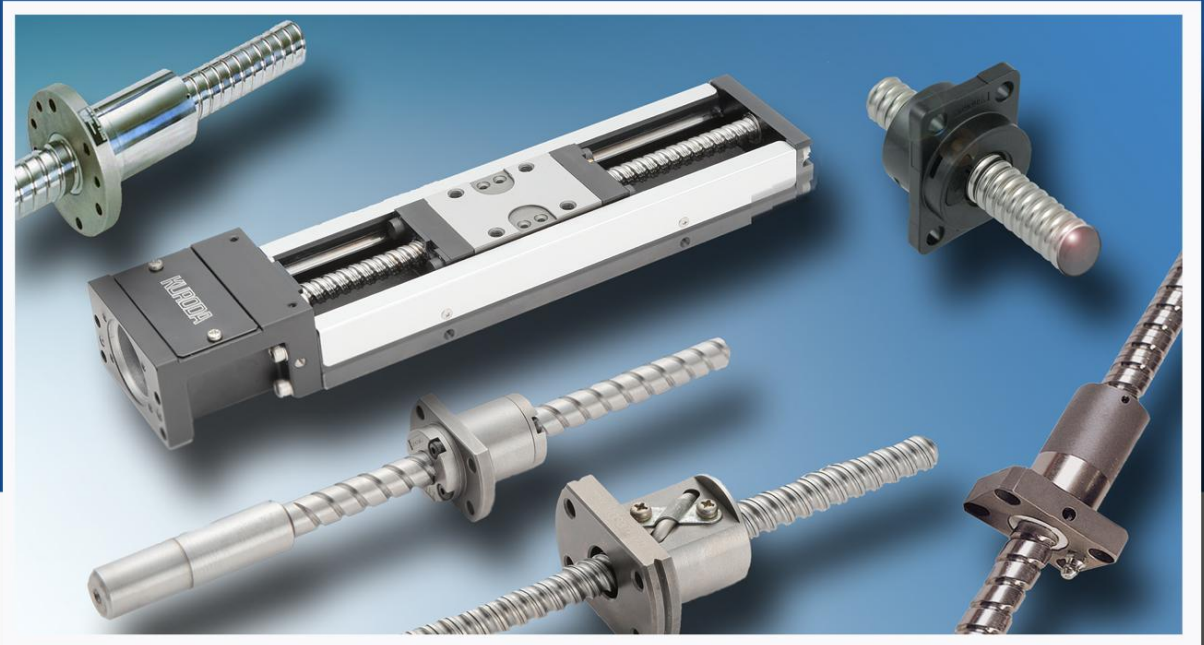


KURODA JENA TEC

www.kuroda-precision.com/www.jena-tec.com



Ball screw and Ball screw Actuator Guide Book

KURODA
JENATEC

 **CHALLENGE**
&
CREATE



Under our new brand, KURODA JENA TEC, we provide Precision Products and Services which make the best use of the synergies between the two companies.

KURODA PRECISION INDUSTRIES LTD. was established as a gauge manufacturer in 1925. Based on its precision processing technology, it has successively developed precision press dies, grinding machines, special polishing machines, tooling for machining, ball screws for precision positioning, and ultra-precise measuring systems. Responding to the needs of customers centered on the Japan and Asian regions in the automobile, processing machine, semiconductor, electric and electronic industries, we are highly regarded by our customers as “KURODA for Precision”. With regard to ball screws, KURODA specializes in the manufacture of small to medium diameter ball screws.

JENA TEC maintains manufacturing bases in Germany, the United Kingdom, and the United States, and mainly supplies high-quality linear and rotation-related components such as ball screws and spindles to machining, automobile, and medical equipment manufacturers in Europe and America. JENA TEC is highly trusted as a precision brand in the European and American markets. Particularly with regard to ball screws, JENA TEC is manufacturing custom-made products focused on large diameter ball screws in the city of Jena Germany, which is known as a focused region of German Precision Technology.

In November 2013, **KURODA PRECISION INDUSTRIES LTD** acquired the **JENA TEC** businesses and integrated both organizations' product range and services into the global brand of **KURODA JENA TEC**. The synergistic effect of utilizing both companies' precision technologies allows the new organization to be a truly international manufacturer and supplier of high quality linear and rotary motion components.



KURODA JENA TEC Ballscrew Product Lineup

RW SERIES

Lightweight, Compact
Economical
Grade 7



Resin
Nut
Ball Screw

(Page 7)

GK/FK SERIES with BTA

Short Lead Time
Wide Variety
Grade C5
& C7



(Page 8)

GE/GG/GP SERIES

Wide Variety
Grades
C3, C5, C7



(Page 9, 12)

FE/FG SERIES

Ultra Quiet
High Rotational Speed
Grade C5
& C7



(Page 10)

HG SERIES

High Rotational
Conveyance
Grade C5



(Page 11)

DP SERIES

Fine Pitch Positioning
Compact
Grade C3



(Page 12)

GY/GW SERIES

Wide Variety
Conveyance
C5 & C7



(Page 13-14)

GR/DR/FR SERIES

Custom Compliant
DIN Standard



(Page 15)

JT SERIES

Stock and Custom
DIN Standard
IT1-IT7



(Page 16-22)

LINEAR MOTION PRODUCTS

ACTUATORS
SG/SE/SC SERIES



SUPPORT UNITS



Ball Screw Range

Screw Shaft Diameter & Lead Combination (Standard)

●Standard Ball Screw for Conveyance (Accuracy Grade: C7, C10)

		Lead (mm)													
		1.5	2	2.5	4	5	6	8	10	15	16	20	25	32	40
Nominal diameter (mm)	8	○	○	○	○	○		○							
	10		○	○	○	○			○	○					
	12		○	○	○	○		○	○	○		○	○		
	15		○		○	○			○	○		○	○		
	16										○				
	20				○	○			○	○		○	○		○
	25					○			○	○		○	○		
	28						○								
	32					○			○					○	
	36								○			○			
	40								○			○			○

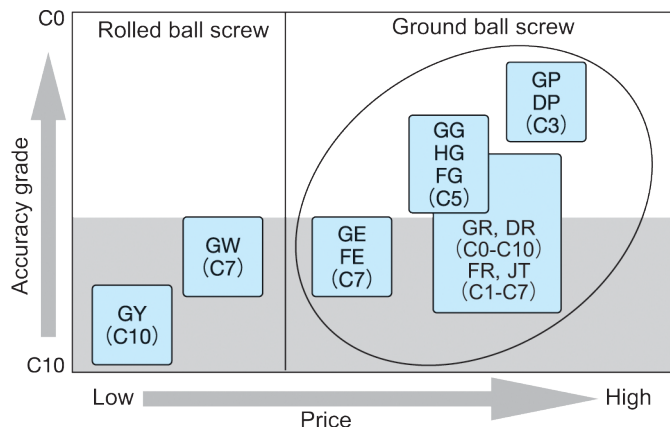
○ : GE series (Accuracy Grade: C7) ○ : GY series (Accuracy Grade: C10) □ : GK series with BTA (Accuracy Grade: C7)
 △ : RW series (Accuracy Grade: C7) ◇ : FE series (Accuracy Grade: C7) ● : GW series (Accuracy Grade: C7)
 ■ : FK series with BTA (Accuracy Grade: C7)

●Standard Ball Screw for Positioning (Accuracy Grade: C3, C5)

		Lead (mm)																				
		1	1.5	2	2.5	3	4	5	6	10	12	15	16	20	25	30	32	40	50	60	64	
Nominal diameter (mm)	6	△							⊙													
	8	△	● ○	● ○ △			●				⊙											
	10			● ○ △	● ○		●			● ◆												
	12			● ○ △		△	● ○	● □		● ◆ □ ■				● ◆ □ ■		⊙						
	14						△															
	15			● ○			● ○	● ◆ ○ □ ■		● ◆ □ ■		●			● ◆ ○ □ ■				⊙			
	16												●	●				⊙				
	20						● ○	● ○			● ◆				● ◆ ⊙		⊙		⊙		⊙	
	25							● ◆			● ◆				●	● ◆				⊙		
	32							●			●											⊙

● : GG series (Accuracy Grade: C5) ○ : GP series (Accuracy Grade: C3) ○ : HG series (Accuracy Grade: C5)
 ■ : FK series with BTA (Accuracy Grade: C5) ◆ : FG series (Accuracy Grade: C5) △ : DP series (Accuracy Grade: C3)
 □ : GK series with BTA (Accuracy Grade: C5)

●Accuracy Grade and Price



Ball Screw Product Range

Combined Standard Ball Screw Offerings for both KURODA and KURODA JENA TEC Brands

Metric Series (Ground, Whirled or Rolled Options)																					Inch Series (Ground only)					
Diaø	Pitch/Nominal Lead P _{ho} (mm)																				Pitch/Nominal Lead P _{ho} (Inches)					
	Miniature					Standard															Standard					
d°(mm)	1	1.5	2	2.5	4	5	6	8	10	12	15	16	20	24	25	30	32	40	45	50	60	0.125	0.200	0.250	0.500	1.000
5	K																									
6	KJ		KJ			K	K																			
8	KJ	K	KJ	KJ	KJ	K	K	K		K												J				
10	K	K	KJ	KJ	KJ	KJ	K	K	K													*	*			
12		K	KJ	KJ	KJ	KJ	K	K	K				K			K						*	J			
14			KJ		KJ	K		K	K														J	*	*	
15			K	K	K	K	K	K	K		K	K	K		K	K		K								
16			KJ	J	KJ	KJ	KJ		KJ			K	K				K						J	*	*	
20			KJ	K	KJ	KJ	K	KJ	KJ				K		K	K	K	K			K					
25					KJ	KJ	KJ	KJ	KJ	KJ	J	J	KJ		K			K		K			J	*	*	
28						KJ	J		K																	
32			J		KJ	KJ	KJ	KJ	KJ	KJ	J	K	KJ		K		K						J	*	*	
36						K	K	K	K	K		K	K	K												
40					J	KJ	KJ	KJ	KJ	KJ	J	KJ	KJ		J		K	KJ					J	J	*	*
45						K	KJ	KJ	K	KJ	J	J	K													
50						KJ	KJ	KJ	KJ	KJ	J	KJ	KJ		J	J		KJ		K			J	J	*	*
55								K	K	K		K	K													
57								J		J		J			J									*	J	
63						J	KJ	K	KJ	KJ	J	J	J		J	J		J	J					J	J	*
70									K	K		K	K													
80									KJ	KJ	KJ	KJ	KJ	J		J		J		J				*	J	*
100									J	KJ	J	KJ	KJ		J	J		J		J					J	*
125										K		KJ	KJ			J									*	*

K -Tooling available for these sizes offered by KURODA

KJ -Tooling available for these sizes offered by BOTH

J -Tooling available for these sizes offered by JENA TEC

***** -CUSTOM Tooling available upon Request

For more detailed product information and specifications, please visit our websites:

KURODA PRECISION Products: <http://www.kuroda-precision.com>

KURODA JENATEC Products: <http://www.jena-tec.com>

Ordering Code

●Standard Products

●Without End Machining

GE 15 05 D S – B A L R – 0600 A
 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪

●With End Machining

GE 15 05 D S – B A L R – 0600 X 0500 – C7 M
 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑬ ⑭

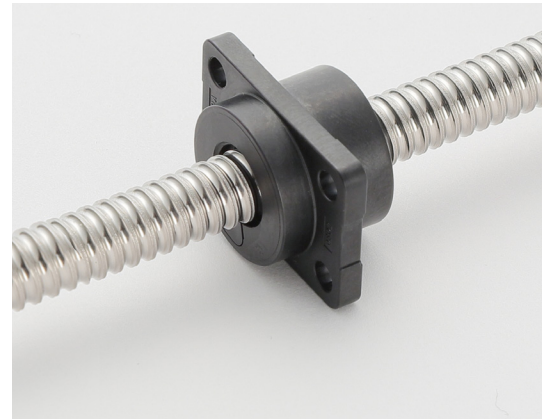
●Customized Products

GR 15 05 D S – B A L R – 0600 X 0500 – C7 M
 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ ⑬

- | | |
|--|--|
| <p>① Series
 Customized products
 GR : GR series (C0-C10)
 DR : DR series (C0-C10)
 FR : FR series (C1-C7)
 JT : JT series (IT1-IT7)</p> <p>② Screw shaft diameter (mm)
 5-125
 However, this should be displayed as 5:05, 6:06, 10:10, 100:A0, and 125:C5.</p> <p>③ Lead (mm):1-64
 However, this should be displayed as 1.5:1F, 2.5:2F, and 5:05.</p> <p>④ Number of circuits
 A: 1.5 turns 1 circuit
 B: 1.5 turns 2 circuits
 D: 2.5 turns 1 circuit
 E: 2.5 turns 2 circuits
 G: 3.5 turns 1 circuit
 Q: End cap type
 P: End deflector type
 Z: Others</p> <p>⑤ Nut type
 S: Single nut
 T: Integral nut
 D: Double nut
 Z: Others</p> <p>⑥ Flange type
 A-H: Catalogue configurations
 N: Without flange
 Z: Others</p> <p>⑦ Ball return system
 A: Tube method
 D: Deflector method
 E: End cap method
 P: End deflector method
 Z: Others</p> | <p>⑧ Wiper material
 P: Plastic wiper
 L: Lip seal
 S: LUBSEAL
 N: No wiper</p> <p>⑨ Thread direction
 R: Right hand thread
 L: Left hand thread</p> <p>⑩ Overall length of screw shaft (mm)</p> <p>⑪ Shaft end configuration
 In the case where the shaft and nut are ordered as a set
 A: Without end machining (Standard product)
 B: One shaft end machining as per your drawing (Standard product)
 X: End machining as per your drawing (Customized product or standard product with additional machining)</p> <p>⑫ Thread length (mm)</p> <p>⑬ Accuracy grade
 C0, C1, C2, C3, C4, C5, C7, C10
 T1, T3, T5, T7</p> <p>⑭ Axial clearance
 S: 0
 F: Max. 0.005 mm
 H: Max. 0.010 mm
 M: Max. 0.030 mm
 L: Max. 0.2 mm
 Y: Axial play for rolled ball screw
 Z: Others</p> |
|--|--|

The Resin Nut Ball Screw utilizes a super engineering plastic (PPS resin) which even among resins, has outstanding mechanical properties and resistance to chemicals for the nut part. Stainless steel is used for the screw shaft and the internal circulating balls. Due to the merits of the ball screw characteristic transmission efficiency, the whining noise heard in lead screws will not occur, resulting in a quiet and smooth operation over all strokes, from low speeds to high speeds.

In addition, due to the utilization of components made from resin, the Resin Nut Ball Screw is more economical and has shorter delivery times than the previous steel-made ball screws, which optimizes solutions for equipment used in light loading applications.



●Ordering Number

RW	08 (Shaft dia.)	02 (Lead)	P	S	-	B	P	N	R	-	Overall length of screw shaft	×	Thread length	-	C7	M
----	--------------------	--------------	---	---	---	---	---	---	---	---	----------------------------------	---	------------------	---	----	---

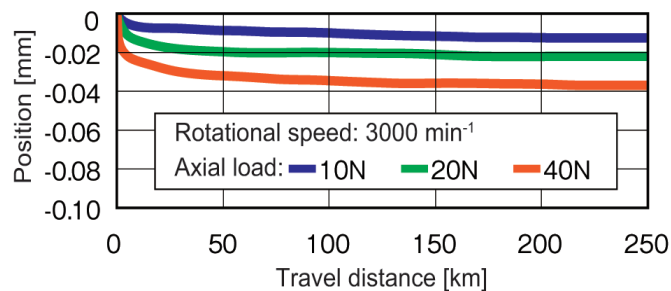
●Specifications and Performance

●Performance

Travel lifetime: 250 km or more (1.25 million or more return trips at a stroke of 100 mm)
Permissible axial load: 40 N
Permissible rotational speed: 3000 min⁻¹
Initial axial clearance: 0.030 mm or less

●Positioning accuracy and temperature characteristics

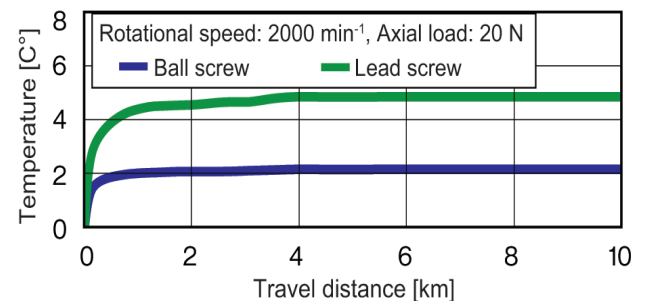
Test conditions: Shaft diameter: φ8, lead: 2 mm, stroke: 100 mm, and loading direction: vertical



Outstanding abrasion resistance:
Long-period stable positioning accuracy

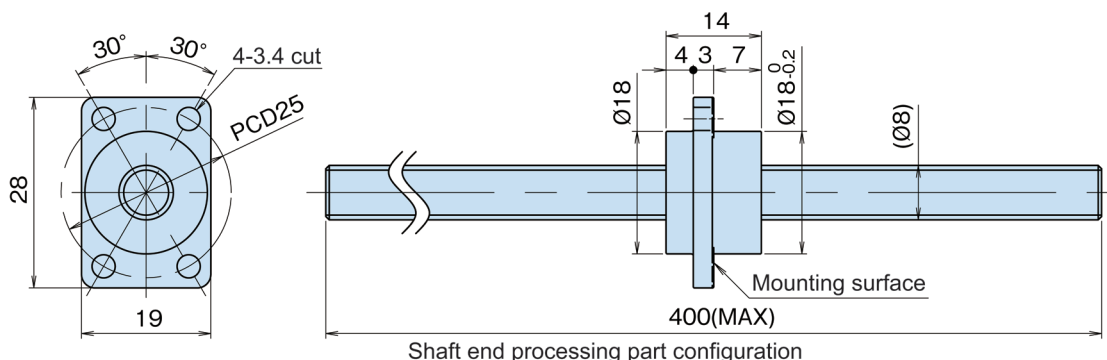
●Materials

Screw shaft: Stainless steel (SUS304)
Nut: Super engineering plastic (PPS)
Ball: Stainless steel (SUS440C)
* The standard grease used is Alvania Grease S2.



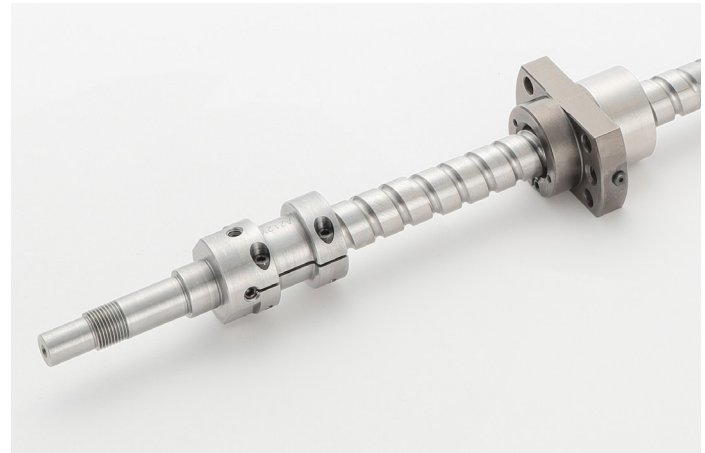
Outstanding temperature characteristics: Low heat generation ability that can only be realized by ball screws

●Configuration dimensions



The ball screws with shaft end adapters have been standardized as the GK Series (Tube method) FKSeries (End deflector method).

“Shaft end adapters” are adapters that have already been processed using KURODA’s recommended fixed shaft end configuration. By directly inserting these adapters on the screw shaft diameter, they allow provision of a shaft end unit that has the same strength and accuracy as the previous one-piece fixed shaft end in a short delivery time.



●Ordering Number

GK Shaft dia. Lead - - Overall length of screw shaft T Thread length - C5F C7M

●Accuracy Grade and Axial Clearance

Single nut, accuracy grade: C5, axial clearance: Max. 0.005 mm (Configuration display symbol: F)

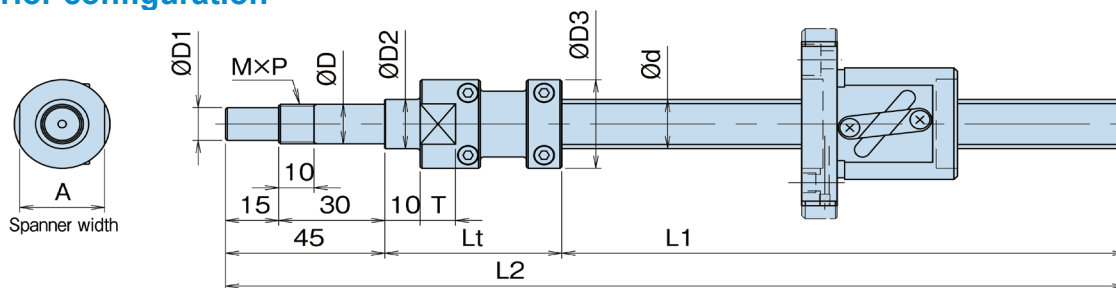
Single nut, accuracy grade: C7, axial clearance: Max. 0.030 mm (Configuration display symbol: M)

●Specifications and Performance

Model	Ball screw				Adapter unit		
	Shaft dia. ϕd	Lead [mm]	Lead accuracy	Axial clearance [mm]	Permissible input torque [Nm]	Maximum axial load* [N]	Component bracket deviation accuracy [mm]
GK12	12	5, 10, 20	C5/C7	C5: Max. 0.005 mm C7: Max. 0.030 mm	3.8	500	0.020
FK12		10, 20					
GK15	15	5, 10, 15, 20	C5/C7	C5: Max. 0.005 mm C7: Max. 0.030 mm	3.8	500	0.020
FK15		5, 10, 20					

* This is the maximum axial load that is applied to the adapter unit during acceleration and deceleration.

●Exterior configuration

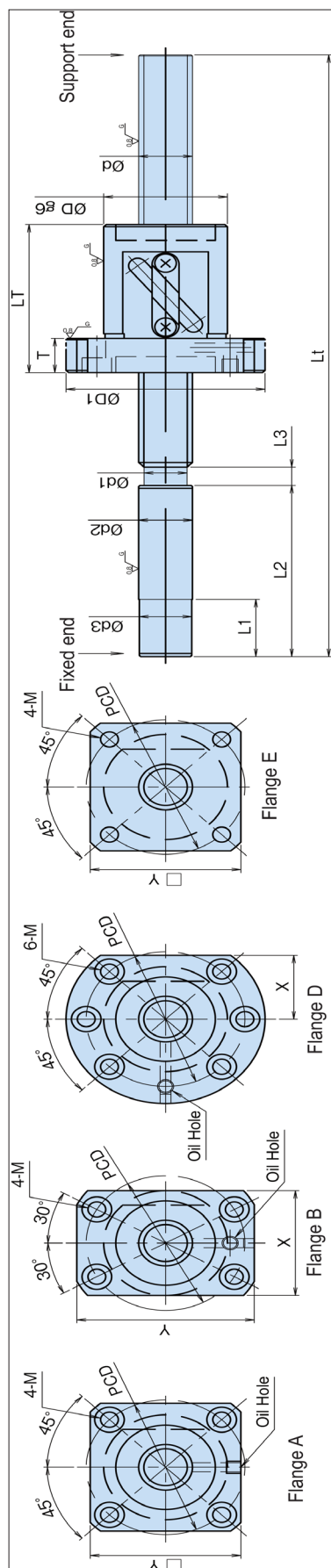
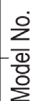


Model	Shaft dia. ϕd	Adapter unit								Overall length L2	Screw length L1
		Bearing unit diameter ϕD	Component bracket diameter $\phi D1$	Flange width $\phi D2$	Connector diameter $\phi D3$	Connector length Lt	Length of two-surface width T	Two-surface width A	Thread M x P		
GK12	12h7	10	$^{0}_{-0.002}$	12	24	45	9	21	M10×1	Up to 1140±1	Up to 1050
FK12		10	$^{0}_{-0.008}$	12	24	45	9	21	M10×1	Up to 1140±1	Up to 1050
GK15	15h7	12	$^{0}_{-0.003}$	15	27	50	10	24	M12×1	Up to 1645±1	Up to 1550
FK15		12	$^{0}_{-0.011}$	15	27	50	10	24	M12×1	Up to 1645±1	Up to 1550

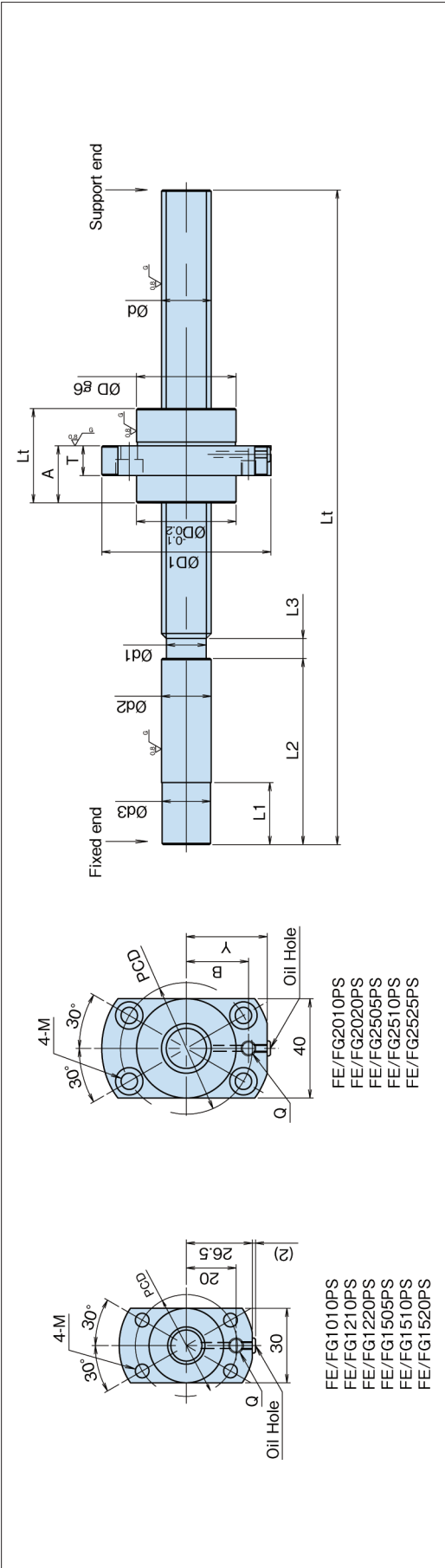
* In the screw shaft connection unit, because there is some projection of the fastening bolts, take care that this does not interfere with the surrounding components.

* Regarding the configurations and dimensions of each size of nut unit, refer to the GE/GG and FE/FG Series.

GE	Shaft dia.									—						Overall length of screw shaft	A
GG	Shaft dia.									—						Overall length of screw shaft	A

[illegible][illegible]

Model No.

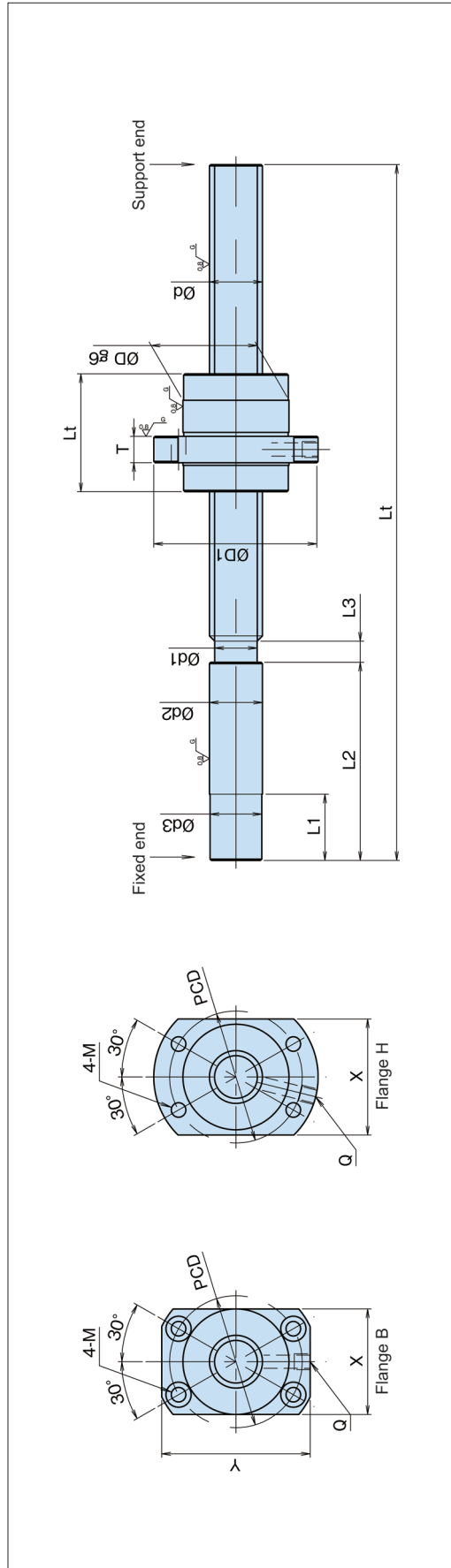


Model No.	Shaft dia. d	Lead	Root dia. d1	Circuit & turn	Axial clearance	Basic dynamic load rating (N)	Basic static load rating (N)	Shaft dimensions				Nut dimensions										Oil hole Q																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
								Shaft ends				Body diameter D	Lt	A	T	D1	X	Y	PCD P	B	Mounting hole M Countersunk hole		Mounting hole M Countersunk depth																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
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FE/FG1010PS-HPNR-□□□□□□□□□□	10	10	8.1	1.7×1		2600	3800	14	13.7			8	255/455/655	23	27	17.5	10	44	24	21.5	32	16	4.5																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		</

Model No. □□□□□ : Overall length Axial clearance M: Max. 0.030 mm F: Max. 0.005 mm Wiper material N: No wiper or S: LUBSEAL (option) can be selected.

H Series – End Cap Method HG (Accuracy Grade: C5) For High Speed Conveyance Application

HG Shaft dia. Lead — Overall length of screw shaft A
Model No.



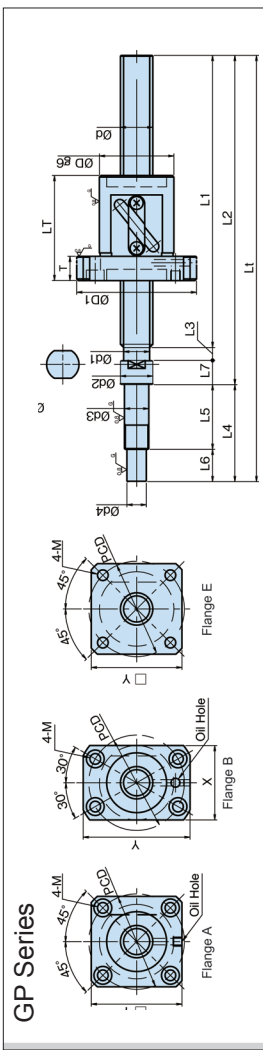
Model No.	Shaft dia. d	Lead	Root dia. d1	Circuit & turn	Axial clearance	Basic dynamic load rating (N)	Basic static load rating (N)	Shaft dimensions					Nut dimensions										Oil hole	
								Shaft ends			Lt	Body diameter D	LT	Flange					Bolt M	Configu-ration	Wiper			
								d2	d3	L1				L2	L3	T	D1	Y				X		PCD P
HG0606QS-HEZR-□□□□ A	6	6	---	1.5×2	H	760	1140	9.5	9.2	18	40	8	210	14	16.5	4	27	-	16	21	M3	H	Z	N/A
HG0812QS-HEZR-□□□□ A	8	12	---	1.67×2	H	2490	3460	12	11.7	20	45	12	340	18	27	4	31	-	20	25	M3	H	Z	
HG1230QS-BEZR-□□□□ A	12	30	9.5	0.67×3	H	4800	6650	12	11.7	20	55	15	500/800	32	35	10	56	48	32	43	M5	B	Z	
HG1520QS-HEZR-□□□□ A	15	20	12.5	1.67×2	F	8740	17550	15	14.5	25	55	10	600/1100/1300	34	47.5	10	55	-	34	45	M5	H	Z	
HG1540QS-BEZR-□□□□ A	15	40	12.5	0.67×3	H	5600	8600	15	14.5	25	55	15	600/1100	34	41.7	12	58	50	34	45	M5	B	Z	
HG1632QS-HEZR-□□□□ A	16	32	13.5	0.67×3	F	6100	9100	16	15.5	25	55	15	600/1100/1500	35	36.3	10	56	-	38	44	M4	H	Z	
HG2020QS-HEZR-□□□□ A	20	20	---	1.67×2	F	8740	17550	20	19.5	25	75	5	1000/1500	39	47.5	10	62	-	39	50	M5	H	Z	M6
HG2030QS-HEZR-□□□□ A	20	30	17.5	0.67×2	F	10690	2330	20	19.5	25	75	5	1000/1500	40	44.7	12	76	-	44	62	M6	H	F	
HG2040QS-HEZR-□□□□ A	20	40	---	0.67×3	H	6800	12100	20	19.5	25	75	15	1000/1500	40	58	12	76	-	56	62	M6	H	F	
HG2060QS-BEZR-□□□□ A	20	60	22.2	0.67×3	F	10200	19300	25	24.5	25	100	15	1015/1715/2015	50	71	12	76	-	54	62	M6	H	F	
HG2550QS-HEFR-□□□□ A	25	50	22.2	0.67×3	F	17200	31900	32	31.5	25	120	15	1200/1700/2200	60	85	15	94	-	66	76	M8	H	F	
HG3264QS-HEFR-□□□□ A	32	64	21.6	0.67×3	F	17200	31900	32	31.5	25	120	15	1200/1700/2200	60	85	15	94	-	66	76	M8	H	F	

Max. 0.010 mm H: Max. 0.005 mm F: Max. 0.005 mm F: Feit

Wiper material Z: Lip of end cap serves as a wiper F: Felt

DP	Shaft dia.	Lead	Overall length of screw shaft	B-C3 S F
GP	Shaft dia.	Lead	Overall length of screw shaft	B-C3 S F

Model No.



Unit: mm)

[illegible]

Axial clearance	S: Max. 0 mm	F: Max. 0.005 mm	Wiper material	N: No wiper	P: Plastic
-----------------	--------------	------------------	----------------	-------------	------------

(Unit: mm)

[illegible]

Axial clearance S: Max. 0 mm F: Max. 0.005 mm Wiper material N: No wiper F: Felt P: Plastic L: Lip seal S: LUBSEAL For the products marked with **, it is possible to select L: Lip seal or S: LUBSEAL (Option). The values shown in the brackets () in the load ratings when the axial clearance is S: 0 mm or less.

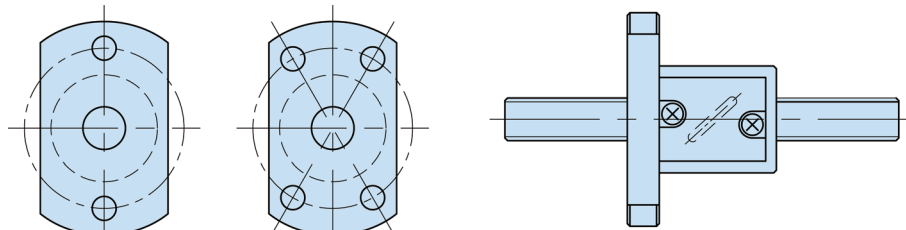
For more detailed dimensions of shaft and nut, please refer to our Ball Screw Catalog or visit our web site at www.kuroda-precision.com.

GY Shaft dia. Lead — ※ — Overall length of screw shaft A

GW Shaft dia. Lead — ※ — Overall length of screw shaft A

Model No.

Round type nut: Cylindrical nut body without tube projection

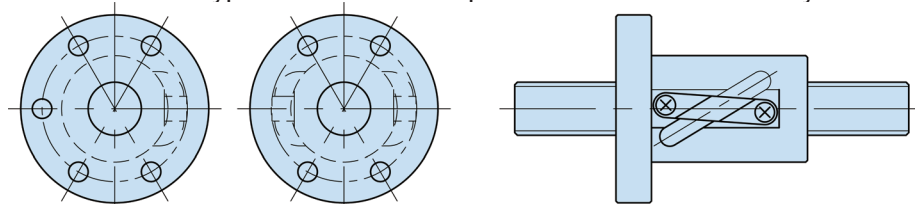


GY/GW0802

GY0804, GY0808
GY1002, GY/GW102F, GY/GW1004, GY1006, GY/GW1010
GY1202, GY/GW1204, GY1208



Protruded tube type nut: The tube is protruded over the nut body



GY1505, GY1510
GY2005, GY2010, GY2020
GY2505, GY2510, GY2525
GY2806, GY3210, GY3610
GY4010

GY1520
GY3232, GY3620
GY4020, GY4040



Round type nut

(Unit: mm)

Model No.	Shaft dia.	Lead	Root dia.	Circuit & turn	Basic dynamic load rating (N)	Basic static load rating (N)	Shaft dimensions	
							Overall length	Length of shaft end machining
GW/GY0802GS-HGMR-□□□□ A	8	2	6.6	3.5×1	1800	3200	200/400	55
GY0804DS-HANR-□□□□ A		4	6.3	2.5×1	1900	3100		
GY0808DS-HANR-□□□□ A		8			1200	1800		
GY1002DS-HANR-□□□□ A	10	2	8.4	2.5×1	1700	3000	400/600	60
GW/GY102FGS-HGMR-□□□□ A		2.5	8.2	3.5×1	2600	5200		
GW/GY1004DS-HANR-□□□□ A		4		2.5×1	2300	4800		
GW/GY1010AS-HANR-□□□□ A		10	7.8	1.5×1	1850	3200		
GY1010BS-HANR-□□□□ A				1.5×2	3360	6400		
GW/GY1204DS-HANR-□□□□ A	12	4			2600	5800	400/800	
GY1208DS-HANR-□□□□ A		8	10	2.5×1	3800	6700		

Model No. □□□□ : Overall length Wiper material: No wiper

Protruded tube type nut

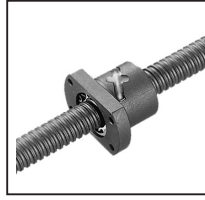
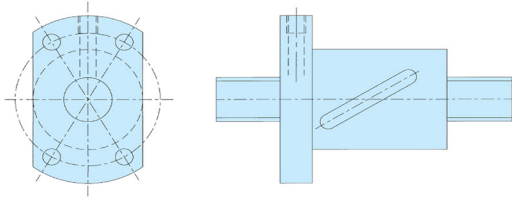
(Unit: mm)

Model No.	Shaft dia.	Lead	Root dia.	Circuit & turn	Basic dynamic load rating (N)	Basic static load rating (N)	Shaft dimensions		
							Overall length	Length of shaft end machining	
GY1505DS-CT*R-□□□□ A	15	5	12.5	2.5×1	5100	10500	600/1200	60	
GY1510DS-CT*R-□□□□ A		10		5100	10500				
GY1520BS-CT*R-□□□□ A		20		5800	13300				
GY2005DS-CT*R-□□□□ A	20	5	17.5	2.5×1	6200	14700	600/1200/2000	80	
GY2010DS-CT*R-□□□□ A		10			16.3	10600			22700
GY2020DS-CT*R-□□□□ A		20			17.5	6200			14700
GY2505DS-CT*R-□□□□ A	25	5	21.8	2.5×1	11900	37300	1000/2000/2500	110	
GY2510ES-CT*R-□□□□ A		10		20.3	2.5×2	27500			76300
GY2525DS-CT*R-□□□□ A		25		21.5	2.5×1	9300			22700
GY2806ES-CTBR-□□□□ A	28	6	25.6	2.5×2	12100	42300	1000/2000/3000	150	
GY3210ES-CTBR-□□□□ A		10		27.2	2.5×2	32800	86700		1000/2000/3000
GY3232BS-CTBR-□□□□ A		32		27.8	1.5×2	14600	38900		
GY3610ES-CTBR-□□□□ A	36	10	31.1	2.5×2	35100	98200	1000/2000/3000	200	
GY3620ES-CTBR-□□□□ A		20			35100	98200			
GY4010RS-CTBR-□□□□ A	40	10	35.1	3.5×2	49600	153700	2000/3000/4000		
GY4020ES-CTBR-□□□□ A		20		2.5×2	37100	105600			
GY4040BS-CTBR-□□□□ A		40		1.5×2	23900	66900			

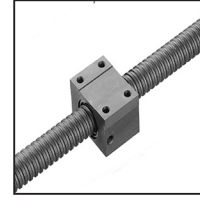
Model No. □□□□ : Overall length Wiper material N: No wiper L: Lip seal B: Brush S: LUBSEAL For the products marked with "", it is possible to select L: Lip seal or S: LUBSEAL (Option).

Standard Ball Screws: GY, GW Series

Inlaid tube type nut



Inlaid tube type nut

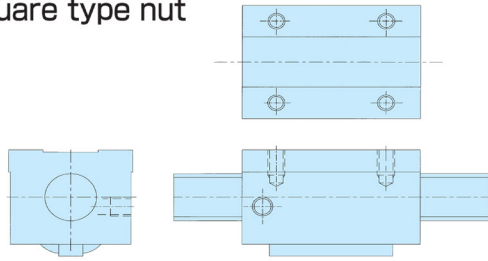


Square type nut

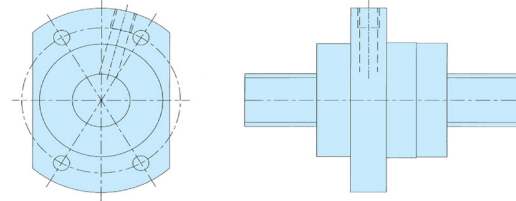


End cap method type nut

Square type nut



End cap method type nut



Inlaid tube type nut

(Unit: mm)

Model No.	Shaft dia.	Lead	Root dia.	Circuit & turn	Basic dynamic load rating (N)	Basic static load rating (N)	Shaft dimensions	
							Overall length	Length of shaft end machining
GY0805DS-HUNR-□□□□ A	8	5	6.4	2.5×1	1900	3100	200/400	55
GW/GY1004DS-HUNR-□□□□ A	10	4	7.7	2.5×1	2300	4800	400/600	
GY1005DS-HUNR-□□□□ A		5			2300	4800		
GY1208DS-HULR-□□□□ A		8	10	2.5×1	3800	6700		
GW/GY1210AS-HULR-□□□□ A	12			1.5×1	2850	4950	400/800	
GY1210BS-HULR-□□□□ A		10	9.6	1.5×2	5170	9900		
GW/GY1505DS-HU*R-□□□□ A		6			5100	10500		
GW/GY1510DS-HU*R-□□□□ A	15	10	12.5	2.5×1	5100	10500	600/1200	60
GY1510ES-HU*R-□□□□ A				2.5×2	9250	21000		
GW/GY1516BS-HULR-□□□□ A		16	12.7		4300	10200		
GW/GY1520BS-HU*R-□□□□ A		20	12.5	1.5×2	5800	13300		
GW/GY2005DS-HU*R-□□□□ A		5	17.5		6200	14700		
GW/GY2010DS-HU*R-□□□□ A	20	10	16.3	2.5×1	10600	22700	600/1200/2000	80
GW/GY2020DS-HU*R-□□□□ A		20	17.5		6200	14700		
GY2020ES-HU*R-□□□□ A				2.5×2	11250	29400		
GW/GY2505DS-HU*R-□□□□ A		5	21.8	2.5×1	11900	37300		
GY2505ES-HU*R-□□□□ A				2.5×2	21600	74600		
GW/GY2510ES-HU*R-□□□□ A	25	10	20.3	2.5×2	27500	76300	1000/2000/2500	110
GW/GY2525DS-HU*R-□□□□ A		25	21.5	2.5×1	9300	22700		
GY2525ES-HU*R-□□□□ A				2.5×2	16880	45400		
GY2806ES-HUBR-□□□□ A	28	6	25.6	2.5×2	12100	42300	1000/2000/3000	
GY3210ES-HUBR-□□□□ A		10	27.2	2.5×1	32800	86700	1000/2000/3000	150
GY3232BS-HUBR-□□□□ A	32	32	27.8	1.5×2	14600	38900		
GY3610ES-HUBR-□□□□ A		10			35100	98200		
GY3620ES-HUBR-□□□□ A	36	20	31.1	2.5×2	35100	98200	1000/2000/3000	
GY4010ES-HUBR-□□□□ A		10			37100	105600		
GY4020ES-HUBR-□□□□ A	40	20	35.1	2.5×2	37100	105600	2000/3000/4000	200
GY4040BS-HUBR-□□□□ A		40		1.5×2	23900	66900		

Model No. □□□□ : Overall length Wiper material N: No wiper L: Lip seal B: Brush S: LUBSEAL For the products marked with "*", it is possible to select L: Lip seal or S: LUBSEAL (Option).

End cap method type nut

(Unit: mm)

Model No.	Shaft dia.	Lead	Root dia.	Circuit & turn	Basic dynamic load rating (N)	Basic static load rating (N)	Shaft dimensions	
							Overall length	Length of shaft end machining
GW/GY1632QS-HEZR-□□□□ A	16	32	13.5	0.67×3	4200	7700	600/1200	60
GW/GY2040QS-HEZR-□□□□ A	20	40	17.5		4700	10300	600/1200/2000	80

Model No. □□□□ : Overall length Wiper material Z: Lip of end cap serves as a wiper.

Square nut

(Unit: mm)

Model No.	Shaft dia.	Lead	Root dia.	Circuit & turn	Basic dynamic load rating (N)	Basic static load rating (N)	Shaft dimensions	
							Overall length	Length of shaft end machining
GW/GY1505DS-NKLR-□□□□ A	15	5	12.5	2.5×1	5100	10500	600/1200	60
GW/GY1510DS-NKLR-□□□□ A		10			5100	10500		
GW/GY2005DS-NKLR-□□□□ A		5	17.5		6200	14700		
GW/GY2010DS-NKLR-□□□□ A	20	10	16.3		10600	22700	600/1200/2000	80
GW/GY2505DS-NKLR-□□□□ A		5	21.8	2.5×2	6600	18700		
GW/GY2510ES-NKLR-□□□□ A	25	10	20.3		27500	76300	1000/2000/2500	110
GY3210ES-NKBR-□□□□ A								
GY3210ES-NKBR-□□□□ A	32	10	27.2		32800	86700	1000/2000/3000	150

Model No. □□□□ : Overall length Wiper material N: No wiper L: Lip seal B: Brush

Customized Ball Screws: GR, DR, FR Series

In customized ball screws, the nut configuration of the circulating system has been standardized into the tube method (GR), deflector method (DR), or the end deflector method (FR) to support various kinds of applications.



Accuracy Grade and Axial Clearance

Single nut, axial clearance 0: C0S-C5S

Single nut, axial clearance 0.005 mm or less: C1F-C5F

Single nut, axial clearance 0.030 mm or less: C4M, C5M, C7M

Single nut, axial clearance 0.20 mm or less: C7L, C10L

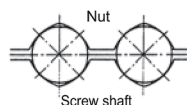
Integral nut, axial clearance 0: C0S-C5S

Double nut, axial clearance 0: C0S-C5S

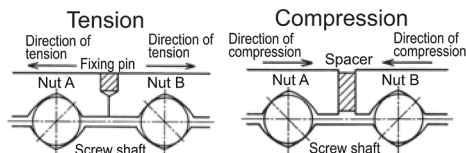
●Single Nut Preloaded



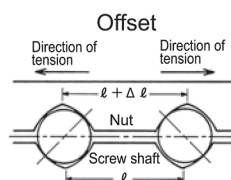
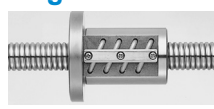
Oversized Ball



●Double Nut Preloaded



●Integral Nut Preloaded



●Others

KURODA JENA TEC is manufacturing ball screws for use in special environments, such as manufacturers using stainless steel, special surface treatment, and special grease specifications. Please contact KURODA JENA TEC for more information.

●Accuracy Grade and Manufacturable Length of Screw Shaft

(Unit: mm)

Accuracy grade	Screw shaft dia.																			
	5	6	8	10	12	15	16	20	25	28	32	36	40	45	50	63	70	80	100	125
C0	90	160	240	340	420	500	500	800	1100	1200	1600	1800	2000	2000	2000	2000	-	-	-	-
C1	120	180	280	400	500	600	600	900	1300	1500	1800	2000	2200	2300	2800	3000	3000	3000	3000	3000
C2	120	180	280	400	500	600	600	1100	1600	1800	2200	2500	2800	3000	3600	4000	4500	4500	4500	4500
C3	140	210	340	480	600	700	700	1400	1800	2000	2500	2800	3200	3600	4000	5000	5000	5000	5000	5000
C4	140	210	340	480	600	800	800	1400	1800	2000	2500	2800	3200	3600	4000	5000	5000	5000	5000	5000
C5	140	210	340	500	700	1500	1500	2000	2000	2000	2800	3100	3600	4100	4500	5000	5000	5000	5000	5000
C7	-	-	340	500	700	1500	1500	2000	2300	2600	3200	3600	4600	5000	5000	5000	5000	5000	5000	5000
C10	-	-	-	-	-	1500	1500	2000	2300	2600	3600	4000	4600	5000	5000	5000	5000	5000	5000	5000

When the lead is larger than the screw shaft diameter, the manufacturable accuracy grade is C2-C10.

●Screw Shaft Dia. & Lead Combination

		Lead (mm)																		
		1	1.5	2	2.5	3	4	5	6	8	10	12	15	16	20	25	30	32	40	50
Nominal diameter (mm)	5	○																		
	6	△																		
	8	△	○	○△	○	○	○		○	○										
	10	○	○	○△	○	○	○	○			○◇									
	12		○	○△	○	○	○	○	○		○◇				○◇					
	14						△													
	15		○	○	○	○	○	○◇	○	○	○◇		○	○	○◇	○		◇		
	16						○	○△	○					○						
	20				○		○	○△	○	○	○△◇				○◇	○		○		
	25						○	○△◇	○	○	○△◇				○	○◇			○	
	28							○			○									
	32						○	○△◇	○	○◇	○△◇	○◇			◇○			○		
	36							○	○	○	○	○◇			◇○	○				
	40							○	○	○◇	○△◇	○◇			○◇	○		○	○	
	45							○	○	○	○	○			○					
	50							○	○	○	○△	○			○	○			○	○
	55									○	○	○			○	○				
63								○	○	○	○			○	○					
70										○	○			○	○					
80										○	○			○	○					
100											○			○	○					
125														○	○					

○: GR series (Tube method); △: DR series (Deflector method); ◇: R series (End deflector method)

JT PRECISION Series

As well as offering a lineup of nut dimensions in standard configurations compatible with German DIN standards, support is also being provided for various other nut configurations.

Accuracy Grade and Axial Clearance

Single nut, axial clearance 0: IT1S-IT5S

Single nut, axial clearance 0.005 mm or less: IT1F-IT5F

Single nut, axial clearance 0.030 mm or less: IT5M, IT7M

Single nut, axial clearance 0.20 mm or less: IT7L

Integral nut, axial clearance 0: IT1S-IT5S

Double nut, axial clearance 0: IT1S-IT5S



●Accuracy Grade and Manufacturable Length of Screw Shaft

ACCURACY GRADE				
Unit: (mm)				
Nominal Diaø	IT1	IT3	IT5	IT7
6	200	200	200	200
8	300	400	430	430
10	300	430	460	430
12	300	430	430	430
14	430	430	430	430
16	430	750	1200	1500
20	750	1000	1200	1200
25	1200	1500	2000	2000
32	1500	2000	3000	3000
40	1500	2000	4000	6000
50	1500	2700	7000	7000
63	1500	4000	7000	7000
80	1500	4000	7000	7000
100	1500	4000	7000	7000
125	1500	4000	4000	4000

●Product Range

Metric Series																			Inch Series (Ground only)					
Diaø	Pitch/Nominal Lead P _{ho} (mm)																		Pitch/Nominal Lead P _{ho} (Inches)					
	Miniature					Standard														Standard				
d°(mm)	1	2	2.5	3	4	5	6	8	10	12	15	16	20	24	25	30	40	50	0.125	0.200	0.250	0.500	1.000	
6	R	R																	S					
8	R	R	R		R														S					
10		R	R	R		S													S					
12		R	R	R	RL	R													S					
14		R			R														S					
16		R	R	R	RL	RL	R		R										R	S	S			
20		R			RL	RL		R	R	R	R	R	R											
25				R	RL	RL	R	R	R	R	R	R	R											
28						RL																		
32		R			R	RL	R	R	RL	R	R		RL											
37								R	R	R	R													
40					R	RL	R	R	RL	R	R	RL	R		R		R							
45							R			R	R	R												
47								R																
50						RL	R	R	RL	R	R	R	RL		R	R	R	R						
57								R				R			R	R								
63						RL	R		RL	R	R	R	RL		R	R	R	R						
67								R																
77																								
80								R		RL	RL	R	R	RL	RL		R	R	R					
87																								
90												R												
100									R	R	R		RL	RL		R	R	R	R					
125												RL	R			R								

R- Tooling available for these sizes in **RIGHT HAND** leads

RL- Tooling available in **both RIGHT and LEFT HAND** leads

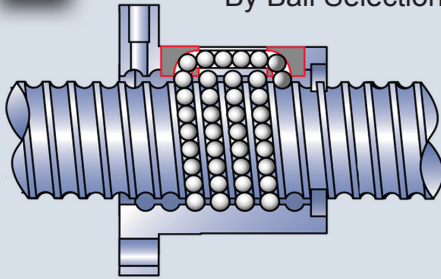
L- Tooling available for these sizes in **LEFT HAND** leads

S- Available upon request

Ball Nut TRANSFER SYSTEM Options

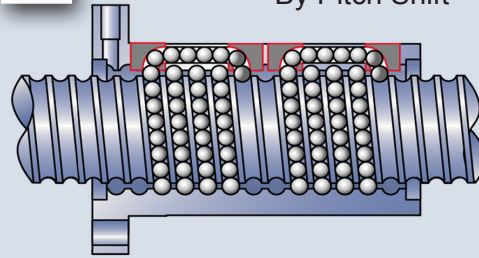
A

Internal Recirculating
Flanged Nut Preloaded
By Ball Selection



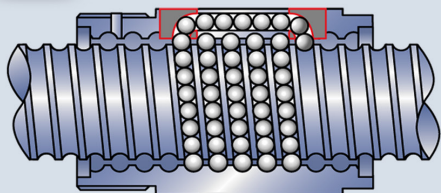
B

Internal Recirculating
Flanged Nut Preloaded
By Pitch Shift



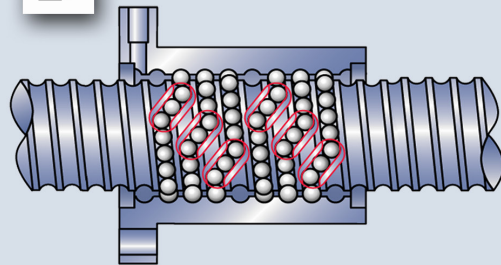
C

Internal Recirculating
Nose Thread Nut



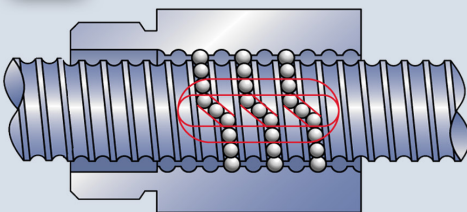
D

Internal Flanged Nut
"Flop-Over" Recirculation



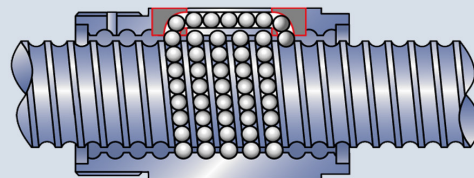
E

Internal Recirculating
Miniature Nut

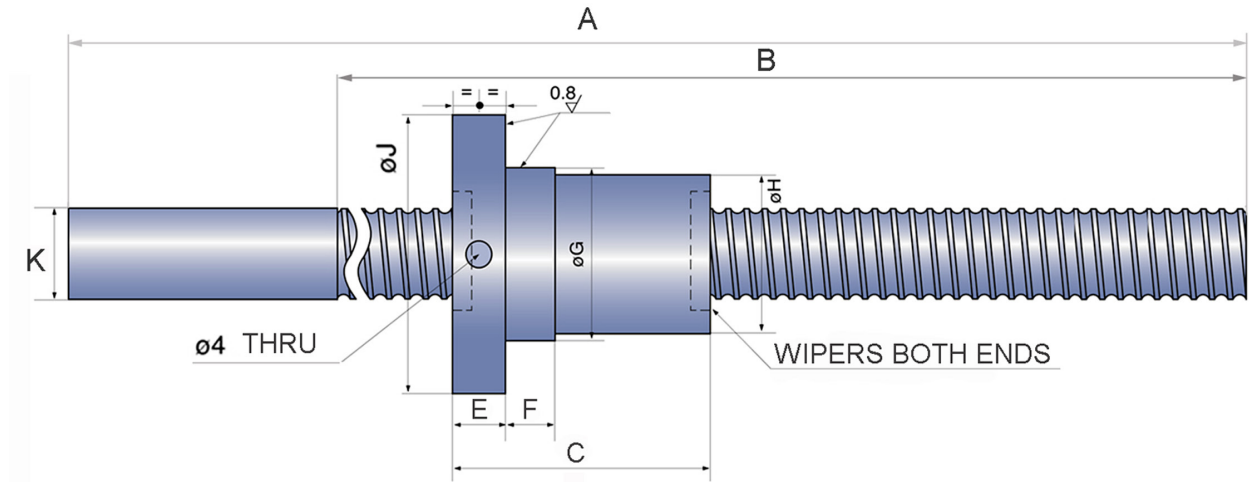


F

Internal Recirculating
Nose Thread Miniature Nut



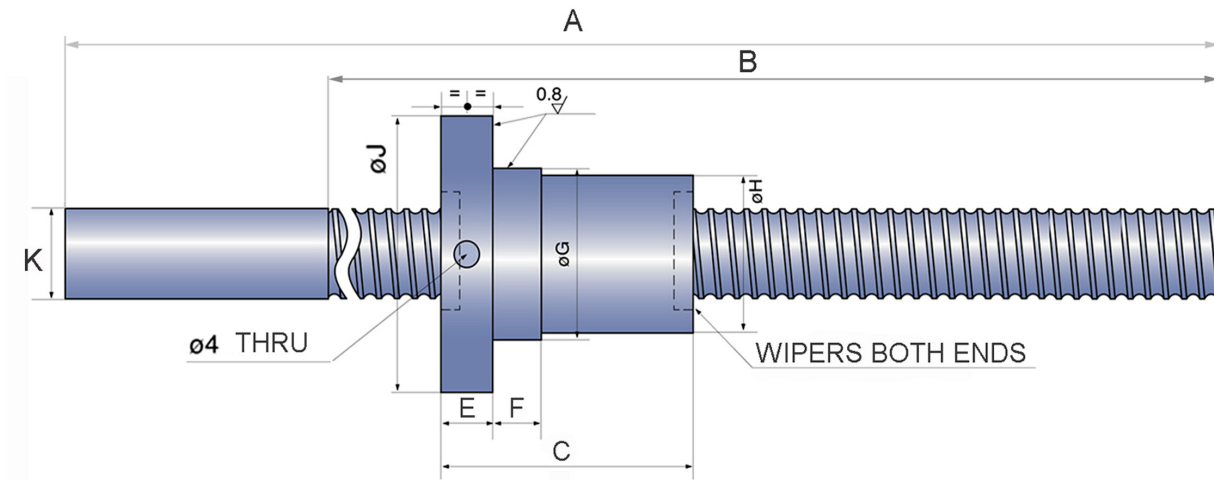
JT PRECISION: Ground Inch JTi Series



JTi - Series

PITCH CENTER DISTANCE (mm)	LEAD (mm)	ITEM	Max OAL mm A	THREAD Max B	OAL NUT Dia C	NUT STYLE	E	F	REGISTER DIAMETER G	H	FLANGE DIA J (Min)	SHAFT DIA K	BALL DIAM	# OF TURN S	PRELOAD daN	PRELOAD TORQUE daNcm	LOAD RATING DYN daN	STATIC daN
0.625	0.200	JTi3-0625x0200	700	600	40	A	10	10	27,993 ... 27,980	28 ^{0.2 0.3}	54	15	3.000	3	42	0.3	840	1290
0.750	0.200	JTi3-0750x0200	850	750	42	A	10	10	35,991 ... 35,975	36 ^{0.2 0.3}	60	19	3.500	3	60	0.5	1200	1990
1.000	0.200	JTi3-1000x0200	1350	1200	42	A	10	10	39,991 ... 39,975	40 ^{0.2 0.3}	73	24	3.500	3	65	0.6	1310	2470
1.000	0.250	JTi3-1000x0250	1350	1200	46	A	10	10	39,991 ... 39,975	40 ^{0.2 0.3}	73	24	3.500	3	65	0.6	1310	2470
1.250	0.200	JTi3-1250x0200	2000	1850	73	B	12	10	49,991 ... 49,975	50 ^{0.2 0.3}	80	31	3.500	3+3	177	2.3	1770	4030
1.250	0.250	JTi3-1250x0250	1350	1200	81	B	14	16	49,991 ... 49,975	50 ^{0.2 0.3}	80	31	4.500	3+3	250	3.2	2500	5170
1.250	0.500	JTi3-1250x0500	2200	2000	118	B	12	16	49,991 ... 49,975	50 ^{0.2 0.4}	80	31	4.500	3+3	248	3.2	2480	5130
1.500	0.200	JTi3-1500x0200	2000	1850	73	B	12	10	55,990 ... 55,971	56 ^{0.2 0.3}	87	39	3.500	4+4	249	4	2490	6770
1.500	0.250	JTi3-1500x0250	2000	1850	95	B	14	16	62,990 ... 62,971	56 ^{0.2 0.3}	87	39	4.500	3+3	350	5.5	3500	8550
2.000	0.200	JTi3-2000x0200	2650	2450	88	B	16	16	74,990 ... 74,971	75 ^{0.2 0.3}	106	49	3.500	4+4	273	5.5	2730	8570
2.000	0.250	JTi3-2000x0250	2650	2450	97	B	16	16	74,990 ... 74,971	75 ^{0.2 0.3}	110	49	4.500	3+3	386	7.7	3860	10870
2.250	0.500	JTi3-2250x0500	3200	3000	173	B	18	16	91,988 ... 91,966	92 ^{0.2 0.3}	132	55	9.000	4+4	1032	23.5	10320	23620

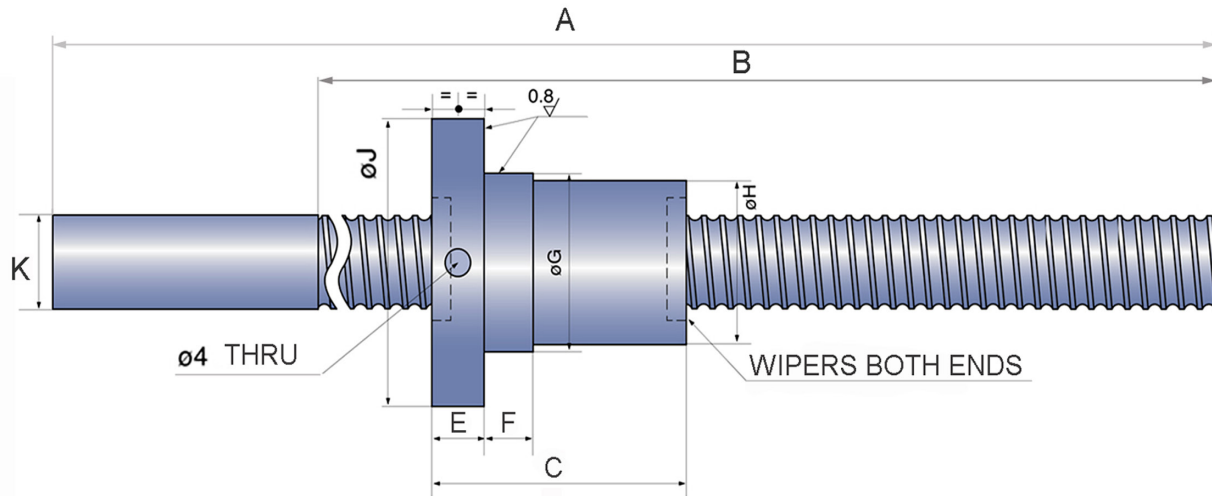
JT PRECISION: Ground & Whirled Metric Series: JTs/JTb/JTe



JT - Series: Sizes 16x5mm to 40x8mm

PITCH CENTER DISTANCE (mm)	LEAD (mm)	ITEM	Max OAL mm A	THREAD Max B	OAL NUT Dia C	NUT STYLE	E	F	REGISTER DIAMETER G	H	FLANGE DIA J (Min)	SHAFT DIA K	BALL DIAM	# OF TURNS	PRELOAD daN	PRELOAD TORQUE daNcm	LOAD RATING DYN daN	STATIC daN
16	5	JTs3-1605	1000	800	40	A	10	10	27,993 ... 27,980	28 0.2 0.3	56	15	3.000	3	42	0,3	840	1290
16	10	JTs3-1610	1000	800	54	A	10	10	27,993 ... 27,980	28 0.2 0.3	56	15	3.000	3	42	0,3	840	1290
20	5	JTs3-2005	1000	800	45	A	10	10	35,991 ... 35,975	36 0.2 0.3	58	19	3.500	4	76	0,6	1520	2650
		JTs5-2005	3000	2700	45	A	10	10	35,991 ... 35,976	36 0.2 0.4	58	19	3.500	4	76	0,7	1520	2650
20	10	JTs3-2010	1200	1000	46	A	10	10	35,991 ... 35,975	36 0.2 0.4	58	19	3.500	1x3	58	0.5	1170	1970
25	5	JTs3-2505	1200	1000	46	A	10	10	39,991 ... 39,975	40 0.2 0.4	65	24	3.500	4	84	0,8	1680	3290
		JTs5-2505	3000	2700	46	A	10	10	39,991 ... 39,976	40 0.2 0.4	65	24	3.500	4	84	0,9	1680	3290
		JTb-2505	3000	2700	49	A	10	10	37,991 ... 37,977	38 0.2 0.4	65	24	3.500	4	84	0,10	1680	3290
25	10	JTs3-2510	1200	1000	72	A	10	10	39,991 ... 39,975	40 0.2 0.4	65	24	3.500	2+2	84	0.8	1100	2070
		JTs5-2510	3000	2700	72	A	10	10	39,991 ... 39,975	40 0.2 0.4	65	24	3.500	2+2	84	0.8	1100	2070
28	6	JTs3-2806	1200	1000	92	B	12	10	43,991 ... 43,975	44 0.2 0.4	68	27	3.500	4+4	220	2,5	2200	4800
32	5	JTs3-3205	1700	1500	83	B	12	10	49,991 ... 49,975	50 0.2 0.4	80	31	3.500	4+4	227	2,9	2260	5370
		JTs5-3205	3000	2700	83	B	12	10	49,991 ... 49,975	50 0.2 0.4	80	31	3.500	4+4	227	2,9	2260	5370
32	5	JTb-3205	3000	2700	49	A	12	10	47,991 ... 47,975	48 0.2 0.4	80	31	3.500	1x4	93	1.2	1870	4250
32	6	JTs3-3206	1700	1500	92	B	12	10	49,991 ... 49,975	50 0.2 0.4	90	31	4.500	4+4	320	4,1	3200	6900
32	8	JTs3-3208	1700	1500	106	B	12	12	49,991 ... 49,975	50 0.2 0.4	90	31	4.500	4+4	320	4,1	3200	6900
32	10	JTs3-3210	1700	1500	117	B	12	16	49,991 ... 49,975	50 0.2 0.4	90	31	3.500	4+4	225	2,9	2260	5370
		JTs3-3210-H	3000	2700	137	B	12	16	54,990 ... 54,971	55 0.2 0.4	93	30	6.000	4+4	454	5,8	4540	8710
32	10	JTs5-3210	3000	2700	97	B	12	16	49,991 ... 49,975	50 0.2 0.4	90	31	3.500	3+3	176	2.2	1760	4010
32	12	JTs3-3212	1700	1500	117	B	12	16	49,991 ... 49,975	50 0.2 0.4	90	31	3.500	4+4	225	2.9	2260	5370
		JTe3-3212	1700	1500	92	D	12	16	49,991 ... 49,975	50 0.2 0.4	90	31	3.500	4	128	1.2	2550	5200
40	5	JTs3-4005	2200	2000	86	B	15	10	54,990 ... 54,971	55 0.2 0.4	93	39	3.500	4+4	249	4	2460	6770
		JTs5-4005	2200	2000	86	B	15	10	54,990 ... 54,971	55 0.2 0.4	93	39	3.500	4+4	249	4	2460	6770
40	6	JTe3-4006	2200	2000	92	D	14	10	55,990 ... 55,971	56 0.2 0.4	93	39	4.500	4+4	350	5.6	3500	8550
40	8	JTe3-4008	2200	2000	98	D	14	12	55,990 ... 55,971	56 0.2 0.4	93	39	4.500	3+3	275	4.4	2750	6400

JT PRECISION: Ground & Whirled Metric Series: JTs/JTb/JTe

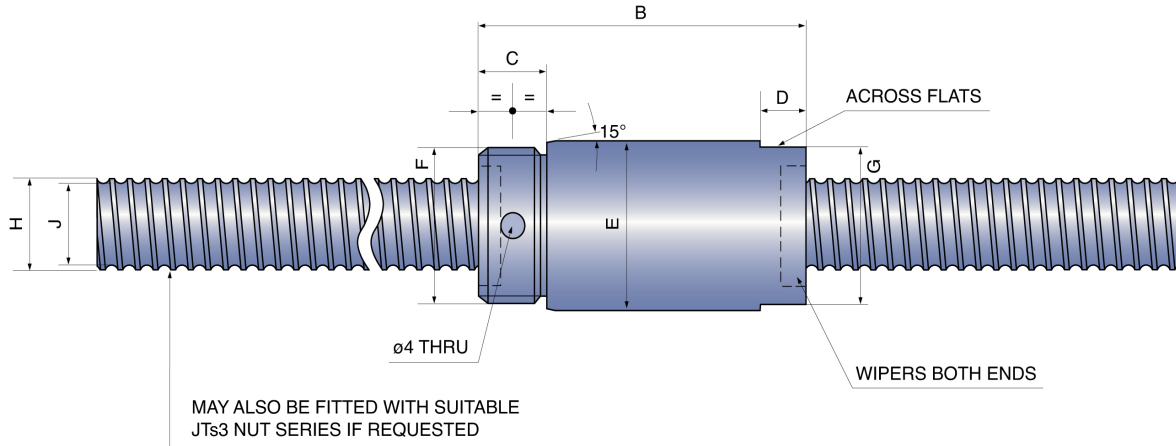


JT - Series: Sizes 40x10mm thru 80x20mm

PITCH CENTER DISTANCE (mm)	LEAD (mm)	ITEM	Max OAL mm A	THREAD Max B	OAL NUT Dia C	NUT STYLE	E	F	REGISTER DIAMETER G	H	FLANGE DIA J (Min)	SHAFT DIA K	BALL DIAM	# OF TURNS	PRELOAD daN	PRELOAD TORQUE daNcm	LOAD RATING DYN daN	STATIC daN
40	10	JTs3-4010	2200	2000	138	B	15	16	62,990 ... 62,971	63 0.2 0.4	100	39	6.000	4+4	527	8.4	5090	11080
		JTs5-4010	3000	2700	138	B	15	16	62,990 ... 62,971	63 0.2 0.4	100	39	6.000	4+4	527	8.4	5090	11080
40	10	JTb-4010	3000	2700	79	A	15	16	62,990 ... 62,971	63 0.2 0.4	95	39	6.000	1x4	217	3.5	4340	9180
40	12	JTs3-4012	2200	2000	158	B	14	16	62,990 ... 62,971	63 0.2 0.4	100	38	6.000	4+4	530	8.5	5300	11600
40	16	JTs3-4016	2200	2000	174	B	14	20	62,990 ... 62,971	63 0.2 0.4	100	38	6.000	4+4	530	8.5	5300	11600
40	20	JTs3-4020	2200	2000	124	B	14	20	62,990 ... 62,971	63 0.2 0.4	100	38	6.000	2+2	287	4.6	2870	5760
40	40	JTs5-4040	3000	2700	126	B	20	20	62,990 ... 62,971	63 0.2 0.4	96	38	6.000	1x2	112	1.8	2250	4390
50	5	JTs3-5005	2700	2500	88	B	15	16	74,990 ... 74,971	75 0.2 0.4	115	49	3.500	4+4	273	5.5	2730	8570
		JTs5-5005	3000	2700		B	15	16	74,990 ... 74,971	75 0.2 0.4	115	49	3.500	4+4	273	5.5	2730	8570
50	8	JTs3-5008	2700	2500	132	B	16	12	71,990 ... 71,971	72 0.2 0.4	115	48	6.000	4+4	580	11.6	5800	14600
50	10	JTs3-5010	2700	2500	143	B	18	16	74,990 ... 74,971	75 0.2 0.4	115	48	7.144	4+4	738	14.3	7150	16570
		JTs5-5010	3000	2700	143	B	18	16	74,990 ... 74,971	75 0.2 0.4	115	48	7.144	4+4	738	14.3	7150	16570
		JTe3-5010	2700	2500	142	D	16	16	71,990 ... 71,971	72 0.2 0.4	115	48	7.144	4+4	739	14.3	7400	17400
50	12	JTs3-5012	2700	2500	164	B	18	16	74,990 ... 74,971	0.2 0.4	115	48	7.144	4+4	738	14.3	7150	16570
50	12	JTs5-5012	3000	2700	164	B	18	16	74,990 ... 74,971	75 0.2 0.4	115	48	7.144	4+4	715	14.3	7150	1657
50	20	JTs3-5020	2700	2500	170	B	16	26	84,988...84,966	85 0.2 0.4	125	48	9.000	3+3	760	15.2	7600	1560
50	20	JTs5-5020	3200	3100	170	B	16	26	84,988...84,966	85 0.2 0.4	125	48	9.000	3+3	760	15.2	7600	1560
63	5	JTe3-6305	3500	3300	145	D	20	16	89,988 ... 89,966	90 0.2 0.4	130	62	3.500	4+4	300	8	3000	11000
63	10	JTs3-6310	3500	3300	164	B	18	16	89,988 ... 89,966	90 0.2 0.4	139	61	7.144	5+5	973	24.6	9730	26950
63	10	JTb3-6310	3500	3300	102	A	18	16	84,988 ... 84,966	85 0.2 0.4	125	61	7.144	1X5	400	10.0	8000	21300
		JTe3-6310	3500	3300	145	D	18	16	89,988 ... 89,966	90 0.2 0.4	139	61	7.144	5+5	973	24.6	9730	26950
63	12	JTs3-6312	3500	3300	170	B	20	16	94,990 ... 94,966	95 0.2 0.4	144	61	9.000	4+4	1120	28.2	11200	27500
		JTs5-6312	3500	3300	170	B	20	16	94,990 ... 94,966	95 0.2 0.4	144	61	9.000	4+4	1120	28.2	11200	27500
		JTe3-6312	3500	3300	145	D	20	16	89,988 ... 89,966	90 0.2 0.4	144	61	9.000	3+3	1120	28.2	8700	20600
80	10	JTs3-8010	3500	3300	148	B	20	16	104,988...104,966	105 0.2 0.4	147	76	7.144	4+4	905	29.0	9050	2820
80	12	JTs5-8012	4000	3700	170	B	20	20	104,988...104,966	105 0.2 0.4	147	76	7.144	4+4	903	29.0	9030	2821
80	20	JTs3-8020	3500	3300	172	B	25	25	124,986...124,961	125 0.2 0.4	167	76	12.700	3+3	1500	48.0	15000	35200
80	20	JTs5-8020	4000	3700	172	B	25	25	124,986...124,961	125 0.2 0.4	167	76	12.700	3+3	1500	48.0	15000	35200

Additional custom diameters and leads are available up to Size 125MM. Please refer to Page 5 of this Guidebook, or visit our website at: www.jena-tec.com for more information.

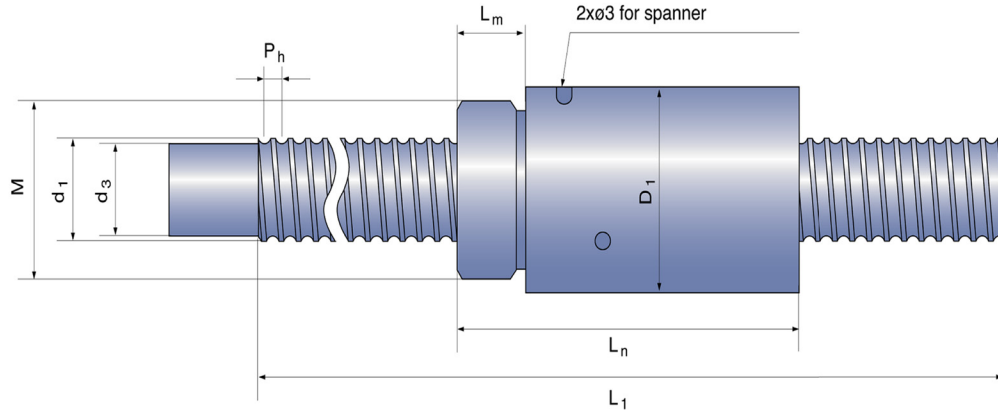
JT PRECISION: Rolled Metric Series: JTs7



JTs7 - Series

PITCH CENTER DISTANCE (mm)	LEAD (mm)	ITEM	OAL (mm) B	NUT STYLE	C (mm)	D (mm)	FLANGE DIA (mm) E	REGISTER DIAMETER F	G (mm)	SHAFT DIA H	J (mm)	# OF TURNS	AXIAL PLAY MAX	DYN RATING 1x10 ⁶ DYN daN	2.5x10 ⁶ DYN daN
16	5	JTs7-1605	44	C	12	8	30	M26x1,5	28	15	12.90	3	0.05	760	560
16	5	JTs7-1605-LH	44	C	12	8	30	M26x1,5	28	15	12.90	3	0.05	760	560
16	10	JTs7-1610	47	C	12	8	30	M26x1,5	28	15	12.90	2	0.05	540	400
20	5	JTs7-2005	52	C	14	8	40	M35x1,5	36	19	16.40	4	0.06	1370	1000
25	5	JTs7-2505	57	C	19	8	45	M40x1,5	40	24	21.40	4	0.06	1510	1100
25	5	JTs7-2505-LH	57	C	19	8	45	M40x1,5	40	24	21.40	4	0.06	1510	1100
25	10	JTs7-2510	79	C	19	8	45	M40x1,5	40	24	21.40	4	0.06	1500	1100
32	5	JTs7-3205	57	C	19	8	55	M48x1,5	50	31	28.40	4	0.06	1680	1240
32	5	JTs7-3205-LH	57	C	19	8	55	M48x1,5	50	31	28.40	4	0.06	1680	1240
32	10	JTs7-3210	85	C	19	8	60	M55x1,5	56	30	25.10	4	0.08	3370	2480
40	5	JTs7-4005	56	C	19	10	60	M55x1,5	56	39	36.40	4	0.06	2230	1640
40	10	JTs7-4010	90	C	24	10	65	M60x1,5	60	38	33.80	4	0.08	3900	2870
40	20	JTs7-4020	86	C	24	10	65	M60x1,5	60	38	33.80	4	0.08	3860	2850
50	10	JTs7-5010	110	C	30	12	77	M72x1,5	72	48	42.60	45	0.1	6625	4880
50	12	JTs7-5020	132	C	30	12	85	M72x1,5	80	48	40.60	6	0.13	10300	7590
63	10	JTs7-6310	110	C	30	12	90	M85x2	84	61	55.60	5	0.1	7230	5330
63	12	JTs7-6312	133	C	30	12	95	M85x2	90	61	53.70	6	0.13	11700	8620

JT PRECISION: Miniature Metric Series: JTm



JTm - Series

NOM DIA d _o	LEAD P _h	ITEM	GRADE	NUT STYLE	L ₁ (mm)	L _n (mm)	L _m (mm)	D ₁ (mm)	d ₁ (mm)	d ₃ (mm)	M	WIPERS	AXIAL PLAY MAX	LOAD RATING	
														1x10 ⁶ DYN daN	STATIC RATING daN
6	1.000	JTm3-06010	3	E, F	200	21	6	14.5	5.9	5.3	M12X1	NO	x	70	100
8	1.000	JTm3-08010	3	E, F	300	26	8	16.5	8	7.4	M14X1	NO	x	120	200
8	2.000	JTm3-08020	3	E, F	300	27	8	16.5	8	6.9	M14X1	NO	x	190	240
8	2.000	JTm7-08020	7	E, F	1800	27	8	16.5	8	6.9	M14X1	NO	0.01	170	220
8	2.500	JTm3-08025	3	E, F	300	31.5	8	16.5	8	6.9	M14X1	NO	x	190	240
10	2.000	JTm3-10020	3	E, F	1800	27	8	20.5	9.8	8.7	M17X1	NO	x	190	270
10	2.000	JTm7-10020	7	E, F	375	27	8	20.5	9.8	8.7	M17X1	NO	0.01	190	270
10	2.500	JTm3-10025	3	E, F	375	31.5	8	20.5	9.8	8.2	M17X1	NO	x	310	400
10	2.500	JTm7-10025	7	E, F	1800	31.5	8	20.5	9.8	8.2	M17X1	NO	0.01	280	360
12	2.000	JTm3-12020	3	E, F	375	29	10	22	11.8	10.7	M18X1	NO	x	240	380
12	2.500	JTm3-12025	3	E, F	500	36	10	26	11.8	10.2	M22X1	YES	x	360	530
12	4.000	JTm3-12040	3	E, F	500	36	10	26	11.8	10.2	M22X1	YES	x	360	530
12	5.000	JTm3-12050	3	E, F	500	40	10	26	11.5	9.8	M22X1	YES	x	380	560
12	5.000	JTm7-12050	7	E, F	1800	40	10	26	11.5	9.8	M22X1	NO	0.01	340	500
14	2.000	JTm3-14020	3	E, F	750	32	10	24	13.8	12.6	M22X1	YES	x	250	450
14	4.000	JTm3-14040	3	E, F	750	36	10	26	13.8	12.1	M22X1	YES	x	400	650
14	4.000	JTm7-14040	7	E, F	1800	36	10	26	13.8	12.1	M22X1	NO	0.01	360	590
16	2.000	JTm3-16020	3	E, F	1000	29	10	26	15.6	14.5	M22X1	NO	x	270	510
16	2.000	JTm7-16020	7	E, F	1800	29	10	26	15.6	14.5	M22X1	NO	0.01	240	460
16	2.500	JTm3-16025	3	E, F	1000	36	10	26	15.6	14	M22X1	YES	x	430	750
16	2.500	JTm7-16025	7	E, F	1800	36	10	26	15.6	14	M22X1	NO	0.01	390	680
16	4.000	JTm3-16040	3	E, F	1000	36	10	28	15.4	13.4	M25X1.5	YES	x	680	1140

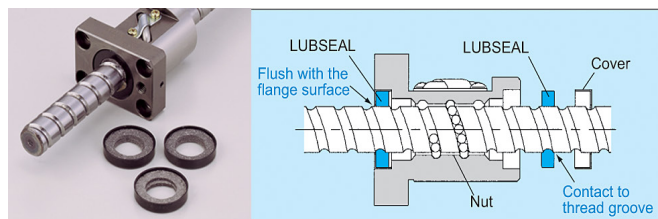
Lubrication Unit for Ball Screw LUBSEAL

LUBSEAL is a lubrication unit which contacts the ball rolling portion of the screw shaft groove and supplies an appropriate amount of lubricant (grease).

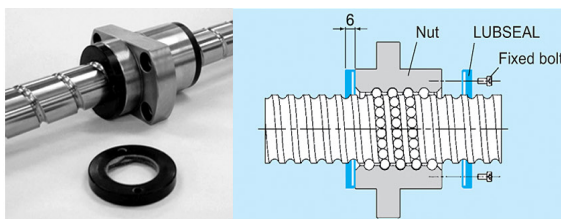
It can fit into both ends of ball screw nut and become compact in size.

Most suitable for semiconductor/liquid crystal manufacturing machines, detection devices, food machines, medical equipment, machine tools and automobile facilities.

●G Series Installation Structure



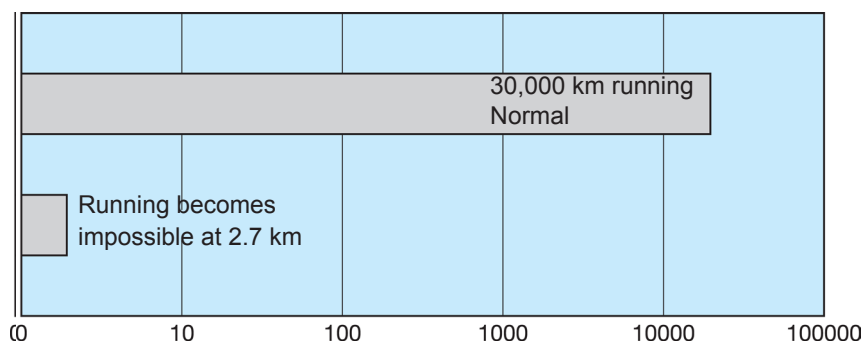
●F Series Installation Structure



●Performance

LUBSEAL fitted
(Lubricating grease
is fitted only at the
early operation
stage.)

No lubrication
(No lubricating
grease is fitted.)



[Test conditions]
Screw shaft outer diameter
φ15 mm
Lead 20 mm
Axial clearance 0.005 mm
or less
Revolution speed 3000 min⁻¹
Stroke 400 mm

●Notation by Model No.

Travel distance (km)

GG 15 20 AS – B A S R – Overall length × Thread length – C5 F

●Series and Size

Shaft diameter	Lead	Series to which LUBSEAL can be fitted			
		FE/FG	GE/GG	GP	GY/GW
10	10	○			
	12	○			
15	5	○	○	○	○
	10	○	○		○
	15		○		
	20	○	○		○
20	5	○	○	○	○
	10	○	○		○
	20	○	○		○
25	5	○	○		○
	10	○	○		○
	20		○		
	25	○	○		○

*LUBSEAL cannot be fitted to the GY/GW series square nut.

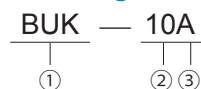
⚠ Precautions on handling

- (Note 1) For LUBSEAL, grease having the same ingredients as those of Alvania Grease S2 filled in the unit is impregnated. For use of other greases, consult us.
- (Note 2) For LUBSEAL fitting on ball screws other than the above series and surface treated bass screws, contact us.
- (Note 3) The maximum operating temperature is 50°C. For the case where it is 50°C or higher, contact us.
- (Note 4) During cleaning, do not use organic solvent and illuminating kerosene.

Support Units: BUK, BUM, BUT Series

- Applicable to 6-32 mm dia. ball screw
- Accurate center height
- Angular bearing preload adjustment completed
Preload adjusted angular bearing DF
(Face-to-Face) combination as standard.
DB (Back-to-Back) combination is also available on your request when higher rigidity is required.
- Special surface treatment, special grease, etc. consult KURODA JENA TEC.

Ordering Number



- ① Series
 BUK: Direct mount (Rectangle) Support Unit
 BUM :Circle Flange Support Unit
 BUT: Support unit for machine tool
- ② Bearing journal diameter (mm)
- ③ Combination
 A: Set of fixed and supported end units
 F: Fixed end unit
 S: Supported end unit
 T: Diameter support unit only
 No mark: Fixed end unit and supported end bearing



BUK Series				BUM Series				BUT Series
Set	Fixed-end unit	Supported-end unit	Diameter support unit	Set	Fixed-end unit	Supported-end bearing	Supported-end unit	Fixed-end unit
BUK-6	BUK-6	-	-	BUM-6	BUM-6F	606ZZ	-	-
BUK-8A	BUK-8F	BUK-6S	-	BUM-8	BUM-8F	606ZZ	BUM-6S	-
BUK-10A	BUK-10F	BUK-8S	BUK-12T	BUM-10	BUM-10F	608ZZ	BUM-8S	-
BUK-12A	BUK-12F	BUK-10S	BUK-15T	BUM-12	BUM-12F	6000ZZ	BUM-10S	-
BUK-15A	BUK-15F	BUK-15S	-	BUM-15	BUM-15F	6002ZZ	BUM-15S	-
BUK-20A	BUK-20F	BUK-20S	-	BUM-20	BUM-20F	6204ZZ	BUM-20S	BUT-20
BUK-25A	BUK-25F	BUK-25S	-	BUM-25	BUM-25F	6205ZZ	-	BUT-25
-	-	-	-	-	-	-	-	BUT-30
-	-	-	-	-	-	-	-	BUT-35
-	-	-	-	-	-	-	-	BUT-40

Related Products

●KURODA Dust Preventive Grease Series

KURODA dust preventive grease series has excellent performance of dust prevention, stable torque, lubrication, and rust prevention. KURODA grease series meets the demand for cleanliness of semiconductor manufacturing machines, LCD manufacturing lines, medical care instruments, etc.

KURODA C Grease

For dust prevention



Appearance	Yellow white
Thickening	Ureic
Base oil	Synthetic oil
Consistency	280 (No.2)
Operating temperature range	-30 to +150°C

C1-080G-J (80 g in bellows type container)
 C1-400G-J (400 g in bellows type container)

KURODA S Grease

For short stroke motion



Appearance	Yellow white
Thickening	Ureic
Base oil	Mineral oil
Consistency	280 (No.2)
Operating temperature range	-20 to +150°C

S1-080G-J (80 g in bellows type container)
 S1-400G-J (400 g in bellows type container)

* You can install the above container directly to your grease gun. (Please use grease gun produced in accordance with JIS B 9808-1991)

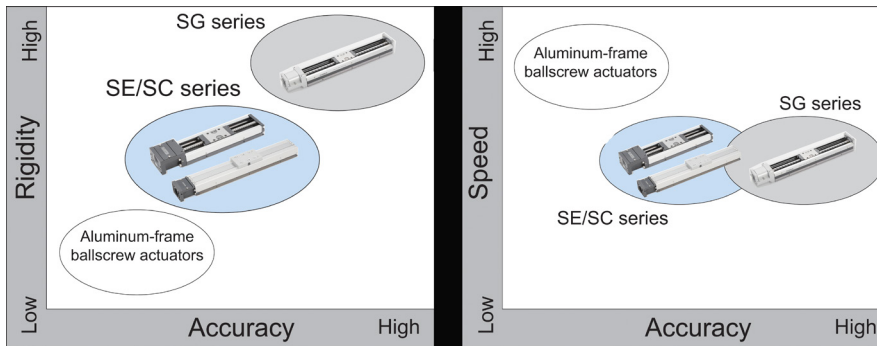
Ballscrew Actuators: SG/SE/SC Series

The KURODA JENA TEC ballscrew actuator is a compact single-axis unit consisting of a ball screw and a slide guide. Despite its compact structure, the actuator with U-guide rail shows high rigidity against bending and deflection, and it can be applied to a structure supported by one end. The linear motion unit, which is gothic-arched and in 4 points-contact structure, makes it possible to deliver high precision and high rigidity.

A wide variety of options are available, including various motor bracket configurations for connecting various types of motors, top covers to support dust proofing, various sensors, and lubricating units.

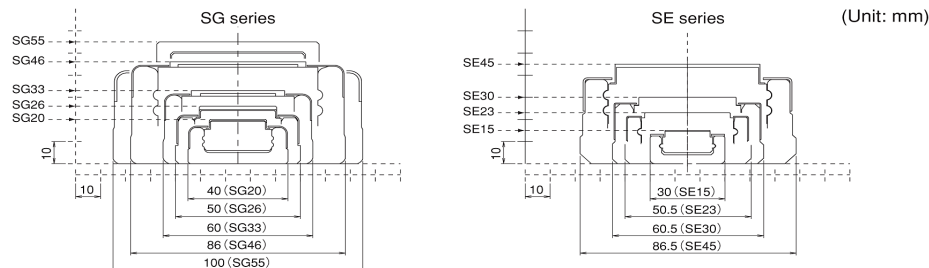
In addition, for the support of customized products, KURODA JENA TEC is also manufacturing guide rail intermediate stroke, long rail specification, and clean environment supporting products.

Positions of Ballscrew Actuators



Space Saving

With its slide block set in U-guide rail, the actuator has achieved low-profile design and compact shape, making it possible to considerably reduce necessary space as compared with usual table-type structure.



Wide Variations

Model No.	SG series						SE series				SC series (Note 2)		
	SG20	SG26	SG33	SG3320	SG46	SG55	SE15	SE23	SE30	SE45	SC23	SC30	SC45
Performance grade (Note 1)	P: Repeated positioning accuracy $\pm 1 \mu\text{m}$ H: Repeated positioning accuracy $\pm 3 \mu\text{m}$						U: Repeated positioning accuracy $\pm 5 \mu\text{m}$ W: Repeated positioning accuracy $\pm 10 \mu\text{m}$						
Screw shaft dia.	6	8	10	12	15	20	6	8	10	15	8	10	15
Lead	1	⊙					⊙						
	2		⊙	●			⊙	⊙	●		⊙	●	
	4							●	⊙		●	⊙	
	5	⊙	⊙	⊙	●	●		⊙	⊙	⊙	⊙	⊙	⊙
	8							●			●		
	10			⊙	⊙	●			⊙	⊙		⊙	⊙
Standard guide rail length	100	150	150		340	980	100	150	150	340	150	150	540
	200	300	600		1240	1380	200	300	750	940	300	750	940
Types of slide blocks	A	A	A	A	A	A	A	A	A	A	A	A	A
	B	B	B	B	B	B	B	B	B	B			

⊙ : In-stock items ● : Manufactured by order

A: With 1 long block unit B: With 2 long block units C: With 1 short block unit D: With 2 short block units

(Note 1) The above table shows precision information on repeated positioning accuracy in particular, as an example. Performance of actuators may be different from the values shown above, depending on applied options and usage. For more details, refer to the Ballscrew Actuator General Catalogue.

(Note 2) SC series is a full-cover version of SE series ballscrew actuators. For more details, refer to the Ballscrew Actuator General Catalogue.

High accuracy type SG series

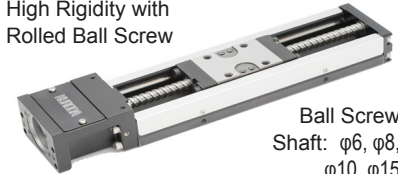
High Accuracy & Rigidity with Ground Ball Screw



Ball Screw
Shaft: $\phi 6$, $\phi 8$, $\phi 10$,
 $\phi 12$, $\phi 15$, $\phi 20$

High rigidity type SE series

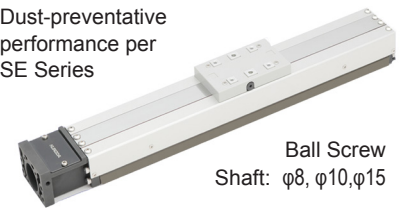
High Rigidity with Rolled Ball Screw



Ball Screw
Shaft: $\phi 6$, $\phi 8$,
 $\phi 10$, $\phi 15$

Full cover type SC series

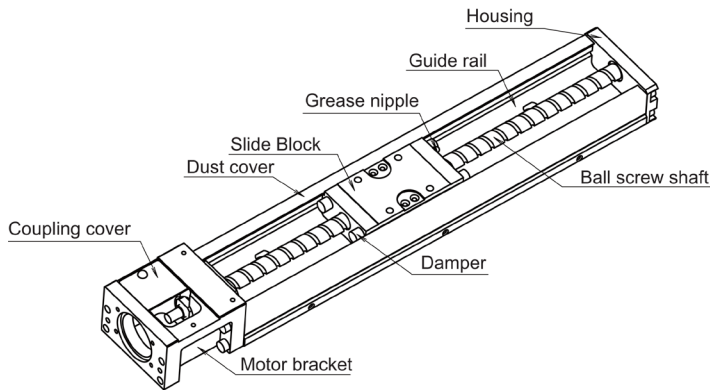
Dust-preventative performance per SE Series



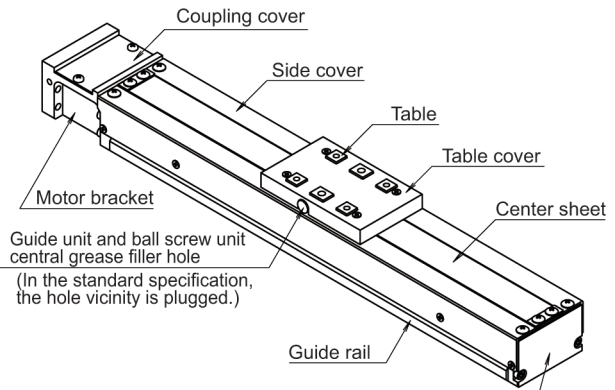
Ball Screw
Shaft: $\phi 8$, $\phi 10$, $\phi 15$

High Accuracy, High Rigidity Ballscrew Actuators

●SG/SE Exterior Configuration



●SC Exterior Configuration



●How to Interpret Model No.

Model No.	Lead	Slide block	Guide rail length	Performance grade	Motor bracket configuration	Type of cover	Sensor	Surface treatment	Grease	Dowel pin hole
SG33	10	A	500	P	A1	C	C	N	N	PS
①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪
Model No. of Main Body					Model No. of Option					

- ① Model of ballscrew actuator
- ② Lead of ball screw
- ③ Variation of slide blocks and number of blocks to be mounted
- ④ Guide rail length
- ⑤ Performance of ballscrew actuators, including various positioning accuracy indicators and traveling parallelism
- ⑥ Motor bracket configuration
- ⑦ Type of cover
- ⑧ With or without sensor/type of sensor
- ⑨ With or without surface treatment applied
- ⑩ Type of grease applied on slide blocks and ball screws of ballscrew actuators
- ⑪ With or without dowel pin holes

●Option Support Table

Category	Item		SG series					SE series				SC series		
			SG20	SG26	SG33	SG46	SG55	SE15	SE23	SE30	SE45	SC23	SC30	SC45
Option	Motor bracket configuration	Motor bracket	○	○	○	○	○	○	○	○	○	○	○	○
		Intermediate flange	○	○	○	○	○	○	○	○	○	○	○	○
		R0/RN type bracket (Note 1)	○	○	○	○	○	-	-	○	○	-	○	○
		Parallel motor mounting unit	-	-	○	○	-	-	-	○	○	-	○	○
	Type of cover	Without dustproof cover	○	○	○	○	○	○	○	○	○	-	-	-
		With dustproof cover	○	○	○	○	○	○	○	○	○	-	-	-
		Standard full-cover (Note 2)	-	-	-	-	-	-	-	-	-	○	○	○
		Full-cover with grease nipple (Note 2)	-	-	-	-	-	-	-	-	-	○	○	○
		Full-cover with wiper (Note 2)	-	-	-	-	-	-	-	-	-	○	○	○
		Full-cover with grease nipple and wiper (Note 2)	-	-	-	-	-	-	-	-	-	○	○	○
	Sensor	Photo-microsensor	○	○	○	○	○	-	○	○	○	○	○	○
		Proximity sensor	○	○	○	○	○	○	○	-	-	○	-	-
	Surface treatment (Note 3)		○	○	○	○	○	○	○	○	○	○	○	○
	Dust preventing grease		○	○	○	○	○	○	○	○	○	○	○	○
	Dowel pin hole		○	○	○	○	○	-	○	○	○	-	-	-
	Lubrication unit LUBSEAL (Note 4)		-	-	-	-	-	-	○	○	○	○	○	○

(Note 1) The R0 type bracket is applicable for the SG series, while the RN type bracket is applicable for the SE series and SC series.

(Note 2) The full-cover specification types with wipers and grease nipples are only applicable for the SC series.

(Note 3) For the surface treatment, anticorrosive black-colored coating treatment (film thickness: 1-2μm) is implemented. Regarding other surface treatment, contact KURODA for more information.

(Note 4) Due to the LUBSEAL which connected to the both side of slide block, LUBSEAL may not be produced depending on the guide rail length.

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