

Rolled Ball Screws (Shaft Diameter 15 / 20 / 25, Lead 5, 10)

Block Style Ball Nut / Accuracy Grade C10

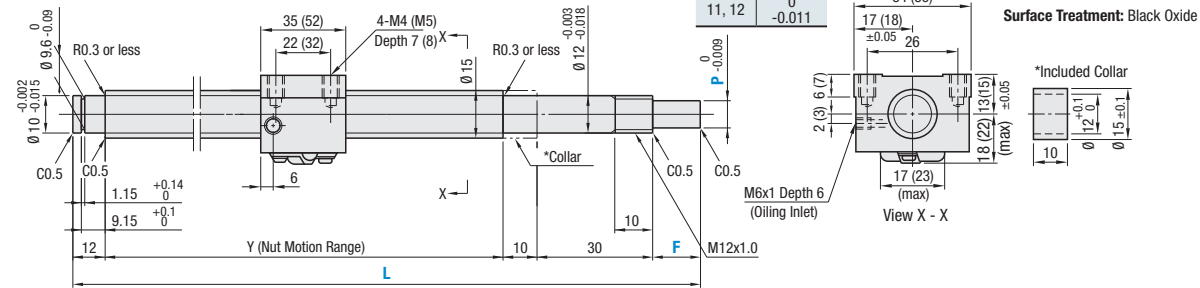
Rolled Ball Screws (Shaft Diameter 15 / 20 / 25, Lead 5, 10) – Block Style Ball Nut / Accuracy Grade C10



Ball Nut Type	Type		Precision Class	Shaft Diameter	Lead	Screw Shaft			Ball Nut		
	Standard	F, P Configurable				Material	Hardness	Surface Treatment	Material	Hardness	Surface Treatment
Block Nut	BSBR	BSBRK	C10	15, 20, 25	5, 10	1055 Carbon Steel	Induction Hardened 58-62 HRC min.	Phosphate Conversion Coating	JIS-SCM420	Carburized 58-62 HRC min.	Phosphate Conversion Coating

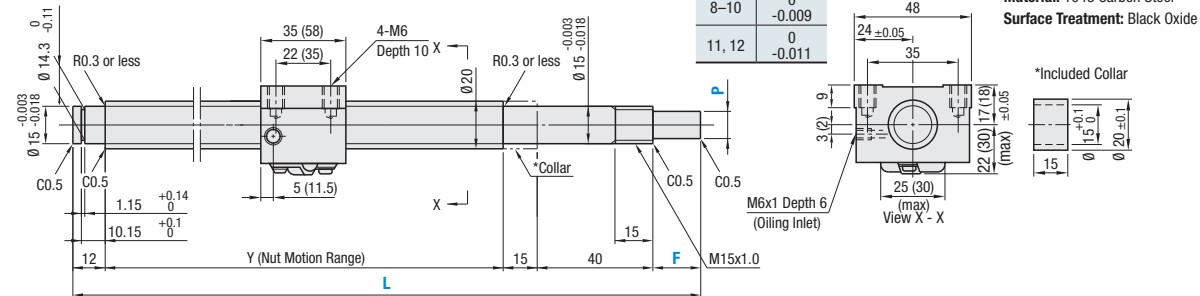
BSBR (K) 1505 / 1510

*The dimensions in () are for BSBR (K) 1510.



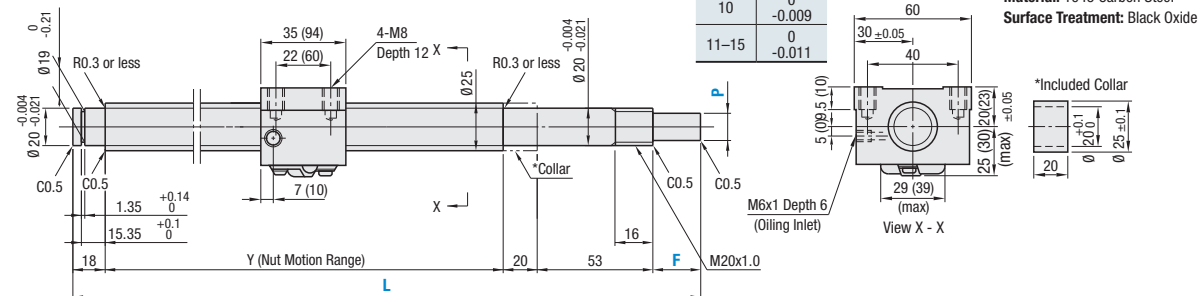
BSBR (K) 2005 / 2010

*The dimensions in () are for BSBR (K) 2010.



BSBR (K) 2505, 2510

*The dimensions in () are for BSBR (K) 2510.



Ball Nut Type	Precision Class	Part Number		1 mm Increment			Y	Ball Dia.	Ball Center Dia.	Screw Root Dia.	Number of Circuits	Basic Load Rating		Allowable Axial Play	Twisting Direction										
		Type	Screw Shaft Dia.	L	*F	*P						C (Dynamic) kN	Co (Static) kN												
Block Nut	C10	BSBR	15	05	15	10	L-67	3.175	15.8	(12.5)	2.5 Turns, 1 Row	5.1	10.5	0.10 or Less	Right										
					15-30	6-10	L-(52+F)																		
					15	10	L-67																		
				10	15-30	6-10	L-(52+F)																		
					BSBRK	20	05									20	12	L-87	4.7625	21	(16.3)	2.5 Turns, 1 Row	6.2	14.7	0.15 or Less
																20-36	8-12	L-(67+F)							
		20	12	L-87																					
		10	20-36	8-12			L-(67+F)																		
			BSBR	25			05	27	15	L-118	3.175	25.8	(21.8)	2.5 Turn, 2 Rows		6.6	18.7	0.10 or Less							
								27-45	10-15	L-(91+F)															
		27			15	L-118																			
		10			27-45	10-15	L-(91+F)																		
27	15				L-118	6.35	26.8	(20.3)	2.5 Turn, 2 Rows	27.5					76.3				0.20 or Less						
27-45	10-15				L-(91+F)																				
27	15	L-118																							

*F and P are configurable for BSBRK only. F ≤ Px3 kgf = Nx0.101972

Rolled Ball Screws (Shaft Diameter 15 / 20 / 25, Lead 5, 10)

Block Style Ball Nut / Accuracy Grade C10, continued

Nut Type	Accuracy Grade	Part Number	Available Types					
			L150-199	L200-400	L401-600	L601-800	L801-1000	L1001-1200
Block Nut	C10	BSBR1505	•	•	•	•	•	•
		BSBR1510	•	•	•	•	•	•
		BSBR2005	•	•	•	•	•	•
		BSBR2010	•	•	•	•	•	•
		BSBR2505	•	•	•	•	•	•
		BSBR2510	•	•	•	•	•	•

Part Number Example

Part Number - L - F - P

BSBR1505 - 200

BSBRK2510 - 370 - F40 - P15

BSBR2505L - 370 L Type Greased

BSBR2005G - 370 G Type Greased

Part Number Alterations

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

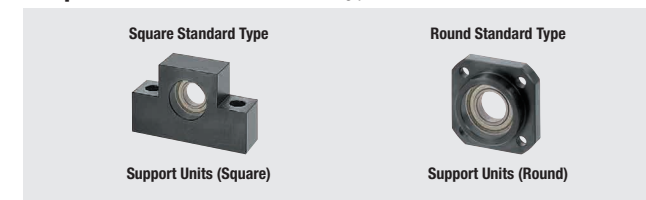
BSBR2505 - 700 - RLC

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 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. Q: Selectable from 8, 10, 12 Q: Selectable from 8, 10, 12 (BSBR15_...) Q: Selectable from 8, 10, 12, 15 (BSBR20_...) Q: Selectable from 8, 10, 12, 15, 20 (BSBR25_...) G = 1 mm Increment Ordering Code: GC-Q8-G20 ⊕ 5 ≤ G ≤ X3 ⊕ 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 (BSBR15_... 20_...) ⊕ 19 ≤ FC ≤ 60 (BSBR25_...) ⊕ 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 ⊕ 18 ≤ MC ≤ 30 (BSBR15_...) ⊕ 21 ≤ MC ≤ 30 (BSBR20_...) ⊕ 28 ≤ MC ≤ 60 (BSBR25_...) ⊕ Y dimension is shortened.

- 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		BSBR15_... 10 0 -0.2 7 5 (22) BSBR20_... 16 0 -0.25 9 6 (25) BSBR25_... 18 0 -0.25 10 7 (27)
Keyway on Fixed Side Shaft End	KC	Adds a keyway on the fixed side shaft end. KC = 1 mm Increment Ordering Code: KC20 ⊕ 3 ≤ KC ≤ PX3 KC ≤ F-1 (BSBR15_...) ⊕ 4 ≤ KC ≤ PX3 KC ≤ F-1 (BSBR20_...) ⊕ 5 ≤ KC ≤ PX3 KC ≤ F-1 (BSBR25_...)
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 ⊕ 4 ≤ K+S ≤ PX3 K+S ≤ F-1 (BSBR15_...) ⊕ 5 ≤ K+S ≤ PX3 K+S ≤ F-1 (BSBR20_...) ⊕ 6 ≤ K+S ≤ PX3 K+S ≤ F-1 (BSBR25_...)
Flat Machined on Fixed Side Shaft End	SC	Adds a flat on the fixed side shaft end. SC = 1 mm Increment Ordering Code: SC20 ⊕ 5 ≤ SC ≤ Px3 SC ≤ F-1
2 Flats on Fixed Side Shaft End	SWC SGC	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.

Peripherals: Combination of the following parts are available.



Combination with Support Units

Type	Screw Shaft Outer Diameter	Lead	Ball Screw Part Number				Recommended Support Units			
			Type	No.	Shape	Fixed Side	Support Side	Page		
BSBR	15	05	BRW	12	Round	○	—	800		
			BUR	12	Round	—	○	802		
			BSW	12	Square	○	—	794		
	20	10	BUN	12	Square	—	○	798		
			BRW	15	Round	○	—	800		
			BUR	15	Round	—	○	802		
25	10	BSW	15	Square	○	—	794			
		BUN	15	Square	—	○	798			
		BRW	20	Round	○	—	800			
			BUR	20	Round	—	○	802		
			BSW	20	Square	○	—	794		
			BUN	20	Square	—	○	798		

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