

# Rolled Ball Screws Standard Nut (Shaft Dia. 10: Lead 2, 4, 10)

Accuracy Grade C7, C10

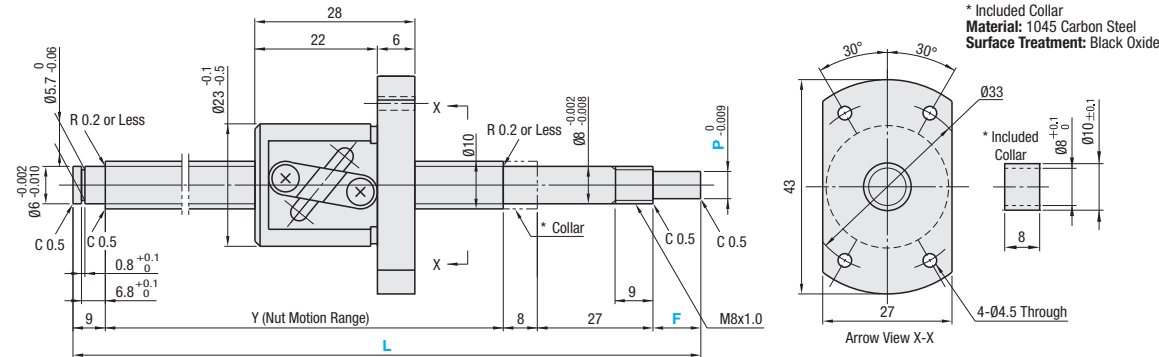
Rolled Ball Screws Standard Nut (Shaft Dia. 10: Lead 2, 4, 10) – Accuracy Grade C7, C10

RoHS10

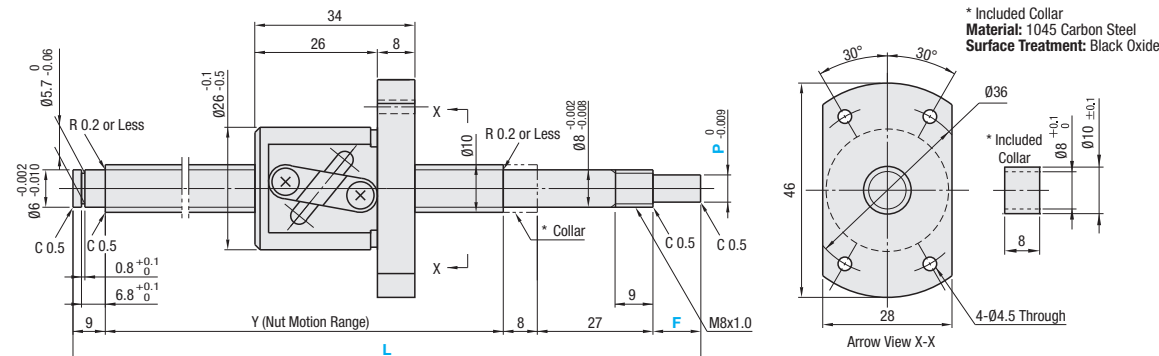


Nut Type	Type		Accuracy Grade	Shaft Dia.	Lead	Screw Shaft			Nut		
	Standard	F, P Configurable				Material	Hardness	Surface Treatment	Material	Hardness	Surface Treatment
Standard Nut	BSSZ	—	C7	10	4	1055 Carbon Steel	Induction Hardened 56–62HRC	Phosphate Conversion Coating	JIS SCM420	Carburized 58–62HRC	Ⓢ Phosphate Conversion Coating
	BSSR	BSSRK	C10								Ⓢ Phosphate Conversion Coating
	BSSZ	BSSZK	C10								Ⓢ Phosphate Conversion Coating

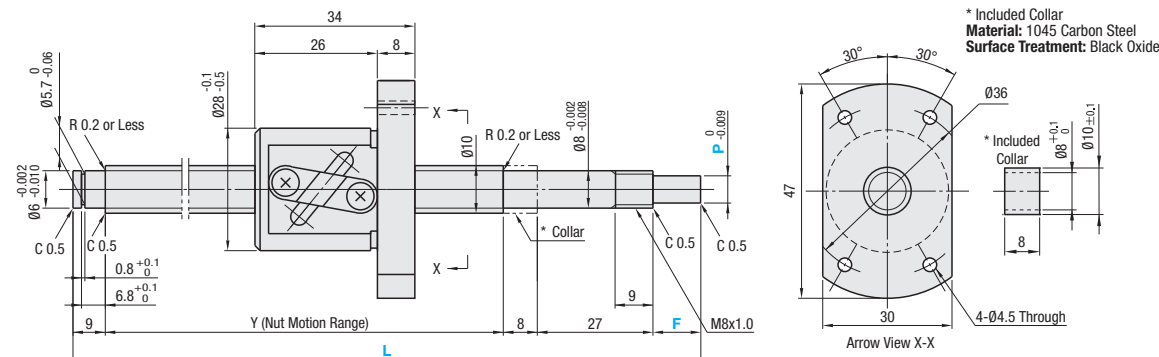
## BSSR (K) 1002



## BSSZ1004, BSSR (K) 1004, BSSZ (K) 1004



## BSSR (K) 1010



Nut Type	Accuracy Grade	Part Number	1mm Increment				Ball Dia.	Ball Center Dia.	Screw Root Dia.	Number of Circuits	Basic Load Rating		Axial Play	Twisting Direction	
			L	*F	*P	Y					C (Dynamic) kN	Co (Static) kN			
Standard Nut	C10	BSSR	10	02	150–585	10	6	L-54	1.5875	10.3	(8.4)	2.5 turns, 1 row	1.7	3	0.05 or Less
		BSSRK				10–18	5, 6	L-(44+F)							
	C7	BSSZ	10	04	150–600	10	6	L-54	2.3812	10.6	(7.8)	1.5 turns, 1 row	2.3	4.8	0.03 or Less
		BSSR				10–18	5, 6	L-(44+F)							
		BSSRK				10–18	5, 6	L-(44+F)							
		BSSZK				10–18	5, 6	L-(44+F)							
C10	BSSR	10	10	150–585	10	6	L-54	2.3812	10.6	(7.8)	1.5 turns, 1 row	1.85	3.2	0.05 or Less	
	BSSRK				10–18	5, 6	L-(44+F)								

\* F and P are configurable for BSSRK and BSSZK only. Ⓢ F≤Px3

kgf=Nx0.101972

# Rolled Ball Screws Standard Nut (Shaft Dia. 10: Lead 2, 4, 10)

Accuracy Grade C7, C10, continued

Nut Type	Accuracy Grade	Part Number	Available Types		
			L150~200	L201~400	L401~600
Standard Nut	C10	BSSR1002	•	•	•
	C7	BSSZ1004	•	•	•
		BSSR1004	•	•	•
	C10	BSSZ1004	•	•	•
BSSR1010		•	•	•	



Part Number Example

Part Number	-	L	-	F	-	P
BSSZ1004	-	200	-		-	
BSSZK1004	-	370	-	F15	-	P6
BSSR1004L	-	370	-		-	(L Type Greased)
BSSR1004G	-	370	-		-	(G Type Greased)



Part Number Alterations

Part Number	-	L	-	F	-	P	-	(FC, KC, etc.)
BSSR1004	-	270	-		-		-	SC7

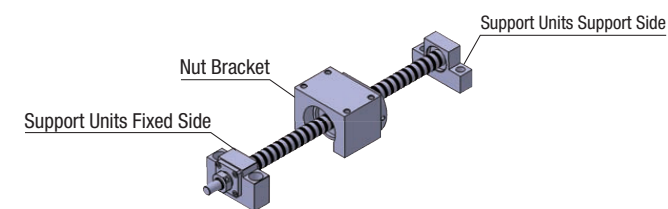
Alterations	Code	Spec.
No Machining on Support Side Shaft End	NC	No machining added on the support side shaft end. Ordering Code: NC
Ball Nut Orientation Reversed (Support Side) (Fixed Side)	RLC	Changes the nut direction. Ordering Code: RLC
No Retaining Ring Groove on Support Side Shaft End	RNC	Retaining 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 Length	FC	Changes the length of the support side shaft end. FC=1mm Increment Ordering Code: FC20 Ⓢ 11≤FC≤20 Ⓢ Y dimension is shortened.
Wrench Flats on Fixed Side	SZC	Adds wrench flat on the fixed side shaft end. Ordering Code: SZC Ⓢ A ball bearings will fall out if a ball nut crosses the wrench flat.

## Notes

- Ⓢ Mounting surface of BSST ball nut flange is not surface-treated.
- Ⓢ Filled with lithium soap based grease (Alvania Grease S2 made by Showa Shell Sekiyu K.K.).
- Ⓢ Various grease options are available. For specifications, P.752.
- Ⓢ For accuracy of Ball Screws, see P.752–754.
- Ⓢ For details of Support Units, see P.792–802.
- Ⓢ Cautions: Do not let the nuts overrun its stroke or remove the nuts from the screw shafts. 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 since it is required when mating with Support Units.
- Ⓢ Do not tilt the ball screw assembly since the nut may rotate off from the shaft due to its own weight.

Alterations	Code	Spec.
Keyway on Fixed Side Shaft End	KC	Adds a keyway on the fixed side shaft end. Ⓢ P=5 is not applicable. KC=1mm Increment Ordering Code: KC5 Ⓢ 2≤KC≤Px3 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 KC.) Ⓢ P=5 is not applicable. K, S=1mm Increment Ordering Code: KLC-K5-S2 Ⓢ 3≤K+S≤Px3 K+S≤F-1
Flat Machined on Fixed Side Shaft End	SC	Adds a flat on the fixed side shaft end. SC=1mm Increment Ordering Code: SC7 Ⓢ 5≤SC≤Px3 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 1mm 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

Ball Screw Part Number	Recommended Support Units						
	Type	Screw Shaft O.D.	Lead	Part Number	Shape	Fixed Side / Support Side	Page
BSST BSSR BSSZ	10	02 04 10	BRW BUR BSW BUN	8S 6 8S 8	Round Square	○ —	P.800
						— ○	P.802
						○ —	P.794
						— ○	P.798

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

## Combination with Nut Brackets

Ball Screw Part Number	Recommended Nut Bracket				
	Type	Screw Shaft O.D.	Lead	Part Number	Page
BSST BSSR BSSZ	10	02 04 10	BNFB BNFM BNFR BNFA	1002R	P.810
				1004R	P.810
				1010R	P.810