

# Rolled Ball Screws Compact Nut (Shaft Diameter 20, 25, Lead 5, 10, 25)

Accuracy Grade C7, C10

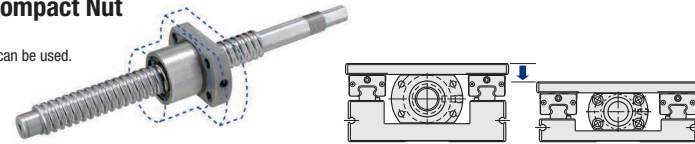
Rolled Ball Screws Compact Nut (Shaft Diameter 20, 25, Lead 5, 10, 25) – Accuracy Grade C7, C10



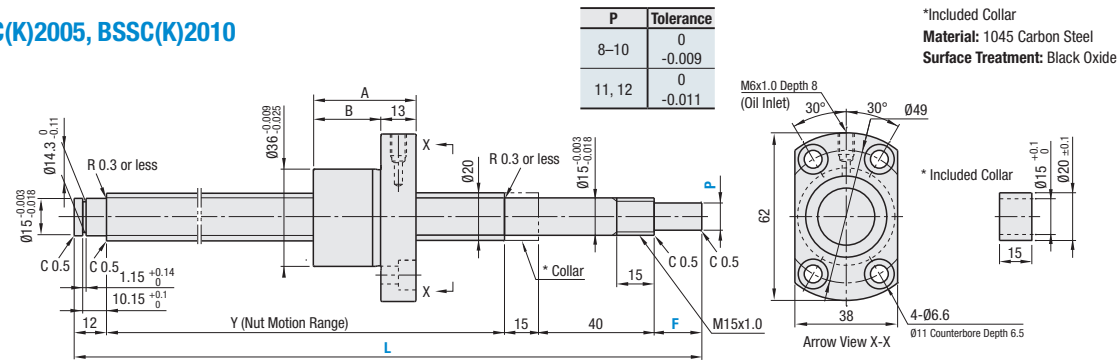
Nut Type	Type		Accuracy Grade	Shaft Diameter	Lead	Screw Shaft			Nut		
	Standard	F, P Configurable				Material	Hardness	Surface Treatment	Material	Hardness	Surface Treatment
Compact Nut	BSSC	BSSCK	C10	20	5-10	1055 Carbon Steel	Induction Hardened 56-62 HRC min.	—	JIS SCM420H	Carburized 58-62 HRC min.	—
				25	5						

### Features of Compact Nut

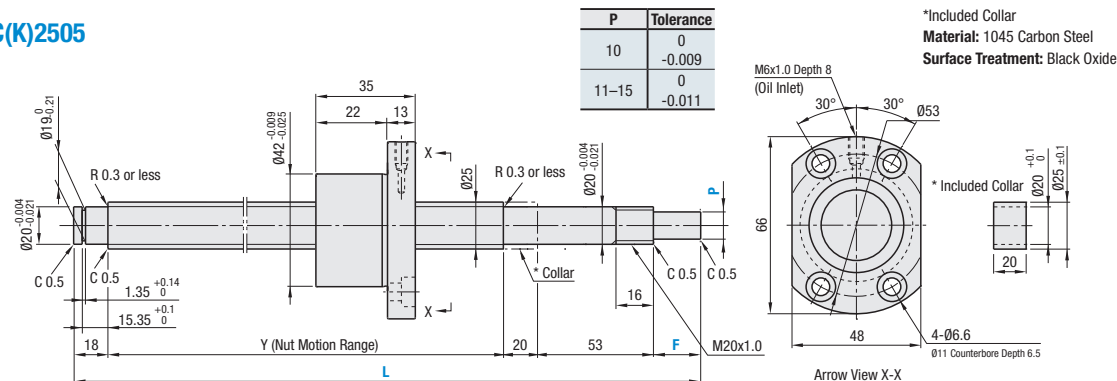
- Compact O.D.
- Lower profile sliders can be used.
- Longer strokes



### BSSC(K)2005, BSSC(K)2010



### BSSC(K)2505



Nut Type	Accuracy Grade	Part Number		1 mm Increment			A	B	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		
Compact Nut	C10	BSSC	20	200-2000	20	12	38	25	L-87	3.175	20.5	(17.25)	4 Turns, 1 Row	6.6	14.05	0.10 or Less	Right
					20-36	8-12											
		BSSCK	20	250-2000	20	12	58.5	45.5	L-87					L-(67+F)			
					20-36	8-12											
		BSSC	25	200-2000	27	15	—	—	L-118					L-(91+F)			
					27-45	10-15											
BSSCK	25	200-2000	27	15	—	—	L-118	L-(91+F)									
			27-45	10-15													

\*F and P are configurable for BSSCK only.  $F \leq P \times 3$ .  $kgf = N \times 0.101972$

# Rolled Ball Screws Compact Nut (Shaft Diameter 20, 25, Lead 5, 10, 25)

Accuracy Grade C7, C10, continued

**Part Number Example**  
 Part Number: BSSC2005 - 300  
 BSSCK2505 - 300 - F32 - P13

**Part Number Alterations**  
 Part Number: BSSC2005 - 350  
 - (FC, KC, etc.)  
 - KC10

Alterations	Code	Spec.
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	Retaining ring groove is not 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. For Screw Shaft 20, Q is selectable from 10, 12 and 15. For Screw Shaft 25, Q is selectable from 10, 12, 15 and 20. G = 1 mm Increment Ordering Code: GC-Q10-G20 ⊕ $5 \leq G \leq Q \times 3$ ⊕ Y dimension is shortened.
Change Support Side Shaft End Length	FC	Changes the length of the support side shaft end. FC = 1 mm Increment Ordering Code: FC20 ⊕ $13 \leq FC \leq 30$ (BSSC(K)2005, 2010) ⊕ $19 \leq FC \leq 60$ (BSSC(K)2505) ⊕ Y dimension is shortened.
Tapped Hole on Support Side Shaft End	MC	Adds a tapped hole on the support side shaft end. MC = 1 mm Increment Ordering Code: MC25

Peripherals: Combination of the following parts are available.



### Combination with Support Units

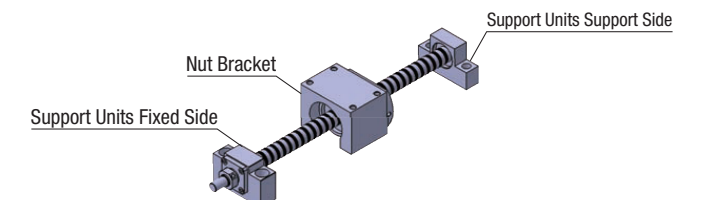
Type	Screw Shaft Outer Dia.	Lead	Recommended Support Units				
			Part Number	Shape	Fixed Side	Support Side	Page
BSSC	20	05 10	BSV 15	Square Low Profile	○	—	796
			BUV 15	—	○	—	799
			BRW 15	—	○	—	800
	25	05	BUR 15	Round	—	○	802
			BSV 20	Square Low Profile	○	—	796
			BUV 20	—	○	—	799
BUN 20	Round	○	—	794			
BUN 20	Round	—	○	798			

⊕ Aside from the part numbers shown above, there are a variety of other Support Units available. (P.792-802).

### Note:

- ⊕ Filled with lithium soap based grease (Alvania Grease S2 made by Showa Shell Sekiyu K.K.).
- ⊕ For accuracy of Ball Screws, see P.752-754.
- ⊕ For details of Support Units, see P.792-802.
- ⊕ Caution: Do not remove any nuts from their screw shafts or allow nuts to overrun the stroke. It may cause the balls to fall out or damage the ball recirculation parts.
- ⊕ Included Collar is packaged together with main body of Ball Screws. Store this included Collar with care. It is required when mating with Support Units.
- ⊕ Do not tilt the ball screw assembly. Due to its weight, the nut may rotate off of the shaft.

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.752.	KC	Adds a keyway on the fixed side shaft end. KC = 1 mm Increment Ordering Code: KC15 ⊕ $4 \leq KC \leq P \times 3$ KC $\leq$ F-1 (BSSC(K)2005, 2010) ⊕ $5 \leq KC \leq P \times 3$ KC $\leq$ F-1 (BSSC(K)2505)
Keyway on Fixed Side Shaft End	KLC	Adds a keyway at a customer specified area on the fixed side shaft end. (Key groove dim. is the same as KC.) K, S = 1 mm Increment Ordering Code: KLC-K7-S2 ⊕ $5 \leq K+S \leq P \times 3$ K+S $\leq$ F-1 (BSSC(K)2005, 2010) ⊕ $6 \leq K+S \leq P \times 3$ K+S $\leq$ F-1 (BSSC(K)2505)
Flat Machined on Fixed Side Shaft End	SC	Adds a flat on the fixed side shaft end. SC = 1 mm Increment Ordering Code: SC7 ⊕ $5 \leq SC \leq P \times 3$ SC $\leq$ F-1
2 Flats on Fixed Side Shaft End	SWC, SGC	Adds two flats on the fixed side shaft end. SWC: 90° Position SGC: 120° Position 1 mm Increment Ordering Code: SWC10 ⊕ $5 \leq SWC, SGC \leq P \times 3$ SWC, SGC $\leq$ F-1
Installing Special Temporary Shaft	TAS	Special Temporary Shaft used for installing Ball Screw Nut. Always use Special Temporary Shaft when removing or installing Ball Screw Nut.



### Combination with Nut Brackets

Type	Screw Shaft Outer Diameter	Lead	Recommended Nut Brackets		
			Type	No.	Page
BSSC	20	05	BNFB	2505C	810
		10	BNFM	2010R	810
	25	05	BNFR	2505C	810
		10	BNFA		