

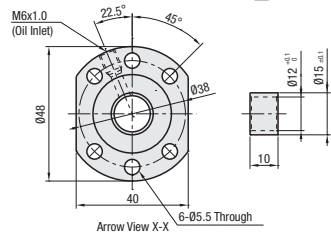
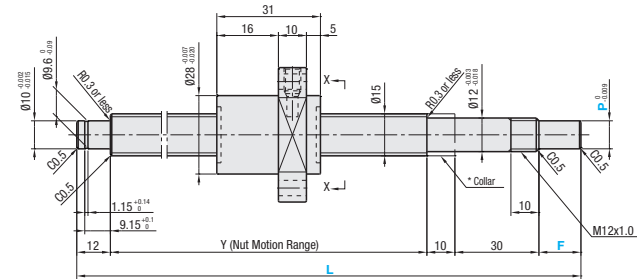
Points of comparison between similar products

- Due to the difference in load rating and positioning accuracy (lead accuracy + axial play), the price is lower than that of similar products.
- When considering adopting C-VALUE parts, select them by comparing against similar products in the specifications. P. 705 - P. 708.



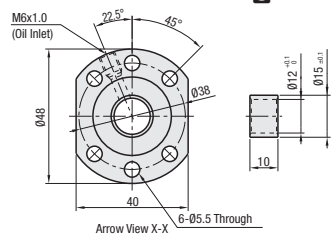
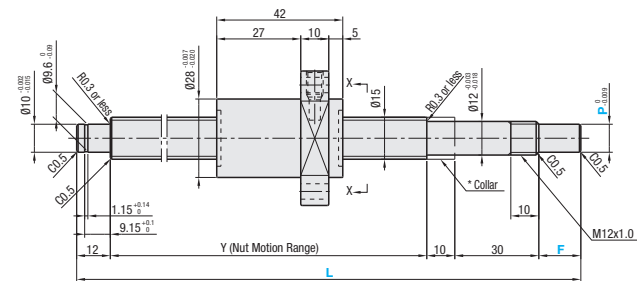
| Nut Type     | Type     |                   | Accuracy Grade | Shaft Dia. | Lead  | Screw Shaft |                                 |                   | Nut      |                         |                   |
|--------------|----------|-------------------|----------------|------------|-------|-------------|---------------------------------|-------------------|----------|-------------------------|-------------------|
|              | Standard | F, P Configurable |                |            |       | Material    | Hardness                        | Surface Treatment | Material | Hardness                | Surface Treatment |
| Standard Nut | C-BSSTA  | C-BSSTAK          | C7             | 15         | 5, 10 | S55C        | Induction Hardened 58 to 62 HRC | -                 | SCM415   | Carburized 58 to 62 HRC | -                 |
|              | C-BSSCA  | C-BSSCAK          | C10            |            |       |             |                                 |                   |          |                         |                   |

C-BSSTA(K), C-BSSCA(K)1505



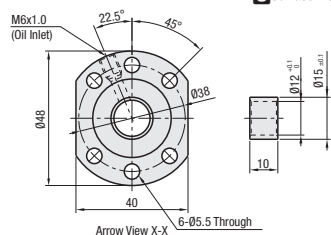
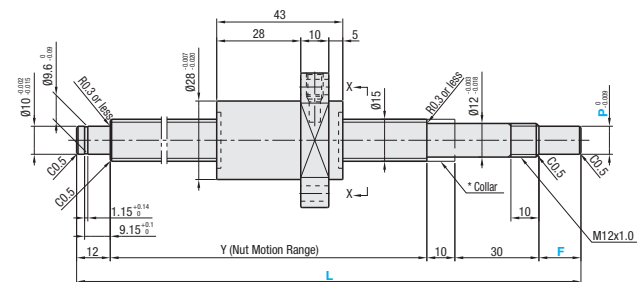
- \*Included Collar (1 pc.)
- M Material: S45C
- S Surface Treatment: Black Oxide

C-BSSTA(K), C-BSSCA(K)1510



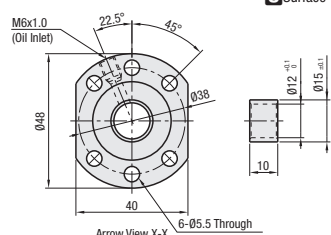
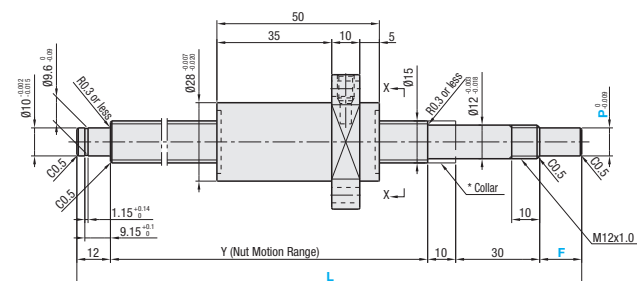
- \*Included Collar (1 pc.)
- M Material: S45C
- S Surface Treatment: Black Oxide

C-BSSTA(K), C-BSSCA(K)1516



- \*Included Collar (1 pc.)
- M Material: S45C
- S Surface Treatment: Black Oxide

C-BSSTA(K), C-BSSCA(K)1520



- \*Included Collar (1 pc.)
- M Material: S45C
- S Surface Treatment: Black Oxide

Similar Product Pages P. 705 ~ P. 708

| Nut Type     | Accuracy Grade | Part Number |                  | 1 mm Increments |              |              | Y      | Ball Dia.    | Ball Center Dia. | Screw Root Dia. | Number of Circuits | Basic Load Rating |                | Axial Play | Twisting Direction |       |
|--------------|----------------|-------------|------------------|-----------------|--------------|--------------|--------|--------------|------------------|-----------------|--------------------|-------------------|----------------|------------|--------------------|-------|
|              |                | Type        | Screw Shaft O.D. | L               | *F           | *P           |        |              |                  |                 |                    | C (Dynamic) kN    | Co (Static) kN |            |                    |       |
| Standard Nut | C7             | C-BSSTA     | 15               | 5               | 150-1200     | 15           | 10     | L - 67       | 2.778            | 15.672          | (12.894)           | 3.8 turns, 1 row  | 3.6            | 7.4        | 0.10 or less       | Right |
|              |                |             |                  |                 |              | C-BSSCA      | 15-30  | 6-10         |                  |                 |                    |                   |                |            |                    |       |
|              | C-BSSTA        | 15          | 10               |                 |              | L - 67       |        |              |                  |                 |                    |                   |                |            |                    |       |
|              | C-BSSCA        | 15-30       | 6-10             |                 |              | L - (52 + F) |        |              |                  |                 |                    |                   |                |            |                    |       |
|              | C-BSSTA        | 15          | 10               |                 |              | L - 67       |        |              |                  |                 |                    |                   |                |            |                    |       |
|              | C-BSSCA        | 15-30       | 6-10             |                 |              | L - (52 + F) |        |              |                  |                 |                    |                   |                |            |                    |       |
|              | C10            | C-BSSTA     | 15               | 10              | 200-1200     | 15           | 10     | L - 67       |                  |                 |                    |                   |                |            |                    |       |
|              |                |             |                  |                 |              | C-BSSCA      | 15-30  | 6-10         |                  |                 |                    | L - (52 + F)      |                |            |                    |       |
|              | C-BSSTA        | 15          | 10               |                 |              | L - 67       |        |              |                  |                 |                    |                   |                |            |                    |       |
|              | C-BSSCA        | 15-30       | 6-10             |                 |              | L - (52 + F) |        |              |                  |                 |                    |                   |                |            |                    |       |
|              | C-BSSTA        | 15          | 10               |                 |              | L - 67       |        |              |                  |                 |                    |                   |                |            |                    |       |
|              | C-BSSCA        | 15-30       | 6-10             |                 |              | L - (52 + F) |        |              |                  |                 |                    |                   |                |            |                    |       |
| C7           | C-BSSTA        | 15          | 16               | 200-1200        | 15           | 10           | L - 67 |              |                  |                 |                    |                   |                |            |                    |       |
|              |                |             |                  |                 | C-BSSCA      | 15-30        | 6-10   | L - (52 + F) |                  |                 |                    |                   |                |            |                    |       |
| C-BSSTA      | 15             | 10          |                  |                 | L - 67       |              |        |              |                  |                 |                    |                   |                |            |                    |       |
| C-BSSCA      | 15-30          | 6-10        |                  |                 | L - (52 + F) |              |        |              |                  |                 |                    |                   |                |            |                    |       |
| C-BSSTA      | 15             | 10          |                  |                 | L - 67       |              |        |              |                  |                 |                    |                   |                |            |                    |       |
| C-BSSCA      | 15-30          | 6-10        |                  |                 | L - (52 + F) |              |        |              |                  |                 |                    |                   |                |            |                    |       |
| C10          | C-BSSTA        | 15          | 20               | 200-1200        | 15           | 10           | L - 67 |              |                  |                 |                    |                   |                |            |                    |       |
|              |                |             |                  |                 | C-BSSCA      | 15-30        | 6-10   | L - (52 + F) |                  |                 |                    |                   |                |            |                    |       |
| C-BSSTA      | 15             | 10          |                  |                 | L - 67       |              |        |              |                  |                 |                    |                   |                |            |                    |       |
| C-BSSCA      | 15-30          | 6-10        |                  |                 | L - (52 + F) |              |        |              |                  |                 |                    |                   |                |            |                    |       |
| C-BSSTA      | 15             | 10          |                  |                 | L - 67       |              |        |              |                  |                 |                    |                   |                |            |                    |       |
| C-BSSCA      | 15-30          | 6-10        |                  |                 | L - (52 + F) |              |        |              |                  |                 |                    |                   |                |            |                    |       |

\*F and P are configurable for C-BSSCHK and C-BSSTHK only. \*F ≤ P x 3 \*Y (Nut Motion Range) > (Nut Overall Length) kgf = N x 0.101972

| Nut Type     | Accuracy Grade | Part Number | JPY Unit Price: 1 to 4 pc(s). |          |          |          |          |           |
|--------------|----------------|-------------|-------------------------------|----------|----------|----------|----------|-----------|
|              |                |             | L150-200                      | L201-400 | L401-600 | L601-800 | L801-900 | L901-1200 |
| Standard Nut | C7             | C-BSSTA1505 |                               |          |          |          |          |           |
|              | C10            | C-BSSCA1505 |                               |          |          |          |          |           |
|              | C7             | C-BSSTA1510 |                               |          |          |          |          |           |
|              | C10            | C-BSSCA1510 |                               |          |          |          |          |           |
|              | C7             | C-BSSTA1516 |                               |          |          |          |          |           |
|              | C10            | C-BSSCA1516 |                               |          |          |          |          |           |
|              | C7             | C-BSSTA1520 |                               |          |          |          |          |           |
|              | C10            | C-BSSCA1520 |                               |          |          |          |          |           |

\*For the price of F, P Configurable Type, add JPY1,550 to the standard type price. E.g.) C-BSSCAK1505 - 300 - F25 - P9 → JPY11,860 + JPY1,550 = JPY13,410

Ordering Example: Part Number - L - F - P  
C-BSSCA1520 - 500  
C-BSSCAK1505 - 1084 - F15 - P6

Alterations: Part Number - L - F - P - (FC, KC, etc.)  
C-BSSCA1505 - 350 - KC10

| Alterations   | Code | Spec.  |
|---|------|--|
| No Machining on Both Shaft Ends (Annealing Range) 4-C Nut | WNC  | Does not machine any of the both shaft ends. [Ordering Code] WNC-S20-F80<br>*Annealing may lower hardness on the annealed area + 25 mm fore and aft.<br>*S + F ≤ L/2 *L - (S + F) ≤ Y + 50<br>*On the annealed area + 25 mm fore and aft, axis run-out may be larger than indicated by the catalog standard. |
| No Machining on Support Side Shaft End                    | NC   | No machining added on the support side shaft end. [Ordering Code] NC   |
| Ball Nut Orientation Reversed                             | RLC  | Changes the nut direction. [Ordering Code] RLC   |
| No Retaining Ring Groove on Support Side Shaft End        | RNC  | No retaining ring groove is machined on the support side shaft end. [Ordering Code] RNC *Combination with FC is not available.   |
| Change Support Side Shaft End Length                      | FC   | Changes the length of the support side shaft end. FC = 1 mm Increments [Ordering Code] FC20<br>*13 ≤ FC ≤ 30<br>*Y dimension is shortened.<br>*Combination with GC is not available.   |
| Change Support Side Shaft End Machining                   | GC   | Changes the machining on the support side. G is selectable from 8, 10 or 12. G = 1 mm Increments [Ordering Code] GC - Q8 - G20<br>*5 ≤ G ≤ 0 x 3 *Y dimension is shortened.<br>*No Retaining Ring Groove *Combination with FC is not available.  |
| Tapped Hole on Support Side Shaft End                     | MC   | Adds a tapped hole on the support side shaft end. MC = 1 mm Increments [Ordering Code] MC20<br>M x 0.8 12 *Y dimension is shortened.<br>*18 ≤ MC ≤ 30  |

- Notes
- \*Filled with lithium soap based grease (Alvania Grease S2 made by Showa Shell Sekiyu K.K.).
  - \*For accuracy of Ball Screws, see P. 2285, 2286.
  - \*For details of Support Units, see P. 771 ~ P. 796.
  - \*Caution: Do not let the nuts overrun or remove the nuts from the screw shafts. It may cause the balls to fall out or damage the ball recirculation parts.
  - \*The collar included with this product should be installed in the same position as indicated with the "Collar" text on the drawing. In addition, the collar included with the Support Unit product should be installed and tightened on the nut side of the ball screw.
  - \*Note that, when a ball screw shaft or ball screw nut is tilted, it may be fallen out by its own weight.

| Alterations  | Code     | Spec.  |
|--|----------|--|
| Wrench Flats on Fixed Side                                       | SZC      | Adds wrench flats on the fixed side shaft end. [Ordering Code] SZC<br>*Ball bearings will fall out if the ball nut crosses the wrench flats.   |
| Keyway on Fixed Side Shaft End Detailed Keyway Dimensions P. 684 | KC       | Adds a keyway on the fixed side shaft end. KC = 1 mm Increments [Ordering Code] KC10<br>*3 ≤ KC ≤ P x 3, KC ≤ F - 1  |
| Keyway on Fixed Side Shaft End                                   | KLC      | Adds a keyway at a customer specified area on the fixed side shaft end. (Keyway dim. is same as that of KC). K, S = 1 mm Increments [Ordering Code] KLC - K5 - S3<br>*4 ≤ K + S ≤ P x 3, K + S ≤ F - 1 |
| Flat Machined on Fixed Side Shaft End                            | SC       | Adds a flat on the fixed side shaft end. SC = 1 mm Increments [Ordering Code] SC10<br>*5 ≤ SC ≤ P x 3, SC ≤ F - 1  |
| 2 Flats Machined on Fixed Side Shaft End                         | SWC, SGC | Adds two flats on the fixed side shaft end. SWC: 90° Position, SGC: 120° Position 1 mm Increments [Ordering Code] SWC10<br>*5 ≤ SWC/SGC ≤ P x 3, SWC/SGC ≤ F - 1                                       |
| Installing Special Temporary Shaft                               | TAS      | Special Temporary Shafts suitable with Ball Screws are installed. When removing Nut from Screw Shaft, always use Special Temporary Shaft.<br>*For installation method, see P. 685.                     |

Combination with Support Units

| Ball Screw Part Number | Recommended Support Unit |                      |      |                      |        |
|------------------------|--------------------------|----------------------|------|----------------------|--------|
|                        | Type                     | Screw Shaft O.D.     | Lead | Part Number Type No. | Page   |
| C-BSSCA<br>C-BSSTA     | 15                       | 05<br>10<br>16<br>20 | 12   | C-BSW                | P. 763 |
|                        |                          |                      |      | C-BUN                | P. 764 |
|                        |                          |                      |      | C-BRW                | P. 769 |
|                        |                          |                      |      | C-BUR                | P. 770 |

\*Nut Brackets for C-Value Ball Screws are not available.

\*Other than the part numbers shown above, a rich variety of Support Units are also available. (P. 761 - P. 780)