.6 | 11 | 6.5 | 6710 | 12640 |
| | | | 400 | 510 | 535 | 620 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | 500 | 610 | 635 | 720 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | 600 | 710 | 735 | 820 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | 700 | 810 | 835 | 920 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

軸端未加工品 UN-WORKED SHAFT ENDS

精度等級 JIS C3級
Accuracy grade JIS C3
軸方向すきま 0.005mm以下
Axial clearance Max. 0.005mm include



(注) GPR0401にはワイバーシールが装着されていません。
Note- This model is not provided with a plastic seal.

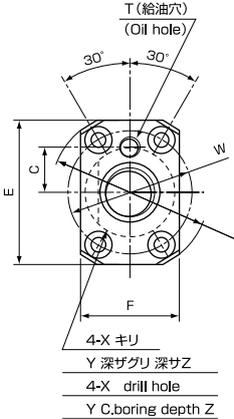
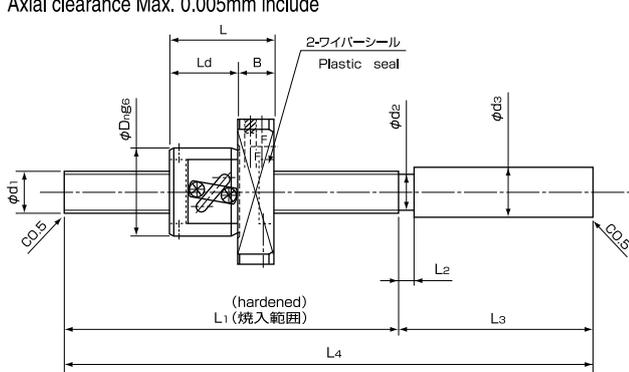
- I 材質 Material
軸、ナット:SCM415H
Shaft, Nut:JIS SCM415H
- II 特別仕様品についてはご相談下さい。
φ4~φ40、長さ1500mm以下
ステンレス製ボールねじも製作いたします。
Other specifications are also available.
Dia.φ4~φ40.Length up to 1500mm Stainless ball screw is also available.
- III 基本定格荷重欄のCaは動定格、Coaは静定格を表わします。尚、この場合の単位はNとなります。
“Ca” in Basic Load Ratings means Dynamic Load Ratings and “Coa” does Static Load Ratings. Unit in Newton.
- IV ご使用に際しては軸端の追加加工が必要です。軸端の加工は当社にて行うことをお奨めいたします。当社以外で追加加工を行った場合は、追加加工後の精度保証はいたしかねますのでご了承ください。
Additional machining of screw shaft end is required when ball screw is used. We recommend you to do this machining to ISSOKU, because this machining is performed by other companies except ISSOKU, accuracy for such a ball screw should not be warranted by ISSOKU.

単位:mm unit:mm

| 呼び番号 Identification number | 軸径 Nominal dia.d1 | リード Nominal lead | ストローク Stroke | ねじ軸寸法 Screw shaft dimensions | | | | | | | ナット寸法 Nut dimensions | | | | | | | | | | | 谷径 Root dia. | BCD | 回路数 巻×列 Circuits × Turn | 基本定格荷重(N) Basic load ratings (N) | | |
|-------------------------------|----------------------|---------------------|-----------------|---------------------------------|----|----|-----|------|----|----|-------------------------|----|----|----|----|----|----|----|----|-----|-----|-----------------|------|-------------------------------------|-------------------------------------|------|------|
| | | | | L1 | L2 | L3 | L4 | d2 | d3 | Dn | A | L | Ld | B | E | F | W | C | T | X | Y | | | | Z | Ca | Coa |
| GPR0401RC3T-100 (注) (Note) | 4 | 1 | 30 | 60 | 4 | 40 | 100 | 4 | 10 | 11 | 21 | 19 | 15 | 4 | — | 14 | 16 | — | — | 2.9 | — | — | 3.15 | 4.15 | 2.7X1 | 470 | 780 |
| | | | 80 | 110 | | | 150 | | | | | | | | | | | | | | | | | | | | |
| GPR0601RC3T-190 | 6 | 1 | 50 | 90 | 3 | 50 | 140 | 5.2 | 10 | 13 | 29 | 20 | 15 | 5 | 26 | 19 | 21 | — | — | 3.4 | 6.5 | 3 | 5.3 | 6.15 | 2.7X1 | 630 | 1130 |
| | | | 100 | 140 | | | 190 | | | | | | | | | | | | | | | | | | | | |
| GPR0602RC3T-200 | 6 | 2 | 150 | 190 | 3 | 50 | 240 | 4.5 | 10 | 18 | 34 | 24 | 19 | 5 | 31 | 22 | 26 | — | — | 3.4 | 6.5 | 3 | 4.6 | 6.3 | 2.7X1 | 1350 | 2350 |
| | | | 100 | 150 | | | 200 | | | | | | | | | | | | | | | | | | | | |
| GPR0801RC3T-220 | 8 | 1 | 50 | 90 | 3 | 60 | 150 | 7.2 | 10 | 16 | 32 | 20 | 15 | 5 | 29 | 21 | 24 | — | — | 3.4 | 6.5 | 3 | 7.3 | 8.15 | 2.7X1 | 750 | 1520 |
| | | | 120 | 160 | | | 220 | | | | | | | | | | | | | | | | | | | | |
| GPR0802RC3T-230 | 8 | 2 | 200 | 240 | 3 | 60 | 300 | 6.5 | 10 | 20 | 40 | 25 | 19 | 6 | 36 | 25 | 30 | — | — | 4.5 | 8 | 4.4 | 6.6 | 8.3 | 2.7X1 | 1690 | 3085 |
| | | | 120 | 170 | | | 230 | | | | | | | | | | | | | | | | | | | | |
| GTR0805EC3T-240 | 8 | 5 | 60 | 120 | 5 | 60 | 180 | 6.1 | 10 | 24 | 44 | 37 | 29 | 8 | 40 | 27 | 34 | — | — | 4.5 | 8 | 4.4 | 6.2 | 8.3 | 2.5X1 | 2290 | 3575 |
| | | | 120 | 180 | | | 240 | | | | | | | | | | | | | | | | | | | | |
| GTR0808AC3T-260 | 8 | 8 | 60 | 130 | 8 | 70 | 200 | 6.1 | 10 | 24 | 44 | 36 | 28 | 8 | 40 | 27 | 34 | — | — | 4.5 | 8 | 4.4 | 6.2 | 8.3 | 1.5X1 | 1450 | 2155 |
| | | | 120 | 190 | | | 260 | | | | | | | | | | | | | | | | | | | | |
| GPR1002RC3T-320 | 10 | 2 | 100 | 140 | 5 | 80 | 220 | 8.5 | 14 | 23 | 43 | 29 | 19 | 10 | 39 | 27 | 33 | 12 | M6 | 4.5 | 8 | 4.4 | 8.6 | 10.3 | 2.7X1 | 1980 | 3820 |
| | | | 200 | 240 | | | 320 | | | | | | | | | | | | | | | | | | | | |
| GTR1004EC3T-380 | 10 | 4 | 250 | 300 | 5 | 80 | 380 | 8.1 | 14 | 26 | 46 | 34 | 24 | 10 | 42 | 28 | 36 | 14 | M6 | 4.5 | 8 | 4.4 | 8.2 | 10.3 | 2.5X1 | 2730 | 4410 |
| | | | 400 | 450 | | | 530 | | | | | | | | | | | | | | | | | | | | |
| GTR1005EC3T-390 | 10 | 5 | 100 | 160 | 5 | 80 | 240 | 8.1 | 14 | 26 | 46 | 40 | 30 | 10 | 42 | 28 | 36 | 14 | M6 | 4.5 | 8 | 4.4 | 8.2 | 10.3 | 2.5X1 | 2730 | 4410 |
| | | | 250 | 310 | | | 390 | | | | | | | | | | | | | | | | | | | | |
| GTR1010AC3T-440 | 10 | 10 | 100 | 160 | 7 | 80 | 240 | 8.1 | 14 | 26 | 46 | 40 | 30 | 10 | 42 | 28 | 36 | 14 | M6 | 4.5 | 8 | 4.4 | 8.2 | 10.3 | 1.5X1 | 1720 | 2745 |
| | | | 300 | 360 | | | 440 | | | | | | | | | | | | | | | | | | | | |
| GPR1202RC3T-370 | 12 | 2 | 500 | 560 | 5 | 80 | 640 | 10.5 | 14 | 25 | 45 | 29 | 19 | 10 | 41 | 28 | 35 | 13 | M6 | 4.5 | 8 | 4.4 | 10.6 | 12.3 | 2.7X1 | 2240 | 4555 |
| | | | 250 | 290 | | | 370 | | | | | | | | | | | | | | | | | | | | |
| GTR1204EC3T-390 | 12 | 4 | 100 | 160 | 5 | 80 | 240 | 9.7 | 14 | 30 | 50 | 36 | 26 | 10 | 45 | 32 | 40 | 15 | M6 | 4.5 | 8 | 4.4 | 9.8 | 12.3 | 2.5X1 | 3770 | 6320 |
| | | | 250 | 310 | | | 390 | | | | | | | | | | | | | | | | | | | | |
| GTR1205EC3T-440 | 12 | 5 | 400 | 460 | 5 | 80 | 540 | 9.7 | 14 | 30 | 50 | 40 | 30 | 10 | 45 | 32 | 40 | 15 | M6 | 4.5 | 8 | 4.4 | 9.8 | 12.3 | 2.5X1 | 3770 | 6320 |
| | | | 100 | 180 | | | 260 | | | | | | | | | | | | | | | | | | | | |
| GTR1210EC3T-460 | 12 | 10 | 300 | 380 | 7 | 80 | 460 | 9.9 | 14 | 30 | 50 | 50 | 40 | 10 | 45 | 32 | 40 | 15 | M6 | 4.5 | 8 | 4.4 | 10 | 12.5 | 2.5X1 | 3820 | 6480 |
| | | | 400 | 460 | | | 540 | | | | | | | | | | | | | | | | | | | | |

軸端未加工品 UN-WORKED SHAFT ENDS

精度等級 JIS C3級
Accuracy grede JIS C3
軸方向すきま 0.005mm以下
Axial clearance Max. 0.005mm include

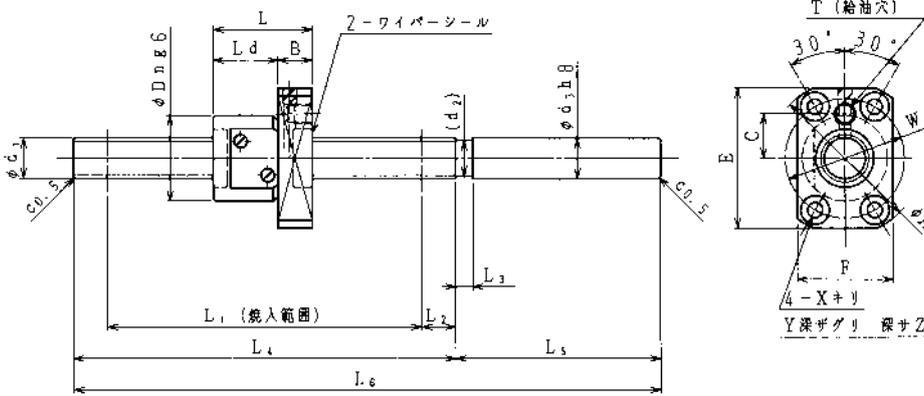


- I 材質 Material
軸、ナット:SCM415H
Shaft, Nut:JIS SCM415H
- II 特別仕様品についてはご相談下さい。
φ4~φ40、長さ1500mm以下
ステンレス製ボールねじも製作いたします。
Other specifications are also available.
Dia.φ4~φ40,Length up to 1500mm Stainless ball screw is also available.
- III 基本定格荷重欄のCaは動定格、Coaは静定格を表わします。尚、この場合の単位はNとなります。
“Ca” in Basic Load Ratings means Dynamic Load Ratings and “Coa” does Static Load Ratings. Unit in Newton.
- IV ご使用に際しては軸端の追加加工が必要です。軸端の加工は当社にて行うことをお奨めいたします。当社以外で追加加工を行った場合は、追加加工後の精度保証はいたしかねますのでご了承ください。
Additional machining of screw shaft end is required when ball screw is used. We recommend you to do this machining to ISSOKU, because this machining is performed by other companies except ISSOKU, accuracy for such a ball screw should not be warranted by ISSOKU.

単位:mm unit:mm

| 呼び番号 Identification number | 軸径 Nominal dia.d1 | リード Nominal lead | ストローク Stroke | ねじ軸寸法 Screw shaft dimensions | | | | | | | | | ナット寸法 Nut dimensions | | | | | | | | | | | 谷径 Root dia. | BCD | 回路数 巻×列 Circuits × Turn | 基本定格荷重(N) Basic load ratings (N) | |
|-----------------------------------|----------------------|---------------------|-----------------|---------------------------------|----|-----|------|------|----|----|----|----|-------------------------|----|----|----|----|----|----|-----|-----|-----|------|-----------------|-------|-------------------------------------|-------------------------------------|--|
| | | | | L1 | L2 | L3 | L4 | d2 | d3 | Dn | A | L | Ld | B | E | F | W | C | T | X | Y | Z | Ca | | | | Coa | |
| GTR1220AC3T-370 -570 -770 | 12 | 20 | 200 | 290 | 10 | 80 | 370 | 9.9 | 14 | 30 | 50 | 62 | 50 | 12 | 45 | 32 | 40 | 15 | M6 | 4.5 | 8 | 4.4 | 10 | 12.5 | 1.5X1 | 2410 | 3920 | |
| | | | 400 | 490 | | | 570 | | | | | | | | | | | | | | | | | | | | | |
| | | | 600 | 690 | | | 770 | | | | | | | | | | | | | | | | | | | | | |
| GPR1402RC3T-330 -480 -630 | 14 | 2 | 200 | 250 | 5 | 80 | 330 | 12 | 15 | 26 | 49 | 30 | 19 | 11 | 44 | 30 | 37 | 14 | M6 | 5.5 | 9.5 | 5.4 | 12.6 | 14.3 | 2.7X1 | 2470 | 5290 | |
| | | | 350 | 400 | | | 480 | | | | | | | | | | | | | | | | | | | | | |
| | | | 500 | 550 | | | 630 | | | | | | | | | | | | | | | | | | | | | |
| GTR1405EC3T-360 -510 -660 | 14 | 5 | 200 | 260 | 5 | 100 | 360 | 11.1 | 15 | 34 | 57 | 41 | 30 | 11 | 50 | 34 | 45 | 17 | M6 | 5.5 | 9.5 | 5.4 | 11.2 | 14.5 | 2.5X1 | 6270 | 11660 | |
| | | | 350 | 410 | | | 510 | | | | | | | | | | | | | | | | | | | | | |
| | | | 500 | 560 | | | 660 | | | | | | | | | | | | | | | | | | | | | |
| GTR1504EC3T-500 -800 -1200 | 15 | 4 | 300 | 370 | 5 | 130 | 500 | 12.6 | 15 | 32 | 56 | 37 | 27 | 10 | 48 | 32 | 43 | 16 | M6 | 5.5 | 9.5 | 5.4 | 12.8 | 15.3 | 2.5X1 | 4430 | 7840 | |
| | | | 600 | 670 | | | 800 | | | | | | | | | | | | | | | | | | | | | |
| | | | 1000 | 1070 | | | 1200 | | | | | | | | | | | | | | | | | | | | | |
| GTR1505EC3T-510 -810 -1210 | 15 | 5 | 300 | 380 | 5 | 130 | 510 | 12 | 15 | 34 | 57 | 41 | 30 | 11 | 50 | 34 | 45 | 17 | M6 | 5.5 | 9.5 | 5.4 | 12.2 | 15.5 | 2.5X1 | 6610 | 12545 | |
| | | | 600 | 680 | | | 810 | | | | | | | | | | | | | | | | | | | | | |
| | | | 1000 | 1080 | | | 1210 | | | | | | | | | | | | | | | | | | | | | |
| GTR1510EC3T-520 -820 -1220 | 15 | 10 | 300 | 390 | 5 | 130 | 520 | 12 | 15 | 34 | 57 | 51 | 40 | 11 | 50 | 34 | 45 | 17 | M6 | 5.5 | 9.5 | 5.4 | 12.2 | 15.5 | 2.5X1 | 6610 | 12545 | |
| | | | 600 | 690 | | | 820 | | | | | | | | | | | | | | | | | | | | | |
| | | | 1000 | 1090 | | | 1220 | | | | | | | | | | | | | | | | | | | | | |
| GTR1515AC3T-540 -840 -1240 | 15 | 15 | 300 | 410 | 5 | 130 | 540 | 12 | 15 | 34 | 57 | 54 | 42 | 12 | 50 | 34 | 45 | 17 | M6 | 5.5 | 9.5 | 5.4 | 12.4 | 15.75 | 1.5X1 | 4230 | 7840 | |
| | | | 600 | 710 | | | 840 | | | | | | | | | | | | | | | | | | | | | |
| | | | 1000 | 1110 | | | 1240 | | | | | | | | | | | | | | | | | | | | | |
| GTR1520AC3T-550 -850 -1250 | 15 | 20 | 300 | 420 | 5 | 130 | 550 | 12 | 15 | 34 | 57 | 62 | 50 | 12 | 50 | 34 | 45 | 17 | M6 | 5.5 | 9.5 | 5.4 | 12.4 | 15.75 | 1.5X1 | 4230 | 7840 | |
| | | | 600 | 720 | | | 850 | | | | | | | | | | | | | | | | | | | | | |
| | | | 1000 | 1120 | | | 1250 | | | | | | | | | | | | | | | | | | | | | |
| GPR1602RC3T-380 -530 -680 | 16 | 2 | 200 | 250 | 5 | 130 | 380 | 14 | 16 | 30 | 53 | 30 | 19 | 11 | 48 | 32 | 41 | 16 | M6 | 5.5 | 9.5 | 5.4 | 14.6 | 16.3 | 2.7X1 | 2690 | 6030 | |
| | | | 350 | 400 | | | 530 | | | | | | | | | | | | | | | | | | | | | |
| | | | 500 | 550 | | | 680 | | | | | | | | | | | | | | | | | | | | | |
| GTR2005EC3T-630 -1030 -1430 | 20 | 5 | 400 | 480 | 5 | 150 | 630 | 17 | 20 | 44 | 67 | 41 | 30 | 11 | 60 | 44 | 55 | 22 | M6 | 5.5 | 9.5 | 5.4 | 17.2 | 20.5 | 2.5X1 | 8150 | 17150 | |
| | | | 800 | 880 | | | 1030 | | | | | | | | | | | | | | | | | | | | | |
| | | | 1200 | 1280 | | | 1430 | | | | | | | | | | | | | | | | | | | | | |
| GTR2010EC3T-650 -1050 -1450 | 20 | 10 | 400 | 500 | 10 | 150 | 650 | 16.5 | 20 | 46 | 74 | 54 | 41 | 13 | 66 | 46 | 59 | 24 | M6 | 6.6 | 11 | 6.5 | 16.8 | 21 | 2.5X1 | 11100 | 22100 | |
| | | | 800 | 900 | | | 1050 | | | | | | | | | | | | | | | | | | | | | |
| | | | 1200 | 1300 | | | 1450 | | | | | | | | | | | | | | | | | | | | | |
| GTR2020AC3T-700 -1100 -1500 | 20 | 20 | 400 | 550 | 10 | 150 | 700 | 16.5 | 20 | 46 | 74 | 70 | 55 | 15 | 66 | 46 | 59 | 24 | M6 | 6.6 | 11 | 6.5 | 16.8 | 21 | 1.5X1 | 6710 | 12640 | |
| | | | 800 | 950 | | | 1100 | | | | | | | | | | | | | | | | | | | | | |
| | | | 1200 | 1350 | | | 1500 | | | | | | | | | | | | | | | | | | | | | |

標準軸端未加工品 C5 シリーズ
Standard un-worked shaft end type Accuracy grade C5



- 注) 1. ご使用に際しては軸端の追加加工が必要です。軸端の加工はISSOKUにて行なう事をお奨めします。ISSOKU以外での追加加工後の精度保証は致しかねますのでご了承下さい。
2. ナットの稼動に際してはL₁範囲内のご使用をお願いします。

- Note) 1. The shaft end needs to be re-machined before use, and we recommend the work be performed by ISSOKU. Please be noted that we will not assure the accuracy of the product with a shaft end that is machined by anyone other than ISSOKU.
2. Keep the nut travel within the range L₁ when the ball screw is used.

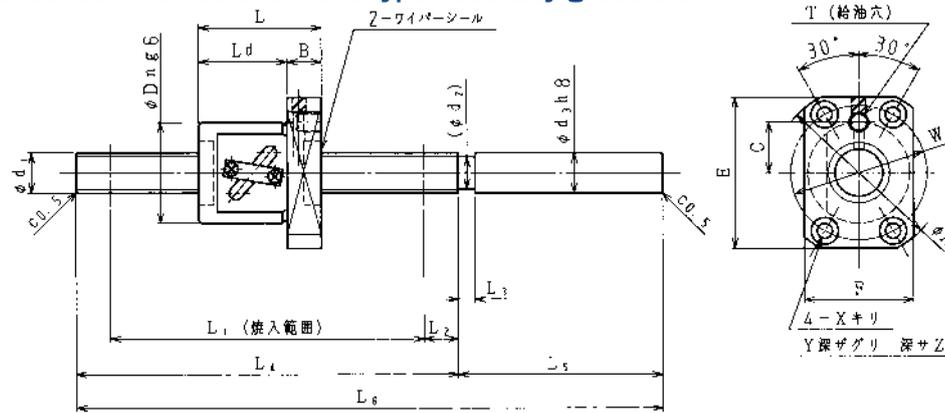
ボールねじ諸元

| 形式 | ねじ軸 | | リード | ボール径 | BCD | 回路数 巻×列 | 基本定格荷重 (N) | | 精度 等級 | 軸方向ずきま |
|-------------|-----|------|-----|--------|------|------------|------------|---------|----------|----------|
| | 外径 | 谷径 | | | | | 動定格 Ca | 静定格 Coa | | |
| GPR0802RC5T | 8 | 6.6 | 2 | 1.5875 | 8.3 | 2.7×1 | 1690 | 3085 | C5 | 0.005 以下 |
| GPR1202RC5T | 12 | 10.6 | 2 | 1.5875 | 12.3 | 2.7×1 | 2240 | 4555 | | |
| GPR1602RC5T | 16 | 14.6 | 2 | 1.5875 | 16.3 | 2.7×1 | 2690 | 6030 | | |

ボールねじ形状寸法

| 呼び番号 | ねじ軸寸法 | | | | | | | | | | ナット寸法 | | | | | | | | | | | |
|--------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----|-------|----|----|----|----|----|----|----|----|-----|-----|-----|
| | L ₁ | L ₂ | L ₃ | L ₄ | L ₅ | L ₆ | d ₁ | d ₂ | d ₃ | Dn | A | L | Ld | B | E | F | W | C | T | X | Y | Z |
| GPR0802RC5T -220 | 123 | 17 | 3 | 160 | 60 | 220 | 8 | 6.5 | 10 | 20 | 40 | 25 | 19 | 6 | 36 | 25 | 30 | — | — | 4.5 | 8 | 4.4 |
| GPR1202RC5T -220 -300 | 125 | 15 | 5 | 160 | 60 | 220 | 12 | 10.5 | 12 | 25 | 45 | 29 | 19 | 10 | 41 | 28 | 35 | 13 | M6 | 4.5 | 8 | 4.4 |
| | 205 | | | 240 | | 300 | | | | | | | | | | | | | | | | |
| GPR1602RC5T -300 -400 | 205 | 15 | 5 | 240 | 60 | 300 | 16 | 14 | 16 | 30 | 53 | 30 | 19 | 11 | 48 | 32 | 41 | 16 | M6 | 5.5 | 9.5 | 5.4 |
| | 305 | | | 340 | | 400 | | | | | | | | | | | | | | | | |

標準軸端未加工品 C5 シリーズ
Standard un-worked shaft end type Accuracy grade C5



- 注) 1. ご使用に際しては軸端の追加加工が必要です。軸端の加工はISSOKUにて行なう事をお奨めします。ISSOKU以外での追加加工後の精度保証は致しかねますのでご了承下さい。
2. ナットの稼動に際してはL₁範囲内のご使用をお願いします。

- Note) 1. The shaft end needs to be re-machined before use, and we recommend the work be performed by ISSOKU. Please be noted that we will not assure the accuracy of the product with a shaft end that is machined by anyone other than ISSOKU.
2. Keep the nut travel within the range L₁ when the ball screw is used.

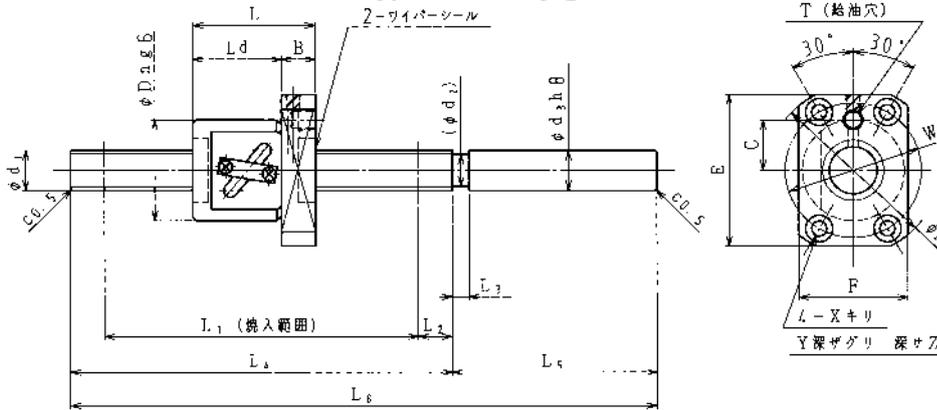
ボールねじ諸元

| 形式 | ねじ軸 | | リード | ボール径 | BCD | 回路数 巻×列 | 基本定格荷重 (N) | | 精度 等級 | 軸方向ずきま |
|-------------|-----|-----|-----|-------|------|------------|------------|---------|----------|----------|
| | 外径 | 谷径 | | | | | 動定格 Ca | 静定格 Coa | | |
| GTR0805EC5T | 8 | 6.2 | 5 | 2.000 | 8.3 | 2.5×1 | 2290 | 3575 | C5 | 0.005 以下 |
| GTR0808AC5T | | | 8 | | | 1.5×1 | 1450 | 2155 | | |
| GTR1004EC5T | 10 | 8.2 | 4 | | | 10.3 | 2.5×1 | 2730 | | |
| GTR1010AC5T | | | 10 | 1.5×1 | 1720 | 2745 | | | | |

ボールねじ形状寸法

| 呼び番号 | ねじ軸寸法 | | | | | | | | | | ナット寸法 | | | | | | | | | | | |
|--------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----|-------|----|----|----|----|----|----|----|----|-----|---|-----|
| | L ₁ | L ₂ | L ₃ | L ₄ | L ₅ | L ₆ | d ₁ | d ₂ | d ₃ | Dn | A | L | Ld | B | E | F | W | C | T | X | Y | Z |
| GTR0805EC5T -220 | 125 | 15 | 5 | 160 | 60 | 220 | 8 | 6.1 | 10 | 24 | 44 | 37 | 29 | 8 | 40 | 27 | 34 | — | — | 4.5 | 8 | 4.4 |
| GTR0808AC5T -220 | 128 | 12 | 8 | 160 | 60 | 220 | 8 | 6.1 | 10 | 24 | 44 | 36 | 28 | 8 | 40 | 27 | 34 | — | — | 4.5 | 8 | 4.4 |
| GTR1004EC5T -280 -380 | 185 | 15 | 5 | 220 | 60 | 280 | 10 | 8.1 | 14 | 26 | 46 | 34 | 24 | 10 | 42 | 28 | 36 | 14 | M6 | 4.5 | 8 | 4.4 |
| | 285 | | | 320 | | 380 | | | | | | | | | | | | | | | | |
| GTR1010AC5T -300 -500 | 187 | 13 | 7 | 220 | 80 | 300 | 10 | 8.1 | 14 | 26 | 46 | 40 | 30 | 10 | 42 | 28 | 36 | 14 | M6 | 4.5 | 8 | 4.4 |
| | 387 | | | 420 | | 500 | | | | | | | | | | | | | | | | |

標準軸端未加工品 C5 シリーズ
Standard un-worked shaft end type Accuracy grade C5



- 注) 1. ご使用に際しては軸端の追加加工が必要です。軸端の加工はISSOKUにて行なう事をお奨めします。ISSOKU以外での追加加工後の精度保証は致しかねますのでご了承下さい。
2. ナットの稼動に際してはL₁範囲内のご使用をお願いします。

- Note) 1. The shaft end needs to be re-machined before use, and we recommend the work be performed by ISSOKU. Please be noted that we will not assure the accuracy of the product with a shaft end that is machined by anyone other than ISSOKU.
2. Keep the nut travel within the range L₁ when the ball screw is used.

ボールねじ諸元

単位: mm

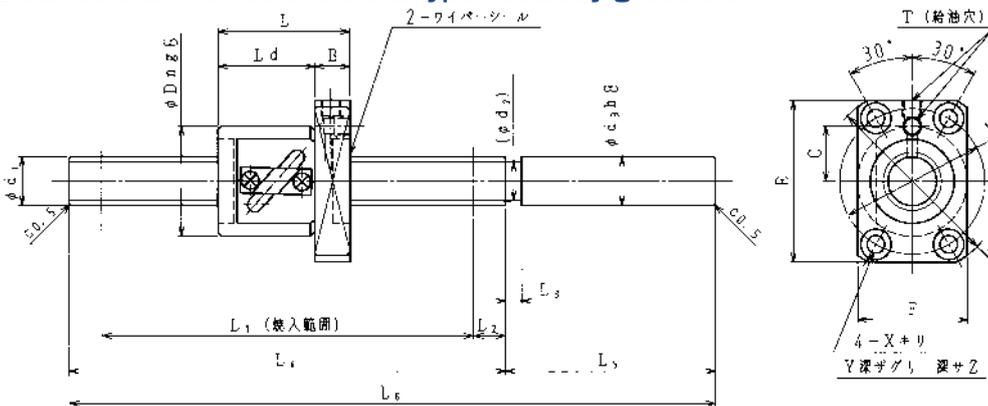
| 形式 | ねじ軸 | | リード | ボール径 | BCD | 回路数 巻×列 | 基本定格荷重 (N) | | 精度 等級 | 軸方向ずきま |
|-------------|-----|-----|-----|--------|------|------------|------------|---------|----------|----------|
| | 外径 | 谷径 | | | | | 動定格 Ca | 静定格 Coa | | |
| GTR1205EC5T | 12 | 9.8 | 5 | 2.3812 | 12.3 | 2.5×1 | 3770 | 6320 | C5 | 0.005 以下 |
| GTR1210EC5T | | 10 | 10 | | | | | | | |
| GTR1220AC5T | | | 20 | | | | | | | |

ボールねじ形状寸法

単位: mm

| 呼び番号 | ねじ軸寸法 | | | | | | | | | | ナット寸法 | | | | | | | | | | | | |
|-------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----|-------|----|----|----|----|----|----|----|----|----|-----|---|-----|
| | L ₁ | L ₂ | L ₃ | L ₄ | L ₅ | L ₆ | d ₁ | d ₂ | d ₃ | Dn | A | L | Ld | B | E | F | W | C | T | X | Y | Z | |
| GTR1205EC5T | -300 | 205 | 15 | 5 | 240 | 60 | 300 | 12 | 10.2 | 12 | 30 | 50 | 40 | 30 | 10 | 45 | 32 | 40 | 15 | M6 | 4.5 | 8 | 4.4 |
| | -450 | 355 | | | 390 | | 450 | | | | | | | | | | | | | | | | |
| GTR1210EC5T | -300 | 205 | 15 | 5 | 240 | 60 | 300 | 12 | 10.2 | 12 | 30 | 50 | 50 | 40 | 10 | 45 | 32 | 40 | 15 | M6 | 4.5 | 8 | 4.4 |
| | -450 | 355 | | | 390 | | 450 | | | | | | | | | | | | | | | | |
| GTR1220AC5T | -450 | 355 | 15 | 5 | 390 | 60 | 450 | 12 | 10.2 | 12 | 30 | 50 | 62 | 50 | 12 | 45 | 32 | 40 | 15 | M6 | 4.5 | 8 | 4.4 |
| | -600 | 505 | | | 540 | | 600 | | | | | | | | | | | | | | | | |

標準軸端未加工品 C5 シリーズ
Standard un-worked shaft end type Accuracy grade C5



- 注) 1. ご使用に際しては軸端の追加加工が必要です。軸端の加工はISSOKUにて行なう事をお奨めします。ISSOKU以外での追加加工後の精度保証は致しかねますのでご了承下さい。
2. ナットの稼動に際してはL₁範囲内のご使用をお願いします。

- Note) 1. The shaft end needs to be re-machined before use, and we recommend the work be performed by ISSOKU. Please be noted that we will not assure the accuracy of the product with a shaft end that is machined by anyone other than ISSOKU.
2. Keep the nut travel within the range L₁ when the ball screw is used.

ボールねじ諸元

単位: mm

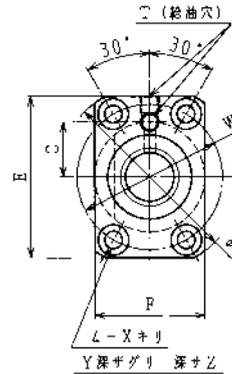
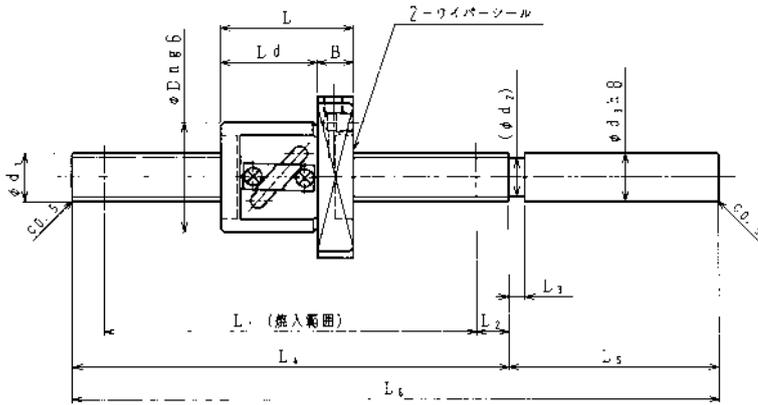
| 形式 | ねじ軸 | | リード | ボール径 | BCD | 回路数 巻×列 | 基本定格荷重 (N) | | 精度 等級 | 軸方向ずきま |
|-------------|-----|------|-----|-------|------|------------|------------|---------|----------|----------|
| | 外径 | 谷径 | | | | | 動定格 Ca | 静定格 Coa | | |
| GTR1505EC5T | 15 | 12.2 | 5 | 3.175 | 15.5 | 2.5×1 | 6610 | 12545 | C5 | 0.005 以下 |
| GTR1510EC5T | | | 10 | | | | | | | |

ボールねじ形状寸法

単位: mm

| 呼び番号 | ねじ軸寸法 | | | | | | | | | | ナット寸法 | | | | | | | | | | | | | |
|-------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----|-------|----|----|----|----|----|----|----|----|-----|-----|-----|-----|------|
| | L ₁ | L ₂ | L ₃ | L ₄ | L ₅ | L ₆ | d ₁ | d ₂ | d ₃ | Dn | A | L | Ld | B | E | F | W | C | T | X | Y | Z | | |
| GTR1505EC5T | -300 | 205 | 15 | 5 | 240 | 60 | 15 | 12.2 | 15 | 34 | 57 | 41 | 30 | 11 | 50 | 34 | 45 | 17 | M6 | 5.5 | 9.5 | 5.4 | 5.4 | |
| | -450 | 355 | | | 390 | | | | | | | | | | | | | | | | | | | 450 |
| | -600 | 505 | | | 600 | | | | | | | | | | | | | | | | | | | 750 |
| | -750 | 655 | | | 690 | | | | | | | | | | | | | | | | | | | 750 |
| | -900 | 805 | | | 840 | | | | | | | | | | | | | | | | | | | 900 |
| GTR1510EC5T | -300 | 205 | 15 | 5 | 240 | 60 | 15 | 12.2 | 15 | 34 | 57 | 51 | 40 | 11 | 50 | 34 | 45 | 17 | M6 | 5.5 | 9.5 | 5.4 | 5.4 | |
| | -450 | 355 | | | 390 | | | | | | | | | | | | | | | | | | | 450 |
| | -600 | 505 | | | 600 | | | | | | | | | | | | | | | | | | | 750 |
| | -750 | 655 | | | 690 | | | | | | | | | | | | | | | | | | | 750 |
| | -900 | 805 | | | 840 | | | | | | | | | | | | | | | | | | | 900 |
| | -1100 | 1005 | | | 1040 | | | | | | | | | | | | | | | | | | | 1100 |

標準軸端未加工品 C5 シリーズ
Standard un-worked shaft end type Accuracy grade C5



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2. ナットの稼動に際してはL₁範囲内のご使用をお願いします。

- Note) 1. The shaft end needs to be re-machined before use, and we recommend the work be performed by ISSOKU. Please be noted that we will not assure the accuracy of the product with a shaft end that is machined by anyone other than ISSOKU.
2. Keep the nut travel within the range L₁ when the ball screw is used.

ボールねじ諸元

単位: mm

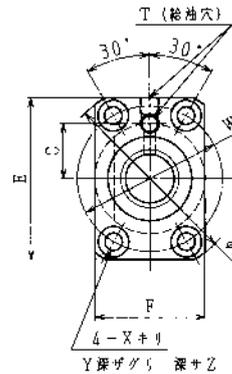
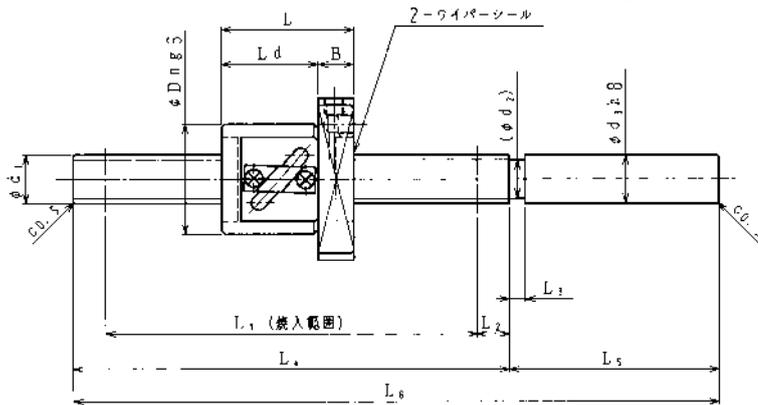
| 形式 | ねじ軸 | | リード | ボール径 | BCD | 回路数 巻×列 | 基本定格荷重 (N) | | 精度 等級 | 軸方向ずきま |
|-------------|-----|------|-----|-------|-------|------------|------------|---------|----------|----------|
| | 外径 | 谷径 | | | | | 動定格 Ca | 静定格 Coa | | |
| GTR1520AC5T | 15 | 12.4 | 20 | 3.175 | 15.75 | 1.5×1 | 4230 | 7840 | C5 | 0.005 以下 |
| GTR2005EC5T | 20 | 17.2 | 5 | | 20.5 | 2.5×1 | 8150 | 17150 | | |

ボールねじ形状寸法

単位: mm

| 呼び番号 | ねじ軸寸法 | | | | | | | | | | ナット寸法 | | | | | | | | | | | | |
|-------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----|-------|----|----|----|----|----|----|----|----|----|-----|-----|-----|
| | L ₁ | L ₂ | L ₃ | L ₄ | L ₅ | L ₆ | d ₁ | d ₂ | d ₃ | Dn | A | L | Ld | B | E | F | W | C | T | X | Y | Z | |
| GTR1520AC5T | -450 | 355 | | | 390 | | 450 | | | | | | | | | | | | | | | | |
| | -600 | 505 | | | 540 | | 600 | | | | | | | | | | | | | | | | |
| | -750 | 655 | | | 690 | | 750 | | | | | | | | | | | | | | | | |
| | -900 | 805 | 15 | 5 | 840 | 60 | 900 | 15 | 12.2 | 15 | 34 | 57 | 62 | 50 | 12 | 50 | 34 | 45 | 17 | M6 | 5.5 | 9.5 | 5.4 |
| | -1000 | 905 | | | 940 | | 1000 | | | | | | | | | | | | | | | | |
| | -1100 | 1005 | | | 1040 | | 1100 | | | | | | | | | | | | | | | | |
| GTR2005EC5T | -400 | 285 | | | 320 | | 400 | | | | | | | | | | | | | | | | |
| | -600 | 485 | 15 | 5 | 520 | 80 | 600 | 20 | 17.2 | 20 | 44 | 67 | 41 | 30 | 11 | 60 | 44 | 55 | 22 | M6 | 5.5 | 9.5 | 5.4 |
| | -800 | 685 | | | 720 | | 800 | | | | | | | | | | | | | | | | |
| | -1000 | 885 | | | 920 | | 1000 | | | | | | | | | | | | | | | | |

標準軸端未加工品 C5 シリーズ
Standard un-worked shaft end type Accuracy grade C5



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2. ナットの稼動に際してはL₁範囲内のご使用をお願いします。

- Note) 1. The shaft end needs to be re-machined before use, and we recommend the work be performed by ISSOKU. Please be noted that we will not assure the accuracy of the product with a shaft end that is machined by anyone other than ISSOKU.
2. Keep the nut travel within the range L₁ when the ball screw is used.

ボールねじ諸元

単位: mm

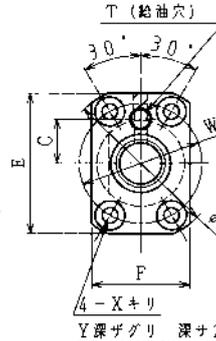
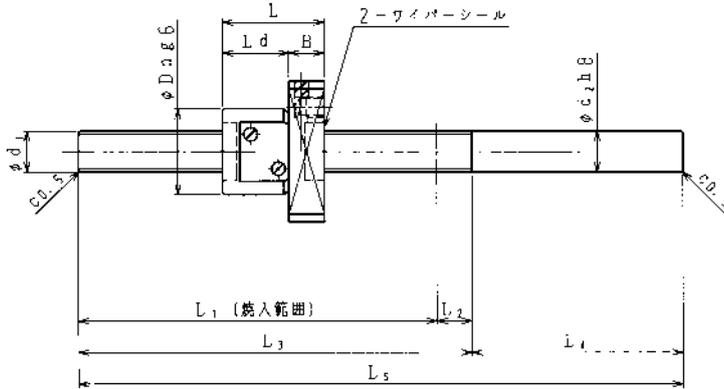
| 形式 | ねじ軸 | | リード | ボール径 | BCD | 回路数 巻×列 | 基本定格荷重 (N) | | 精度 等級 | 軸方向ずきま |
|-------------|-----|------|-----|-------|-----|------------|------------|---------|----------|----------|
| | 外径 | 谷径 | | | | | 動定格 Ca | 静定格 Coa | | |
| GTR2010EC5T | 20 | 16.8 | 10 | 3.969 | 21 | 2.5×1 | 11100 | 22100 | C5 | 0.005 以下 |
| GTR2020AC5T | | | 20 | | | 1.5×1 | 6710 | 12640 | | |

ボールねじ形状寸法

単位: mm

| 呼び番号 | ねじ軸寸法 | | | | | | | | | | ナット寸法 | | | | | | | | | | | | |
|-------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----|-------|----|----|----|----|----|----|----|----|-----|-----|-----|-----|
| | L ₁ | L ₂ | L ₃ | L ₄ | L ₅ | L ₆ | d ₁ | d ₂ | d ₃ | Dn | A | L | Ld | B | E | F | W | C | T | X | Y | Z | |
| GTR2010EC5T | -600 | 485 | | | 515 | | 600 | | | | | | | | | | | | | | | | |
| | -800 | 685 | | | 715 | | 800 | | | | | | | | | | | | | | | | |
| | -1000 | 885 | 10 | 10 | 915 | 85 | 1000 | 20 | 17.2 | 20 | 46 | 74 | 54 | 41 | 13 | 66 | 46 | 59 | 24 | M6 | 6.6 | 11 | 6.5 |
| | -1300 | 1185 | | | 1215 | | 1300 | | | | | | | | | | | | | | | | |
| | -1500 | 1385 | | | 1415 | | 1500 | | | | | | | | | | | | | | | | |
| GTR2020AC5T | -800 | 685 | | | 715 | | 800 | | | | | | | | | | | | | | | | |
| | -1000 | 885 | | | 915 | | 1000 | | | | | | | | | | | | | | | | |
| | -1300 | 1185 | 10 | 10 | 1215 | 85 | 1300 | 20 | 17.2 | 20 | 46 | 74 | 70 | 15 | 66 | 46 | 59 | 24 | M6 | 6.6 | 11 | 6.5 | |
| | -1500 | 1385 | | | 1415 | | 1500 | | | | | | | | | | | | | | | | |
| | -1650 | 1535 | | | 1565 | | 1650 | | | | | | | | | | | | | | | | |
| | -1800 | 1685 | | | 1715 | | 1800 | | | | | | | | | | | | | | | | |

標準軸端未加工品 C7 シリーズ
Standard un-worked shaft end type Accuracy grade C7



- 注) 1. ご使用に際しては軸端の追加加工が必要です。軸端の加工はISSOKUにて行なう事をお奨めします。ISSOKU以外での追加加工後の精度保証は致しかねますのでご了承下さい。
2. ナットの稼動に際してはL₁範囲でのご使用をお願いします。
3. 軸端未加工部の長さ (L₄) 変更につきましては別途ご相談下さい。

- Note) 1. The shaft end needs to be re-machined before use, and we recommend the work be performed by ISSOKU. Please be noted that we will not assure the accuracy of the product with a shaft end that is machined by anyone other than ISSOKU.
2. Keep the nut travel within the range L₁ when the ball screw is used.
3. Contact us if you need to change the un-worked shaft end length (L₄).

ボールねじ諸元

単位: mm

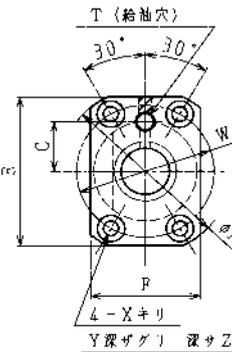
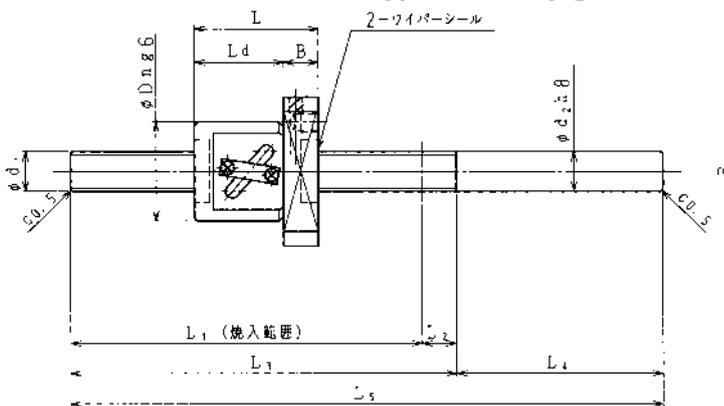
| 形式 | ねじ軸 | | リード | ボール径 | BCD | 回路数 巻×列 | 基本定格荷重 (N) | | 精度 等級 | 軸方向ずきま |
|-------------|-----|------|-----|--------|------|------------|------------|---------|----------|----------|
| | 外径 | 谷径 | | | | | 動定格 Ca | 静定格 Coa | | |
| LPR0802RC7S | 8 | 6.6 | 2 | 1.5875 | 8.3 | 2.7×1 | 1690 | 3085 | C7 | 0.020 以下 |
| LPR1002RC7S | 10 | 8.6 | | | 10.3 | | 1980 | 3820 | | |
| LPR1202RC7S | 12 | 10.6 | | | 12.3 | | 2240 | 4555 | | |

ボールねじ形状寸法

単位: mm

| 呼び番号 | ねじ軸寸法 | | | | | | | | ナット寸法 | | | | | | | | | | | | |
|-------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----|-------|----|----|----|----|----|----|----|----|----|-----|---|-----|
| | L ₁ | L ₂ | L ₃ | L ₄ | L ₅ | d ₁ | d ₂ | Dn | A | L | Ld | B | E | F | W | C | T | X | Y | Z | |
| LPR0802RC7S | -200 | 120 | 20 | 140 | 60 | 200 | 8 | 8 | 20 | 40 | 25 | 19 | 6 | 36 | 25 | 30 | — | — | 4.5 | 8 | 4.4 |
| | -400 | 320 | | 340 | | 400 | | | | | | | | | | | | | | | |
| LPR1002RC7S | -400 | 320 | 20 | 340 | 60 | 400 | 10 | 10 | 23 | 43 | 29 | 19 | 10 | 39 | 27 | 33 | 12 | M6 | 4.5 | 8 | 4.4 |
| | -750 | 670 | | 690 | | 750 | | | | | | | | | | | | | | | |
| LPR1202RC7S | -250 | 170 | 20 | 190 | 60 | 250 | 12 | 12 | 25 | 45 | 29 | 19 | 10 | 41 | 28 | 35 | 13 | M6 | 4.5 | 8 | 4.4 |
| | -500 | 420 | | 440 | | 500 | | | | | | | | | | | | | | | |
| -750 | 670 | 690 | 750 | | | | | | | | | | | | | | | | | | |

標準軸端未加工品 C7 シリーズ
Standard un-worked shaft end type Accuracy grade C7



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2. ナットの稼動に際してはL₁範囲でのご使用をお願いします。
3. 軸端未加工部の長さ (L₄) 変更につきましては別途ご相談下さい。

- Note) 1. The shaft end needs to be re-machined before use, and we recommend the work be performed by ISSOKU. Please be noted that we will not assure the accuracy of the product with a shaft end that is machined by anyone other than ISSOKU.
2. Keep the nut travel within the range L₁ when the ball screw is used.
3. Contact us if you need to change the un-worked shaft end length (L₄).

ボールねじ諸元

単位: mm

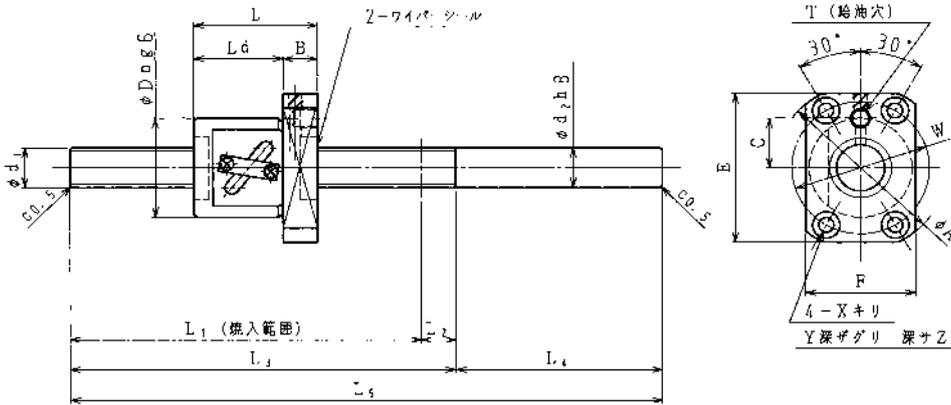
| 形式 | ねじ軸 | | リード | ボール径 | BCD | 回路数 巻×列 | 基本定格荷重 (N) | | 精度 等級 | 軸方向ずきま |
|-------------|-----|-----|-----|-------|-------|------------|------------|---------|----------|----------|
| | 外径 | 谷径 | | | | | 動定格 Ca | 静定格 Coa | | |
| LTR0804EC7S | 8 | 6.2 | 4 | 2.000 | 8.3 | 2.5×1 | 2420 | 3620 | C7 | 0.020 以下 |
| LTR0808AC7S | | | 8 | | | | | | | |
| LTR1005EC7S | 5 | | | | | | | | | |
| LTR1010AC7S | 10 | 8.2 | 10 | 10.3 | 2.5×1 | 2730 | 4410 | | | |
| | | | | | | 1.5×1 | 1720 | 2745 | | |

ボールねじ形状寸法

単位: mm

| 呼び番号 | ねじ軸寸法 | | | | | | | | ナット寸法 | | | | | | | | | | | | |
|-------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----|-------|----|----|----|----|----|----|----|----|----|-----|---|-----|
| | L ₁ | L ₂ | L ₃ | L ₄ | L ₅ | d ₁ | d ₂ | Dn | A | L | Ld | B | E | F | W | C | T | X | Y | Z | |
| LTR0804EC7S | -200 | 120 | 20 | 140 | 60 | 200 | 8 | 8 | 24 | 44 | 33 | 25 | 8 | 40 | 27 | 34 | — | — | 4.5 | 8 | 4.4 |
| | -400 | 320 | | 340 | | 400 | | | | | | | | | | | | | | | |
| LTR0808AC7S | -200 | 120 | 20 | 140 | 60 | 200 | 8 | 8 | 24 | 44 | 36 | 28 | 8 | 40 | 27 | 34 | — | — | 4.5 | 8 | 4.4 |
| | -400 | 320 | | 340 | | 400 | | | | | | | | | | | | | | | |
| LTR1005EC7S | -420 | 340 | 20 | 360 | 60 | 420 | 10 | 10 | 26 | 46 | 40 | 30 | 10 | 42 | 28 | 36 | 14 | M6 | 4.5 | 8 | 4.4 |
| | -780 | 700 | | 720 | | 780 | | | | | | | | | | | | | | | |
| LTR1010AC7S | -420 | 320 | 20 | 340 | 80 | 420 | 10 | 10 | 26 | 46 | 40 | 30 | 10 | 42 | 28 | 36 | 14 | M6 | 4.5 | 8 | 4.4 |
| | -780 | 680 | | 700 | | 780 | | | | | | | | | | | | | | | |

標準軸端未加工品 C7 シリーズ
Standard un-worked shaft end type Accuracy grade C7



- 注) 1. ご使用に際しては軸端の追加加工が必要です。軸端の加工はISSOKUにて行なう事をお奨めします。ISSOKU以外での追加加工後の精度保証は致しかねますのでご了承下さい。
2. ナットの稼動に際してはL1範囲内での使用をお願いします。
3. 軸端未加工部の長さ (L4) 変更につきましては別途ご相談下さい。

Note) 1. The shaft end needs to be re-machined before use, and we recommend the work be performed by ISSOKU. Please be noted that we will not assure the accuracy of the product with a shaft end that is machined by anyone other than ISSOKU.

2. Keep the nut travel within the range L₁ when the ball screw is used.
3. Contact us if you need to change the un-worked shaft end length (L₄).

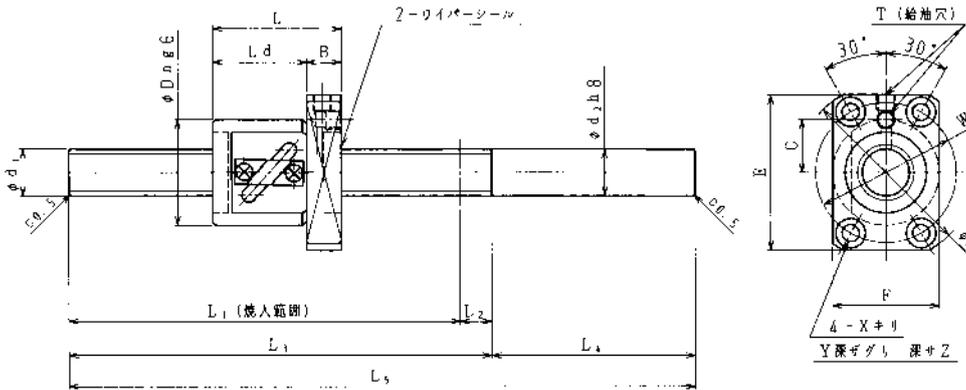
ボールねじ諸元

| 形式 | ねじ軸 | | リード | ボール径 | BCD | 回路数 巻×列 | 基本定格荷重 (N) | | 精度 等級 | 軸方向ずきま |
|-------------|-----|------|-----|--------|------|------------|------------|---------|----------|----------|
| | 外径 | 谷径 | | | | | 動定格 Ca | 静定格 Coa | | |
| LTR1205EC7S | 12 | 9.8 | 5 | 2.3812 | 12.3 | 2.5×1 | 3770 | 6320 | C7 | 0.020 以下 |
| LTR1210EC7S | | 10.0 | 10 | | 12.5 | 2.5×1 | 3820 | 6480 | | |
| LTR1220AC7S | | 10.0 | 20 | | 12.5 | 1.5×1 | 2410 | 3920 | | |

ボールねじ形状寸法

| 呼び番号 | ねじ軸寸法 | | | | | | | | ナット寸法 | | | | | | | | | | | |
|-------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----|-------|----|----|----|----|----|----|----|-----|---|-----|---|
| | L ₁ | L ₂ | L ₃ | L ₄ | L ₅ | d ₁ | d ₂ | Dn | A | L | Ld | B | E | F | W | C | T | X | Y | Z |
| LTR1205EC7S | -250 | 170 | 190 | 250 | 12 | 12 | 30 | 50 | 40 | 30 | 10 | 45 | 32 | 40 | 15 | M6 | 4.5 | 8 | 4.4 | |
| | -500 | 420 | 440 | 500 | 12 | 12 | 30 | 50 | 50 | 40 | 10 | 45 | 32 | 40 | 15 | M6 | 4.5 | 8 | 4.4 | |
| | -750 | 670 | 690 | 750 | 12 | 12 | 30 | 50 | 50 | 40 | 10 | 45 | 32 | 40 | 15 | M6 | 4.5 | 8 | 4.4 | |
| LTR1210EC7S | -250 | 170 | 190 | 250 | 12 | 12 | 30 | 50 | 40 | 30 | 10 | 45 | 32 | 40 | 15 | M6 | 4.5 | 8 | 4.4 | |
| | -500 | 420 | 440 | 500 | 12 | 12 | 30 | 50 | 50 | 40 | 10 | 45 | 32 | 40 | 15 | M6 | 4.5 | 8 | 4.4 | |
| | -750 | 670 | 690 | 750 | 12 | 12 | 30 | 50 | 50 | 40 | 10 | 45 | 32 | 40 | 15 | M6 | 4.5 | 8 | 4.4 | |
| LTR1220AC7S | -500 | 420 | 440 | 500 | 12 | 12 | 30 | 50 | 62 | 50 | 12 | 45 | 32 | 40 | 15 | M6 | 4.5 | 8 | 4.4 | |
| | -750 | 670 | 690 | 750 | 12 | 12 | 30 | 50 | 62 | 50 | 12 | 45 | 32 | 40 | 15 | M6 | 4.5 | 8 | 4.4 | |
| | -1000 | 920 | 940 | 1000 | 12 | 12 | 30 | 50 | 62 | 50 | 12 | 45 | 32 | 40 | 15 | M6 | 4.5 | 8 | 4.4 | |

標準軸端未加工品 C7 シリーズ
Standard un-worked shaft end type Accuracy grade C7



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2. ナットの稼動に際してはL1範囲内での使用をお願いします。
3. 軸端未加工部の長さ (L4) 変更につきましては別途ご相談下さい。

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2. Keep the nut travel within the range L₁ when the ball screw is used.
3. Contact us if you need to change the un-worked shaft end length (L₄).

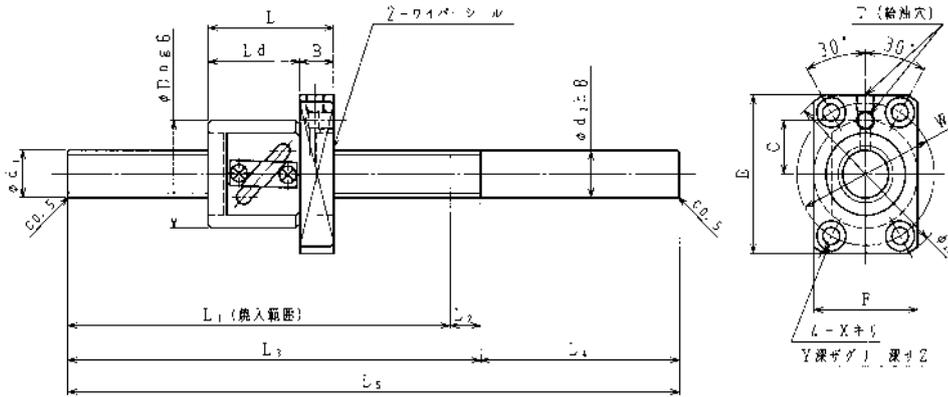
ボールねじ諸元

| 形式 | ねじ軸 | | リード | ボール径 | BCD | 回路数 巻×列 | 基本定格荷重 (N) | | 精度 等級 | 軸方向ずきま |
|-------------|-----|------|-----|-------|-------|------------|------------|---------|----------|----------|
| | 外径 | 谷径 | | | | | 動定格 Ca | 静定格 Coa | | |
| LTR1505EC7S | 15 | 12.2 | 5 | 3.175 | 15.5 | 2.5×1 | 6610 | 12545 | C7 | 0.020 以下 |
| LTR1510EC7S | | 12.2 | 10 | | 15.5 | 2.5×1 | 6610 | 12545 | | |
| LTR1520AC7S | | 12.4 | 20 | | 15.75 | 1.5×1 | 4230 | 7840 | | |

ボールねじ形状寸法

| 呼び番号 | ねじ軸寸法 | | | | | | | | ナット寸法 | | | | | | | | | | | |
|-------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----|-------|----|----|----|----|----|----|----|-----|-----|-----|---|
| | L ₁ | L ₂ | L ₃ | L ₄ | L ₅ | d ₁ | d ₂ | Dn | A | L | Ld | B | E | F | W | C | T | X | Y | Z |
| LTR1505EC7S | -500 | 420 | 440 | 500 | 15 | 15 | 34 | 57 | 41 | 30 | 11 | 50 | 34 | 45 | 17 | M6 | 5.5 | 9.5 | 5.4 | |
| | -1000 | 920 | 940 | 1000 | 15 | 15 | 34 | 57 | 51 | 40 | 11 | 50 | 34 | 45 | 17 | M6 | 5.5 | 9.5 | 5.4 | |
| | -1500 | 1420 | 1440 | 1500 | 15 | 15 | 34 | 57 | 51 | 40 | 11 | 50 | 34 | 45 | 17 | M6 | 5.5 | 9.5 | 5.4 | |
| LTR1510EC7S | -500 | 420 | 440 | 500 | 15 | 15 | 34 | 57 | 41 | 30 | 11 | 50 | 34 | 45 | 17 | M6 | 5.5 | 9.5 | 5.4 | |
| | -1000 | 920 | 940 | 1000 | 15 | 15 | 34 | 57 | 51 | 40 | 11 | 50 | 34 | 45 | 17 | M6 | 5.5 | 9.5 | 5.4 | |
| | -1500 | 1420 | 1440 | 1500 | 15 | 15 | 34 | 57 | 51 | 40 | 11 | 50 | 34 | 45 | 17 | M6 | 5.5 | 9.5 | 5.4 | |
| LTR1520AC7S | -500 | 420 | 440 | 500 | 15 | 15 | 34 | 57 | 62 | 50 | 12 | 50 | 34 | 45 | 17 | M6 | 5.5 | 9.5 | 5.4 | |
| | -1000 | 920 | 940 | 1000 | 15 | 15 | 34 | 57 | 62 | 50 | 12 | 50 | 34 | 45 | 17 | M6 | 5.5 | 9.5 | 5.4 | |
| | -1500 | 1420 | 1440 | 1500 | 15 | 15 | 34 | 57 | 62 | 50 | 12 | 50 | 34 | 45 | 17 | M6 | 5.5 | 9.5 | 5.4 | |

標準軸端未加工品 C7 シリーズ
Standard un-worked shaft end type Accuracy grade C7



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2. ナットの稼動に際してはL1範囲でのご使用をお願いします。
3. 軸端未加工部の長さ (L4) 変更につきましては別途ご相談下さい。

Note) 1. The shaft end needs to be re-machined before use, and we recommend the work be performed by ISSOKU. Please be noted that we will not assure the accuracy of the product with a shaft end that is machined by anyone other than ISSOKU.

2. Keep the nut travel within the range L₁ when the ball screw is used.

3. Contact us if you need to change the un-worked shaft end length (L₄).

ボールねじ諸元

単位: mm

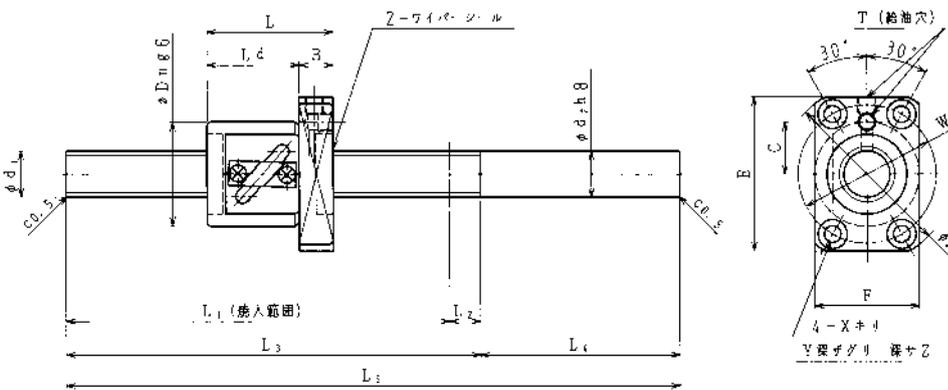
| 形式 | ねじ軸 | | リード | ボール径 | BCD | 回路数 巻×列 | 基本定格荷重 (N) | | 精度 等級 | 軸方向すきま |
|-------------|-----|------|-----|-------|------|------------|------------|---------|----------|----------|
| | 外径 | 谷径 | | | | | 動定格 Ca | 静定格 Coa | | |
| LTR2005EC7S | 20 | 17.2 | 5 | 3.175 | 20.5 | 2.5×1 | 8150 | 17150 | C7 | 0.020 以下 |
| LTR2010EC7S | | 16.8 | 10 | 3.969 | 21 | | 11100 | 22100 | | |
| LTR2020AC7S | | 20 | 20 | | | | 6710 | 12640 | | |

ボールねじ形状寸法

単位: mm

| 呼び番号 | ねじ軸寸法 | | | | | | | | ナット寸法 | | | | | | | | | | | |
|-------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----|-------|----|----|----|----|----|----|----|----|-----|-----|-----|
| | L ₁ | L ₂ | L ₃ | L ₄ | L ₅ | d ₁ | d ₂ | Dn | A | L | Ld | B | E | F | W | C | T | X | Y | Z |
| LTR2005EC7S | -500 | 400 | 20 | 420 | 500 | 20 | 20 | 44 | 67 | 41 | 30 | 11 | 60 | 44 | 55 | 22 | M6 | 5.5 | 9.5 | 5.4 |
| | -1000 | 900 | 920 | 1000 | | | | | | | | | | | | | | | | |
| | -1500 | 1400 | 1420 | 1500 | | | | | | | | | | | | | | | | |
| LTR2010EC7S | -500 | 395 | 20 | 415 | 500 | 20 | 20 | 46 | 74 | 54 | 41 | 13 | 66 | 46 | 59 | 24 | M6 | 6.6 | 11 | 6.5 |
| | -1000 | 895 | 915 | 1000 | | | | | | | | | | | | | | | | |
| | -1500 | 1395 | 1415 | 1500 | | | | | | | | | | | | | | | | |
| | -2000 | 1895 | 1915 | 2000 | | | | | | | | | | | | | | | | |
| LTR2020AC7S | -500 | 395 | 20 | 415 | 500 | 20 | 20 | 46 | 74 | 70 | 55 | 15 | 66 | 46 | 59 | 24 | M6 | 6.6 | 11 | 6.5 |
| | -1000 | 895 | 915 | 1000 | | | | | | | | | | | | | | | | |
| | -1500 | 1395 | 1415 | 1500 | | | | | | | | | | | | | | | | |
| | -2000 | 1895 | 1915 | 2000 | | | | | | | | | | | | | | | | |

標準軸端未加工品 C7 シリーズ
Standard un-worked shaft end type Accuracy grade C7



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2. Keep the nut travel within the range L₁ when the ball screw is used.

3. Contact us if you need to change the un-worked shaft end length (L₄).

ボールねじ諸元

単位: mm

| 形式 | ねじ軸 | | リード | ボール径 | BCD | 回路数 巻×列 | 基本定格荷重 (N) | | 精度 等級 | 軸方向すきま |
|-------------|-----|------|-----|--------|-------|------------|------------|---------|----------|----------|
| | 外径 | 谷径 | | | | | 動定格 Ca | 静定格 Coa | | |
| LTR2505EC7S | 25 | 22.2 | 5 | 3.175 | 25.5 | 2.5×1 | 7970 | 19340 | C7 | 0.020 以下 |
| LTR2510EC7S | | 20.5 | 10 | 4.7625 | 26.25 | | 13120 | 27000 | | |
| LTR2520AC7S | | 21.3 | 20 | | | | 8540 | 16900 | | |

ボールねじ形状寸法

単位: mm

| 呼び番号 | ねじ軸寸法 | | | | | | | | ナット寸法 | | | | | | | | | | | |
|-------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----|-------|----|----|----|----|----|----|----|----|-----|-----|-----|
| | L ₁ | L ₂ | L ₃ | L ₄ | L ₅ | d ₁ | d ₂ | Dn | A | L | Ld | B | E | F | W | C | T | X | Y | Z |
| LTR2505EC7S | -500 | 315 | 20 | 335 | 500 | 25 | 25 | 50 | 73 | 40 | 29 | 11 | 66 | 50 | 61 | 25 | M6 | 5.5 | 9.5 | 5.4 |
| | -1000 | 815 | 835 | 1000 | | | | | | | | | | | | | | | | |
| | -1500 | 1315 | 1165 | 1500 | | | | | | | | | | | | | | | | |
| | -2000 | 1815 | 1835 | 2000 | | | | | | | | | | | | | | | | |
| LTR2510EC7S | -500 | 310 | 20 | 330 | 500 | 25 | 25 | 58 | 92 | 67 | 52 | 15 | 82 | 58 | 74 | 30 | M6 | 9 | 14 | 9 |
| | -1000 | 810 | 830 | 1000 | | | | | | | | | | | | | | | | |
| | -1500 | 1310 | 1330 | 1500 | | | | | | | | | | | | | | | | |
| | -2000 | 1810 | 1830 | 2000 | | | | | | | | | | | | | | | | |
| LTR2520AC7S | -500 | 310 | 20 | 330 | 500 | 25 | 25 | 58 | 92 | 75 | 57 | 18 | 82 | 58 | 74 | 30 | M6 | 9 | 14 | 9 |
| | -1000 | 810 | 830 | 1000 | | | | | | | | | | | | | | | | |
| | -1500 | 1310 | 1330 | 1500 | | | | | | | | | | | | | | | | |
| | -2000 | 1810 | 1830 | 2000 | | | | | | | | | | | | | | | | |

転造ボールねじ BTK/BTIRシリーズ

Rolled Ball screw BTK/BTIR Series



特長 [Advantages]

- 生産性の高い転造ボールねじを専用ラインで加工する事で、低価格と短納期を実現しました。
 - ナットは静音性に優れた内部循環方式を採用しています。
 - 使い勝手を考慮し研削品ナットと互換性のある寸法選定にしました。
 - 精度と軸方向すきまは以下の組合せです。
- High productivity facilities for Rolled Ball screw achieve low price and short delivery period.
 - Nut utilize Inside return type for quiet movement.
 - Same Nut dimensions as Grinded Ball screw for interchangeability.
 - Accuracy grade and Accuracy grade combination.

| 精度等級 Accuracy grade | 軸方向すきま (mm) Axial clearance (mm) |
|------------------------|-------------------------------------|
| Ct7 | 0.02 |
| Ct10 | 0.05 |

転造ボールねじ呼び番号 [Identification number for Rolled Ball screw]

BTK/BTIR 15 10 R Ct7 S - 500 S01

形式 Type of Nut

K: コマ式ナット
Internal Deflector type

IR: インサイドリターン式ナット
Inside return type

ねじ軸呼び径 (mm)
Nominal diameter

呼びリード (mm)
Nominal lead

回路数 Number of circuits

R: 2.75巻×1列
2.75 turns × 1 circuit

T: 1.75巻×1列
1.75 turns × 1 circuit

D: 1巻×3列
1 turns × 3 circuit

整理番号
Serial number

ねじ軸全長 (mm)
Shaft length

軸方向すきま記号 (mm)
Axial clearance mark

S: 0.020以下
N: 0.050以下

精度等級
Accuracy grade

Ct7
Ct10

材質と硬度 [Material and hardness]

| | 材質 Material | 硬度 Hardness |
|------------|----------------|----------------|
| 軸 Shaft | SUJ2 | 58~64HRC |
| ナット Nut | SCM415H | 58~63HRC |

潤滑剤 [Lubricant]

軸端未加工品には防錆油を塗布します。
また、軸端加工品にはご指定がない場合アルバニヤグリースS2を塗布します。

Rust preventive oil is applied for Un-Worked Shaft Ends Ball screws.
Albania grease S2 is applied for Finished Shaft Ends if no special instruction exists.

代表移動量誤差(±ep)と変動(V₃₀₀)の許容値 [Tolerance on specified travel and travel variation.]

| 精度等級 Accuracy grade | Ct7 | Ct10 |
|------------------------|----------------------------------|------|
| ±ep | $\frac{l_u}{300} \times V_{300}$ | |
| V ₃₀₀ | 52 | 210 |

※許容値はJIS B 1192における搬送用 (Ct系列) に準じ、代表移動量誤差は300mmに対する変動より上式にて算出します。

Tolerance is accordance with transport ball screw (Ct series) described in JIS B 1192 and tolerance on specified travel is calculated by travel variation at 300mm.

ep : 代表移動量誤差 (μm)
Tolerance on specified travel

l_u : ねじ部有効長さ (mm)
Useful travel

V₃₀₀ : 任意の300mmに対する変動 (μm)
Travel variation for any 300mm

例) ねじ部の有効長さ600mm
Ex) Useful travel 600mm

$$\begin{aligned} \text{精度等級 Ct7} \quad \pm ep &= \frac{600}{300} \times 52 \\ \text{Accuracy grade Ct7} &= 104 (\mu\text{m}) \end{aligned}$$

定尺での許容回転数 [Maximum permissible speed at standard length]

単位: min⁻¹

| 呼び Nominal | 定尺(長さ) Standard length | | | | | | | |
|---------------|---------------------------|-------|-------|--------|--------|--------|------|------|
| | 250mm | 500mm | 750mm | 1000mm | 1250mm | 1500mm | | |
| 1202 | 3000 | | / | | | | | |
| 1205 | 3000 | | | | | | 2600 | 1400 |
| 1210 | 3000 | | | | | | 2600 | 1400 |
| 1505 | 3000 | | | | | | 1800 | |
| 1510 | 3000 | | | | | | 1800 | |
| 1520 | 3000 | | | | | | 1800 | |
| 2005 | 2430 | | | | | | | |
| 2010 | 2380 | | | | | | | |
| 2020 | 2380 | | | | | | | |

注) Dm・Nの許容範囲は≦50000とします。
但し、最高回転数は3000min⁻¹を目安とします。

Note) Maximum range for Dm・N is ≦50000 and guide line for maximum speed is 3000min⁻¹.

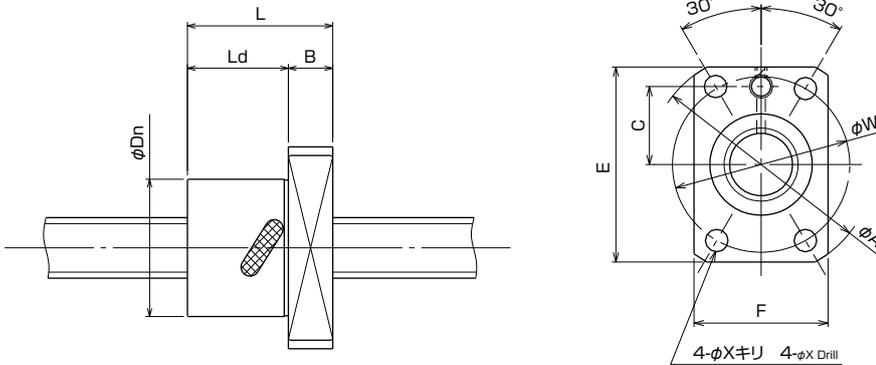
Dm: ボールねじ緒元BCD寸法
N: 回転数 (min⁻¹)

Dm: BCD in ball screw specification.
N: Rotation speed (min⁻¹)

転造ボールねじ BTK / BTIRシリーズ

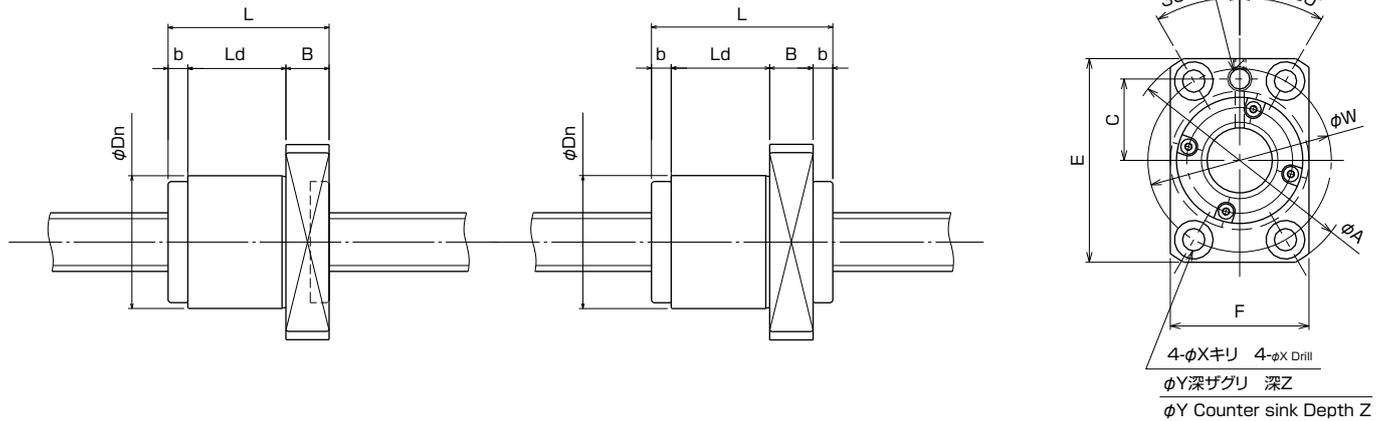
Rolled Ball screw BTK/BTIR Series

BTK φ12 リード2
BTK φ12 Lead 2



BTIR φ12 リード5, 10 BTK φ12 Lead 5, 10
BTIR φ15 リード5, 10, 20 BTK φ15 Lead 5, 10, 20
BTIR φ20 リード5, 10 BTK φ20 Lead 5, 10

BTK φ20 リード20
BTK φ20 Lead 20



ナット寸法表 Turns×Circuit

単位 : mm Unit:mm

| 軸径 Shaft dia | リード Lead | 回路数 Number of circuit | Dn | A | L | Ld | B | b | E | F | W | C | X | Y | Z | T | 定格荷重 (N) Load ratings | | 軸最大 全長 Max shaft length |
|-----------------|-------------|--------------------------|----|----|------|------|----|-----|----|----|----|------|-----|-----|-----|-----|--------------------------|-------|-------------------------------|
| | | | | | | | | | | | | | | | | | Ca | Coa | |
| 12 | 2 | 1 × 3 | 19 | 36 | 21.5 | 16.5 | 5 | - | 32 | 23 | 28 | - | 4.5 | - | - | - | 1215 | 2810 | 500 |
| 12 | 5 | 2.75 × 1 | 30 | 50 | 29.5 | 15 | 10 | 4.5 | 45 | 32 | 40 | 17.5 | 4.5 | 8 | 4.4 | M 6 | 3090 | 5390 | 1000 |
| 12 | 10 | 2.75 × 1 | 30 | 50 | 44.5 | 30 | 10 | 4.5 | 45 | 32 | 40 | 17.5 | 4.5 | 8 | 4.4 | M 6 | 3120 | 5610 | 1000 |
| 15 | 5 | 2.75 × 1 | 34 | 57 | 31 | 15.5 | 11 | 4.5 | 50 | 34 | 45 | 20 | 5.5 | 9.5 | 5 | M 6 | 4970 | 8940 | 1000 |
| 15 | 10 | 2.75 × 1 | 34 | 57 | 46 | 30 | 11 | 5 | 50 | 34 | 45 | 20 | 5.5 | 9.5 | 5.5 | M 6 | 4970 | 8940 | 1000 |
| 15 | 20 | 1.75 × 1 | 34 | 57 | 52 | 36.5 | 11 | 4.5 | 50 | 34 | 45 | 20 | 5.5 | 9.5 | 5.5 | M 6 | 3270 | 5750 | 1000 |
| 20 | 5 | 2.75 × 1 | 44 | 67 | 31.5 | 15.5 | 11 | 5 | 60 | 44 | 55 | 24.5 | 5.5 | 9.5 | 5.5 | M 6 | 5930 | 12390 | 1000 |
| 20 | 10 | 2.75 × 1 | 46 | 74 | 46 | 28 | 13 | 5 | 66 | 46 | 59 | 27.5 | 6.6 | 11 | 6.5 | M 6 | 7710 | 14990 | 1500 |
| 20 | 20 | 1.75 × 1 | 46 | 74 | 54 | 29 | 15 | 5 | 66 | 46 | 59 | 27.5 | 6.6 | 11 | 6.5 | M 6 | 5210 | 9810 | 1500 |

安全上のご注意 [Safety precautions]

お使いになる人や他の人への危害、財産への損害を未然に防止するため、またボールねじの機能を十分発揮させるため、設計及び取り扱いにあたっては下記の点に十分注意し、ご使用下さい。

設計

- △ 1. ねじ軸の軸端を設計するときは、軸端の片側をねじ軸谷径寸法以下にし、ねじを切り通しにして下さい。
- △ 2. 取付まわりの設計をするときは、ボールねじのナットを抜かなくても取付が可能な構造にして下さい。
- △ 3. ボールねじを装置に垂直に取り付ける場合、安全のための落下防止装置を装置あるいはボールねじに取り付けて下さい。
- △ 4. ボールねじの、異物混入による異常摩耗、ボール循環部の損傷、作動不能状態の発生を防ぐために、異物混入が予想される環境での使用に際しては、防塵カバー等の対策を講じて下さい。
- ⊗ 5. 安全のため、ボールねじの許容荷重、許容回転数を守って装置設計を行って下さい。
- 6. 特殊な温度環境で使用する場合は熱変形による精度変化、潤滑剤の選定、ボールねじの耐熱温度(通常80℃)など考慮に入れて設計して下さい。

追加工

- △ 1. 追加工は、分解による精度低下や切り粉の進入によって寿命低下をもたらす恐れがあります。予めご指定下さい。

潤滑

- △ 1. ご使用前に潤滑剤の状況を確認して下さい。潤滑不良の場合、短期にボールねじの機能を喪失する原因となります。
 - △ 2. 潤滑グリースが塗布されている場合は、そのままご使用下さい。但し、取り扱い上グリース表面にゴミ、切り粉等異物が付着した場合は、清浄な白灯油(水分には十分注意する)で洗浄し、塗布されていた潤滑グリースと同じ新品を再塗布の上ご使用下さい。
 - △ 3. 潤滑剤グリースの点検は、稼働後1~2ヶ月とし、汚れが著しい場合は古いグリースを抜き取り、新しいグリースを十分に塗布して下さい。その後点検、補給の目安は、通常0.5~1年毎又は1,000~2,000時間としますが、使用環境により変わりますので適宜その間隔を認定して下さい。
- オイル潤滑の場合は、油切れにならないように注意して下さい。
- 取り扱い・組み立て

- ⊗ 1. 分解・組立は絶対に行わないで下さい。ボールの脱落や予圧量の変化、異物の進入の恐れがあり、精度、寿命の低下、事故の発生の原因となります。分解・組立の必要がある場合は、有料にてお引き受け致します。
- △ 2. ボールねじは、軸又はナットが自重で分解落下することがありますので、けがに充分注意して下さい。また、誤って落下させた場合は、再組立と精度点検をメーカーにて行う必要があります(有料)。
- ⊗ 3. ボールねじを誤って落下させたり、衝撃を与えたり、オーバランさせたりするとボール脱落や循環部品、ねじ軸外径、ねじ溝面、ボールなどに損傷を与え、回転状態、精度、寿命を維持できなくなると共に、場合によっては事故が生じます。その場合は、メーカー点検(有料)を受けて下さい。
- △ 4. 組み付けに際しては、ボールねじを支持する軸受け部とナットを取り付けるブラケットの芯ずれ、ナット取付面の傾きなど取付部の精度に充分注意して下さい。これらは、ボールねじに偏荷重(ラジアル荷重、モーメント荷重)を与え、作動不良や寿命の低下、発熱、駆動トルクの増大など悪影響をもたらします。
- ⊗ 5. ハウジングへの無理な組み付けはナットの変形を生じさせ、精度、寿命の維持ができなくなります。適正な隙間を設けて下さい。

管理

- △ 1. 保管する場合は、購入時の状態で保管して下さい。無用に梱包を開いたり、内部梱包を破いたりしないようにして下さい。ゴミの進入、発錆の原因となり、機能低下を引き起こす事があります。
- △ 2. 長期保管の場合は、塵埃の付着程度、発錆状態を確認して下さい。
 - ① 購入時の梱包のまま水平において保管する。
 - ② 清浄な場所に、枕木を当て水平において保管する。
 - ③ 清浄な場所に、脱落、落下などしないように処置した後、垂直に吊して保管する。

In order to prevent injury to users or other persons and damage to property and to enable ball screws to display their functions fully, pay careful attention to the following points concerning design and handling.

Design

- 1. When designing the screw shaft ends, make one side of shaft ends smaller than the dimension of minor diameter of screw shaft so that the screw thread cuts through.
- 2. When designing the area around the screw attachment, arrange the structure so that the screw can be attached removing the nut.
- 3. If a ball screw is attached to equipment vertically, attach a dropping-prevention device either to the equipment itself or to the ball screw for safety.
- 4. Intrusion of foreign matter can cause abnormal wear to the ball screw, damage to the ball circulating path, or a situation in which operation is impossible. To prevent these occurrences, provide some sort of dust cover when using ball screws in an environment which is liable to be dusty.
- 5. For safety reasons, make sure the design observes the permissible load and the permissible number of rotations.
- 6. When using ball screws in an extreme temperature environment, make sure the design takes into account the loss of accuracy caused by high temperature, choice of lubricant, heat resistance temperature of the ball screw (normally 80 °C) etc.

Additional machining

- 1. Additional machining may cause a loss of accuracy due to disassembling, or the shortening of service life of ball screw due to intrusion of foreign matter. Specify beforehand.

Lubrication

- 1. Check the condition of the lubricant before use. If lubrication is insufficient, the functions of ball screw will be impaired within a short period of time.
- 2. If lubricating grease has been applied, the screw can be used as it is. However, if foreign matter become attached to the grease surface in the course of handling, wash the screw with pure kerosene (Be careful with water.) and apply a fresh coat of new grease, using the same type of grease as that used originally.
- 3. Check the lubricating grease between one and two months after initial operation and if it is found to be dirty, wipe off the old grease and apply a sufficient coating of new grease. Thereafter, check and replenishments should normally by carried out every 6 to 12 months or after 1000-2000 hours of use. However, this varies according to the environment in which ball screws are used, so establish the intervals of check as appropriate. In case of oil lubrication, make sure oil does not run out.

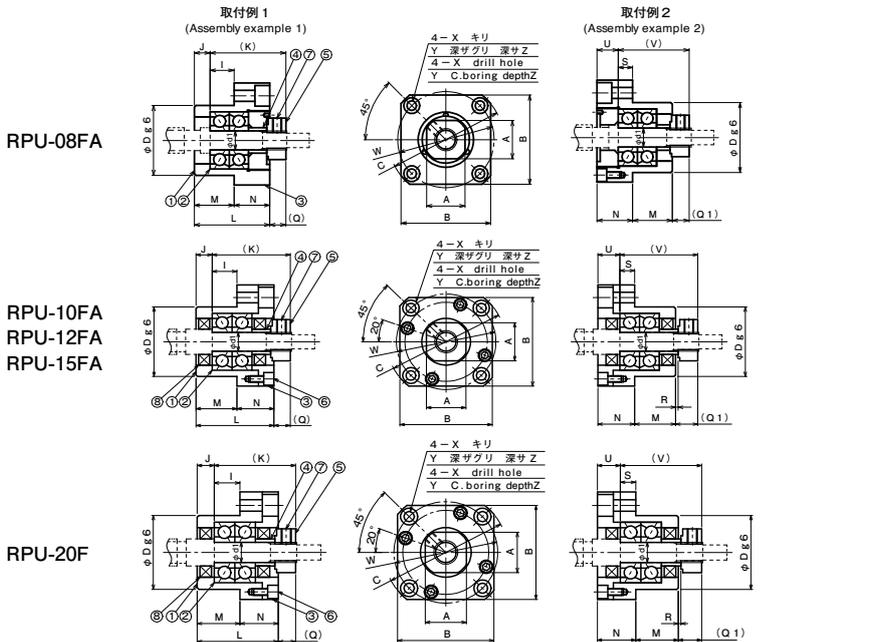
Handling and assembly

- 1. Do not attempt to disassemble a ball screw. The ball may fall, the preload may change, or foreign matter may enter, causing a loss of accuracy, shortening the life of the ball screw, and giving rise to accidents. If you need to disassemble a ball screw, we will do this work for you (for a fee).
- 2. The shaft and/or nut of a ball screw may become separated and fall due to their own weight, so take care to avoid injuries. If you allow them to fall by mistake, it is essential to ask the manufacturer to reassemble the screw and inspect its accuracy, (for a fee).
- 3. If you drop a ball screw accidentally, subject it to a hard impact, or allow it to overrun, this may cause the ball to fall and/or damage the rotating parts, the screw shaft external diameter, the screw groove surface, the ball, etc., as well as affecting rotation, precision, and the life. In some instances, accidents may occur. Please ask the manufacturer to inspect the screw (for a fee).
- 4. When mounting a ball screw, pay careful attention to the accuracy of the attachment sections. Make sure the shaft holders supporting the ball screw and the bracket attaching the nut are aligned and check the run out of the nut attachment surface. The misalignment cause unbalanced load (radial load, moment load) on the ball screw, resulting in faulty operation, shorter life, heat generation, and an increase in the drive torque.
- 5. Forcing the screw into the housing may cause distortion of the nut which means the accuracy cannot be maintained and the life of the screw is shortened. Make sure there is a suitable clearance.

1. Storing

- 1. Store screws in the same state as when purchased. Do not open the packing unnecessarily or tear the internal wrapping. This can cause dirt to enter or produce rust resulting in poorer functioning.
- 2. When storing for a long time, take suitable precautions to prevent dust and rust and store in the positions described below. Make periodic inspections to check the dust and rust situation.
 - 1. Store horizontally in the packing provided at the time of purchase.
 - 2. Store horizontally in a clean place against a cross tie.
 - 3. Store by hanging vertically in a clean place making sure there is no falling down.

丸形サポートユニット (固定側) FLANGE TYPE SUPPORT UNIT (FIXED SIDE)



| 形式 Type | d _i | L | M | N | D | A | B | C | 取付例1 Assembly example 1 | | 取付例2 Assembly example 2 | | W | X | Y | Z | 使用軸受 Bearing No. | ロックナット ねじ寸法 Lock nut | | | | | |
|------------|----------------|----|----|----|----|----|----|----|----------------------------|----|----------------------------|------|-----|-----|---|------|---------------------|----------------------------|----------------|-----|----------|-------------|----------|
| | | | | | | | | | Q | I | J | K | | | | | | | Q ₁ | R | S | U | |
| RPU-08FA | 8 | 23 | 14 | 9 | 28 | 13 | 35 | 43 | 4 | 10 | 4 | 23.5 | — | 4 | 5 | 23.5 | 35 | 3.4 | 6.5 | 4 | 708ADFP5 | M8×0.75 | |
| RPU-10FA | 10 | 27 | 17 | 10 | 34 | 17 | 42 | 52 | 6.5 | 12 | 5 | 28.5 | 7.5 | 0.5 | 4 | 6 | 28.5 | 42 | 4.5 | 8 | 4 | 7000ADFP5 | M10×0.75 |
| RPU-12FA | 12 | 27 | 17 | 10 | 36 | 19 | 44 | 54 | 7.5 | 12 | 5 | 29.5 | 8.5 | 0.5 | 4 | 6 | 29.5 | 44 | 4.5 | 8 | 4 | 7001ADFP5 | M12×1.0 |
| RPU-15FA | 15 | 32 | 17 | 15 | 40 | 22 | 52 | 63 | 10 | 11 | 6 | 36 | 12 | 4 | 7 | 8 | 36 | 50 | 5.5 | 9.5 | 6 | 7002ADFP5 | M15×1.0 |
| RPU-20F | 20 | 52 | 30 | 22 | 57 | 30 | 68 | 85 | 10 | 20 | 10 | 52 | 14 | 1 | 8 | 14 | 52 | 70 | 6.6 | 11 | 10 | 7204ADFC8P5 | M20×1.0 |

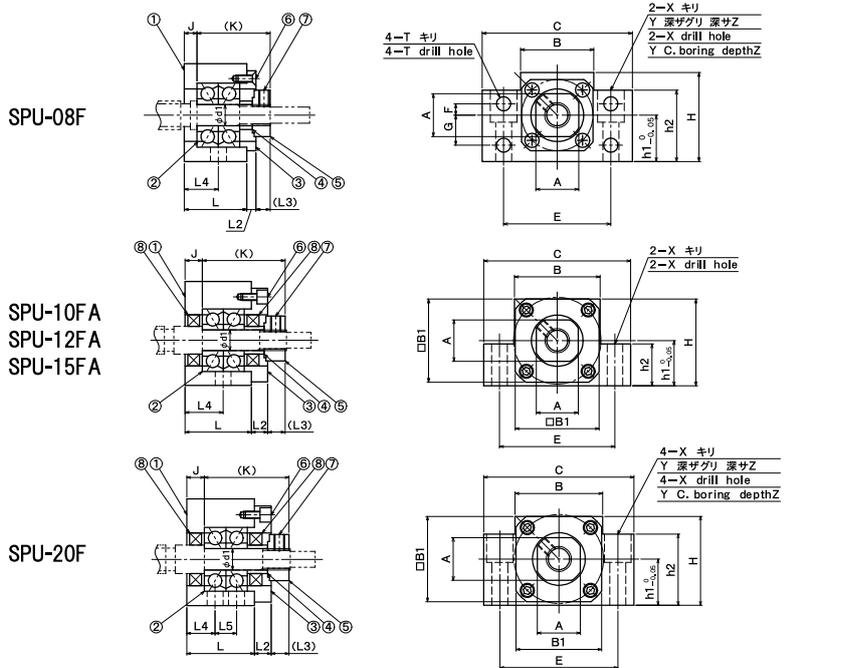
- サポートユニットは予圧調整してありますので分解しないでください。
- ベアリングは適量のグリスを注入してありますのでそのまま使用できます。
- ロックナットを締め付け後、ビス穴に砲金コマを入れて、セットスクリューを軽く締め付けて下さい。

| 部番 | 部品名 | 個数 | 備考 |
|----|----------|------|---|
| 1 | ハウジング | 1 | |
| 2 | ベアリング | 1セット | |
| 3 | 押えブタ | 1 | |
| 4 | スペーサ | 2 | RPU-20F スペーサ1個 |
| 5 | ロックナット | 1 | |
| 6 | 押えねじ | 4 | RPU-08FA~15FA 六角穴付き皿ボルト RPU-20F 六角穴付きボルト |
| 7 | セットスクリュー | 1 | |
| 8 | オイルシール | 2 | RPU-08FAはなし |

- Never disassemble the support unit as it is an integrated assembly and pre-load adjusted.
- Grease is packed in the support unit.
- Tighten the lock nut. Then tighten lightly the set screw after inserting a brass piece in the screw hole.

| part no. | part name | q'ty | remarks |
|----------|--------------|------|--|
| 1 | Housing | 1 | |
| 2 | Bearing | 1set | |
| 3 | Plate | 1 | |
| 4 | Spacer | 2 | RPU-20F Spacer 1pc |
| 5 | Lock nut | 1 | |
| 6 | Screw thread | 4 | RPU-08FA~15FA Hexagon socket head cap machine screw RPU-20F Hexagon socket head cap screw |
| 7 | Set screw | 1 | |
| 8 | Oil seal | 2 | Except RPU-08FA |

角形サポートユニット (固定側) SQUARE TYPE SUPPORT UNIT (FIXED SIDE)



| 形式 Type | d _i | L | L ₂ | L ₃ | L ₄ | L ₅ | C | H | h ₁ | h ₂ | A | B | B ₁ | E | F | G | J | K | T | X | Y | Z | 使用軸受 Bearing No. | ロックナット ねじ寸法 Lock nut | | |
|------------|----------------|----|----------------|----------------|----------------|----------------|----|----|----------------|----------------|----|----|----------------|----|---|---|----|------|---|---|----|----|---------------------|----------------------------|-------------|----------|
| | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 10 |
| SPU-08F | 8 | 20 | 3 | 4 | 10 | — | 52 | 32 | 17 | 26 | 13 | 25 | 25 | 38 | — | — | — | — | — | — | — | — | — | — | 708ADFC8P5 | M8×0.75 |
| SPU-10FA | 10 | 24 | 6 | 4.5 | 12 | — | 70 | 43 | 25 | 24 | 17 | 36 | 34 | 52 | — | — | 6 | 28.5 | — | — | 9 | — | — | — | 7000ADFP5 | M10×0.75 |
| SPU-12FA | 12 | 24 | 6 | 5.5 | 12 | — | 70 | 43 | 25 | 24 | 19 | 36 | 34 | 52 | — | — | 6 | 29.5 | — | — | 9 | — | — | — | 7001ADFP5 | M12×1.0 |
| SPU-15FA | 15 | 25 | 6 | 10 | 12.5 | — | 80 | 50 | 30 | 25 | 22 | 41 | 38 | 60 | — | — | 5 | 36 | — | — | 11 | — | — | — | 7002ADFP5 | M15×1.0 |
| SPU-20F | 20 | 42 | 10 | 10 | 10 | — | 22 | 95 | 58 | 30 | 45 | 30 | 56 | 75 | — | — | 10 | 52 | — | — | 11 | 17 | 15 | — | 7204ADFC8P5 | M20×1.0 |

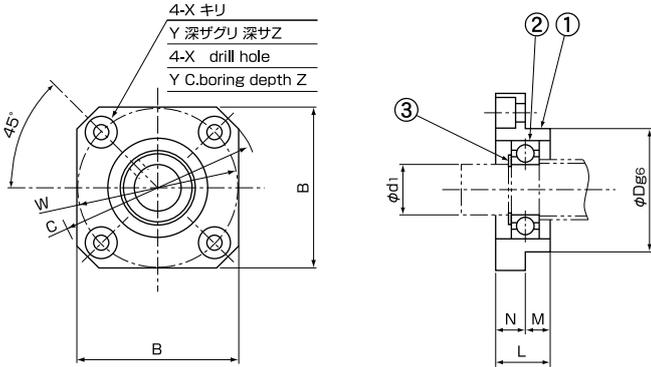
- サポートユニットは予圧調整してありますので分解しないでください。
- ベアリングは適量のグリスを注入してありますのでそのまま使用できます。
- ロックナットを締め付け後、ビス穴に砲金コマを入れて、セットスクリューを軽く締め付けて下さい。

| 部番 | 部品名 | 個数 | 備考 |
|----|----------|------|--|
| 1 | ハウジング | 1 | |
| 2 | ベアリング | 1セット | |
| 3 | 押えブタ | 1 | |
| 4 | スペーサ | 2 | SPU-08F・20F スペーサ1個 |
| 5 | ロックナット | 1 | |
| 6 | 押えねじ | 4 | SPU-08F 皿小ねじ SPU-10FA~15FA 六角穴付き皿ボルト SPU-20F 六角穴付きボルト |
| 7 | セットスクリュー | 1 | |
| 8 | オイルシール | 2 | SPU-08Fはなし |

- Never disassemble the support unit as it is an integrated assembly and pre-load adjusted.
- Grease is packed in the support unit.
- Tighten the lock nut. Then tighten lightly the set screw after inserting a brass piece in the screw hole.

| part no. | part name | q'ty | remarks |
|----------|--------------|------|--|
| 1 | Housing | 1 | |
| 2 | Bearing | 1set | |
| 3 | Plate | 1 | |
| 4 | Spacer | 2 | SPU-08F・20F Spacer 1pc |
| 5 | Lock nut | 1 | |
| 6 | Screw thread | 4 | SPU-08F Machine screw SPU-10FA~15FA Hexagon socket head cap machine screw SPU-20F Hexagon socket head cap screw |
| 7 | Set screw | 1 | |
| 8 | Oil seal | 2 | Except SPU-08F |

丸形サポートユニット (支持側) FLANGE TYPE SUPPORT UNIT (SUPPORT SIDE)

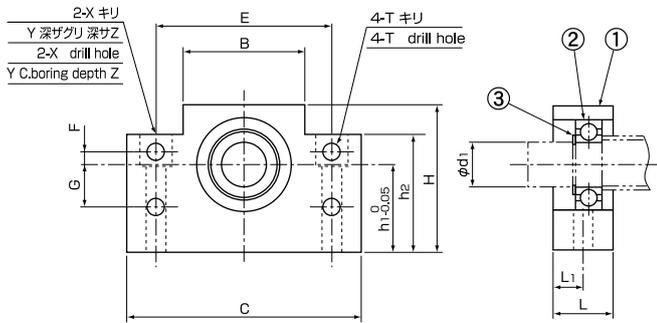


| 部 番 | 部品名 | 個 数 | part no. | part name | q'ty |
|-----|-------|-----|----------|-----------|------|
| 1 | ハウジング | 1 | 1 | Housing | 1 |
| 2 | ベアリング | 1 | 2 | Bearing | 1 |
| 3 | 止め輪 | 1 | 3 | Snap ring | 1 |

単位:mm unit:mm

| 形 式 Type | d ₁ | L | M | N | D | B | C | W | X | Y | Z | 使用軸受 Bearing No. | 使用止め輪 Snap ring |
|-------------|----------------|----|---|----|----|----|----|----|-----|-----|-----|---------------------|--------------------|
| RPU-08S | 6 | 10 | 4 | 6 | 22 | 28 | 36 | 28 | 3.4 | 6.5 | 3 | 606ZZ | C6 |
| RPU-10S | 8 | 12 | 5 | 7 | 28 | 35 | 43 | 35 | 3.4 | 6.5 | 3 | 608ZZ | C8 |
| RPU-12S | 10 | 15 | 8 | 7 | 34 | 42 | 52 | 42 | 4.5 | 8 | 4 | 6000ZZ | C10 |
| RPU-15S | 15 | 17 | 8 | 9 | 40 | 52 | 63 | 50 | 5.5 | 9.5 | 5.5 | 6002ZZ | C15 |
| RPU-20S | 20 | 20 | 9 | 11 | 57 | 68 | 85 | 70 | 6.6 | 11 | 6.5 | 6204ZZ | C20 |

角形サポートユニット (支持側) SQUARE TYPE SUPPORT UNIT (SUPPORT SIDE)



| 部 番 | 部品名 | 個 数 | part no. | part name | q'ty |
|-----|-------|-----|----------|-----------|------|
| 1 | ハウジング | 1 | 1 | Housing | 1 |
| 2 | ベアリング | 1 | 2 | Bearing | 1 |
| 3 | 止め輪 | 1 | 3 | Snap ring | 1 |

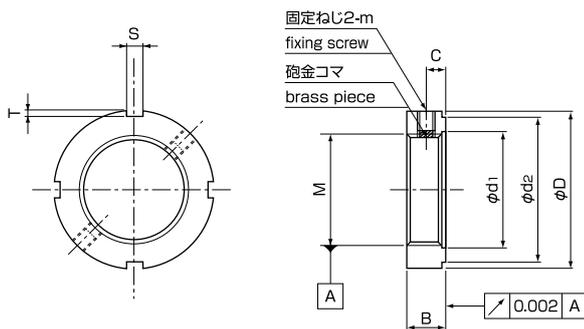
単位:mm unit:mm

| 形 式 Type | d ₁ | L | L ₁ | C | H | h ₁ | h ₂ | B | E | F | G | T | X | Y | Z | 使用軸受 Bearing No. | 使用止め輪 Snap ring |
|-------------|----------------|----|----------------|----|----|----------------|----------------|----|----|---|----|-----|-----|----|----|---------------------|--------------------|
| SPU-08S | 6 | 15 | 7.5 | 52 | 32 | 17 | 26 | 25 | 38 | 4 | 10 | 5.5 | 6.6 | 11 | 12 | 606ZZ | C6 |
| SPU-10S | 8 | 20 | 10 | 70 | 43 | 25 | 35 | 36 | 52 | 4 | 15 | 6.6 | 9 | 14 | 11 | 608ZZ | C8 |
| SPU-12S | 10 | 20 | 10 | 70 | 43 | 25 | 35 | 36 | 52 | 4 | 15 | 6.6 | 9 | 14 | 11 | 6000ZZ | C10 |
| SPU-15S | 15 | 20 | 10 | 80 | 50 | 30 | 40 | 41 | 60 | 4 | 15 | 6.6 | 9 | 14 | 11 | 6002ZZ | C15 |
| SPU-20S | 20 | 26 | 13 | 95 | 58 | 30 | 45 | 56 | 75 | — | — | — | 11 | 17 | 15 | 6204ZZ | C20 |

ロックナット LOCK NUT

Pシリーズ [P series]

砲金コマはナットに内蔵されていますので、ナットを締付け後、固定ねじ2ヶ所を均等に締めて下さい。
As the brass piece is put in the nut, after tightening the nut, tighten the two fixing screws evenly.

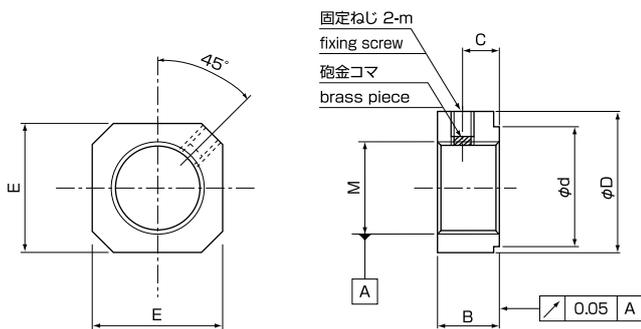


単位:mm unit:mm

| 形 式 Type | M | D | d ₁ | d ₂ | B | C | S | T | m |
|-------------|----------|----|----------------|----------------|----|---|---|----|----|
| PL-06 | M6×0.5 | 16 | 7 | 12 | 8 | 4 | 3 | 2 | M4 |
| PL-08 | M8×0.75 | 16 | 9 | 11 | | | | | |
| PL-10 | M10×0.75 | 18 | 11 | 13 | | | | | |
| PL-12 | M12×1.0 | 22 | 13 | 18 | | | | | |
| PL-15 | M15×1.0 | 25 | 16 | 21 | 10 | 5 | 4 | M5 | |
| PL-17 | M17×1.0 | 28 | 18 | 23 | | | | | |
| PL-20 | M20×1.0 | 32 | 21 | 27 | 12 | 6 | 5 | M6 | |
| PL-25 | M25×1.5 | 40 | 26 | 33 | | | | | |
| PL-30 | M30×1.5 | 45 | 31 | 40 | | | | | |
| PL-35 | M35×1.5 | 52 | 36 | 47 | | | | | |

Nシリーズ [N series]

固定ねじは砲金コマを入れてから軽く締めて下さい。
Tighten the fixing screw lightly after putting in the brass piece.



単位:mm unit:mm

| 形 式 Type | M | D | d | B | C | E | m |
|-------------|----------|----|----|----|-----|----|----|
| NL-06 | M6×0.5 | 14 | 10 | 6 | 3.3 | 12 | M3 |
| NL-08 | M8×0.75 | 16 | 11 | 6 | 3.3 | 13 | |
| NL-10 | M10×0.75 | 20 | 16 | 7 | 4 | 17 | M4 |
| NL-12 | M12×1.0 | 22 | 18 | 7 | 4 | 19 | |
| NL-15 | M15×1.0 | 25 | 20 | 10 | 6 | 21 | |
| NL-20 | M20×1.0 | 35 | 26 | 13 | 8 | 30 | |

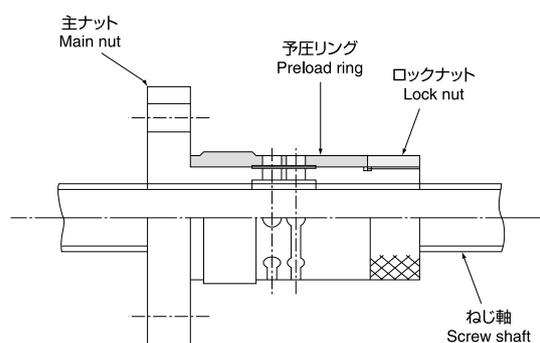
BACリードスクリューの構造と特長 CONSTRUCTION OF BAC LEAD SCREW



構造 [Construction]

主ナットと予圧リングは円周方向にスリットがありバネ形状になっています。ねじ軸と主ナットはわずかなスキマで噛み合っています。主ナットの外側に予圧リングを入れ、ロックナットを締めることによって、スリットを境に主ナットのねじ部が左右に広がりバックラッシュを調整します。さらにロックナットを締め込むとバネ形状の予圧リングにより定圧予圧がかかりますので、長期間の使用でナットがわずかに摩耗してもスキマを補正する力が働き常にバックラッシュゼロの状態で使用できます。

Radially spread slots of main nut and preload ring are spring shaped. Main nut and shaft are meshed with small clearance. Put preload ring out side of main nut and tighten lock nut, thread of main nut spread out from slit and back lash is compensated. Tightening lock nut further applies constant pressure preloading by spring shaped preload ring. Zero back lash is kept by spring loaded. Construction compensating clearance for long period of use.



特長 [Features]

●高い位置決め精度

高精度に加工されたねじと特殊形状のナットを組み合わせ、適正予圧を与えていますのでバックラッシュがなく、高い位置決め精度を有します。また、摩耗により発生するバックラッシュに対しても自己補正する構造になっています。

●High positioning accuracy

Suitable preload is applied combination of fine finished screw and special designed nut makes high positioning accuracy with no back lash. Back lash caused by wear is self compensated.

●滑らかな回転

ねじ軸と主ナットのねじ面は精密加工されていますので、非常に滑らかな回転が得られます。よって、振動が少なく発熱も最小となっています。

●Smooth rotation

Fine finished screw rotate very smooth and minimize vibration and heat.

●トルク変動が少ない

定圧予圧方式のため、リード誤差やねじ寸法誤差による回転トルクの変動を小さくすることができます。

●Small change in rotating torque

Change of rotating torque caused by lead error or dimension error of screws is reduced by constant pressure preload.

●長寿命

ねじ軸は焼入れされ、HRC58～63の硬度を有します。また、主ナットはアルミ青銅鑄物の10倍の耐摩耗性を持つFA381〈日立金属(株)〉を使用していますので、従来品の送りねじに比べ、寿命が大幅に向上しています。

●Long life

Screw shaft is hardened to HRC 58~63. Nut is made by FA381 <Hitach Metal> 10times better wear resistant compared to aluminum bronze costing metal. Life time is improved.....

BACリードの選定 SELECTION OF BAC LEAD SCREW

精度 [Accuracy]

BACリードスクリューの精度はJIS規格の位置決め用ボールねじ(B1192)の精度に準じます。リード精度については表4、5を参照ください。その他の精度については当社精密ボールねじカタログを参照ください。

Accuracy of BAC lead screw is refer to ball screw accuracy JIS B 1192. Lead accracy is shown fig 4,5. Refer ISSOKU ball screw catalog for other items.

表4 代表移動量誤差と変動(許容値) Cumulative representative lead errors and travel variations.(permissible values)

単位:μm unit:μm

| ねじ部 有効長さ (mm) Effective thread length | | 精度等級 及び項目 Accuracy grade and items | | C0 | | C1 | | C2 | | C3 | | C5 | |
|---|-------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 代表移動量 誤差 Cumulative representative lead error | 変動 ⁽¹⁾ Travel variation ⁽¹⁾ |
| を 超え above | 以 下 include | | | | | | | | | | | | |
| — | 125 | 3 | 3 | 3.5 | 5 | 5 | 7 | 8 | 8 | 18 | 18 | | |
| 125 | 200 | 3.5 | 3 | 4.5 | 5 | 7 | 7 | 10 | 8 | 20 | 18 | | |
| 200 | 315 | 4 | 3.5 | 6 | 5 | 8 | 7 | 12 | 8 | 23 | 18 | | |
| 315 | 400 | 5 | 3.5 | 7 | 5 | 9 | 7 | 13 | 10 | 25 | 20 | | |
| 400 | 500 | 6 | 4 | 8 | 5 | 10 | 7 | 15 | 10 | 27 | 20 | | |
| 500 | 630 | 6 | 4 | 9 | 6 | 11 | 8 | 16 | 12 | 30 | 23 | | |
| 630 | 800 | 7 | 5 | 10 | 7 | 13 | 9 | 18 | 13 | 35 | 25 | | |
| 800 | 1000 | 8 | 6 | 11 | 8 | 15 | 10 | 21 | 15 | 40 | 27 | | |

注⁽¹⁾ ナットの有効移動距離またはねじ軸のねじ部有効長さに対する変動。

Note⁽¹⁾ Travel variation in respect to the effective travelling distance of nut or to the effective thread length of screw shaft.

表5 変動(許容値) Travel variations(permissible values)

単位:μm unit:μm

| 精度等級 Accuracy grade | C0 | | C1 | | C2 ⁽¹⁾ | | C3 | | C5 | |
|--------------------------|---|--|---|--|---|--|---|--|---|--|
| 項目 Item | 変動 Travel variation300 ⁽²⁾ | 変動 Travel variation2π ⁽³⁾ |
| 許容値 Permissible value | 3.5 | 3 | 5 | 4 | 6 | 5 | 8 | 6 | 18 | 8 |
| | | | | | | | | | | |

注⁽¹⁾ C2級は当社規格。

⁽²⁾ ねじ軸のねじ部有効長さの間に任意にとった300mmに対する変動。

⁽³⁾ ねじ軸のねじ部有効長さの間の1回転(2π rad)に対する変動。

Note⁽¹⁾ grade C2 is ISSOKU standard.

Note⁽²⁾ Travel variation in respect to 300mm taken arbitrarily within the effective thread length of screw shaft.

Note⁽³⁾ Travel variation in respect to one arbitrary revolution (2π rad) within the effective thread length of screw shaft.

ねじ軸の製作範囲 [Production range of screw shaft]

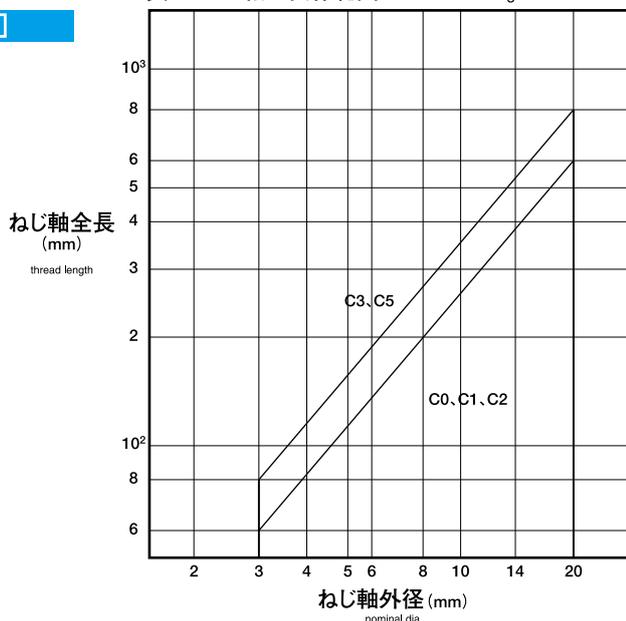
標準の作業で製作できるねじ軸の最大長さを表6に示します。

製作範囲を超える場合は弊社までご相談ください。

Maximum length with standard procedure is shown in fig 6.

Please ask for out of this range.

表6 ねじ軸の製作範囲 Production range of screw shaft



BACリードスクリューの仕様 SPECIFICATIONS OF BAC LEAD SCREW

設計上の注意 [Cautions of designing]

●軸端形状

ねじ軸の軸端形状を設計されるときは、軸端の片側をねじ軸の谷径寸法（ナット寸法表の d_r 寸法）以下にしてください。（図1参照）

●主負荷方向

BACリードスクリューは、定圧予圧方式を採用していますので、その特性上外部からの主負荷は図2のように矢印の方向で受けるようにしてください。

●取り付け回りの設計

BACリードスクリューを装置に取り付ける場合は、ナットをねじ軸から抜かなくても取り付けできる構造にしてください。ナットを抜くと主ナットのスリット部が伸びきってしまい使用不可能になります。どうしてもナットを抜く必要がある場合はあらかじめ当社までご連絡ください。

●後加工

納入後、ねじ軸やナットにノックピンなどの後加工がある場合は、その位置と寸法をあらかじめご連絡ください。

●ナットのはめあい

BACリードスクリューのナットを相手部品に取り付ける場合は、スキマバメ（完全にアソビをつける）にしてください。ナットの外径部をシマリバメにしたラジアル荷重がかかると、円滑な作動をしなくなる場合があります。（図3参照）

●潤滑

BACリードスクリューの潤滑は、擺動面用のグリースまたはオイルを使用してください。オイル潤滑の場合は特に油膜切れにならないように注意してください。

当社では標準として、二硫化モリブデン入りのグリースを使用していますので、長期間にわたり摩耗無く使用できます。特殊な条件で使用する場合は、指定潤滑剤がある場合はご連絡ください。

●Shaft ends

When designing the screw shaft, make one side of shaft end smaller than minor diameter of thread.

●Main load direction

Because of constant pressure preloading, main load should apply direction shown in fig 2.

●Designing of nut mounting

Please design mounting no need of removing nut from shaft. Spring loaded main nut is stretched and damaged by removing nut from shaft. If removing is not avoided. Please ask previously.

●Additional machining

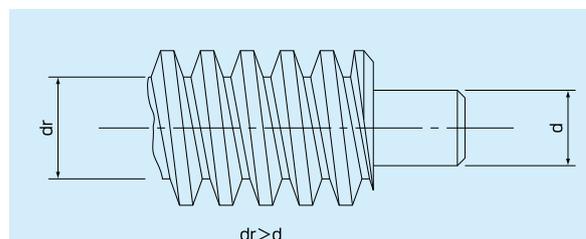
If additional machining such as dowel pin etc. Inform position and size previously.

●Fitting of nut

Mount nut of BAC lead screw, with loose fit (completely loose). Radial loading or tight fit for nut will cause unsmoothness.

●Lubrication

Lubricate BAC lead screw with grease or oil. If oil lubrication is used, be careful to running out of oil. Molybdenum grease as our standard is long period of using. If BAC lead screw is used under special environment or any other lubrication way, Please inform us about it.



$d_r > d$

図1 軸端形状

Fig.1 Shaft end

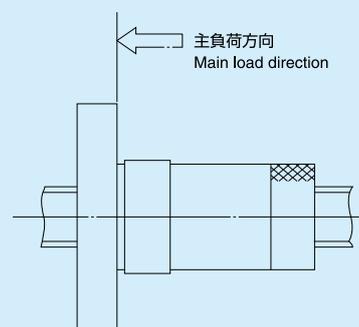


図2 主負荷方向

Fig.2 Main load direction

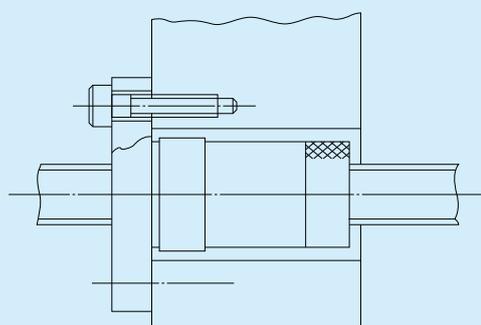
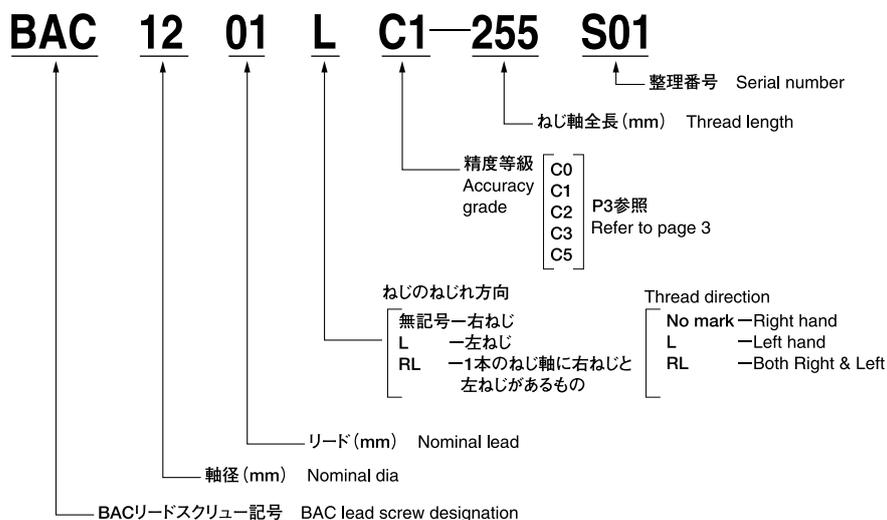


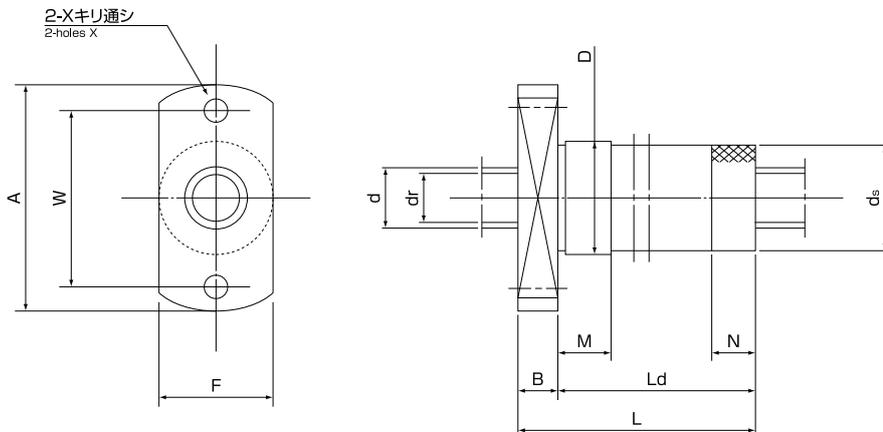
図3 ナットのはめあい

Fig.3 Fitting of nut

BACリードスクリューの呼び方 IDENTIFICATION NUMBERS OF BAC LEAD SCREW

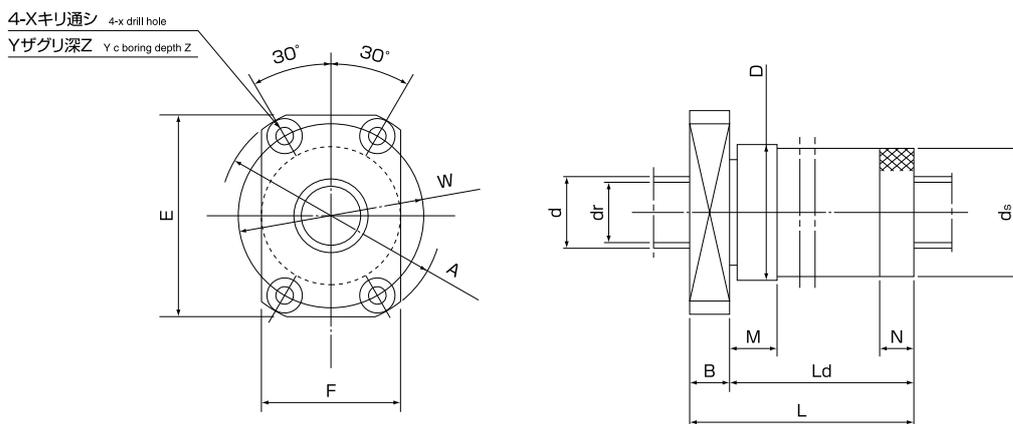


BACリードスクリューナット寸法表 DIMENSIONS OF NUT



単位:mm Unit:mm

| ナット呼び番号 Nut number | ねじ軸外径d Major dia. of shaft | リード(ℓ) Nominal lead | ねじ軸谷径dr Root dia. of shaft | ナット寸法 Nut dimensions | | | | | | | | | | | | | | | | | | | | |
|-----------------------|-------------------------------|------------------------|-------------------------------|----------------------|----|----|------|----|----|---|----|---|---|-----|----|----|----|------|----|----|----|----|---|---|
| | | | | A | W | D | Ds | F | L | B | Ld | M | N | X | | | | | | | | | | |
| BAC 0300.3 | 3 | 0.3 | 2.6 | 19 | 14 | 8 | 7.5 | 8 | 17 | 3 | 14 | 3 | 4 | 2.9 | | | | | | | | | | |
| BAC 0300.5 | | 0.5 | 2.3 | | | | | | | | | | | | | | | | | | | | | |
| BAC 0400.3 | 4 | 0.3 | 3.6 | 20 | 15 | 9 | 8.5 | 9 | 18 | 3 | 15 | 3 | 4 | 2.9 | | | | | | | | | | |
| BAC 0400.5 | | 0.5 | 3.3 | | | | | | | | | | | | | | | | | | | | | |
| BAC 0401 | | 1 | 3.1 | | | | | | | | | | | | 21 | 16 | 10 | 9.5 | 10 | 19 | 16 | 4 | | |
| BAC 0500.3 | 5 | 0.3 | 4.6 | 25 | 18 | 10 | 9.5 | 10 | 20 | 4 | 16 | 4 | 4 | 3.4 | | | | | | | | | | |
| BAC 0500.5 | | 0.5 | 4.3 | | | | | | | | | | | | | | | | | | | | | |
| BAC 0501 | | 1 | 4.1 | | | | | | | | | | | | 26 | 19 | 11 | 10.5 | 11 | 22 | 18 | 5 | 5 | |
| BAC 0501.5 | | 1.5 | 3.7 | | | | | | | | | | | | 27 | 20 | 12 | 11.5 | 12 | 25 | 21 | 5 | 5 | |
| BAC 0502 | | 2 | 3.7 | | | | | | | | | | | | 27 | 20 | 12 | 11.5 | 12 | 25 | 21 | 5 | 5 | |
| BAC 0600.5 | 6 | 0.5 | 5.3 | 26 | 19 | 11 | 10.5 | 11 | 22 | 4 | 18 | 5 | 5 | 3.4 | | | | | | | | | | |
| BAC 0601 | | 1 | 5.1 | | | | | | | | | | | | 27 | 20 | 12 | 11.5 | 12 | 25 | 21 | 6 | | |
| BAC 0601.5 | | 1.5 | 4.7 | | | | | | | | | | | | 28 | 21 | 13 | 12.5 | 13 | 27 | 4 | 23 | 6 | 5 |
| BAC 0602 | | 2 | 4.7 | | | | | | | | | | | | | | | | | | | | | |
| BAC 0800.5 | 8 | 0.5 | 7.3 | 29 | 22 | 14 | 13.5 | 14 | 24 | 5 | 19 | 5 | 5 | 3.4 | | | | | | | | | | |
| BAC 0801 | | 1 | 6.7 | | | | | | | | | | | | | | | | | | | | | |
| BAC 0801.5 | | 1.5 | 6.2 | | | | | | | | | | | | 30 | 23 | 15 | 14.5 | 15 | 29 | 5 | 24 | 6 | 6 |
| BAC 0802 | | 2 | 6.2 | | | | | | | | | | | | | | | | | | | | | |
| BAC 0802.5 | | 2.5 | 6.2 | | | | | | | | | | | | 31 | 24 | 16 | 15.5 | 16 | 31 | 5 | 26 | 7 | 6 |
| BAC 0803 | | 3 | 6.2 | | | | | | | | | | | | | | | | | | | | | |



ナット寸法・ねじ軸径・およびリードなどは特殊寸法品・インチサイズ品も製作いたしますので当社までご連絡ください。

Non standard size, inch size of nut, dia, lead can be made.

単位:mm Unit:mm

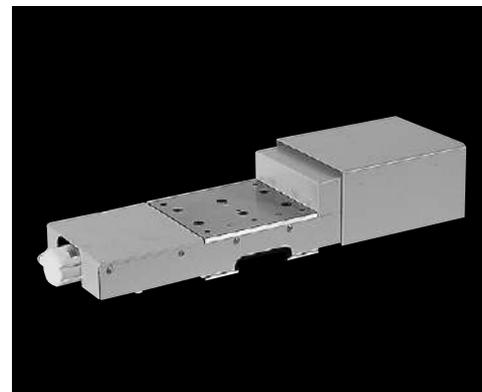
| ナット呼び番号 Nut number | ねじ軸外径d Major dia. of shaft | リード(ℓ) Nominal lead | ねじ軸径dr Root dia. of shaft | ナット寸法 Nut dimensions | | | | | | | | | | | | | | | | | |
|-----------------------|-------------------------------|------------------------|------------------------------|----------------------|----|----|------|----|----|----|----|----|----|----|-----|-----|-----|----|-----|-----|-----|
| | | | | A | W | D | Ds | E | F | L | B | Ld | M | N | X | Y | Z | | | | |
| BAC 1000.5 | 10 | 0.5 | 9.3 | 33 | 25 | 17 | 16.5 | 30 | 21 | 29 | 6 | 23 | 5 | 6 | 3.4 | 6.5 | 3.3 | | | | |
| BAC 1001 | | 1 | 8.7 | | | | | | | | | | | | | | | | | | |
| BAC 1001.5 | | 1.5 | 8.2 | | | | | | | | | | | | | | | | | | |
| BAC 1002 | | 2 | 8.2 | 35 | 27 | 19 | 18 | 32 | 22 | 32 | | 26 | 6 | 7 | | | | | | | |
| BAC 1002.5 | | 2.5 | 8.2 | | | | | | | | | | | | | | | | | | |
| BAC 1003 | | 3 | 7.5 | 42 | 32 | 22 | 21 | 38 | 26 | 42 | | 8 | 34 | 8 | | | | 8 | 4.5 | 8 | 4.4 |
| BAC 1004 | | 4 | 7.5 | | | | | | | | | | | | | | | | | | |
| BAC 1201 | 12 | 1 | 10.7 | 41 | 31 | 21 | 20 | 36 | 25 | 36 | 8 | 28 | 6 | 7 | 4.5 | 8 | 4.4 | | | | |
| BAC 1201.5 | | 1.5 | 10.2 | | | | | | | | | | | | | | | | | | |
| BAC 1202 | | 2 | 9.5 | | | | | | | | | | | | | | | | | | |
| BAC 1202.5 | | 2.5 | 9.5 | 43 | 33 | 23 | 22 | 39 | 27 | 41 | | 33 | 8 | 8 | | | | | | | |
| BAC 1203 | | 3 | 9.5 | | | | | | | | | | | | | | | | | | |
| BAC 1204 | | 4 | 8.5 | 44 | 34 | 24 | 23 | 40 | 27 | 50 | | 10 | 40 | 10 | | | | 10 | | | |
| BAC 1205 | | 5 | 8.5 | | | | | | | | | | | | | | | | | | |
| BAC 1401 | 14 | 1 | 12.7 | 43 | 33 | 23 | 22 | 39 | 27 | 38 | 8 | 30 | 6 | 8 | 4.5 | 8 | 4.4 | | | | |
| BAC 1401.5 | | 1.5 | 12.2 | | | | | | | | | | | | | | | | | | |
| BAC 1402 | | 2 | 11.5 | | | | | | | | | | | | | | | | | | |
| BAC 1402.5 | | 2.5 | 11 | 45 | 35 | 25 | 24 | 41 | 28 | 41 | | 33 | 8 | | | | | | | | |
| BAC 1403 | | 3 | 10.5 | | | | | | | | | | | | | | | | | | |
| BAC 1404 | | 4 | 10.5 | 49 | 37 | 26 | 25 | 44 | 30 | 50 | | 10 | 40 | 10 | | | | 10 | 5.5 | 9.5 | 4.4 |
| BAC 1405 | | 5 | 10.5 | | | | | | | | | | | | | | | | | | |
| BAC 1601 | 16 | 1 | 14.7 | 49 | 37 | 26 | 25 | 44 | 30 | 41 | 11 | 30 | 7 | 8 | 5.5 | 9.5 | 5.4 | | | | |
| BAC 1601.5 | | 1.5 | 14.2 | | | | | | | | | | | | | | | | | | |
| BAC 1602 | | 2 | 13.5 | | | | | | | | | | | | | | | | | | |
| BAC 1602.5 | | 2.5 | 13 | 51 | 39 | 28 | 27 | 46 | 32 | 45 | | 34 | 8 | 10 | | | | | | | |
| BAC 1603 | | 3 | 12.5 | | | | | | | | | | | | | | | | | | |
| BAC 1604 | | 4 | 11.5 | 53 | 41 | 30 | 29 | 48 | 32 | 53 | | 42 | 10 | 10 | | | | | | | |
| BAC 1605 | | 5 | 11.5 | | | | | | | | | | | | | | | | | | |
| BAC 2001 | 20 | 1 | 18.7 | 55 | 43 | 32 | 31 | 50 | 34 | 43 | 11 | 32 | 8 | 8 | 5.5 | 9.5 | 5.4 | | | | |
| BAC 2001.5 | | 1.5 | 18.2 | | | | | | | | | | | | | | | | | | |
| BAC 2002 | | 2 | 17.5 | | | | | | | | | | | | | | | | | | |
| BAC 2002.5 | | 2.5 | 17 | 57 | 45 | 34 | 33 | 50 | 34 | 48 | | 37 | 10 | 10 | | | | | | | |
| BAC 2003 | | 3 | 16.5 | | | | | | | | | | | | | | | | | | |
| BAC 2004 | | 4 | 15.5 | 59 | 47 | 36 | 35 | 53 | 36 | 55 | | 44 | 12 | | | | | | | | |
| BAC 2005 | | 5 | 15.5 | | | | | | | | | | | | | | | | | | |
| BAC 2006 | | 6 | 15.5 | | | | | | | | | | | | | | | | | | |

※本仕様は改良のため予告なく変更する場合がございます。

直動テーブル [Linear positioning table]

カスタムデザインの専用位置決めユニットから量産品のOEMまで当社の技能と技術を結集して製品化します。

ISSOKU offers various precision devices like custom-made unit for positioning by experienced skills and unique technologies. OEM of mass-production machine parts is also available.



精密スピンドル [Precision spindle]

ベーシックなボールベアリング方式を中心に最新の磁気軸受け方式までカバーします。

ISSOKU's spindle units have wide variation from basic system using ball bearings to improved system using magnetic bearings. They apply to various machines mainly.

