

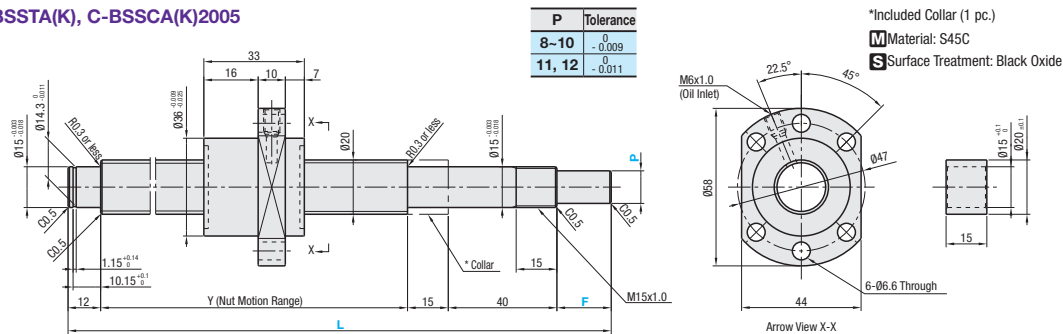
Points of comparison between similar products

- 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. 711 ~ P. 714.

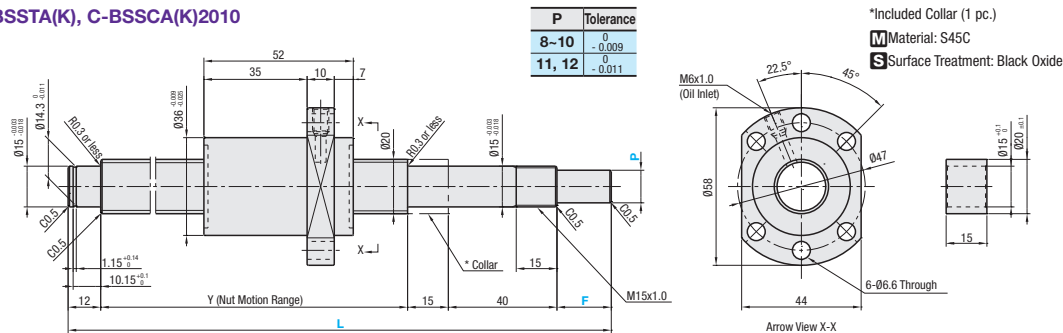


Nut Type	Type		Accuracy Grade	Shaft Dia.	Lead	Screw Shaft			Nut		
	Standard	F, P Configurable				Material	Hardness	Surface Treatment	Material	Hardness	Surface Treatment
Standard Nut	C-BSSTA C-BSSCA	C-BSSTAK C-BSSCAK	C7 C10	20	5, 10, 20	S55C	Induction Hardened 58 to 62 HRC	-	SCM415	Carburized 58 to 62 HRC	-

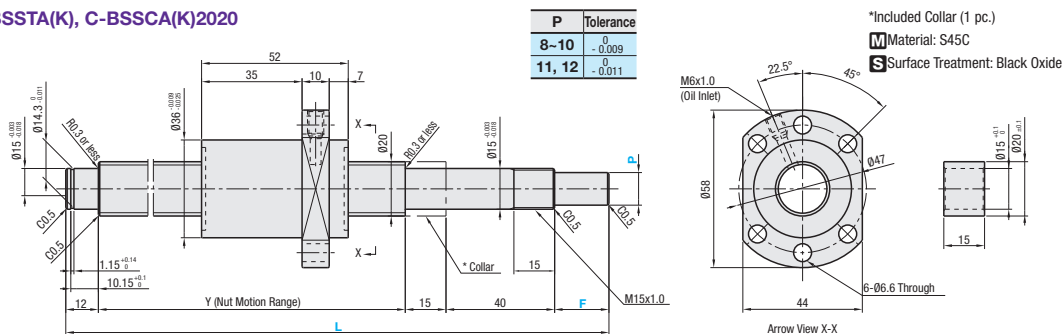
C-BSSTA(K), C-BSSCA(K)2005



C-BSSTA(K), C-BSSCA(K)2010



C-BSSTA(K), C-BSSCA(K)2020



Nut Type	Accuracy Grade	Part Number	Screw Shaft O.D.	Lead	1 mm Increments			Y	Ball Dia.	Ball Center Dia.	Screw Root Dia.	Number of Circuits	Basic Load Rating		Axial Play	Twisting Direction
					L	*F	*P						C (Dynamic) kN	Co (Static) kN		
Standard Nut	C7	C-BSSTA C-BSSTAK C-BSSCA C-BSSCAK	20	5	200-2000	20	12	L - 87	3.175	21.08	(17.905)	3.8 turns, 1 row	4.3	10.3	0.10 or less	Right
						20-36	8-12	L - (67 + F)								
						20	12	L - 87								
						20-36	8-12	L - (67 + F)								
	C10	C-BSSTA C-BSSTAK C-BSSCA C-BSSCAK	20	10	250-2000	20	12	L - 87	3.175	21.08	(17.905)	3.8 turns, 1 row	4.3	10.3	0.15 or less	Right
						20-36	8-12	L - (67 + F)								
						20	12	L - 87								
						20-36	8-12	L - (67 + F)								
	C7	C-BSSTA C-BSSTAK C-BSSCA C-BSSCAK	20	20	20	20	12	L - 87	3.175	20.75	(17.575)	1.8 turns, 1 row	4.3	10.3	0.10 or less	Right
						20-36	8-12	L - (67 + F)								
						20	12	L - 87								
						20-36	8-12	L - (67 + F)								

\*F and P are configurable for C-BSSCAK and C-BSSTAK only. \*F ≤ P × 3 \*Y (Nut Motion Range) > (Nut Overall Length)

kgf = N × 0.101972

Nut Type	Accuracy Grade	Part Number	JPY Unit Price: 1 to 4 pc(s).					
			L200-400	L401-600	L601-800	L801-1000	L1001-1200	L1201-1500
Standard Nut	C7	C-BSSTA2005						
	C10	C-BSSCA2005						
	C7	C-BSSTA2010						
	C10	C-BSSCA2010						
	C7	C-BSSTA2020						
	C10	C-BSSCA2020						

\*For the price of F, P Configurable Type, add JPY1,550 to the standard type price. E.g.)C-BSSCHK2005 - 300 - F21 - P10 → JPY12,080 + JPY1,550 = JPY13,630



Ordering Example  
Part Number - L - F - P  
C-BSSCA2005 - 500  
C-BSSCAK2010 - 1284 - F21 - P10

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.
- Cautions: 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 Part Number - L - F - P - (FC, KC...etc.)  
C-BSSCA2005 - 245 - 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 • Annealing may lower hardness on the annealed area + 25 mm fore and aft. • S + F ≤ L/2 • L - (S + F) ≤ Y + 50 • 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 (Support Side) (Fixed Side)	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 Machining	GC	Changes the machining on the support side. Q is selectable from 10, 12 or 15. G = 1 mm Increments [Ordering Code] GC - Q10 - G20 • 5 ≤ Q ≤ 15 • Y dimension is shortened. • No Retaining Ring Groove • 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 • 13 ≤ FC ≤ 30 • Y dimension is shortened. • Combination with GC 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] MC25 M L M6 x 1.0 15 • 21 ≤ MC ≤ 30 • Y dimension is shortened.

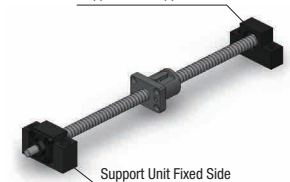
Alterations	Code	Spec.
Wrench Flats on Fixed Side	SZC	Adds wrench flats on the fixed side shaft end. [Ordering Code] SZC • Ball bearings will fall out if the ball nut crosses the wrench flats.
Keyway on Fixed Side Shaft End Detailed Keyway Dimensions P. 684	KC	Adds a keyway on the fixed side shaft end. KC = 1 mm Increments [Ordering Code] KC15 • 4 ≤ KC ≤ P × 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 - K7 - S2 • 5 ≤ K + S ≤ P × 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] SC7 • 5 ≤ SC ≤ P × 3, SC ≤ F - 1
2 Flats Machined on Fixed Side Shaft End SWC SGC	SWC SGC	Adds two flats on the fixed side shaft end. SWC: 90° Position, SGC: 120° Position 1 mm Increments [Ordering Code] SWC10 • 5 ≤ SWC/SGC ≤ P × 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. • 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.	Shape	Fixed Side Support Side Page	
C-BSSCA C-BSSTA	20	05 10 20	15	C-BSW	Square	○	P. 763
				C-BUN			P. 764
				C-BRW			P. 769
				C-BUR			P. 770

• Other than the part numbers shown above, a rich variety of Support Units are also available. (P. 761 - P. 780)  
• Nut Brackets for C-Value Ball Screws are not available.

Support Unit Support Side



Support Unit Fixed Side