

# Rolled Ball Screws Compact Nut (Shaft Dia. 12, Lead 4: Shaft Dia. 15, Lead 5 to 10) Accuracy Grade C10

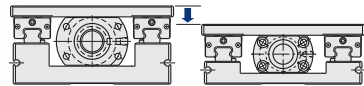
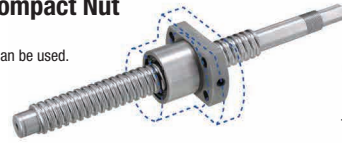
Rolled Ball Screws Compact Nut (Shaft Dia. 8, Lead 2: Shaft Dia. 10, Lead 4) - Accuracy Grade C10



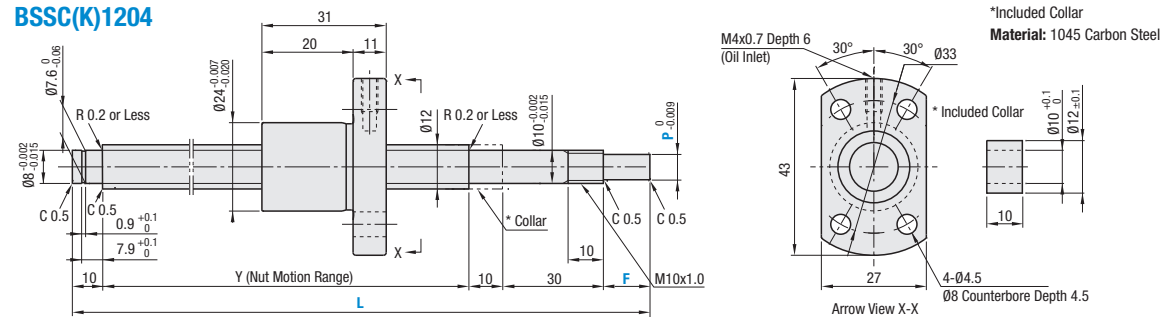
Nut Type	Type		Accuracy Grade	Shaft Diameter	Lead	Screw Shaft			Nut		
	Standard	F, P Configurable				Material	Hardness	Surface Treatment	Material	Hardness	Surface Treatment
Compact Nut	BSSC	BSSCK	C10	12	4	1055 Carbon Steel	Induction Hardened 56-62 HRC min.	—	JIS SCM420H	Carburized 58-62 HRC min.	—
				15	5, 10						

### Features of Compact Nut

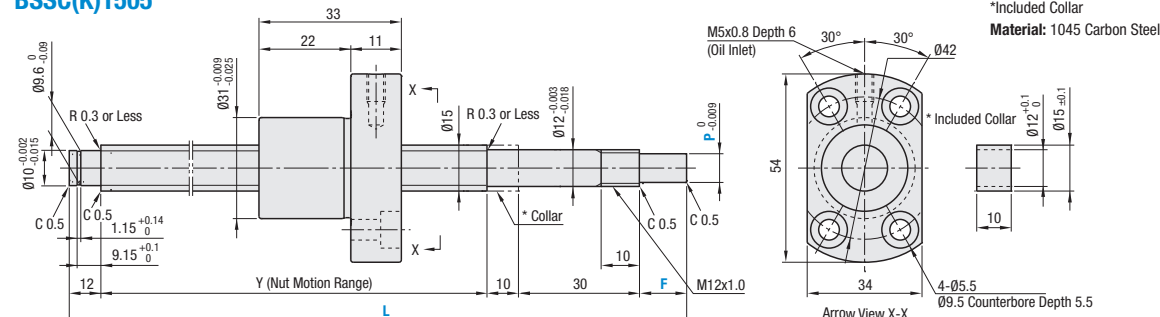
- Compact O.D.
- Lower profile sliders can be used.
- Longer strokes



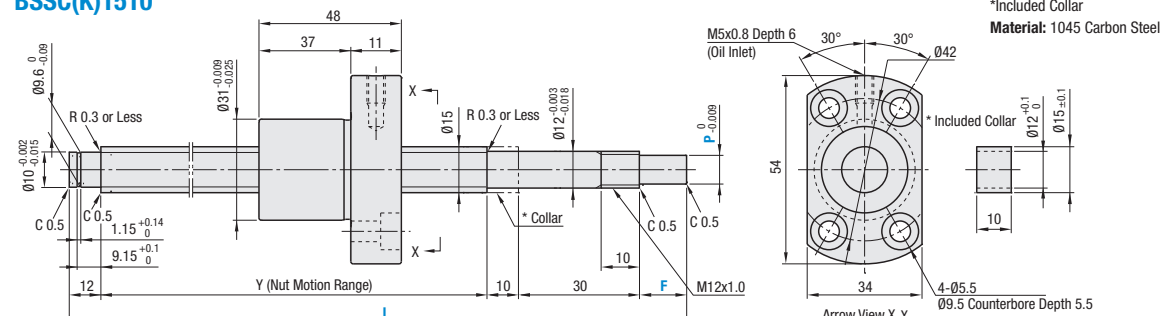
### BSSC(K)1204



### BSSC(K)1505



### BSSC(K)1510



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.	Lead	L	*F	*P								C (Dynamic) kN	Co (Static) kN		
Compact Nut	C10	BSSC	12	04	150-800	15	8	—	—	L-65	2	12.25	(10.4)	4 Turns, 1 Row	2.79	5.27	0.05 or Less	Right
					15-24	5-8												
		BSSCK	15	05	150-1200	15	10	33	22	L-67	3.175	15.5	(12.25)	3 Turns, 1 Row	4.14	7.06	0.10 or Less	
					15-30	6-10												
		BSSC	15	10	200-1200	15	10	48	37	L-67	3.175	15.5	(12.25)	3 Turns, 1 Row	4.25	7.45	0.10 or Less	
					15-30	6-10												
BSSCK	15	10	200-1200	15	10	48	37	L-(52+F)	3.175	15.5	(12.25)	3 Turns, 1 Row	4.25	7.45	0.10 or Less			
			15-30	6-10														

\*F and P are configurable for BSSCK only. F ≤ Px3, kgf = Nx0.101972

# Rolled Ball Screws Compact Nut (Shaft Dia. 12, Lead 4: Shaft Dia. 15, Lead 5 to 10) Accuracy Grade C10, continued

Part Number Example

Part Number	-	L	-	F	-	P
BSSC1204	-	300	-		-	
BSSCK1505	-	300	-	F15	-	P6

Part Number Alterations

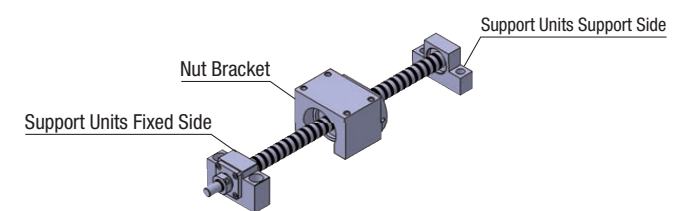
Part Number	-	L	-	F	-	P	-	(FC, KC, etc.)
BSSC1505	-	270	-		-		-	SC7

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	RLC	Changes the nut direction. Ordering Code: RLC
No Retaining Ring Groove on Support Side Shaft End	RNC	Retaining ring groove in 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 12, Q is selectable from 6, 8; for Screw 15, Q is selectable from 8, 10, and 12. G = 1 mm Increment Ordering Code: GC-Q8-G20 ⊕ 5 ≤ G ≤ Qx3 ⊕ 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 ≤ FC ≤ 30 (BSSC(K)2005, 2010) ⊕ 19 ≤ FC ≤ 60 (BSSC(K)2005) ⊕ 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: MC20 M    ℓ    ⊕ 18 ≤ MC ≤ 30 M5 x 0.8    12    ⊕ Y dimension is shortened. (Only for BSB(K)1505, BSB(K)1510)

- 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.
Incomplete Hardened Area	KC	Adds a keyway on the fixed side shaft end. P=5 is not applicable. KC = 1 mm Increment Ordering Code: KC10 ⊕ 3 ≤ KC ≤ Px3 KC ≤ F-1
Keyway on Fixed Side Shaft End Detailed Keyway Dimensions P.752.	KLC	Adds a keyway at a customer specified area on the fixed side shaft end. (Key groove dim. is the same as KC.) ⊕ P = 5 is not applicable. K, S = 1 mm Increment Ordering Code: KLC-K5-S2 ⊕ 4K+S ≤ Px3 K+S ≤ F-1
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 ≤ SC ≤ Px3 SC ≤ 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: SWC7 ⊕ 5 ≤ SWC, SGC ≤ Px3 SWC, SGC ≤ 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.

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	
BSSC	12	04	BSV 10S	Square Low Profile	○	—	796
			BUV 10	—	○	—	799
			BRW 10S	Round	○	—	800
	15	05 10	BUR 10	—	—	○	802
			BSV 12	Square Low Profile	○	—	796
			BUV 12	—	—	○	799
			BSW 12	Round	○	—	794
			BUN 12	—	—	○	798

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

### Combination with Nut Brackets

Type	Screw Shaft Outer Diameter	Lead	Recommended Nut Brackets		
			Part Number	Type	Page
BSSC	12	04	BNFB	1204C	810
			BNFM		
	15	10	BNFR	1505R	810
			BNFA		