

Rolled Ball Screws Standard Nut (Shaft Diameter 28 / 32, Lead 6, 10, 32)

Accuracy Grade C10

Rolled Ball Screws Standard Nut (Shaft Diameter 28 / 30, Lead 6, 10, 32) – 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
Standard Nut	BSSR	BSSRK	C10	28, 32	6, 10, 32	1055 Carbon Steel	Induction Hardened 56-62 HRC min.	Phosphate Conversion Coating	JIS SCM420	Carburized 58-62 HRC min.	Low Temp. Black Chrome
	BSSZ	BSSZK									

BSSR (K) 2806, BSSZ (K) 2806

*Included Collar
Material: 1045 Carbon Steel
Surface Treatment: Black Oxide

P	Tolerance
10	0 -0.009
11, 15	0 -0.011

BSSR (K) 3210, BSSZ (K) 3210

*Included Collar
Material: 1045 Carbon Steel
Surface Treatment: Black Oxide

P	Tolerance
11-18	0 -0.011
19, 20	0 -0.013

BSSR (K) 3232, BSSZ (K) 3232

*Included Collar
Material: 1045 Carbon Steel
Surface Treatment: Black Oxide

P	Tolerance
11-18	0 -0.011
19, 20	0 -0.013

Ball Nut Type	Precision Class	Part Number	1 mm Increment				Ball Dia.	Ball Center Dia.	Screw Root Dia.	Number of Circuits	Basic Load Rating		Allowable Axial Play	Twisting Direction
			L	*F	*P	Y					C (Dynamic) kN	Co (Static) kN		
Standard Ball Nut	C10	28	06	250-2000	27	15	L-118	3.175	28.8	(25.6)	2.5 Turn, 2 Line	12.1	42.3	0.10 or Less
					27-45	10-15	L-(91+F)							
					33	20	L-140							
					33-60	11-20	L-(107+F)							
					33	20	L-140							
					33-60	11-20	L-(107+F)							
		32	10	300-2000	33	20	L-140	6.35	33.8	(27.2)	1.5 Turn, 2 Line	14.6	38.9	0.15 or Less
					33-60	11-20	L-(107+F)							
					33	20	L-140							
					33-60	11-20	L-(107+F)							
					33	20	L-140							
					33-60	11-20	L-(107+F)							

* F and P are configurable for BSSRK and BSSZK only. Ⓞ F ≤ Px3 kgf = Nx0.101972.

Rolled Ball Screws Standard Nut (Shaft Diameter 28 / 32, Lead 6, 10, 32)

Accuracy Grade C10, continued

Ball Screws & Support Units

Nut Type	Accuracy Grade	Part Number	Available Types						
			L250-299	L300-400	L401-600	L601-800	L801-1000	L1001-1200	L1201-1500
Standard Nut	C10	BSSR2806	•	•	•	•	•	•	•
		BSSZ2806	•	•	•	•	•	•	•
		BSSR3210	•	•	•	•	•	•	•
		BSSZ3210	•	•	•	•	•	•	•
		BSSR3232	•	•	•	•	•	•	•
		BSSZ3232	•	•	•	•	•	•	•

Part Number Example

Part Number - L - F - P

BSSR2806 - 270

BSSZK232 - 270 - F40 - P15

BSSR3210L - 370 L Type Greased

BSSR3232G - 370 G Type Greased

Part Number Alterations

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

BSSZ2806 - 700 - RLC

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 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. Q is selectable from 10, 12, 15, 20, 25. G=1mm Increment Ordering Code: GC-Q10-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 Ⓞ 19 ≤ FC ≤ 60 (BS_2806) Ⓞ 21 ≤ FC ≤ 60 (BS_3210, BS_3232) Ⓞ 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: MC40 Ⓞ 28 ≤ MC ≤ 60 Ⓞ Y dimension is shortened.

Peripherals: Combination of the following parts are available.

Combination with Support Units

Type	Screw Shaft Outer Diameter	Lead	Recommended Support Units				
			Part Number	Shape	Fixed Side	Support Side	
BSSR BSSZ	28	06	BRW 20	Round	○	—	800
			BUR 20	—	○	○	802
			BSW 20	Square	○	—	794
			BUN 20	—	○	○	798
			BRW 25	Round	○	—	800
			BUR 25	—	○	○	802
32	10	32	BSW 25	Square	○	—	794
			BUN 25	—	○	○	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).
- Ⓞ 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.
- Ⓞ 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		
Keyway on Fixed Side Shaft End	KC	Adds a keyway on the fixed side shaft end. KC = 1 mm Increment Ordering Code: KC20 Ⓞ 5 ≤ KC ≤ Px3 KC ≤ F-1 (BS_2806) Ⓞ 6 ≤ KC ≤ Px3 KC ≤ F-1 (BS_3210, BS_3232)
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-K20-S3 Ⓞ 5 ≤ K+S ≤ Px3 K+S ≤ F-1 (BS_2806) Ⓞ 6 ≤ K+S ≤ Px3 K+S ≤ F-1 (BS_3210, BS_3232)
Flat Machined on Fixed Side Shaft End	SC	Adds a flat on the fixed side shaft end. SC = 1 mm Increment Ordering Code: SC20 Ⓞ 6 ≤ K+S ≤ Px3 K+S ≤ F-1 (BS_2806) Ⓞ 7 ≤ K+S ≤ Px3 K+S ≤ F-1 (BS_3210, BS_3232)
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: SWC20 Ⓞ 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.

Combination with Nut Brackets

Type	Screw Shaft Outer Diameter	Lead	Recommended Nut Brackets			
			Part Number	Type	Page	
BSSR BSSZ	28	06	BNFB	2806R	810	
			BNFM			
			BNFR			
	32	10	32	BNFA	3232R	810

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