Standard precision ball screws

Features

• GP, GG, GE series: Various screw shaft diameters, leads, and accuracy grades available for your selection

• An optimal size can be selected from a variety of screw shaft diameters, leads, and accuracy grades eliminating unnecessary compromise in product selection.

• FG, FE series: High rotational speed

- Delivers higher rotational speed up to 5,000 min⁻¹ through our unique recirculation system.
- In consideration of the load rating, the products have higher specifications than previous KURODA products.

• DP series: The industry's smallest compact nut class

- Utilizes a deflector recirculation system which realizes minimal nut dimensions.
- With leads from 1 mm, the DP series is suitable for machines and equipment that requires fine pitch forwarding and precise positioning.

HG series: Optimal for high-speed conveyance achieved by larger leads

- · Larger leads enable a higher feed rate at a low rotational speed.
- With the adoption of multi-start thread, we have achieved a more compact nut with an improved load rating.

□ Summary of the specifications

Screw shaft diameter	ø6 to ø32 mm
Lead	1 to 60 mm
Accuracy grade	C3 grade: GP, DP C5 grade: FG, GG, HG C7 grade: FE, GE
Axial clearance	Refer to each product specification table.
Shaft end type	One shaft end finished (C3 grade: GP, DP) Unfinished shaft ends
Product line	Standard product

□ Options available

Se	eries	Additional shaft- end machining	Surface treatment	Change of grease type	Change of nut direction	LUBSEAL
GP, DI FG, G FE, G	G, HG	0	0	0	0	See the notes below.

- The GP and DP series have one shaft end finished.
- The surface treatment is anticorrosive black coating (coating thickness: 1 to 2 μ m).
- · Contact KURODA regarding the inclusion of grease types other than the standard grease.
- Please refer to the LUBSEAL series and size reference chart or the option specifications on each product's page to determine whether or not LUBSEAL is supported.

□ Model numbers of each series

	Series	Shaft diameter	Lead	Number of circuits	Combina- tion		Flange type	Ball recir- culation system	Wiper material	Thread direction		Overall screw shaft length	Shaft end type	Thread length		Accuracy grade	Axial clearance
Example	FG	15	10	Р	S	-	Н	Р	N	R	-	0900	Χ	0840	-	C5	F
model	DP	6 to 14	1 to 4	J			Н	D	N			To be	B, X	To be		C3	F, S
numbers	FG	10 to 25	E to 2E	Р			Н	Р	N			shown	A, X	shown		C5	F
	FE	10 10 25	5 10 25	P					IN			with a	Α, Λ	with a		C7	M
	GG	8 to 32	2 to 25	See	S	_	_	See specifi- cations.	_	R	_	4-digit number	A. X	4-digit number	-	C5	F
	GE	0 10 32	2 10 25	specifi-			See specifi-	cations.	See specifi-			in metric	A, A	in metric		C7	M
	GP	0 +0 20	2 to 5	cations.			cations.	Α	cations.			units	B, X	units		C3	F, S
	HG	8 to 20	12 to 60	Q				Q	2231101			(mm)	A, X	(mm)		C5	F, H

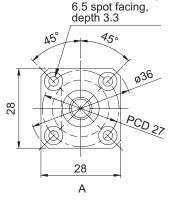
For more details, refer to the specifications and data for each size.

□ Screw shaft diameter and lead combinations

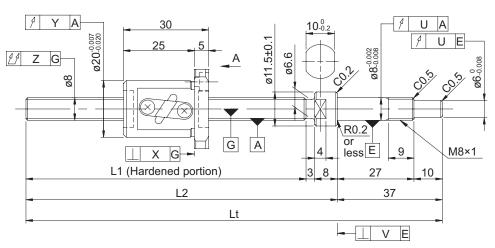
								Le	ead (mr	n)						
		1	2	3	4	5	10	12	15	16	20	25	30	32	40	60
	6	0														
	8	0	• 0		•											
	10		• 0		•		• +									
Screw	12		• 0	0	•	•	• +				• •					
shaft	14				0											
diam- eter	15		•		•	• +	• +		•		• □ ♦					
(mm)	16									•						
	20				•	•	• +				• □ ♦					
	25					• +	• +				•	• +				
	32					•	•									

- •: GP, GG, GE series
- o: DP series (small lead)
- □: HG series (large lead)
- ♦: FG, FE series (high rotational speed)

Ball sciew specifications										
Shaft diameter (mm) - Lead (mm)	8 -	- 2								
Number of circuits /	2.5 turns 1 circuit /									
Thread direction	Right	-hand								
Ball diameter (mm)	1.5	875								
Root diameter (mm)	6	.6								
Series	GP									
Basic dynamic load rating C (N)	1220 1950									
Basic static load rating C0 (N)	1300	2600								
Accuracy grade / Axial clearance symbol	C3/S C3/F									
Axial clearance (mm)	0	0.005 or less								
Preload torque (N·cm)	0.3 to 2.0	Up to 0.5								
Spacer ball	1:1	None								
Recirculation system	Tube method									
Wiper	Felt									
Lubricant	Alvania Grease S2									



4-3.4 drilled hole,



Model No.	Screw	shaft	length	Maximum stroke	Lead accuracy		
(One shaft end finished)	L1	L2	Lt	(L1 - nut length)	±Ε _c	e _c	e ₃₀₀
GP0802DS-AAFR-0170B-C3S	122	133	170	92	0.010	0.008	0.008
GP0802DS-AAFR-0170B-C3F	122	133	170	92	0.010		0.006
GP0802DS-AAFR-0250B-C3S	202	242	250	170	0.012	0.000	0.008
GP0802DS-AAFR-0250B-C3F	202	213	250	172	0.012	0.008	0.008

- Product with axial clearance of 0.005 or less (F) shown may be partially preloaded.
- · Preload torque is a value before applying grease.
- At the time of delivery, grease is inserted inside of the nut, with rust-preventive oil also applied.
 Before and during use, apply lubricant where appropriate.

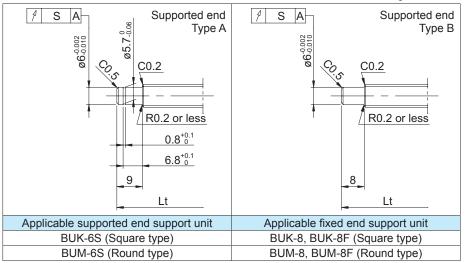
• Shaft end finish type

Standard precision ball screws are available with KURODA's recommended shaft end finish types for each size. The fixed end type is finished beforehand.

Regarding the supported shaft end, additional machining to KURODA's recommended shaft end finish type described below is available. Please contact KURODA with your orders. Model examples for finished shaft ends are described below.

Model example: Finished fixed end (See left figure) → Both shaft ends finished GP0802DS-AAFR-0250B-C3F → GP0802DS-AAFR-0250X0193-C3F

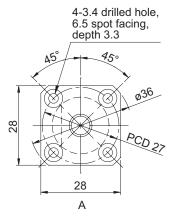
→Thread length →Overall screw shaft length

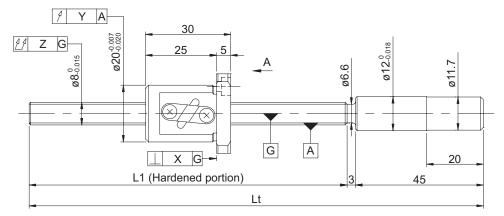


Optional specifications

	A	ccuracy c	of each pa		Preload tor	que (N·cm)	Mass	
X	Υ	Z	S	UV		Without clearance	With clearance	(kg)
0.008	0.008	0.030	0.010	0.008	0.0025	0.3 to 2.0		0.13
0.006	0.006	0.030	0.010	0.008 0.0025			Up to 0.5	0.13
0.000	0.008	0.035	0.010	0.008	0.0005	0.3 to 2.0		0.15
0.008	0.008	0.035	0.010	0.008	0.0025		Up to 0.5	0.15

Shaft diameter (mm) - Lead (mm)		8 - 2								
Number of circuits /	2.5	turns 1 circ	cuit /							
Thread direction		Right-hand	I							
Ball diameter (mm)		1.5875								
Root diameter (mm)		6.6								
Series	GG GE									
Basic dynamic load rating C (N)	1950									
Basic static load rating C0 (N)	2600									
Accuracy grade / Axial clearance symbol	C5 / S	C5 / F	C7 / M							
Axial clearance (mm)	0	0.005 or less	0.030 or less							
Preload torque (N·cm)	Up to 2.1	Up to 0.5								
Spacer ball	None									
Recirculation system	Tube method									
Wiper	None									
Lubricant	Alva	ınia Grease	e S2							





Model No.	Screw shaft length		Maximum stroke	Lead accuracy			
(Unfinished shaft ends)	L1 Lt		(L1 - nut length)	±E _c	e _c	e ₃₀₀	
GG0802DS-AANR-0215A	167	215	107	0.023	0.018	0.018	
GE0802DS-AANR-0215A	107		137	0.05/300			

- Product with axial clearance of 0.005 or less (F) shown may be partially preloaded.
- · Preload torque is a value before applying grease.

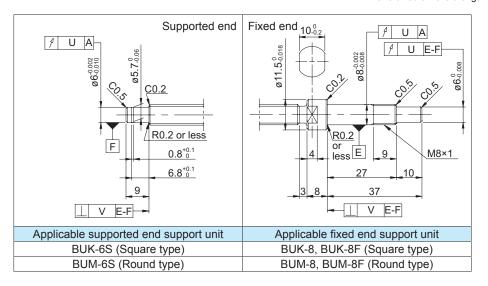
Shaft end finish type

Standard precision ball screws are available with KURODA's recommended shaft end finish types for each size.

Other than KURODA's recommended shaft end finish types described below, additional machining including keyways, tapped holes, and D-cut processing are also available if requested. Please contact KURODA with your orders. Model examples for finished shaft ends are described below.

Model example: Unfinished shaft ends (See left figure) → Finished shaft ends GG0802DS-AANR-0215A → GG0802DS-AANR-0215X0158-C5F

Thread length
Overall screw shaft length

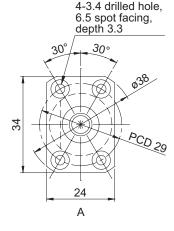


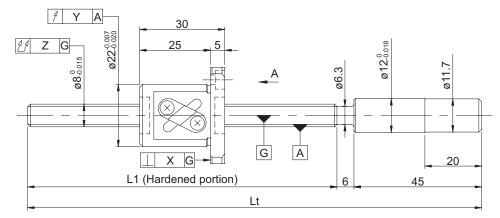
Optional specifications

	Accur	acy of eac	h part	Preload tor	que (N·cm)	Mass	
Χ	Υ	Z	U	V	Without clearance	With clearance	(kg)
0.010	0.012	0.065	0.010	0.005	Up to 2.1	Up to 0.5	0.12
0.014	0.020	0.100					0.13

- At the time of delivery, grease is inserted inside of the nut, with rust-preventive oil also applied.
 Before and during use, apply lubricant where appropriate.
- For models with lead accuracy grade of C3 or higher and unfinished shaft ends, consult KURODA.

- Dan colon opcomoditions										
Shaft diameter (mm) - Lead (mm)		8 - 4								
Number of circuits /	2.5 turns 1 circuit /									
Thread direction		Right-hand	I							
Ball diameter (mm)		2.000								
Root diameter (mm)		6.3								
Series	GG GE									
Basic dynamic load rating C (N)	2350									
Basic static load rating C0 (N)	3300									
Accuracy grade /	C5/S C5/F C7/									
Axial clearance symbol	0373	C57 F	C7 / M							
Axial clearance (mm)	0	0.005 or less	0.030 or less							
Preload torque (N·cm)	0.2 to 2.9	Up to 0.5								
Spacer ball	None									
Recirculation system	Tube method									
Wiper	Felt wiper									
Lubricant	Alva	inia Grease	e S2							





Model No.	Screw sh	aft length	Maximum stroke	Lead accuracy			
(Unfinished shaft ends)	L1	Lt	(L1 - nut length)	±E。	e _c	e ₃₀₀	
GG0804DS-BAFR-0215A	164	215	134	0.000	0.018	0.018	
GG0804DS-BAFR-0340A	289	340	259	0.023	0.018	0.018	
GE0804DS-BAFR-0215A	164	215	134	0.05/300			
GE0804DS-BAFR-0340A	289	340	259	0.05/300			

- · Product with axial clearance of 0.005 or less (F) shown may be partially preloaded.
- · Preload torque is a value before applying grease.

Shaft end finish type

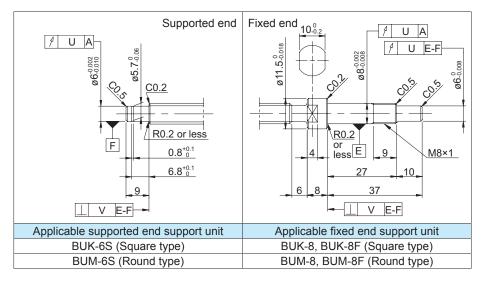
Standard precision ball screws are available with KURODA's recommended shaft end finish types for each size.

Other than KURODA's recommended shaft end finish types described below, additional machining including keyways, tapped holes, and D-cut processing are also available if requested. Please contact KURODA with your orders. Model examples for finished shaft ends are described below.

 $\textbf{Model example:} \ \, \textbf{Unfinished shaft ends (See left figure)} \ \to \ \, \textbf{Finished shaft ends}$

GG0804DS-BAFR-0340A → GG0804DS-BAFR-0340X0280-C5F

→Thread length →Overall screw shaft length

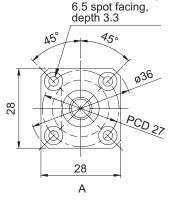


Optional specifications

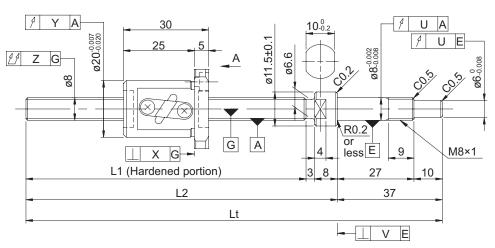
	Accur	acy of eac	h part		Preload tor	Mass	
X	Υ	Z	U	V	Without clearance	With clearance	(kg)
0.010	0.012	0.065	0.010	0.005	0.2 to 2.9	Lin to 0 5	0.18
0.010	0.012	0.075	0.010	0.005	0.2 (0 2.9	Up to 0.5	0.22
0.014	0.020	0.100					0.18
0.014	0.020	0.100					0.22

- At the time of delivery, grease is inserted inside of the nut, with rust-preventive oil also applied.
 Before and during use, apply lubricant where appropriate.
- For models with lead accuracy grade of C3 or higher and unfinished shaft ends, consult KURODA.

Ball screw specifications							
Shaft diameter (mm) - Lead (mm)	8 -	- 2					
Number of circuits /	2.5 turns	1 circuit /					
Thread direction	Right	-hand					
Ball diameter (mm)	1.5	875					
Root diameter (mm)	6	.6					
Series	G	SP .					
Basic dynamic load rating C (N)	1220	1950					
Basic static load rating C0 (N)	1300 2600						
Accuracy grade / Axial clearance symbol	C3/S C3/F						
Axial clearance (mm)	0	0.005 or less					
Preload torque (N·cm)	0.3 to 2.0	Up to 0.5					
Spacer ball	1:1	None					
Recirculation system	Tube method						
Wiper	F	elt					
Lubricant	Alvania Grease S2						



4-3.4 drilled hole,



Model No.	Screw	rew shaft length		Maximum stroke	Lead accuracy		
(One shaft end finished)	L1	L2	Lt	(L1 - nut length)	±Ε _c	e _c	e ₃₀₀
GP0802DS-AAFR-0170B-C3S	122	2 133	170	92	0.010	0.008	0.008
GP0802DS-AAFR-0170B-C3F	122				0.010		0.006
GP0802DS-AAFR-0250B-C3S	202	213	250	170	0.012	0.008	0.008
GP0802DS-AAFR-0250B-C3F	202	213	250	172	0.012 0.006	0.008	

- Product with axial clearance of 0.005 or less (F) shown may be partially preloaded.
- · Preload torque is a value before applying grease.
- At the time of delivery, grease is inserted inside of the nut, with rust-preventive oil also applied.
 Before and during use, apply lubricant where appropriate.

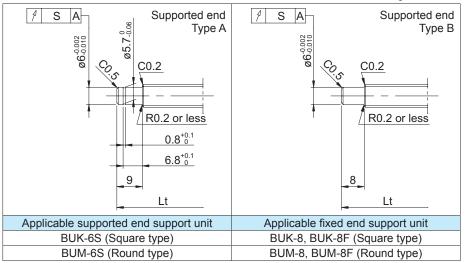
• Shaft end finish type

Standard precision ball screws are available with KURODA's recommended shaft end finish types for each size. The fixed end type is finished beforehand.

Regarding the supported shaft end, additional machining to KURODA's recommended shaft end finish type described below is available. Please contact KURODA with your orders. Model examples for finished shaft ends are described below.

Model example: Finished fixed end (See left figure) → Both shaft ends finished GP0802DS-AAFR-0250B-C3F → GP0802DS-AAFR-0250X0193-C3F

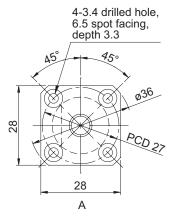
→Thread length →Overall screw shaft length

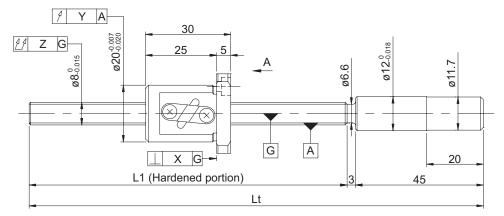


Optional specifications

	A	ccuracy c	of each pa		Preload tor	que (N·cm)	Mass	
X	Υ	Z	S	U	V	Without clearance	With clearance	(kg)
0.008	0.008	0.030	0.010	0.008	0.0025	0.3 to 2.0		0.13
0.006	0.006	0.030	0.010	0.008 0.0025			Up to 0.5	0.13
0.000	0.008	0.035	0.010	0.008	0.0005	0.3 to 2.0		0.15
0.008	0.008	0.035	0.010	0.008	0.0025		Up to 0.5	0.15

Shaft diameter (mm) - Lead (mm)		8 - 2		
Number of circuits /	2.5	turns 1 circ	cuit /	
Thread direction		Right-hand	I	
Ball diameter (mm)		1.5875		
Root diameter (mm)		6.6		
Series	G	G	GE	
Basic dynamic load rating C (N)	1950			
Basic static load rating C0 (N)	2600			
Accuracy grade / Axial clearance symbol	C5/S C5/F C7/N			
Axial clearance (mm)	0	0.005 or less	0.030 or less	
Preload torque (N·cm)	Up to 2.1	Up to 0.5		
Spacer ball	None			
Recirculation system	Tube method			
Wiper	None			
Lubricant	Alva	ınia Grease	e S2	





Model No.	Screw shaft length		Maximum stroke	Le	ead accura	су
(Unfinished shaft ends)	L1	Lt	(L1 - nut length)	±E _c	e _c	e ₃₀₀
GG0802DS-AANR-0215A	167	215	107	0.023	0.018	0.018
GE0802DS-AANR-0215A	107		137	0.05/300		

- Product with axial clearance of 0.005 or less (F) shown may be partially preloaded.
- · Preload torque is a value before applying grease.

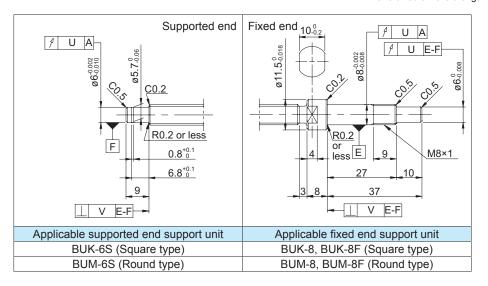
Shaft end finish type

Standard precision ball screws are available with KURODA's recommended shaft end finish types for each size.

Other than KURODA's recommended shaft end finish types described below, additional machining including keyways, tapped holes, and D-cut processing are also available if requested. Please contact KURODA with your orders. Model examples for finished shaft ends are described below.

Model example: Unfinished shaft ends (See left figure) → Finished shaft ends GG0802DS-AANR-0215A → GG0802DS-AANR-0215X0158-C5F

Thread length
Overall screw shaft length

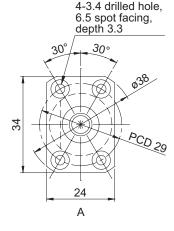


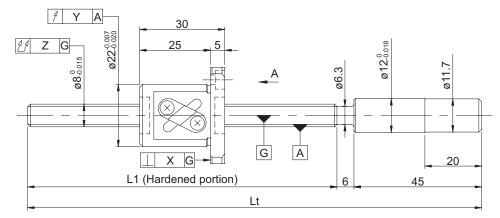
Optional specifications

	Accur	acy of eac	h part		Preload tor	que (N·cm)	Mass
Χ	Υ	Z	U	V	Without clearance	With clearance	(kg)
0.010	0.012	0.065	0.010	0.005	Up to 2.1	Up to 0.5	0.12
0.014	0.020	0.100					0.13

- At the time of delivery, grease is inserted inside of the nut, with rust-preventive oil also applied.
 Before and during use, apply lubricant where appropriate.
- For models with lead accuracy grade of C3 or higher and unfinished shaft ends, consult KURODA.

- Dan colon opecinications							
Shaft diameter (mm) - Lead (mm)		8 - 4					
Number of circuits /	2.5	turns 1 circ	cuit /				
Thread direction		Right-hand	I				
Ball diameter (mm)		2.000					
Root diameter (mm)		6.3					
Series	G	G	GE				
Basic dynamic load rating C (N)	2350						
Basic static load rating C0 (N)	3300						
Accuracy grade /	C5/S C5/F C7/N						
Axial clearance symbol	0373	C57 F	C/ / W				
Axial clearance (mm)	0	0.005 or less	0.030 or less				
Preload torque (N·cm)	0.2 to 2.9	Up to 0.5					
Spacer ball	None						
Recirculation system	Tube method						
Wiper	Felt wiper						
Lubricant	Alva	inia Greas	e S2				





Model No.	Screw sh	aft length	Maximum stroke	Lead accuracy		
(Unfinished shaft ends)	L1	Lt	(L1 - nut length)	±E。	e _c	e ₃₀₀
GG0804DS-BAFR-0215A	164	215	134	0.000	0.018	0.018
GG0804DS-BAFR-0340A	289	340	259	0.023		0.018
GE0804DS-BAFR-0215A	164	215	134	0.05/300		
GE0804DS-BAFR-0340A	289	340	259	0.05/300		

- · Product with axial clearance of 0.005 or less (F) shown may be partially preloaded.
- · Preload torque is a value before applying grease.

Shaft end finish type

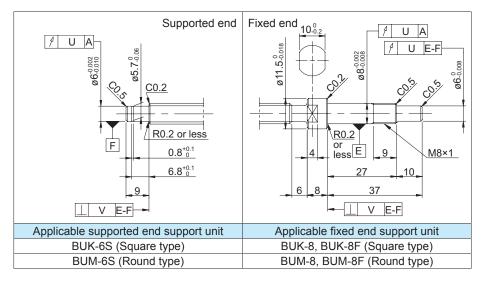
Standard precision ball screws are available with KURODA's recommended shaft end finish types for each size.

Other than KURODA's recommended shaft end finish types described below, additional machining including keyways, tapped holes, and D-cut processing are also available if requested. Please contact KURODA with your orders. Model examples for finished shaft ends are described below.

 $\textbf{Model example:} \ \, \textbf{Unfinished shaft ends (See left figure)} \ \to \ \, \textbf{Finished shaft ends}$

GG0804DS-BAFR-0340A → GG0804DS-BAFR-0340X0280-C5F

→Thread length →Overall screw shaft length

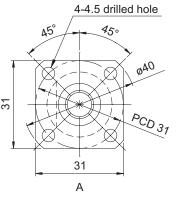


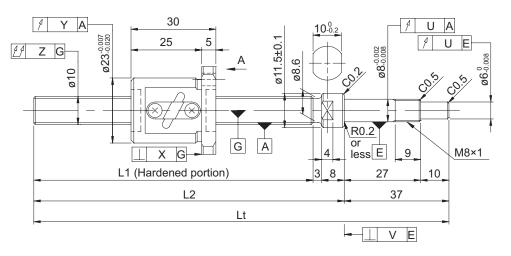
Optional specifications

	Accur	acy of eac	h part		Preload tor	Mass	
X	Υ	Z	U	V	Without clearance	With clearance	(kg)
0.010	0.012	0.065	0.010	0.005	0.2 to 2.9	Lin to 0 5	0.18
0.010	0.012	0.075	0.010	0.005	0.2 (0 2.9	Up to 0.5	0.22
0.014	0.020	0.100					0.18
0.014	0.020	0.100					0.22

- At the time of delivery, grease is inserted inside of the nut, with rust-preventive oil also applied. Before and during use, apply lubricant where appropriate.
- For models with lead accuracy grade of C3 or higher and unfinished shaft ends, consult KURODA.

Shaft diameter (mm) - Lead (mm) 10 - 2 Number of circuits / Thread direction 2.5 turns 1 circuit / Right-hand Ball diameter (mm) 1.5875 Root diameter (mm) 8.6 Series GP Basic dynamic load rating C (N) 1410 2250 Basic static load rating C0 (N) 1650 3300 Accuracy grade / Axial clearance symbol C3 / S C3 / F Axial clearance (mm) 0 0.005 or less Preload torque (N·cm) 0.3 to 2.5 Up to 0.5 Spacer ball 1 : 1 None Recirculation system Tube method Wiper Felt	•				
Thread direction Right-hand Ball diameter (mm) 1.5875 Root diameter (mm) 8.6 Series GP Basic dynamic load rating C (N) 1410 2250 Basic static load rating C0 (N) 1650 3300 Accuracy grade / Axial clearance symbol C3 / S C3 / F Axial clearance (mm) 0 0.005 or less Preload torque (N⋅cm) 0.3 to 2.5 Up to 0.5 Spacer ball 1 : 1 None Recirculation system Tube method Wiper Felt	Shaft diameter (mm) - Lead (mm)	10	- 2		
Ball diameter (mm) 1.5875 Root diameter (mm) 8.6 Series GP Basic dynamic load rating C (N) 1410 2250 Basic static load rating C0 (N) 1650 3300 Accuracy grade / Axial clearance symbol C3 / S C3 / F Axial clearance (mm) 0 0.005 or less Preload torque (N⋅cm) 0.3 to 2.5 Up to 0.5 Spacer ball 1 : 1 None Recirculation system Tube method Wiper Felt	Number of circuits /	2.5 turns 1 circuit /			
Root diameter (mm) 8.6 Series GP Basic dynamic load rating C (N) 1410 2250 Basic static load rating C0 (N) 1650 3300 Accuracy grade / Axial clearance symbol C3 / S C3 / F Axial clearance (mm) 0 0.005 or less Preload torque (N⋅cm) 0.3 to 2.5 Up to 0.5 Spacer ball 1 : 1 None Recirculation system Tube method Wiper Felt	Thread direction	Right	-hand		
Series GP Basic dynamic load rating C (N) 1410 2250 Basic static load rating C0 (N) 1650 3300 Accuracy grade / Axial clearance symbol C3 / S C3 / F Axial clearance (mm) 0 0.005 or less Preload torque (N·cm) 0.3 to 2.5 Up to 0.5 Spacer ball 1 : 1 None Recirculation system Tube method Wiper Felt	Ball diameter (mm)	1.5	875		
Basic dynamic load rating C (N) 1410 2250 Basic static load rating C0 (N) 1650 3300 Accuracy grade / C3 / S C3 / F Axial clearance symbol 0 0.005 or less Preload torque (N·cm) 0.3 to 2.5 Up to 0.5 Spacer ball 1:1 None Recirculation system Tube method Wiper Felt	Root diameter (mm)	8	.6		
Basic static load rating C0 (N) 1650 3300 Accuracy grade / Axial clearance symbol C3 / S Axial clearance (mm) 0 0.005 or less Preload torque (N·cm) 0.3 to 2.5 Up to 0.5 Spacer ball 1:1 None Recirculation system Tube method Wiper Felt	Series	G	SP.		
Accuracy grade / Axial clearance symbol Axial clearance (mm) Preload torque (N·cm) Spacer ball Recirculation system C3 / S C3 / F C4 / C4 C5 / C5 C7 / C7 C7 /	Basic dynamic load rating C (N)	1410	2250		
Axial clearance symbol C375 C37F Axial clearance (mm) 0 0.005 or less Preload torque (N·cm) 0.3 to 2.5 Up to 0.5 Spacer ball 1 : 1 None Recirculation system Tube method Wiper Felt	Basic static load rating C0 (N)	1650	3300		
Axial clearance symbol 0 0.005 or less Axial clearance (mm) 0 0.005 or less Preload torque (N·cm) 0.3 to 2.5 Up to 0.5 Spacer ball 1 : 1 None Recirculation system Tube method Wiper Felt		C3 / S C3 / E			
Preload torque (N⋅cm) 0.3 to 2.5 Up to 0.5 Spacer ball 1 : 1 None Recirculation system Tube method Wiper Felt	Axial clearance symbol				
Spacer ball 1 : 1 None Recirculation system Tube method Wiper Felt	Axial clearance (mm)	0	0.005 or less		
Recirculation system Tube method Wiper Felt	Preload torque (N·cm)	0.3 to 2.5	Up to 0.5		
Wiper Felt	Spacer ball	1:1	None		
	Recirculation system	Tube method			
	Wiper	F	elt		
Lubricant Alvania Grease S2	Lubricant	Alvania G	Frease S2		





Model No.	Screw	Screw shaft		Maximum stroke	Le	ad accura	асу
(One shaft end finished)	L1	L2	Lt	(L1 - nut length)	±Ε。	e _c	e ₃₀₀
GP1002DS-EAFR-0210B-C3S	162	173	210	132	0.010	0.008	0.008
GP1002DS-EAFR-0210B-C3F	162				0.010		0.006
GP1002DS-EAFR-0320B-C3S	272	2 283	320	242	0.012	0.000	0.008
GP1002DS-EAFR-0320B-C3F	212			242	0.012 0.008		0.006

- Product with axial clearance of 0.005 or less (F) shown may be partially preloaded.
- · Preload torque is a value before applying grease.
- At the time of delivery, grease is inserted inside of the nut, with rust-preventive oil also applied.
 Before and during use, apply lubricant where appropriate.

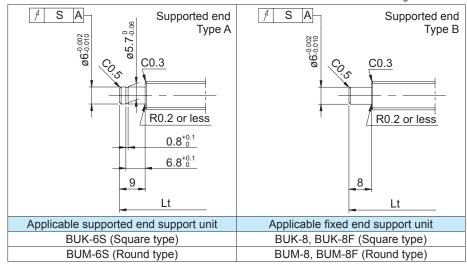
Shaft end finish type

Standard precision ball screws are available with KURODA's recommended shaft end finish types for each size. The fixed end type is finished beforehand.

Regarding the supported shaft end, additional machining to KURODA's recommended shaft end finish type described below is available. Please contact KURODA with your orders. Model examples for finished shaft ends are described below.

Model example: Finished fixed end (See left figure) → Both shaft ends finished GP1002DS-EAFR-0320B-C3F → GP1002DS-EAFR-0320X0263-C3F

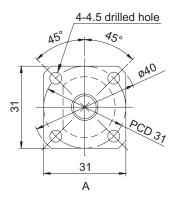
→Thread length
→Overall screw shaft length

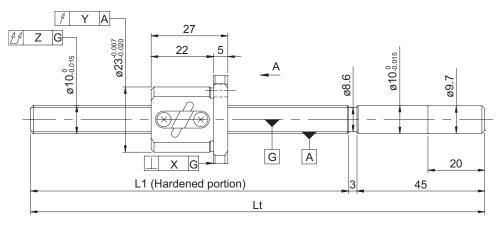


Optional specifications

	A	ccuracy o	f each pa		Preload tor	Mass		
X	Υ	Z	S	U V Without clearance		Without clearance	With clearance	(kg)
0.008	0.010	0.030	0.011	0.007 0.0025		0.3 to 2.5		0.19
0.006	0.010	0.030	0.011	0.007	0.0025		Up to 0.5	0.19
0.000	0.010	0.040	0.011	0.007	0.0005	0.3 to 2.5		0.25
0.008	0.010	0.040	0.011	0.007	0.0025		Up to 0.5	0.25

Ban serew specifications									
Shaft diameter (mm) - Lead (mm)		10 - 2							
Number of circuits /	2.5 turns 1 circuit /								
Thread direction		Right-hand							
Ball diameter (mm)		1.5875							
Root diameter (mm)		8.6							
Series	G	G	GE						
Basic dynamic load rating C (N)		2250							
Basic static load rating C0 (N)		3300							
Accuracy grade / Axial clearance symbol	C5 / S	C5 / F	C7 / M						
Axial clearance (mm)	0	0.005 or less	0.030 or less						
Preload torque (N·cm)	0.1 to 2.5	Up to 0.5							
Spacer ball	None								
Recirculation system	Tube method								
Wiper	None								
Lubricant	Alva	ınia Grease	e S2						





Model No.	Screw sh	aft length	Maximum stroke	Lead accuracy			
(Unfinished shaft ends)	L1	Lt	(L1 - nut length)	±E _c	e _c	e ₃₀₀	
GG1002DS-EANR-0250A	202	250	175	0.023	0.018	0.018	
GG1002DS-EANR-0320A	272	320	245	0.023		0.016	
GE1002DS-EANR-0250A	202	250	175	0.05/200			
GE1002DS-EANR-0320A	272	320	245	0.05/300			

- Product with axial clearance of 0.005 or less (F) shown may be partially preloaded.
- · Preload torque is a value before applying grease.

Shaft end finish type

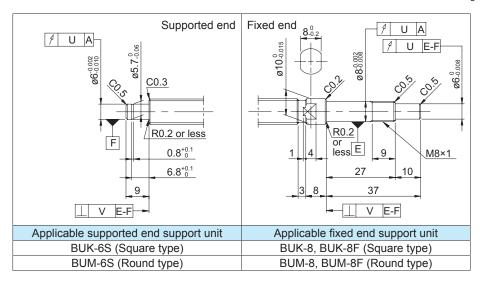
Standard precision ball screws are available with KURODA's recommended shaft end finish types for each size.

Other than KURODA's recommended shaft end finish types described below, additional machining including keyways, tapped holes, and D-cut processing are also available if requested. Please contact KURODA with your orders. Model examples for finished shaft ends are described below.

 $\textbf{Model example:} \ \, \textbf{Unfinished shaft ends (See left figure)} \ \to \ \, \textbf{Finished shaft ends}$

GG1002DS-EANR-0320A \rightarrow GG1002DS-EANR-0320X0263-C5F

→Thread length →Overall screw shaft length

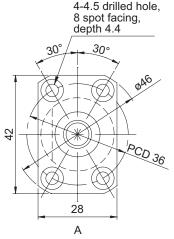


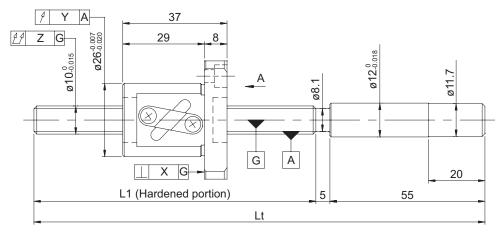
Optional specifications

	Accur	acy of eac	h part		Preload tor	Mass		
Χ	Υ	Z	UV		Without clearance	With clearance	(kg)	
0.010	0.010 0.010 0.0		0.055	0.011	0.005	0.1 to 0.5	Lin to O.F.	0.22
0.010 0.012		0.065	0.011	0.005	0.1 to 2.5	Up to 0.5	0.26	
0.014	0.020	0.080					0.22	
0.014 0.02	0.020	0.100					0.26	

- At the time of delivery, grease is inserted inside of the nut, with rust-preventive oil also applied. Before and during use, apply lubricant where appropriate.
- For models with lead accuracy grade of C3 or higher and unfinished shaft ends, consult KURODA.

Ban screw specifications							
Shaft diameter (mm) - Lead (mm)		10 - 4					
Number of circuits /	2.5 turns 1 circuit /						
Thread direction		Right-hand	I				
Ball diameter (mm)		2.3812					
Root diameter (mm)		8.1					
Series	G	G	GE				
Basic dynamic load rating C (N)	3350						
Basic static load rating C0 (N)	5900						
Accuracy grade / Axial clearance symbol	C5 / S	C5 / F	C7 / M				
Axial clearance (mm)	0	0.005 or less	0.030 or less				
Preload torque (N·cm)	0.3 to 4.0	Up to 1.0					
Spacer ball	None						
Recirculation system	Tube method						
Wiper	Plastic wiper						
Lubricant	Alva	ınia Grease	e S2				





Model No.	Screw sh	aft length	Maximum stroke	Lead accuracy		
(Unfinished shaft ends)	L1	Lt	(L1 - nut length)	±E。	e _c	e ₃₀₀
GG1004DS-BAPR-0255A	195	255	158	0.023	0.018	
GG1004DS-BAPR-0385A	325	385	288	0.025	0.020	0.018
GG1004DS-BAPR-0455A	395	455	358	0.025		
GE1004DS-BAPR-0255A	195	255	158			
GE1004DS-BAPR-0385A	325	385	288	0.05/300		
GE1004DS-BAPR-0455A	395	455	358			

- Product with axial clearance of 0.005 or less (F) shown may be partially preloaded.
- Preload torque is a value before applying grease.

Shaft end finish type

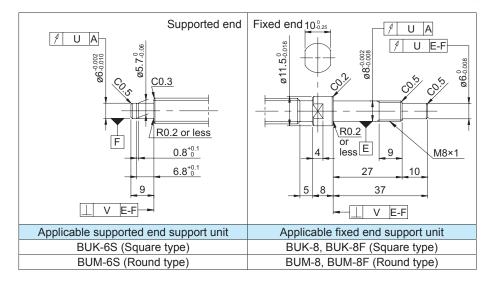
Standard precision ball screws are available with KURODA's recommended shaft end finish types for each size.

Other than KURODA's recommended shaft end finish types described below, additional machining including keyways, tapped holes, and D-cut processing are also available if requested. Please contact KURODA with your orders. Model examples for finished shaft ends are described below.

 $\textbf{Model example:} \ \, \textbf{Unfinished shaft ends (See left figure)} \ \to \ \, \textbf{Finished shaft ends}$

GG1004DS-BAPR-0455A → GG1004DS-BAPR-0445X0386-C5F

→Thread length →Overall screw shaft length

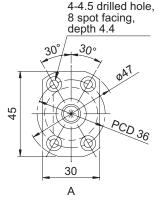


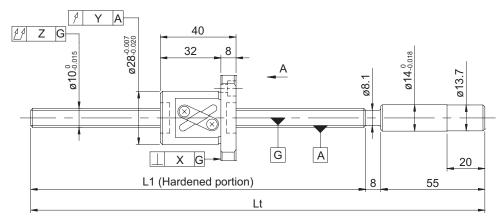
Optional specifications

	Accur	acy of eac	h part		Preload tor	que (N·cm)	Mass
X	Υ	Z	UV		Without clearance	With clearance	(kg)
		0.055	0.011				0.30
0.010	0.012	0.065		0.005	0.3 to 4.0	Up to 1.0	0.36
		0.080					0.39
		0.080					0.30
0.014	0.020	0.100					0.36
		0.120	0.120				0.39

- At the time of delivery, grease is inserted inside of the nut, with rust-preventive oil also applied.
 Before and during use, apply lubricant where appropriate.
- · For models with lead accuracy grade of C3 or higher and unfinished shaft ends, consult KURODA.

Shaft diameter (mm) - Lead (mm)		10 - 10			
Number of circuits /	1.5 turns 1 circuit /				
Thread direction		Right-hand	l		
Ball diameter (mm)		2.3812			
Root diameter (mm)		8.1			
Series	G	G	GE		
Basic dynamic load rating C (N)	2200				
Basic static load rating C0 (N)	3500				
Accuracy grade /	C5 / S	C5 / F	C7 / M		
Axial clearance symbol	0373	0371	O7 7 IVI		
Axial clearance (mm)	0	0.005 or less	0.030 or less		
Preload torque (N·cm)	0.4 to 3.9	Up to 1.0			
Spacer ball	None				
Recirculation system	Tube method				
Wiper	Plastic wiper				
Lubricant	Alva	ınia Grease	e S2		





Model No.	Screw shaft length		Maximum stroke	Lead accuracy		
(Unfinished shaft ends)	L1	Lt	(L1 - nut length)	±E。	e _c	e ₃₀₀
GG1010AS-BAPR-0255A	192	255	152	0.023	0.018	0.010
GG1010AS-BAPR-0455A	392	455	352	0.025	0.020	0.018
GE1010AS-BAPR-0255A	192	255	152	0.05/200		
GE1010AS-BAPR-0455A	392	455	352	0.05/300		

- · Product with axial clearance of 0.005 or less (F) shown may be partially preloaded.
- · Preload torque is a value before applying grease.

Shaft end finish type

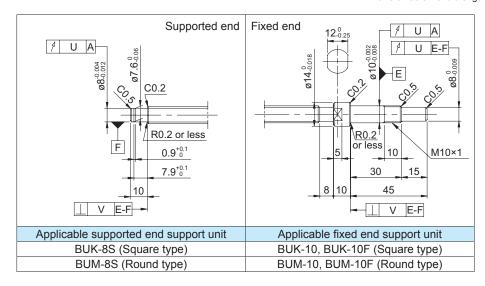
Standard precision ball screws are available with KURODA's recommended shaft end finish types for each size.

Other than KURODA's recommended shaft end finish types described below, additional machining including keyways, tapped holes, and D-cut processing are also available if requested. Please contact KURODA with your orders. Model examples for finished shaft ends are described below.

 $\textbf{Model example:} \ \, \textbf{Unfinished shaft ends (See left figure)} \ \to \ \, \textbf{Finished shaft ends}$

GG1010AS-BAPR-0455A → GG1010AS-BAPR-0455X0382-C5F

→Thread length →Overall screw shaft length

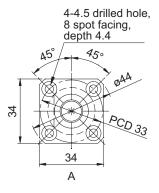


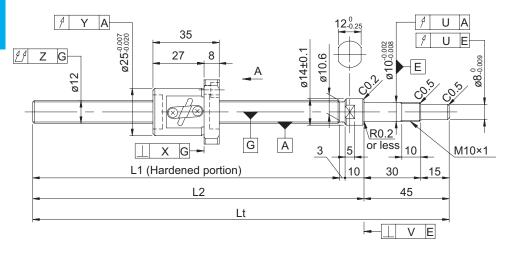
Optional specifications

	Accur	acy of eac	h part	Preload tor	que (N·cm)	Mass	
Х	Υ	Z	UV		Without clearance	With clearance	(kg)
0.010	0.055	0.055	0.044	0.005	0.4 to 2.0	Un to 1.0	0.38
0.010	0.012	0.080	0.011	0.005	0.4 to 3.9	Up to 1.0	0.49
0.014	0.020	0.080					0.38
0.014	0.020	0.120					0.49

- At the time of delivery, grease is inserted inside of the nut, with rust-preventive oil also applied.
 Before and during use, apply lubricant where appropriate.
- For models with lead accuracy grade of C3 or higher and unfinished shaft ends, consult KURODA.

Buil Scient Specifications							
Shaft diameter (mm) - Lead (mm)	12	- 2					
Number of circuits /	2.5 turns 1 circuit /						
Thread direction	Right	-hand					
Ball diameter (mm)	1.5	875					
Root diameter (mm)	10	0.6					
Series	G	iP					
Basic dynamic load rating C (N)	1540	2450					
Basic static load rating C0 (N)	2050	4100					
Accuracy grade /	C3 / S	C3 / F					
Axial clearance symbol	0070	0071					
Axial clearance (mm)	0	0.005 or less					
Preload torque (N·cm)	0.4 to 3.2	Up to 1.0					
Spacer ball	1:1	None					
Recirculation system	Tube method						
Wiper	Plastic wiper						
Lubricant	Alvania G	Grease S2					





Model No.	Screw	/ shaft	length	Maximum stroke	Lead accuracy		
(One shaft end finished)	L1	L2	Lt	(L1 - nut length)	±Ε _c	e _c	e ₃₀₀
GP1202DS-AAPR-0300B-C3S	242	255	300	207	0.012	0.008	0.008
GP1202DS-AAPR-0300B-C3F	242			207			
GP1202DS-AAPR-0400B-C3S	342	255	400	307	0.013	0.010	0.008
GP1202DS-AAPR-0400B-C3F	342	355	400	307	0.013	0.010	0.008

- Product with axial clearance of 0.005 or less (F) shown may be partially preloaded.
- · Preload torque is a value before applying grease.
- At the time of delivery, grease is inserted inside of the nut, with rust-preventive oil also applied.
 Before and during use, apply lubricant where appropriate.

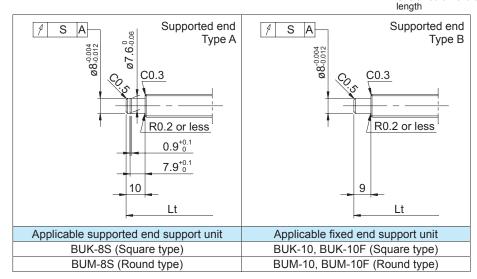
• Shaft end finish type

Standard precision ball screws are available with KURODA's recommended shaft end finish types for each size. The fixed end type is finished beforehand.

Regarding the supported shaft end, additional machining to KURODA's recommended shaft end finish type described below is available. Please contact KURODA with your orders. Model examples for finished shaft ends are described below.

Model example: Finished fixed end (See left figure) → Both shaft ends finished GP1202DS-AAPR-0400B-C3F → GP1202DS-AAPR-0400X0332-C3F

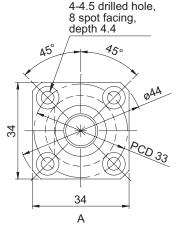
→Thread length
→Overall screw shaft

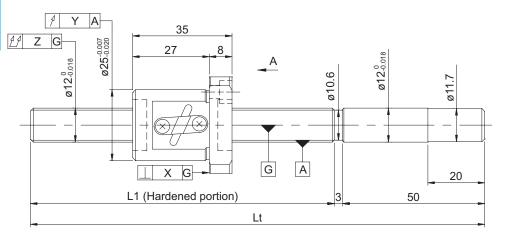


Optional specifications

	A	ccuracy c	of each pa		Preload tor	que (N·cm)	Mass	
X Y Z S U V		Without clearance	With clearance	(kg)				
0.008	0.010	0.030	0.011	0.007 0.003		0.4 to 3.2		0.35
0.006	0.010	0.030	0.011				Up to 1.0	0.55
0.008	0.010	0.040	0.011	0.007	0.003	0.4 to 3.2		0.43
0.008	0.010	0.040	0.011	0.007	0.003		Up to 1.0	0.43

zan coron opcomounone								
Shaft diameter (mm) - Lead (mm)		12 - 2						
Number of circuits /	2.5 turns 1 circuit /							
Thread direction		Right-hand	I					
Ball diameter (mm)		1.5875						
Root diameter (mm)		10.6						
Series	G	G	GE					
Basic dynamic load rating C (N)	2450							
Basic static load rating C0 (N)	4100							
Accuracy grade /	C5 / S	C5 / F	C7 / M					
Axial clearance symbol								
Axial clearance (mm)	0	0.005 or less	0.030 or less					
Preload torque (N·cm)	0.2 to 3.4	Up to 1.0						
Spacer ball		None						
Recirculation system	Tube method							
Wiper	Plastic wiper							
Lubricant	Alva	nia Greas	e S2					





Model No.	Screw shaft length		Maximum stroke	Lead accuracy			
(Unfinished shaft ends)	L1	Lt	(L1 - nut length)	±E _c	e _c	e ₃₀₀	
GG1202DS-AAPR-0300A	247	300	212	0.023	0.018	0.010	
GG1202DS-AAPR-0455A	402	455	367	0.027	0.020	0.018	
GE1202DS-AAPR-0300A	247	300	212	0.05/200			
GE1202DS-AAPR-0455A	402	455	367	0.05/300			

- Product with axial clearance of 0.005 or less (F) shown may be partially preloaded.
- · Preload torque is a value before applying grease.

Shaft end finish type

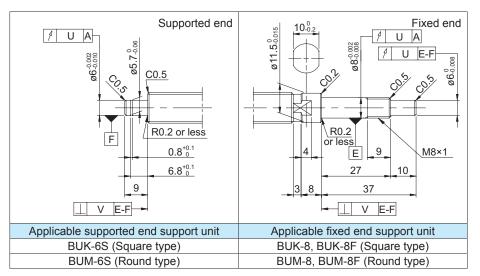
Standard precision ball screws are available with KURODA's recommended shaft end finish types for each size.

Other than KURODA's recommended shaft end finish types described below, additional machining including keyways, tapped holes, and D-cut processing are also available if requested. Please contact KURODA with your orders. Model examples for finished shaft ends are described below.

Model example: Unfinished shaft ends (See left figure) → Finished shaft ends

 $GG1202DS-AAPR-0455A \rightarrow GG1202DS-AAPR-0450X0393-C5F$

→Thread length →Overall screw shaft length

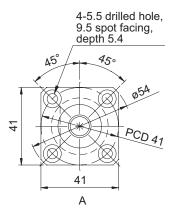


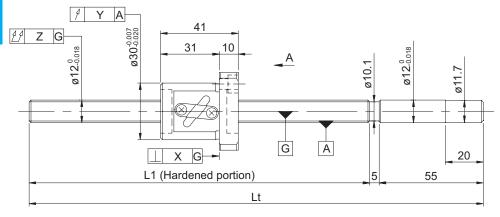
Optional specifications

	Accur	acy of eac	h part		Preload tor	Mass	
Χ	Υ	Z	U	V	Without clearance	With clearance	(kg)
0.010	0.012	0.055	0.011	0.005	0.2 to 3.4	Up to 1.0	0.36
0.010	0.012	0.080	0.011				0.48
0.014	0.020	0.080					0.36
0.014	0.020	0.120					0.48

- · At the time of delivery, grease is inserted inside of the nut, with rust-preventive oil also applied. Before and during use, apply lubricant where appropriate.
- For models with lead accuracy grade of C3 or higher and unfinished shaft ends, consult KURODA.

Dan Sciew Specifications								
Shaft diameter (mm) - Lead (mm)		12 - 4						
Number of circuits /	turns 1 circ	cuit /						
Thread direction		Right-hand	I					
Ball diameter (mm)		2.3812						
Root diameter (mm)		10.1						
Series	G	G	GE					
Basic dynamic load rating C (N)	3600							
Basic static load rating C0 (N)	6750							
Accuracy grade / Axial clearance symbol	C5 / S	C5 / F	C7 / M					
Axial clearance (mm)	0	0.005 or less	0.030 or less					
Preload torque (N·cm)	0.2 to 4.7	Up to 1.0						
Spacer ball		None						
Recirculation system	Tube method							
Wiper	Lip seal							
Lubricant	Alva	ınia Grease	e S2					





Model No.	Screw shaft length		Maximum stroke	Lead accuracy			
(Unfinished shaft ends)	L1	Lt	(L1 - nut length)	±E _c	e _c	e ₃₀₀	
GG1204DS-AALR-0405A	345	405	304	0.025	0.020	0.010	
GG1204DS-AALR-0605A	545	605	504	0.030	0.023	0.018	
GE1204DS-AALR-0405A	345	405	304	0.05/300			
GE1204DS-AALR-0605A	545	605	504	0.05/300			

- · Product with axial clearance of 0.005 or less (F) shown may be partially preloaded.
- · Preload torque is a value before applying grease.

Shaft end finish type

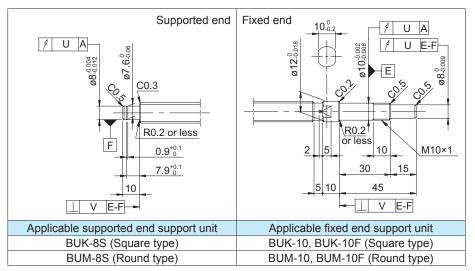
Standard precision ball screws are available with KURODA's recommended shaft end finish types for each size.

Other than KURODA's recommended shaft end finish types described below, additional machining including keyways, tapped holes, and D-cut processing are also available if requested. Please contact KURODA with your orders. Model examples for finished shaft ends are described below.

 $\textbf{Model example:} \ \, \textbf{Unfinished shaft ends (See left figure)} \ \to \ \, \textbf{Finished shaft ends}$

 $\mathsf{GG1204DS\text{-}AALR\text{-}0605A} \,\rightarrow\,\, \mathsf{GG1204DS\text{-}AALR\text{-}}\underline{0605}\mathsf{X}\underline{0535\text{-}C5F}$

→Thread length →Overall screw shaft length

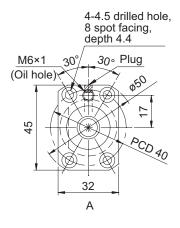


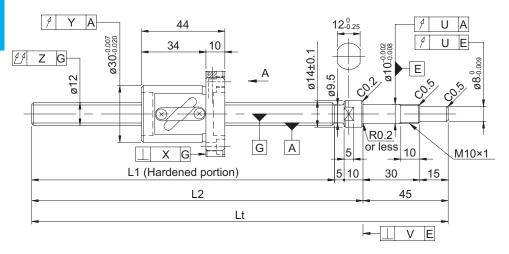
• Optional specifications

	Accur	acy of eac	h part	Preload tor	que (N·cm)	Mass	
X	X Y Z			V	Without clearance	With clearance	(kg)
0.010	0.040	0.080	0.044	0.00E 0.0 to 4	0.0 to 4.7	Un to 1.0	0.56
0.010	0.012	0.090	0.011	0.005	0.2 to 4.7	Up to 1.0	0.70
0.014	0.000	0.120					0.56
0.014	0.020	0.150				0.70	

- At the time of delivery, grease is inserted inside of the nut, with rust-preventive oil also applied.
 Before and during use, apply lubricant where appropriate.
- For models with lead accuracy grade of C3 or higher and unfinished shaft ends, consult KURODA.

Shaft diameter (mm) - Lead (mm)	12	- 5					
Number of circuits /	2.5 turns 1 circuit /						
Thread direction	Right	-hand					
Ball diameter (mm)	3.1	175					
Root diameter (mm)	9	.5					
Series	G	SP.					
Basic dynamic load rating C (N)	3740	5950					
Basic static load rating C0 (N)	4900	9800					
Accuracy grade /	C3 / S	C3 / F					
Axial clearance symbol	0370	0371					
Axial clearance (mm)	0	0.005 or less					
Preload torque (N·cm)	1.5 to 5.0	Up to 1.0					
Spacer ball	1:1	None					
Recirculation system	Tube method						
Wiper	Lip seal						
Lubricant	Alvania G	Grease S2					





Model No.	Screw shaft length			Maximum stroke	Lead accuracy		
(One shaft end finished)	L1	L2	Lt	(L1 - nut length)	±Ε _c	e _c	e ₃₀₀
GP1205DS-BALR-0300B-C3S	240	255	300	106	0.012	0.008	0.008
GP1205DS-BALR-0300B-C3F	240			196			
GP1205DS-BALR-0450B-C3S	390	405	450	346	0.013	0.010	0.008
GP1205DS-BALR-0450B-C3F	390			340			

- Product with axial clearance of 0.005 or less (F) shown may be partially preloaded.
- · Preload torque is a value before applying grease.
- At the time of delivery, grease is inserted inside of the nut, with rust-preventive oil also applied.
 Before and during use, apply lubricant where appropriate.

Shaft end finish type

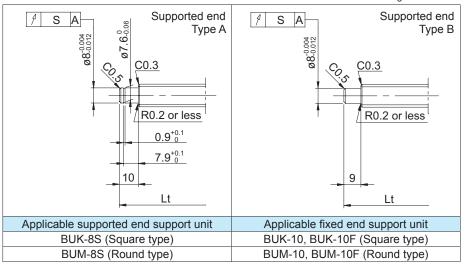
Standard precision ball screws are available with KURODA's recommended shaft end finish types for each size. The fixed end type is finished beforehand.

Regarding the supported shaft end, additional machining to KURODA's recommended shaft end finish type described below is available. Please contact KURODA with your orders. Model examples for finished shaft ends are described below.

Model example: Finished fixed end (See left figure) → Both shaft ends finished

 $\mathsf{GP1205DS\text{-}BALR\text{-}0450B\text{-}C3F} \ \to \ \mathsf{GP1205DS\text{-}BALR\text{-}0450X0380\text{-}C3F}$

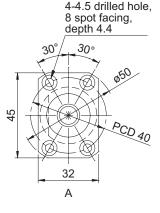
→Thread length →Overall screw shaft length

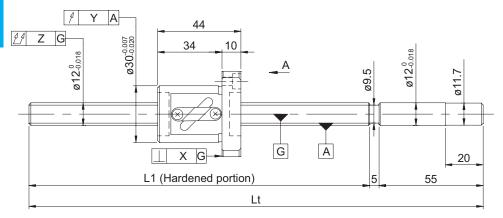


Optional specifications

		A	ccuracy c	of each pa		Preload tor	Mass		
)	X Y Z S U V		Without clearance	With clearance	(kg)				
0.0	800	0.010	0.030	0.011	0.007 0.003		1.5 to 5.0		0.43
0.0	000	0.010	0.030	0.011				Up to 1.0	0.43
0.0	800	0.010	0.050	0.011	0.007	0.003	1.5 to 5.0		0.53
0.0	000	0.010	0.050	0.011	0.007	0.003		Up to 1.0	0.53

-an colon opecinications							
Shaft diameter (mm) - Lead (mm)		12 - 5					
Number of circuits /	2.5 turns 1 circuit /						
Thread direction		Right-hand	I				
Ball diameter (mm)		3.175					
Root diameter (mm)		9.5					
Series	G	G	GE				
Basic dynamic load rating C (N)	5950						
Basic static load rating C0 (N)	9800						
Accuracy grade /	C5 / S	C5 / F	C7 / M				
Axial clearance symbol	0373	C57 F	C7 / WI				
Axial clearance (mm)	0	0.005 or less	0.030 or less				
Preload torque (N·cm)	1.5 to 7.0	Up to 1.0					
Spacer ball		None					
Recirculation system	Tube method						
Wiper	Lip seal						
Lubricant	Alva	nia Grease	e S2				





Model No.	Screw shaft length		Maximum stroke	Lead accuracy		
(Unfinished shaft ends)	L1	Lt	(L1 - nut length)	±E。	e _c	e ₃₀₀
GG1205DS-BALR-0305A	245	305	201	0.023	0.018	0.010
GG1205DS-BALR-0455A	395	455	351	0.025	0.020	0.018
GE1205DS-BALR-0305A	245	305	201	0.05/200		
GE1205DS-BALR-0455A	395	455	351	0.05/300		

- · Product with axial clearance of 0.005 or less (F) shown may be partially preloaded.
- · Preload torque is a value before applying grease.

Shaft end finish type

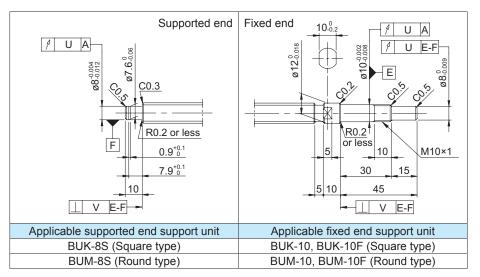
Standard precision ball screws are available with KURODA's recommended shaft end finish types for each size.

Other than KURODA's recommended shaft end finish types described below, additional machining including keyways, tapped holes, and D-cut processing are also available if requested. Please contact KURODA with your orders. Model examples for finished shaft ends are described below.

 $\textbf{Model example:} \ \, \textbf{Unfinished shaft ends (See left figure)} \ \to \ \, \textbf{Finished shaft ends}$

 $\mathsf{GG1205DS\text{-}BALR\text{-}0455A} \ \rightarrow \ \mathsf{GG1205DS\text{-}BALR\text{-}}\underline{\mathsf{0455}} \mathsf{X}\underline{\mathsf{0385}\text{-}\mathsf{C5F}}$

→Thread length →Overall screw shaft length

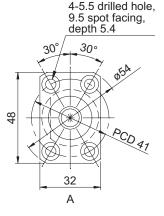


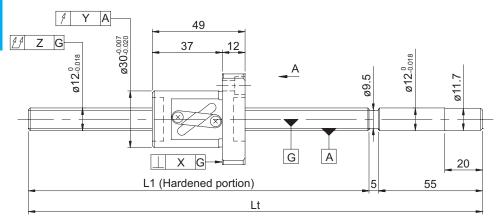
Optional specifications

	Accur	acy of eac	h part		Preload tor	que (N·cm)	Mass				
Χ	Υ	Z	UV		Without clearance	With clearance	(kg)				
0.010	0.012	0.040	0.040	0.040	40 0.040	0.055	0.011	0.005	1 F to 7 0	Lin to 1.0	0.44
0.010		0.080	0.011	0.005	1.5 to 7.0	Up to 1.0	0.54				
0.014	0.000	0.080					0.44				
0.014	0.020	0.120					0.54				

- At the time of delivery, grease is inserted inside of the nut, with rust-preventive oil also applied. Before and during use, apply lubricant where appropriate.
- For models with lead accuracy grade of C3 or higher and unfinished shaft ends, consult KURODA.

Zan colon opcomounone							
Shaft diameter (mm) - Lead (mm)	12 - 10						
Number of circuits /	1.5 turns 1 circuit /						
Thread direction		Right-hand	I				
Ball diameter (mm)		3.175					
Root diameter (mm)		9.5					
Series	G	G	GE				
Basic dynamic load rating C (N)	3850						
Basic static load rating C0 (N)	5900						
Accuracy grade /	C5 / S	C5 / F	C7 / M				
Axial clearance symbol	0373	C5 / F	C/ / IVI				
Axial clearance (mm)	0	0.005 or less	0.030 or less				
Preload torque (N·cm)	1.0 to 5.5	Up to 2.0					
Spacer ball		None					
Recirculation system	Tube method						
Wiper	Lip seal						
Lubricant	Alva	nia Grease	e S2				





Model No.	Screw shaft length		Maximum stroke	Lead accuracy			
(Unfinished shaft ends)	L1	Lt	(L1 - nut length)	±E。	e _c	e ₃₀₀	
GG1210AS-BALR-0455A	395	455	346	0.025	0.020	0.010	
GG1210AS-BALR-0605A	545	605	496	0.030	0.023	0.018	
GE1210AS-BALR-0455A	395	455	346	0.05/200			
GE1210AS-BALR-0605A	545	605	496	0.05/300			

- · Product with axial clearance of 0.005 or less (F) shown may be partially preloaded.
- · Preload torque is a value before applying grease.

Shaft end finish type

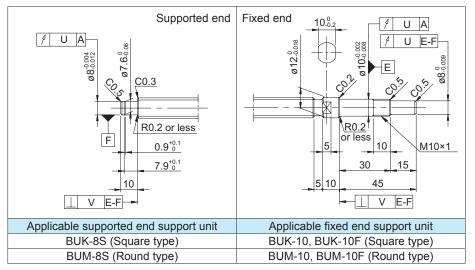
Standard precision ball screws are available with KURODA's recommended shaft end finish types for each size.

Other than KURODA's recommended shaft end finish types described below, additional machining including keyways, tapped holes, and D-cut processing are also available if requested. Please contact KURODA with your orders. Model examples for finished shaft ends are described below.

 $\textbf{Model example:} \ \, \textbf{Unfinished shaft ends (See left figure)} \ \to \ \, \textbf{Finished shaft ends}$

 $GG1210AS-BALR-0605A \rightarrow GG1210AS-BALR-0605X0535-C5F$

→Thread length →Overall screw shaft length

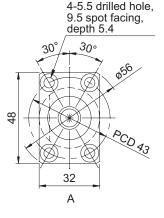


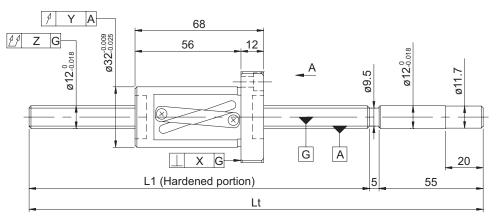
Optional specifications

	Accur	acy of eac	h part		Preload tor	que (N·cm)	Mass
X	Υ	Z	UV		Without clearance	With clearance	(kg)
0.010	0.010	0.080	0.011	0.005	1.0 to F.F.	lin to 0.0	0.63
0.010	0.012	0.090	0.011	0.005	1.0 to 5.5	Up to 2.0	0.75
0.014	0.020	0.120					0.63
0.014	0.020	0.150					0.75

- At the time of delivery, grease is inserted inside of the nut, with rust-preventive oil also applied. Before and during use, apply lubricant where appropriate.
- · For models with lead accuracy grade of C3 or higher and unfinished shaft ends, consult KURODA.

Shaft diameter (mm) - Lead (mm)		12 - 20						
Number of circuits /	1.5 turns 1 circuit /							
Thread direction	Right-hand							
Ball diameter (mm)		3.175						
Root diameter (mm)		9.5						
Series	G	G	GE					
Basic dynamic load rating C (N)	3850							
Basic static load rating C0 (N)	5900							
Accuracy grade / Axial clearance symbol	C5 / S	C5 / F	C7 / M					
Axial clearance (mm)	0	0.005 or less	0.030 or less					
Preload torque (N·cm)	1.0 to 7.5	Up to 2.5						
Spacer ball		None						
Recirculation system	Tube method							
Wiper	Lip seal							
Lubricant	Alva	ınia Grease	e S2					





Model No.	Screw shaft length		Maximum stroke	Lead accuracy			
(Unfinished shaft ends)	L1	Lt	(L1 - nut length)	±E。	e _c	e ₃₀₀	
GG1220AS-BALR-0405A	345	405	277	0.025	0.020	0.010	
GG1220AS-BALR-0605A	545	605	477	0.030	0.023	0.018	
GE1220AS-BALR-0405A	345	405	277	0.05/200			
GE1220AS-BALR-0605A	545	605	477	0.05/300			

- · Product with axial clearance of 0.005 or less (F) shown may be partially preloaded.
- · Preload torque is a value before applying grease.

Shaft end finish type

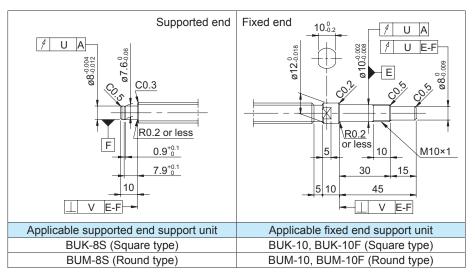
Standard precision ball screws are available with KURODA's recommended shaft end finish types for each size.

Other than KURODA's recommended shaft end finish types described below, additional machining including keyways, tapped holes, and D-cut processing are also available if requested. Please contact KURODA with your orders. Model examples for finished shaft ends are described below.

 $\textbf{Model example:} \ \, \textbf{Unfinished shaft ends (See left figure)} \ \to \ \, \textbf{Finished shaft ends}$

 $\mathsf{GG1220AS\text{-}BALR\text{-}0605A} \,\rightarrow\,\, \mathsf{GG1220AS\text{-}BALR\text{-}}\underline{0605}\mathsf{X}\underline{0535\text{-}C5F}$

→Thread length →Overall screw shaft length

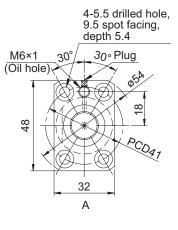


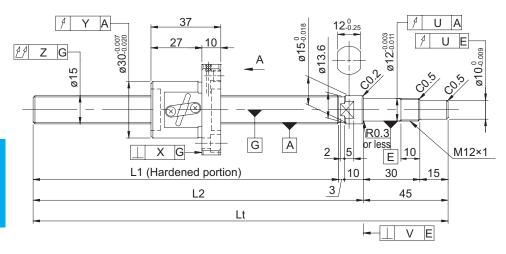
Optional specifications

	Accur	acy of eac	h part	Preload tor	Mass		
Χ	Υ	Z	UV		Without clearance	With clearance	(kg)
0.010	0.012	0.080	0.011	0.005	1.0 to 7.5	lle to 0 F	0.73
0.010	0.012	0.090	0.011	0.005	1.0 to 7.5	Up to 2.5	0.90
0.018	0.030	0.120					0.73
0.016	0.030	0.150					0.90

- At the time of delivery, grease is inserted inside of the nut, with rust-preventive oil also applied.
 Before and during use, apply lubricant where appropriate.
- For models with lead accuracy grade of C3 or higher and unfinished shaft ends, consult KURODA.

Shaft diameter (mm) - Lead (mm)	15	- 2						
Number of circuits /	2.5 turns 1 circuit /							
Thread direction	Right	-hand						
Ball diameter (mm)	1.5	875						
Root diameter (mm)	13	3.6						
Series	G	iΡ						
Basic dynamic load rating C (N)	1700	2700						
Basic static load rating C0 (N)	2750	5500						
Accuracy grade /	C3 / S	C3 / F						
Axial clearance symbol	C3 / S							
Axial clearance (mm)	0	0.005 or less						
Preload torque (N·cm)	0.5 to 4.5	Up to 1.5						
Spacer ball	1:1	None						
Recirculation system Tube method								
Wiper	Plastic wiper							
Lubricant	Alvania G	Frease S2						





Model No.	Screw	Screw shaft length		Maximum stroke	Lead accuracy		
(One shaft end finished)	L1	L2	Lt	(L1 - nut length)	±Ε。	e _c	e ₃₀₀
GP1502DS-BAPR-0300B-C3S	242	255	300	205	0.012	0.008	0.008
GP1502DS-BAPR-0300B-C3F	242						0.006
GP1502DS-BAPR-0600B-C3S	E42		600	505	0.016	0.012	0.008
GP1502DS-BAPR-0600B-C3F	542	555		505	0.016	0.012	

- Product with axial clearance of 0.005 or less (F) shown may be partially preloaded.
- · Preload torque is a value before applying grease.
- At the time of delivery, grease is inserted inside of the nut, with rust-preventive oil also applied.
 Before and during use, apply lubricant where appropriate.

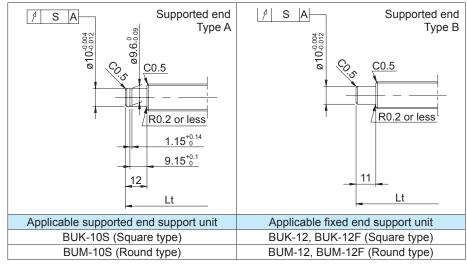
• Shaft end finish type

Standard precision ball screws are available with KURODA's recommended shaft end finish types for each size. The fixed end type is finished beforehand.

Regarding the supported shaft end, additional machining to KURODA's recommended shaft end finish type described below is available. Please contact KURODA with your orders. Model examples for finished shaft ends are described below.

Model example: Finished fixed end (See left figure) → Both shaft ends finished GP1502DS-BAPR-0600B-C3F → GP1502DS-BAPR-0600X0530-C3F

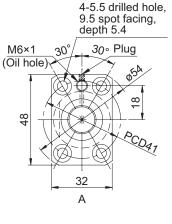
→Thread length →Overall screw shaft length

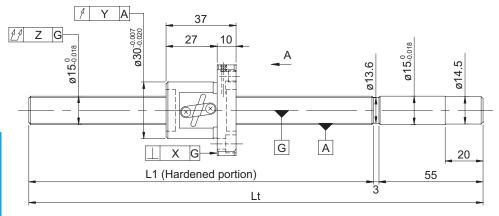


Optional specifications

	A	ccuracy c	of each pa	Preload tor	Mass			
Χ	Υ	Z	S	UVV		Without clearance	With clearance	(kg)
0.008	0.010	0.025	0.012	0.009 0.004		0.5 to 4.5		0.55
0.008	0.010	0.025	0.012				Up to 1.5	0.55
0.008	0.010	0.045	0.012	0.009	0.004	0.5 to 4.5		0.92
0.006	0.010	0.045	0.012	0.009	0.004		Up to 1.5	0.92

Shaft diameter (mm) - Lead (mm)		15 - 2			
Number of circuits /	2.5 turns 1 circuit /				
Thread direction		Right-hand	I		
Ball diameter (mm)		1.5875			
Root diameter (mm)		13.6			
Series	G	G	GE		
Basic dynamic load rating C (N)	2700				
Basic static load rating C0 (N)	5500				
Accuracy grade / Axial clearance symbol	C5 / S	C5 / F	C7 / M		
Axial clearance (mm)	0	0.005 or less	0.030 or less		
Preload torque (N·cm)	0.2 to 4.7	Up to 2.0			
Spacer ball		None			
Recirculation system	Tube method				
Wiper	Plastic wiper				
Lubricant	Alva	nia Grease	e S2		





Model No.	Screw sh	aft length	Maximum stroke	Lead accuracy		
(Unfinished shaft ends)	L1	Lt	(L1 - nut length)	±Ε。	e _c	e ₃₀₀
GG1502DS-BAPR-0300A	242	300	205	0.023	0.018	0.040
GG1502DS-BAPR-0600A	542	600	505	0.030	0.023	0.018
GE1502DS-BAPR-0300A	242	300	205	0.05/200		
GE1502DS-BAPR-0600A	542	600	505	0.05/300		

- · Product with axial clearance of 0.005 or less (F) shown may be partially preloaded.
- · Preload torque is a value before applying grease.

Shaft end finish type

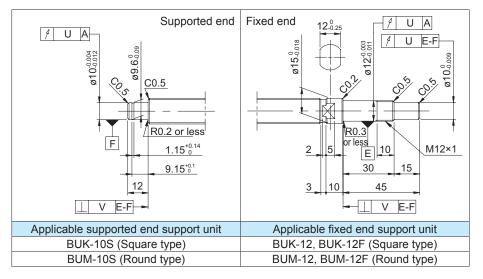
Standard precision ball screws are available with KURODA's recommended shaft end finish types for each size.

Other than KURODA's recommended shaft end finish types described below, additional machining including keyways, tapped holes, and D-cut processing are also available if requested. Please contact KURODA with your orders. Model examples for finished shaft ends are described below.

 $\textbf{Model example:} \ \, \textbf{Unfinished shaft ends (See left figure)} \ \to \ \, \textbf{Finished shaft ends}$

GG1502DS-BAPR-0600A → GG1502DS-BAPR-0600X0530-C5F

→Thread length →Overall screw shaft length

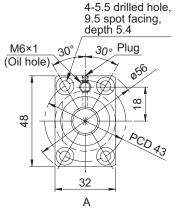


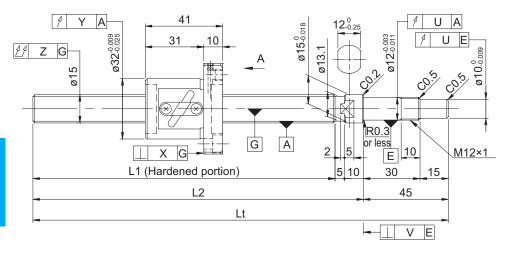
Optional specifications

		Accur	acy of eac	h part	Preload tor	que (N·cm)	Mass	
	Χ	Υ	Z	U	V	Without clearance	With clearance	(kg)
	0.040	0.010	0.045	0.012	0.005	0.2 to 4.7	Up to 2.0	0.58
	0.010	0.012	0.075	0.012				0.94
	0.014	0.000	0.070					0.58
	0.014	0.020	0.110					0.94

- At the time of delivery, grease is inserted inside of the nut, with rust-preventive oil also applied. Before and during use, apply lubricant where appropriate.
- For models with lead accuracy grade of C3 or higher and unfinished shaft ends, consult KURODA.

Shaft diameter (mm) - Lead (mm)	15	- 4							
Number of circuits /	2.5 turns 1 circuit /								
Thread direction	Right-hand								
Ball diameter (mm)	2.3	812							
Root diameter (mm)	13	3.1							
Series	GP								
Basic dynamic load rating C (N)	2580	4100							
Basic static load rating C0 (N)	4270	8550							
Accuracy grade /	C3 / S	C3 / F							
Axial clearance symbol	0373	C3 / F							
Axial clearance (mm)	0	0.005 or less							
Preload torque (N·cm)	1.0 to 5.0	Up to 1.5							
Spacer ball	1:1	None							
Recirculation system	Tube method								
Wiper	Lip seal								
Lubricant	Alvania G	Frease S2							





Model No.	Screw	shaft	length	Maximum stroke	Lead accuracy		
(One shaft end finished)	L1	L2	Lt	(L1 - nut length)	±Ε。	e _c	e ₃₀₀
GP1504DS-BALR-0400B-C3S	340	355	400	299	0.013	0.010	0.008
GP1504DS-BALR-0400B-C3F	340						0.006
GP1504DS-BALR-0600B-C3S	E40	555	600	400	0.016	0.012	0.008
GP1504DS-BALR-0600B-C3F	540			499	0.016		

- Product with axial clearance of 0.005 or less (F) shown may be partially preloaded.
- · Preload torque is a value before applying grease.
- At the time of delivery, grease is inserted inside of the nut, with rust-preventive oil also applied.
 Before and during use, apply lubricant where appropriate.

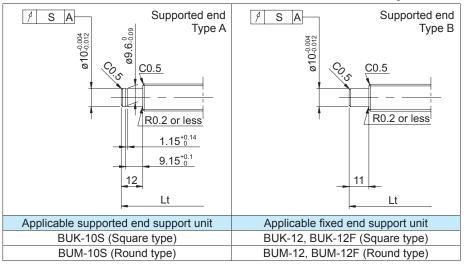
Shaft end finish type

Standard precision ball screws are available with KURODA's recommended shaft end finish types for each size. The fixed end type is finished beforehand.

Regarding the supported shaft end, additional machining to KURODA's recommended shaft end finish type described below is available. Please contact KURODA with your orders. Model examples for finished shaft ends are described below.

Model example: Finished fixed end (See left figure) \rightarrow Both shaft ends finished

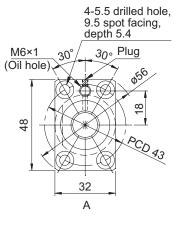
☐→Thread length →Overall screw shaft length

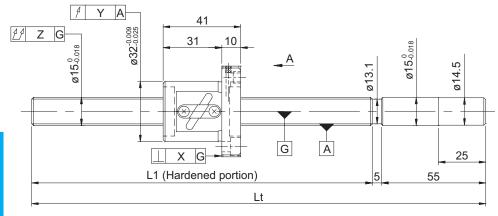


Optional specifications

	A	ccuracy c	of each pa		Preload tor	Mass			
X	Υ	Z	S	U V		Without clearance	With clearance	(kg)	
0.008	0.010	0.035	0.012	0.009	0.004	1.0 to 5.0		0.70	
0.006	0.010	0.035	0.012	0.009	0.004		Up to 1.5	0.70	
0.000	0.010	0.045	0.012	0.009	0.004	1.0 to 5.0		0.04	
0.008	0.010	0.045	0.012	0.009	0.004		Up to 1.5	0.94	

Shaft diameter (mm) - Lead (mm)		15 - 4			
Number of circuits /	2.5 turns 1 circuit /				
Thread direction		Right-hand	I		
Ball diameter (mm)		2.3812			
Root diameter (mm)		13.1			
Series	GG GE				
Basic dynamic load rating C (N)	4100				
Basic static load rating C0 (N)	8550				
Accuracy grade / Axial clearance symbol	C5/S C5/F C7/N				
Axial clearance (mm)	0	0.005 or less	0.030 or less		
Preload torque (N·cm)	1.0 to 8.0	Up to 2.0			
Spacer ball	None				
Recirculation system	Tube method				
Wiper	Lip seal				
Lubricant	Alva	nia Grease	e S2		





Model No.	Screw shaft length		Maximum stroke	Lead accuracy		
(Unfinished shaft ends)	L1	Lt	(L1 - nut length)	±E。	e _c	e ₃₀₀
GG1504DS-BALR-0600A	540	600	499	0.030	0.023	0.010
GG1504DS-BALR-1100A	1040	1100	999	0.046	0.030	0.018
GE1504DS-BALR-0600A	540	600	499	0.05/200		
GE1504DS-BALR-1100A	1040	1100	999	0.05/300		

- · Product with axial clearance of 0.005 or less (F) shown may be partially preloaded.
- · Preload torque is a value before applying grease.

Shaft end finish type

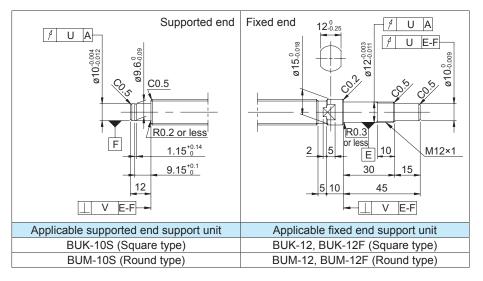
Standard precision ball screws are available with KURODA's recommended shaft end finish types for each size.

Other than KURODA's recommended shaft end finish types described below, additional machining including keyways, tapped holes, and D-cut processing are also available if requested. Please contact KURODA with your orders. Model examples for finished shaft ends are described below.

 $\textbf{Model example:} \ \, \textbf{Unfinished shaft ends (See left figure)} \ \to \ \, \textbf{Finished shaft ends}$

 $\mathsf{GG1504DS\text{-}BAPR\text{-}1100A} \ \rightarrow \ \mathsf{GG1504DS\text{-}BAPR\text{-}}\underline{1100}\mathsf{X}\underline{1028}\text{-}\mathsf{C5F}$

→Thread length →Overall screw shaft length

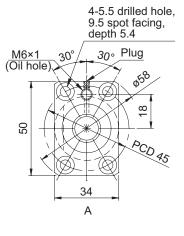


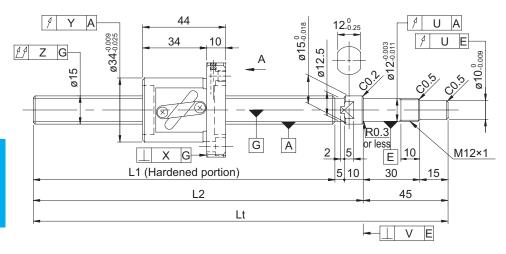
Optional specifications

	Accur	acy of eac	h part	Preload tor	que (N·cm)	Mass	
Х	X Y Z U				Without clearance	With clearance	(kg)
0.010	0.010	0.075	0.012	0.005	1.0 to 6.0	Up to 2.0	0.96
0.010	0.012	0.150			1.0 to 8.0		1.56
0.010	0.030	0.110					0.96
0.018		0.210					1.56

- At the time of delivery, grease is inserted inside of the nut, with rust-preventive oil also applied. Before and during use, apply lubricant where appropriate.
- For models with lead accuracy grade of C3 or higher and unfinished shaft ends, consult KURODA.

- Dan colon opcomoditions								
Shaft diameter (mm) - Lead (mm)	15	- 5						
Number of circuits /	2.5 turns 1 circuit /							
Thread direction	Right-hand							
Ball diameter (mm)	3.1	75						
Root diameter (mm)	12	2.5						
Series	G	iP						
Basic dynamic load rating C (N)	4340	6900						
Basic static load rating C0 (N)	6250	12500						
Accuracy grade /	C3 / S	C3 / F						
Axial clearance symbol	0373	C3 / F						
Axial clearance (mm)	0	0.005 or less						
Preload torque (N·cm)	1.5 to 6.0	Up to 2.0						
Spacer ball	1:1	None						
Recirculation system	Tube r	nethod						
Wiper								
Lubricant Alvania Grease S								
Lubricant	Alvania G	rease S2						





Model No.	Screw	shaft	length	Maximum stroke	Lead accuracy		
(One shaft end finished)	L1	L2	Lt	(L1 - nut length)	±Ε。	e _c	e ₃₀₀
GP1505DS-BALR-0400B-C3S	340	355	400	296	0.013	0.010	0.008
GP1505DS-BALR-0400B-C3F	340						0.006
GP1505DS-BALR-0600B-C3S	540	555	600	496	0.016	0.012	0.008
GP1505DS-BALR-0600B-C3F	540			490	0.016	0.012	0.008

- Product with axial clearance of 0.005 or less (F) shown may be partially preloaded.
- · Preload torque is a value before applying grease.
- At the time of delivery, grease is inserted inside of the nut, with rust-preventive oil also applied.
 Before and during use, apply lubricant where appropriate.

Shaft end finish type

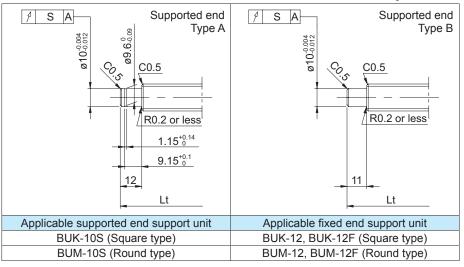
Standard precision ball screws are available with KURODA's recommended shaft end finish types for each size. The fixed end type is finished beforehand.

Regarding the supported shaft end, additional machining to KURODA's recommended shaft end finish type described below is available. Please contact KURODA with your orders. Model examples for finished shaft ends are described below.

 $\textbf{Model example:} \ \ \text{Finished fixed end (See left figure)} \ \ \rightarrow \ \ \text{Both shaft ends finished}$

 $\mathsf{GP1505DS\text{-}BALR\text{-}0600B\text{-}C3F} \ \to \ \mathsf{GP1505DS\text{-}BALR\text{-}0600X0528\text{-}C3F}$

☐→Thread length →Overall screw shaft length



Optional specifications

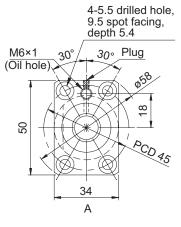
Ball screw lubricating unit LUBSEAL can be equipped.

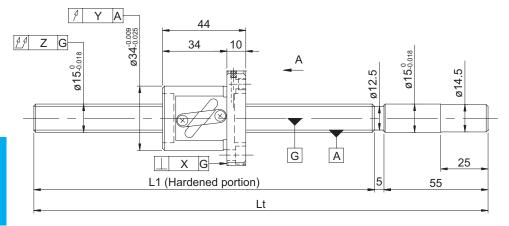
Model example: GP1505DS-BASR-0600X0528-C3F

→Wiper material S: LUBSEAL

	A	ccuracy c	of each pa	Preload tor	Mass				
Χ	Υ	Z	S	UV		Without clearance	With clearance	(kg)	
0.008	0.012	0.035	0.012	0.009 0.004		1.5 to 6.0		0.71	
0.006	0.012	0.035	0.012	0.009	0.004		Up to 2.0	0.71	
0.000	0.012	0.045	0.012	0.009	0.004	1.5 to 6.0		0.04	
0.008	0.012	0.045	0.012	0.009	0.004		Up to 2.0	0.94	

Shaft diameter (mm) - Lead (mm)	15 - 5				
Number of circuits /	2.5 turns 1 circuit /				
Thread direction		Right-hand	I		
Ball diameter (mm)		3.175			
Root diameter (mm)		12.5			
Series	G	G	GE		
Basic dynamic load rating C (N)	6900				
Basic static load rating C0 (N)	12500				
Accuracy grade /	C5 / S	C5 / F	C7 / M		
Axial clearance symbol	0373	0071	O7 7 IVI		
Axial clearance (mm)	0	0.005 or less	0.030 or less		
Preload torque (N·cm)	1.5 to 11.0	Up to 2.0			
Spacer ball		None			
Recirculation system	Tube method				
Wiper	Lip seal				
Lubricant	Alva	ınia Grease	e S2		





Model No.	Screw shaft length		Maximum stroke	Lead accuracy		
(Unfinished shaft ends)	L1	Lt	(L1 - nut length)	±Ε。	e _c	e ₃₀₀
GG1505DS-BALR-0600A	540	600	496	0.030	0.023	0.018
GG1505DS-BALR-1100A	1040	1100	996	0.046	0.030	0.016
GE1505DS-BALR-0600A	540	600	496	0.05/200		
GE1505DS-BALR-1100A	1040	1100	996	0.05/300		

- Product with axial clearance of 0.005 or less (F) shown may be partially preloaded.
- · Preload torque is a value before applying grease.

Shaft end finish type

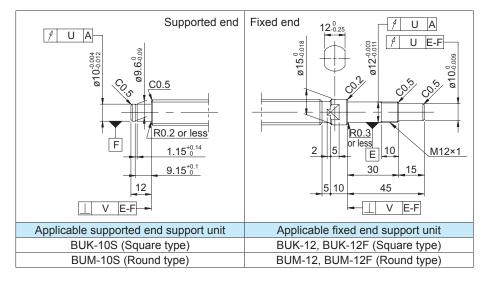
Standard precision ball screws are available with KURODA's recommended shaft end finish types for each size.

Other than KURODA's recommended shaft end finish types described below, additional machining including keyways, tapped holes, and D-cut processing are also available if requested. Please contact KURODA with your orders. Model examples for finished shaft ends are described below.

 $\textbf{Model example:} \ \, \textbf{Unfinished shaft ends (See left figure)} \ \to \ \, \textbf{Finished shaft ends}$

 $\mathsf{GG1505DS\text{-}BALR\text{-}1100A} \,\rightarrow\,\, \mathsf{GG1505DS\text{-}BALR\text{-}}\underline{1100}\mathsf{X}\underline{1028\text{-}C5F}$

→Thread length →Overall screw shaft length



Optional specifications

Ball screw lubricating unit LUBSEAL can be equipped.

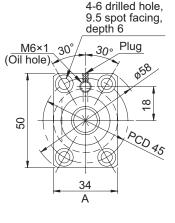
Model example: GG1505DS-BASR-1100X1028-C5F

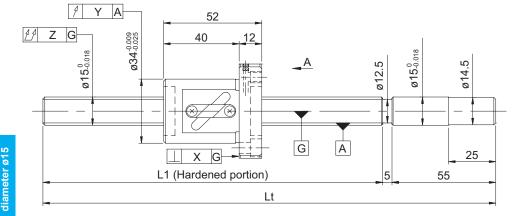
→Wiper material S: LUBSEAL

Accuracy of each part					Preload tor	Mass	
Х	Υ	Z	U	V	Without clearance	With clearance	(kg)
0.011	0.015	0.075	0.012	0.005	1.5 to 9.0	Lin to 2.0	0.96
0.011	0.015	0.150	0.012	0.005	1.5 to 11.0	Up to 2.0	1.52
0.040	0.020	0.110					0.96
0.018	0.030	0.210					1.52

- At the time of delivery, grease is inserted inside of the nut, with rust-preventive oil also applied.
 Before and during use, apply lubricant where appropriate.
- · For models with lead accuracy grade of C3 or higher and unfinished shaft ends, consult KURODA.

ball screw specifications							
Shaft diameter (mm) - Lead (mm)		15 - 10					
Number of circuits /	1.5	turns 1 circ	cuit /				
Thread direction		Right-hand	I				
Ball diameter (mm)		3.175					
Root diameter (mm)		12.5					
Series	G	G	GE				
Basic dynamic load rating C (N)	4400						
Basic static load rating C0 (N)	7900						
Accuracy grade / Axial clearance symbol	C5 / S	C5 / F	C7 / M				
Axial clearance (mm)	0	0.005 or less	0.030 or less				
Preload torque (N·cm)	1.0 to 8.0	Up to 3.0					
Spacer ball	None						
Recirculation system	Tube method						
Wiper	Lip seal						
Lubricant	Alva	nia Grease	e S2				





Model No.	Screw shaft length		Maximum stroke	Lead accuracy			
(Unfinished shaft ends)	L1	Lt	(L1 - nut length)	±E。	e _c	e ₃₀₀	
GG1510AS-BALR-0600A	540	600	488	0.030	0.023		
GG1510AS-BALR-0900A	840	900	788	0.040	0.027	0.018	
GG1510AS-BALR-1100A	1040	1100	988	0.046	0.030		
GE1510AS-BALR-0600A	540	600	488				
GE1510AS-BALR-0900A	840	900	788	0.05/300			
GE1510AS-BALR-1100A	1040	1100	988				

- Product with axial clearance of 0.005 or less (F) shown may be partially preloaded.
- Preload torque is a value before applying grease.

Shaft end finish type

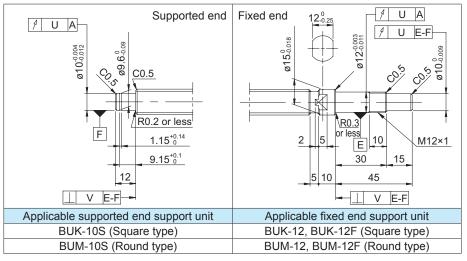
Standard precision ball screws are available with KURODA's recommended shaft end finish types for each size.

Other than KURODA's recommended shaft end finish types described below, additional machining including keyways, tapped holes, and D-cut processing are also available if requested. Please contact KURODA with your orders. Model examples for finished shaft ends are described below.

 $\textbf{Model example:} \ \, \textbf{Unfinished shaft ends (See left figure)} \ \to \ \, \textbf{Finished shaft ends}$

 $\mathsf{GG1510AS}\text{-}\mathsf{BALR}\text{-}\mathsf{1100A} \,\rightarrow\,\, \mathsf{GG1510AS}\text{-}\mathsf{BALR}\text{-}\underline{\mathsf{1100}}\mathsf{X}\underline{\mathsf{1028}}\text{-}\mathsf{C5F}$

→Thread length →Overall screw shaft length



Optional specifications

• Ball screw lubricating unit LUBSEAL can be equipped.

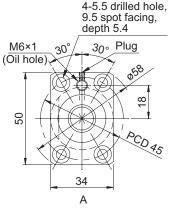
Model example: GG1510AS-BASR-1100X1028-C5F

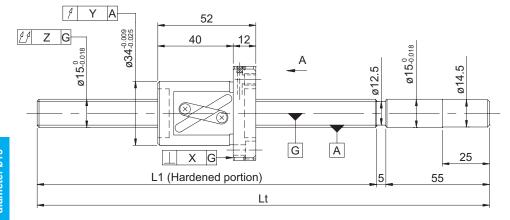
→Wiper material S: LUBSEAL

	Accuracy of each part				Preload tor	Mass	
Χ	Y	Z	U	V	Without clearance	With clearance	(kg)
		0.075	0.012 0.005	1.0 to 7.0		1.09	
0.011	0.015	0.120		0.005	1.0 to 7.0	Up to 3.0	1.47
		0.150			1.0 to 8.0		1.72
		0.110					1.09
0.018	0.030	0.170					1.47
		0.210					1.72

- At the time of delivery, grease is inserted inside of the nut, with rust-preventive oil also applied.
 Before and during use, apply lubricant where appropriate.
- For models with lead accuracy grade of C3 or higher and unfinished shaft ends, consult KURODA.

Shaft diameter (mm) - Lead (mm)		15 - 10			
Number of circuits /	2.5	2.5 turns 1 circuit /			
Thread direction		Right-hand	l		
Ball diameter (mm)		3.175			
Root diameter (mm)		12.5			
Series	G	G	GE		
Basic dynamic load rating C (N)	6900				
Basic static load rating C0 (N)	12500				
Accuracy grade / Axial clearance symbol	C5 / S	C5 / F	C7 / M		
Axial clearance (mm)	0	0.005 or less	0.030 or less		
Preload torque (N·cm)	1.0 to 8.0	Up to 3.0			
Spacer ball	None				
Recirculation system	Tube method				
Wiper	Lip seal				
Lubricant	Alva	ınia Grease	e S2		





Model No.	Screw sh	aft length	Maximum stroke	Lead accuracy		
(Unfinished shaft ends)	L1	Lt	(L1 - nut length)	±E。	e _c	e ₃₀₀
GG1510DS-BALR-0600A	540	600	488	0.030	0.023	
GG1510DS-BALR-0900A	840	900	788	0.040	0.027	0.018
GG1510DS-BALR-1100A	1040	1100	988	0.046	0.030	
GE1510DS-BALR-0600A	540	600	488			
GE1510DS-BALR-0900A	840	900	788	0.05/300		
GE1510DS-BALR-1100A	1040	1100	988			

- Product with axial clearance of 0.005 or less (F) shown may be partially preloaded.
- Preload torque is a value before applying grease.

Shaft end finish type

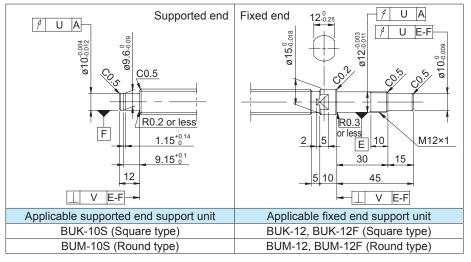
Standard precision ball screws are available with KURODA's recommended shaft end finish types for each size.

Other than KURODA's recommended shaft end finish types described below, additional machining including keyways, tapped holes, and D-cut processing are also available if requested. Please contact KURODA with your orders. Model examples for finished shaft ends are described below.

Model example: Unfinished shaft ends (See left figure) → Finished shaft ends

GG1510DS-BALR-1100A → GG1510DS-BALR-1100X1028-C5F

→Thread length →Overall screw shaft length



Optional specifications

· Ball screw lubricating unit LUBSEAL can be equipped.

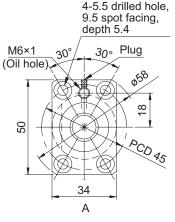
Model example: GG1510DS-BASR-1100X1028-C5F

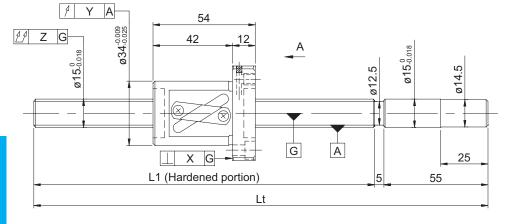
→Wiper material S: LUBSEAL

	Accuracy of each part					Preload torque (N·cm)		
X	Y	Z	U	V	Without clearance	With clearance	(kg)	
		0.075			1.0 to 7.0		1.09	
0.011	0.015	0.120	0.012	0.005	0.005	1.0 to 7.0	Up to 3.0	1.47
		0.150			1.0 to 8.0		1.72	
		0.110					1.09	
0.018	0.030	0.170					1.47	
		0.210					1.72	

- At the time of delivery, grease is inserted inside of the nut, with rust-preventive oil also applied.
 Before and during use, apply lubricant where appropriate.
 For models with lead accuracy grade of C3 or higher and unfinished shaft ends, consult KURODA.

The state of the s							
Shaft diameter (mm) - Lead (mm)		15 - 15					
Number of circuits /	1.5	turns 1 circ	cuit /				
Thread direction		Right-hand	1				
Ball diameter (mm)		3.175					
Root diameter (mm)		12.5					
Series	G	G	GE				
Basic dynamic load rating C (N)	4400						
Basic static load rating C0 (N)	7900						
Accuracy grade / Axial clearance symbol	C5 / S	C5 / F	C7 / M				
Axial clearance (mm)	0	0.005 or less	0.030 or less				
Preload torque (N·cm)	1.0 to 10.0	Up to 3.0					
Spacer ball	None						
Recirculation system	Tube method						
Wiper	Lip seal						
Lubricant	Alva	ınia Grease	e S2				





		6.1				
Model No.	Screw shaft length		Maximum stroke	Lead accuracy		
(Unfinished shaft ends)	L1	Lt	(L1 - nut length)	±E _c	e _c	e ₃₀₀
GG1515AS-BALR-0600A	540	600	486	0.030	0.023	
GG1515AS-BALR-0900A	840	900	786	0.040	0.027	0.018
GG1515AS-BALR-1100A	1040	1100	986	0.046	0.030	
GE1515AS-BALR-0600A	540	600	486			
GE1515AS-BALR-0900A	840	900	786	0.05/300		
GE1515AS-BALR-1100A	1040	1100	986			

- Product with axial clearance of 0.005 or less (F) shown may be partially preloaded.
- Preload torque is a value before applying grease.

Shaft end finish type

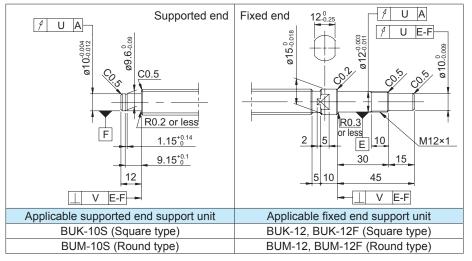
Standard precision ball screws are available with KURODA's recommended shaft end finish types for each size.

Other than KURODA's recommended shaft end finish types described below, additional machining including keyways, tapped holes, and D-cut processing are also available if requested. Please contact KURODA with your orders. Model examples for finished shaft ends are described below.

 $\textbf{Model example:} \ \, \textbf{Unfinished shaft ends (See left figure)} \ \to \ \, \textbf{Finished shaft ends}$

GG1515AS-BALR-1100A \rightarrow GG1515AS-BALR-1100X1028-C5F

→Thread length →Overall screw shaft length



Optional specifications

Ball screw lubricating unit LUBSEAL can be equipped.

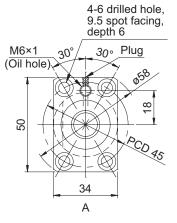
Model example: GG1515AS-BASR-1100X1028-C5F

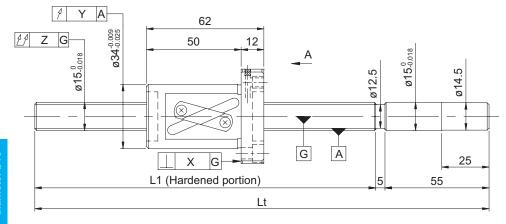
→Wiper material S: LUBSEAL

	Accuracy of each part				Preload tor	Mass		
Χ	Υ	Z	UV		Without clearance	With clearance	(kg)	
		0.075			1.0 to 9.0		1.13	
0.011	0.015	0.120	0.012	0.012 0.	0.005	1.0 10 9.0	Up to 3.0	1.52
		0.150			1.0 to 10.0		1.78	
		0.110					1.13	
0.018	0.030	0.170					1.52	
		0.210						1.78

- At the time of delivery, grease is inserted inside of the nut, with rust-preventive oil also applied.
 Before and during use, apply lubricant where appropriate.
- For models with lead accuracy grade of C3 or higher and unfinished shaft ends, consult KURODA.

Shaft diameter (mm) - Lead (mm)		15 - 20		
Number of circuits /	1.5	turns 1 circ	cuit /	
Thread direction		Right-hand	l	
Ball diameter (mm)		3.175		
Root diameter (mm)		12.5		
Series	G	G	GE	
Basic dynamic load rating C (N)	4400			
Basic static load rating C0 (N)	7900			
Accuracy grade / Axial clearance symbol	C5 / S	C5 / F	C7 / M	
Axial clearance (mm)	0	0.005 or less	0.030 or less	
Preload torque (N·cm)	1.0 to 11.0	Up to 3.0		
Spacer ball	None			
Recirculation system	Tube method			
Wiper	Lip seal			
Lubricant	Alva	nia Grease	e S2	





Model No.	Screw sh	aft length	Maximum stroke	Lead accuracy		
(Unfinished shaft ends)	L1	Lt	(L1 - nut length)	±E _c	e _c	e ₃₀₀
GG1520AS-BALR-0600A	540	600	478	0.030	0.023	
GG1520AS-BALR-0900A	840	900	778	0.040	0.027	0.018
GG1520AS-BALR-1100A	1040	1100	978	0.046	0.030	
GE1520AS-BALR-0600A	540	600	478			
GE1520AS-BALR-0900A	840	900	778	0.05/300		
GE1520AS-BALR-1100A	1040	1100	978			

- Product with axial clearance of 0.005 or less (F) shown may be partially preloaded.
- Preload torque is a value before applying grease.

Shaft end finish type

Standard precision ball screws are available with KURODA's recommended shaft end finish types for each size.

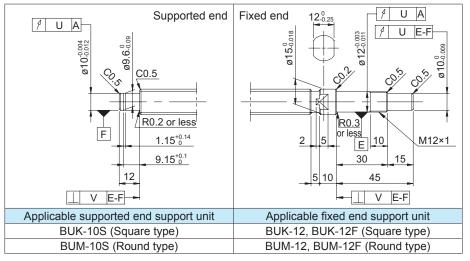
Other than KURODA's recommended shaft end finish types described below, additional machining including keyways, tapped holes, and D-cut processing are also available if requested. Please contact KURODA with your orders. Model examples for finished shaft ends are described below.

Model example: Unfinished shaft ends (See left figure) → Finished shaft ends

 $GG1520AS-BALR-1100A \rightarrow GG1520AS-BALR-1100X1028-C5F$

Thread length

→Overall screw shaft length



Optional specifications

· Ball screw lubricating unit LUBSEAL can be equipped.

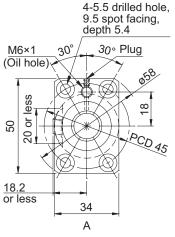
Model example: GG1520AS-BASR-1100X1028-C5F

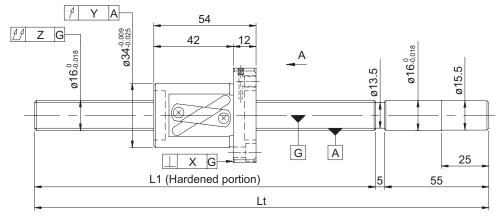
Ŭ-Wiper material S: LUBSEAL

	Accur	acy of eac	h part		Preload tor	Mass		
X	Y	Z	UV		Without clearance	With clearance	(kg)	
		0.075		0.005		1.0 to 10.0		1.18
0.011	0.015	0.120	0.012		1.0 to 10.0	Up to 3.0	1.58	
		0.150			1.0 to 11.0		1.85	
		0.110					1.18	
0.018	0.030	0.170					1.58	
		0.210					1.85	

- At the time of delivery, grease is inserted inside of the nut, with rust-preventive oil also applied.
 Before and during use, apply lubricant where appropriate.
 For models with lead accuracy grade of C3 or higher and unfinished shaft ends, consult KURODA.

- Ban Solow Specification					
Shaft diameter (mm) - Lead (mm)		16 - 16			
Number of circuits /	1.5	turns 1 circ	cuit /		
Thread direction	Right-hand				
Ball diameter (mm)	3.175				
Root diameter (mm)	13.5				
Series	GG GE				
Basic dynamic load rating C (N)	4750				
Basic static load rating C0 (N)	8300				
Accuracy grade / Axial clearance symbol	C5 / S	C5 / F	C7 / M		
Axial clearance (mm)	0	0.005 or less	0.030 or less		
Preload torque (N·cm)	1.0 to 10.0	Up to 3.0			
Spacer ball		None			
Recirculation system	Tube method				
Wiper	Lip seal				
Lubricant	Alva	nia Grease	e S2		





Model No.	Screw shaft length		Maximum stroke	Lead accuracy		
(Unfinished shaft ends)	L1	Lt	(L1 - nut length)	±Ε。	e _c	e ₃₀₀
GG1616AS-BTLR-0600A	540	600	486	0.030	0.023	0.040
GG1616AS-BTLR-0900A	840	900	786	0.040	0.027	0.018
GE1616AS-BTLR-0600A	540	600	486	0.05/200		
GE1616AS-BTLR-0900A	840	900	786	0.05/300		

- · Product with axial clearance of 0.005 or less (F) shown may be partially preloaded.
- · Preload torque is a value before applying grease.

Shaft end finish type

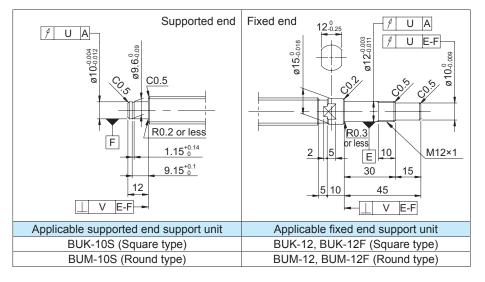
Standard precision ball screws are available with KURODA's recommended shaft end finish types for each size.

Other than KURODA's recommended shaft end finish types described below, additional machining including keyways, tapped holes, and D-cut processing are also available if requested. Please contact KURODA with your orders. Model examples for finished shaft ends are described below.

 $\textbf{Model example:} \ \, \textbf{Unfinished shaft ends (See left figure)} \ \to \ \, \textbf{Finished shaft ends}$

 $GG1616AS-BTLR-0900A \rightarrow GG1616AS-BTLR-0900X0828-C5F$

→Thread length →Overall screw shaft length



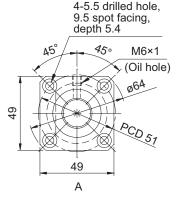
Optional specifications

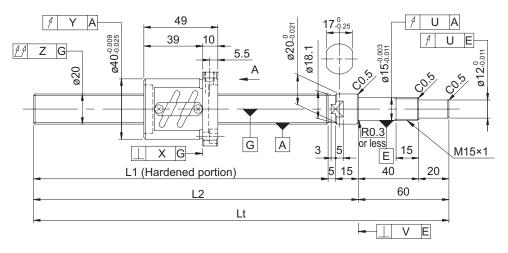
		Accur	acy of eac	h part		Preload tor	Mass	
	X	Υ	Z	U	V	Without clearance	With clearance	(kg)
0.0	044	0.045	0.075	0.012	0.005	1.0 to 10.0	Lin to 2.0	1.21
0.0	0.011	0.015	0.120	0.012		1.0 to 10.0	Up to 3.0	1.67
0.0	018	0.030	0.110					1.21
0.0	110	0.030	0.170					1.67

- At the time of delivery, grease is inserted inside of the nut, with rust-preventive oil also applied. Before and during use, apply lubricant where appropriate.
- For models with lead accuracy grade of C3 or higher and unfinished shaft ends, consult KURODA.



Shaft diameter (mm) - Lead (mm)	20	- 4		
Number of circuits /	2.5 turns	2.5 turns 2 circuits /		
Thread direction	Right-hand			
Ball diameter (mm)	2.3812			
Root diameter (mm)	18.1			
Series	GP			
Basic dynamic load rating C (N)	5410	8600		
Basic static load rating C0 (N)	11700	23400		
Accuracy grade / Axial clearance symbol	C3 / S	C3 / F		
Axial clearance (mm)	0	0.005 or less		
Preload torque (N·cm)	0.4 to 13.0	Up to 3.0		
Spacer ball	1:1	None		
Recirculation system	Tube method			
Wiper	Lip seal			
Lubricant	Alvania G	Grease S2		





Model No.	Screw	crew shaft length		Maximum stroke	Le	ad accura	асу
(One shaft end finished)	L1	L2	Lt	(L1 - nut length)	±Ε _c	e _c	e ₃₀₀
GP2004ES-AALR-0605B-C3S	525	545	605	476	0.016	0.012	0.000
GP2004ES-AALR-0605B-C3F	525	545	605	476	0.016	0.012	0.008

- Product with axial clearance of 0.005 or less (F) shown may be partially preloaded.
- Preload torque is a value before applying grease.
- At the time of delivery, grease is inserted inside of the nut, with rust-preventive oil also applied.
 Before and during use, apply lubricant where appropriate.

Shaft end finish type

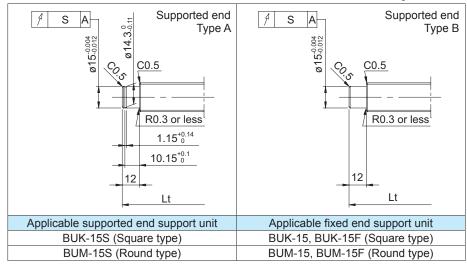
Standard precision ball screws are available with KURODA's recommended shaft end finish types for each size. The fixed end type is finished beforehand.

Regarding the supported shaft end, additional machining to KURODA's recommended shaft end finish type described below is available. Please contact KURODA with your orders. Model examples for finished shaft ends are described below.

 $\textbf{Model example:} \ \ \text{Finished fixed end (See left figure)} \ \ \rightarrow \ \ \text{Both shaft ends finished}$

GP2004ES-AALR-0605B-C3F → GP2004ES-AALR-0605X0513-C3F

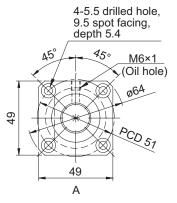
☐→Thread length →Overall screw shaft length

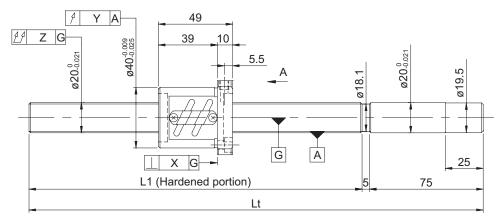


Optional specifications

Accuracy of each part						Preload tor	Mass	
Χ	Υ	Z	S	U	V	Without clearance	With clearance	(kg)
0.008	0.012	0.050	0.012	0.009	0.004	0.4 to 13.0		1.70
0.006	0.012	0.050	0.012	0.009	0.004		Up to 3.0	1.70

Shaft diameter (mm) - Lead (mm) 20 - 4 Number of circuits / 2.5 turns 2 circuits / Right-hand Ball diameter (mm) 2.3812 Root diameter (mm) 18.1 Series GG GE
Thread direction Right-hand Ball diameter (mm) 2.3812 Root diameter (mm) 18.1
Ball diameter (mm) 2.3812 Root diameter (mm) 18.1
Root diameter (mm) 18.1
Sories GG GE
Jenes Jenes
Basic dynamic load rating C (N) 8600
Basic static load rating C0 (N) 23400
Accuracy grade / C5 / S C5 / F C7 / M
Axial clearance symbol
Axial clearance (mm) 0 0.005 or less 0.030 or le
Preload torque (N·cm) 1.5 to 20.0 Up to 3.0
Spacer ball None
Recirculation system Tube method
Wiper Lip seal
Lubricant Alvania Grease S2





Model No.	Screw shaft length L1 Lt		Maximum stroke	Lead accuracy		
(Unfinished shaft ends)			(L1 - nut length)	±E _c	e _c	e ₃₀₀
GG2004ES-AALR-0605A	EDE	COF	476	0.030	0.023	0.018
GE2004ES-AALR-0605A	525	605	476	0.05/300		

- Product with axial clearance of 0.005 or less (F) shown may be partially preloaded.
- · Preload torque is a value before applying grease.

Shaft end finish type

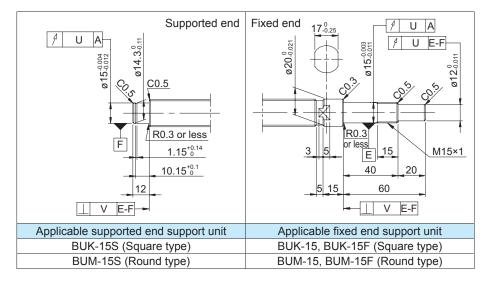
Standard precision ball screws are available with KURODA's recommended shaft end finish types for each size.

Other than KURODA's recommended shaft end finish types described below, additional machining including keyways, tapped holes, and D-cut processing are also available if requested. Please contact KURODA with your orders. Model examples for finished shaft ends are described below.

 $\textbf{Model example:} \ \, \textbf{Unfinished shaft ends (See left figure)} \ \to \ \, \textbf{Finished shaft ends}$

 $\mathsf{GG2004ES\text{-}AALR\text{-}0605A} \,\rightarrow\,\, \mathsf{GG2004ES\text{-}AALR\text{-}}\underline{0605}\mathsf{X}\underline{0513}\text{-}\mathsf{C5F}$

→Thread length →Overall screw shaft length

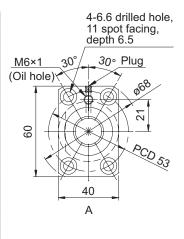


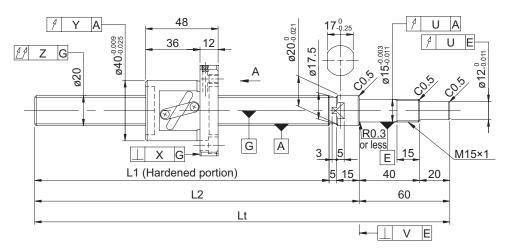
Optional specifications

Accuracy of each part					Preload tor	Mass	
Χ	Υ	Z	U	V	Without clearance	With clearance	(kg)
0.011	0.015	0.075	0.012	0.005	1.5 to 20.0	Up to 3.0	1.78
0.018	0.030	0.110					1.76

- At the time of delivery, grease is inserted inside of the nut, with rust-preventive oil also applied.
 Before and during use, apply lubricant where appropriate.
- For models with lead accuracy grade of C3 or higher and unfinished shaft ends, consult KURODA.

Shaft diameter (mm) - Lead (mm)	20	- 5			
Number of circuits /	2.5 turns	1 circuit /			
Thread direction	direction Right-hand				
Ball diameter (mm)	3.175				
Root diameter (mm)	17.5				
Series	GP				
Basic dynamic load rating C (N)	5260	8350			
Basic static load rating C0 (N)	8750	17500			
Accuracy grade / Axial clearance symbol	grade / C3 / S C3 /				
Axial clearance (mm)	0	0.005 or less			
Preload torque (N·cm)	3.0 to 10.0	Up to 3.0			
Spacer ball	1:1	None			
Recirculation system	Tube method				
Wiper	Lip seal				
Lubricant	Alvania G	Grease S2			





Model No.	Screw	Screw shaft length		Maximum stroke	Le	ad accura	асу
(One shaft end finished)	L1	L2	Lt	(L1 - nut length)	±Ε。	e _c	e ₃₀₀
GP2005DS-BALR-0605B-C3S	525	545	605	477	0.016	0.012	0.000
GP2005DS-BALR-0605B-C3F	525	343	605	4//	0.016	0.012	0.008

- Product with axial clearance of 0.005 or less (F) shown may be partially preloaded.
- · Preload torque is a value before applying grease.
- At the time of delivery, grease is inserted inside of the nut, with rust-preventive oil also applied.
 Before and during use, apply lubricant where appropriate.

Shaft end finish type

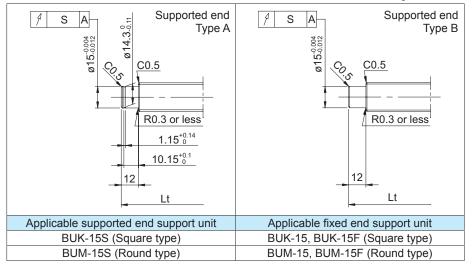
Standard precision ball screws are available with KURODA's recommended shaft end finish types for each size. The fixed end type is finished beforehand.

Regarding the supported shaft end, additional machining to KURODA's recommended shaft end finish type described below is available. Please contact KURODA with your orders. Model examples for finished shaft ends are described below.

 $\textbf{Model example:} \ \ \text{Finished fixed end (See left figure)} \ \ \rightarrow \ \ \text{Both shaft ends finished}$

GP2005DS-BALR-0605B-C3F \rightarrow GP2005DS-BALR-0605X0513-C3F

→Thread length →Overall screw shaft length



Optional specifications

• Ball screw lubricating unit LUBSEAL can be equipped.

Model example: GP2005DS-BASR-0605X0513-C3F

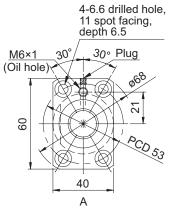
└Wiper material S: LUBSEAL

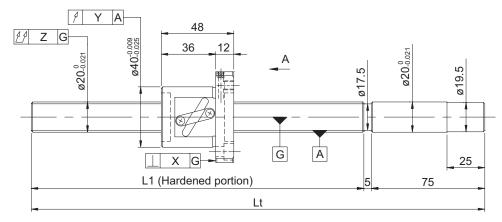
	A	ccuracy o	f each pa	Preload tor	Mass			
X	Υ	Z	S	U V Without clearance With clearance			(kg)	
0.008	0.012	0.050	0.012	0.009	0.004	3.0 to 10.0	3.0 to 10.0	
0.006	0.012	0.050	0.012	0.009	0.004		Up to 3.0	1.64

Screw shaft

Ball screw specifications

Shaft diameter (mm) - Lead (mm)		20 - 5						
Number of circuits /	2.5 turns 1 circuit /							
Thread direction		Right-hand	I					
Ball diameter (mm)		3.175						
Root diameter (mm)		17.5						
Series	G	G	GE					
Basic dynamic load rating C (N)	8350							
Basic static load rating C0 (N)	17500							
Accuracy grade / Axial clearance symbol	C5 / S	C5 / F	C7 / M					
Axial clearance (mm)	0	0.005 or less	0.030 or less					
Preload torque (N·cm)	2.0 to 14.0	Up to 3.0						
Spacer ball		None						
Recirculation system	Tube method							
Wiper	Lip seal							
Lubricant	Alva	ınia Grease	e S2					





Model No.	Screw shaft length		Maximum stroke	Lead accuracy		
(Unfinished shaft ends)	L1	Lt	(L1 - nut length)	±E。	e _c	e ₃₀₀
GG2005DS-BALR-0605A	525	605	477	0.030	0.023	0.018
GG2005DS-BALR-1005A	925	1005	877	0.040	0.027	0.016
GE2005DS-BALR-0605A	525	605	477	0.05/300		
GE2005DS-BALR-1005A	925	1005	877	0.05/300		

- Product with axial clearance of 0.005 or less (F) shown may be partially preloaded.
- · Preload torque is a value before applying grease.

Shaft end finish type

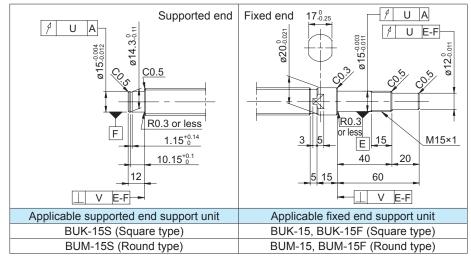
Standard precision ball screws are available with KURODA's recommended shaft end finish types for each size.

Other than KURODA's recommended shaft end finish types described below, additional machining including keyways, tapped holes, and D-cut processing are also available if requested. Please contact KURODA with your orders. Model examples for finished shaft ends are described below.

Model example: Unfinished shaft ends (See left figure) \rightarrow Finished shaft ends

GG2005DS-BALR-1005A → GG2005DS-BALR-1005X0913-C5F

→Thread length →Overall screw shaft length



Optional specifications

• Ball screw lubricating unit LUBSEAL can be equipped.

 $\textbf{Model example:} \ \mathsf{GG2005DS\text{-}BA}\underline{\mathsf{S}}\mathsf{R}\text{-}1005\mathsf{X}0913\text{-}\mathsf{C5F}$

→Wiper material S: LUBSEAL

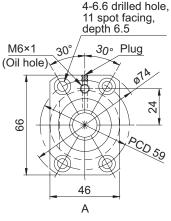
	Accur	acy of eac	h part		Preload tor	que (N·cm)	Mass
Χ	Υ	Z	U	V	Without clearance	With clearance	(kg)
0.011	0.045	0.075	0.010	0.005	2.0 to 14.0	Lin to 2.0	1.71
0.011	0.015	0.150	0.012			Up to 3.0	2.56
0.018	0.020	0.110					1.71
0.018	0.030	0.210					2.56

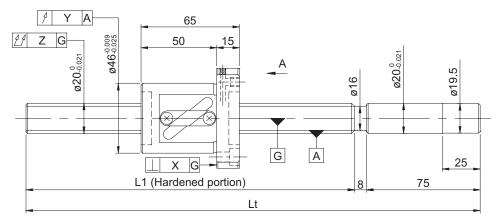
- At the time of delivery, grease is inserted inside of the nut, with rust-preventive oil also applied.
 Before and during use, apply lubricant where appropriate.
- For models with lead accuracy grade of C3 or higher and unfinished shaft ends, consult KURODA.

Screw shaft

• Ball screw specifications

Shaft diameter (mm) - Lead (mm)		20 - 10					
Number of circuits /	2.5 turns 1 circuit /						
Thread direction		Right-hand	l				
Ball diameter (mm)		4.7625					
Root diameter (mm)		16.0					
Series	G	G	GE				
Basic dynamic load rating C (N)	13500						
Basic static load rating C0 (N)	25100						
Accuracy grade / Axial clearance symbol	C5 / S	C5 / F	C7 / M				
Axial clearance (mm)	0	0.005 or less	0.030 or less				
Preload torque (N·cm)	7.0 to 29.0	Up to 4.0					
Spacer ball		None	,				
Recirculation system	Tube method						
Wiper	Lip seal						
Lubricant	Alva	ınia Grease	e S2				





Model No.	Screw shaft length		Maximum stroke	Lead accuracy		
(Unfinished shaft ends)	L1	Lt	(L1 - nut length)	±E _c	e _c	e ₃₀₀
GG2010DS-BALR-0605A	522	605	457	0.030	0.023	
GG2010DS-BALR-1005A	922	1005	857	0.040	0.027	0.018
GG2010DS-BALR-1505A	1422	1505	1357	0.054	0.035	
GE2010DS-BALR-0605A	522	605	457			
GE2010DS-BALR-1005A	922	1005	857	0.05/300		
GE2010DS-BALR-1505A	1422	1505	1357			

- Product with axial clearance of 0.005 or less (F) shown may be partially preloaded.
- · Preload torque is a value before applying grease.

Shaft end finish type

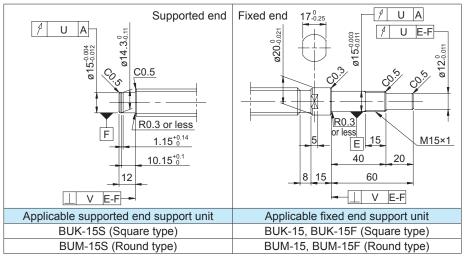
Standard precision ball screws are available with KURODA's recommended shaft end finish types for each size.

Other than KURODA's recommended shaft end finish types described below, additional machining including keyways, tapped holes, and D-cut processing are also available if requested. Please contact KURODA with your orders. Model examples for finished shaft ends are described below.

 $\textbf{Model example:} \ \, \textbf{Unfinished shaft ends (See left figure)} \ \to \ \, \textbf{Finished shaft ends}$

GG2010DS-BALR-1505A \rightarrow GG2010DS-BALR-1505X1410-C5F

→Thread length →Overall screw shaft length



Optional specifications

• Ball screw lubricating unit LUBSEAL can be equipped.

Model example: GG2010DS-BASR-1505X1410-C5F

→Wiper material S: LUBSEAL

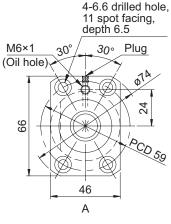
	Accur	acy of eac	h part		Preload tor	que (N·cm)	Mass
Χ	Υ	Z	UV		Without clearance	With clearance	(kg)
		0.075)75		8.0 to 29.0		2.01
0.011	0.015	0.150	0.012	0.005	7.0 to 29.0	Up to 4.0	2.84
		0.190			7.0 to 29.0		3.87
		0.110					2.01
0.018	0.030	0.210					2.84
		0.270					3.87

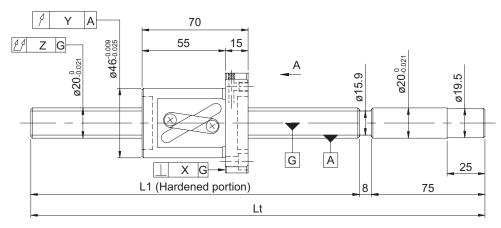
- At the time of delivery, grease is inserted inside of the nut, with rust-preventive oil also applied.
 Before and during use, apply lubricant where appropriate.
- · For models with lead accuracy grade of C3 or higher and unfinished shaft ends, consult KURODA.

Screw shaft

Ball screw specifications

zan ceren epeemeanene							
Shaft diameter (mm) - Lead (mm)		20 - 20					
Number of circuits /	1.5	1.5 turns 1 circuit /					
Thread direction		Right-hand	l				
Ball diameter (mm)		4.7625					
Root diameter (mm)		15.9					
Series	G	G	GE				
Basic dynamic load rating C (N)	9200						
Basic static load rating C0 (N)	16200						
Accuracy grade /	C5 / S	C5 / F	C7 / M				
Axial clearance symbol	0370	0371	C7 7 IVI				
Axial clearance (mm)	0	0.005 or less	0.030 or less				
Preload torque (N·cm)	5.0 to 22.0	Up to 4.0					
Spacer ball		None					
Recirculation system	Tube method						
Wiper	Lip seal						
Lubricant	Alva	nia Grease	e S2				





Model No.	Screw sh	aft length	Maximum stroke	Lead accuracy		
(Unfinished shaft ends)	L1	Lt	(L1 - nut length)	±Ε。	e _c	e ₃₀₀
GG2020AS-BALR-1005A	922	1005	852	0.040	0.027	0.040
GG2020AS-BALR-1505A	1422	1505	1352	0.054	0.035	0.018
GE2020AS-BALR-1005A	922	1005	852	0.05/200		
GE2020AS-BALR-1505A	1422	1505	1352	0.05/300	300	

- Product with axial clearance of 0.005 or less (F) shown may be partially preloaded.
- · Preload torque is a value before applying grease.

Shaft end finish type

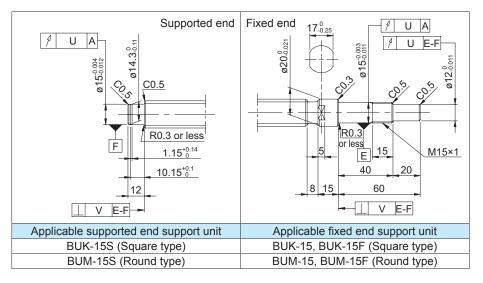
Standard precision ball screws are available with KURODA's recommended shaft end finish types for each size.

Other than KURODA's recommended shaft end finish types described below, additional machining including keyways, tapped holes, and D-cut processing are also available if requested. Please contact KURODA with your orders. Model examples for finished shaft ends are described below.

 $\textbf{Model example:} \ \, \textbf{Unfinished shaft ends (See left figure)} \ \to \ \, \textbf{Finished shaft ends}$

 $\mathsf{GG2020AS}\text{-}\mathsf{BALR}\text{-}\mathsf{1505A} \,\rightarrow\,\, \mathsf{GG2020AS}\text{-}\mathsf{BALR}\text{-}\underline{\mathsf{1505}}\mathsf{X}\underline{\mathsf{1410}}\text{-}\mathsf{C5F}$

→Thread length →Overall screw shaft length



Optional specifications

• Ball screw lubricating unit LUBSEAL can be equipped.

Model example: GG2020AS-BASR-1505X1410-C5F

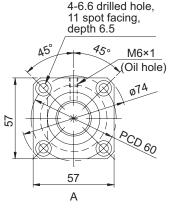
[□]Wiper material S: LUBSEAL

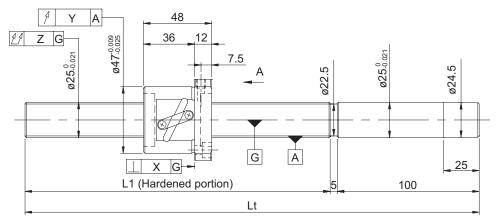
	Accur	acy of eac	h part		Preload tor	que (N·cm)	Mass
Χ	Υ	Z	U	V	Without clearance	With clearance	(kg)
0.011	0.015	0.150	0.012	0.005	6.0 to 20.0	Un to 4.0	3.08
0.011	0.015	0.190	0.012		5.0 to 22.0	Up to 4.0	4.22
0.018	0.020	0.210					3.08
0.018	0.030	0.270					4.22

- At the time of delivery, grease is inserted inside of the nut, with rust-preventive oil also applied.
 Before and during use, apply lubricant where appropriate.
- · For models with lead accuracy grade of C3 or higher and unfinished shaft ends, consult KURODA.

Ball screw specifications

Shaft diameter (mm) - Lead (mm)		25 - 5						
Number of circuits /	2.5	2.5 turns 1 circuit /						
Thread direction		Right-hand	I					
Ball diameter (mm)		3.175						
Root diameter (mm)		22.5						
Series	G	G	GE					
Basic dynamic load rating C (N)	9400							
Basic static load rating C0 (N)	22200							
Accuracy grade / Axial clearance symbol	C5 / S	C5 / F	C7 / M					
Axial clearance (mm)	0	0.005 or less	0.030 or less					
Preload torque (N·cm)	2.0 to 18.0	Up to 6.0						
Spacer ball		None						
Recirculation system	Tube method							
Wiper	Lip seal							
Lubricant	Alva	ınia Grease	e S2					





Model No.	Screw shaft length		Maximum stroke	Le	ead accura	су
(Unfinished shaft ends)	L1	Lt	(L1 - nut length)	±E。	e _c	e ₃₀₀
GG2505DS-AALR-0600A	495	600	447	0.027	0.020	
GG2505DS-AALR-1000A	895	1000	847	0.040	0.027	0.018
GG2505DS-AALR-1505A	1400	1505	1352	0.054	0.035	
GE2505DS-AALR-0600A	495	600	447			
GE2505DS-AALR-1000A	895	1000	847	0.05/300		
GE2505DS-AALR-1505A	1400	1505	1352			

- Product with axial clearance of 0.005 or less (F) shown may be partially preloaded.
- Preload torque is a value before applying grease.

Screw shaft diameter ø25, Lead 5

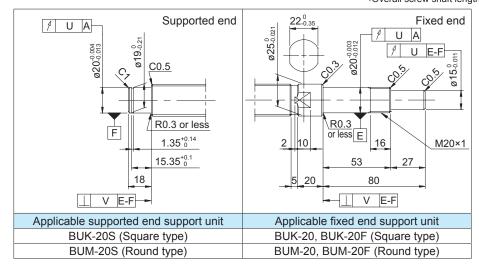
Shaft end finish type

Standard precision ball screws are available with KURODA's recommended shaft end finish types for each size.

Other than KURODA's recommended shaft end finish types described below, additional machining including keyways, tapped holes, and D-cut processing are also available if requested. Please contact KURODA with your orders. Model examples for finished shaft ends are described below. **Model example:** Unfinished shaft ends (See left figure) \rightarrow Finished shaft ends

example: Untinished snart ends (See left figure) \rightarrow Finished snart ends GG2505DS-AALR-1505A \rightarrow GG2505DS-AALR-1505X1382-C5F

→Thread length
→Overall screw shaft length



Optional specifications

• Ball screw lubricating unit LUBSEAL can be equipped.

Model example: GG2505DS-AASR-1505X1382-C5F

☐ Wiper material S: LUBSEAL

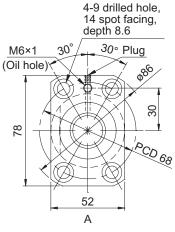
	Accur	acy of eac	h part		Preload tor	Mass				
X	Y	Z	U	V	Without clearance	/ithout clearance With clearance				
		0.060					2.64			
0.011	0.015	0.085	0.013	0.005	2.0 to 18.0	Up to 6.0	4.01			
		0.130					5.74			
		0.090					2.64			
0.018	0.030	0.130					4.01			
		0.190					5.74			

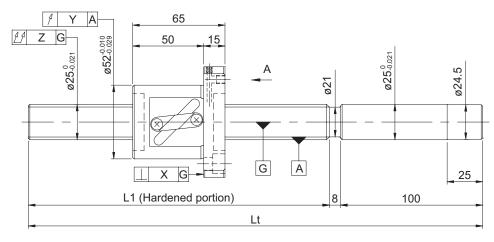
- At the time of delivery, grease is inserted inside of the nut, with rust-preventive oil also applied.
 Before and during use, apply lubricant where appropriate.
- · For models with lead accuracy grade of C3 or higher and unfinished shaft ends, consult KURODA.

Screw shaft diameter ø25, Lead 10

• Ball screw specifications

- Dan colon opcomound						
Shaft diameter (mm) - Lead (mm)		25 - 10				
Number of circuits /	2.5 turns 1 circuit / Right-hand					
Thread direction	Right-hand 4.7625					
Ball diameter (mm)	4.7625					
Root diameter (mm)	21.0					
Series	GG GE					
Basic dynamic load rating C (N)	16100					
Basic static load rating C0 (N)	33400					
Accuracy grade / Axial clearance symbol	C5/S C5/F C7/M					
Axial clearance (mm)	0	0.00E or loss	0.030 or less			
Axiai clearance (IIIIII)	-		0.030 01 1688			
Preload torque (N·cm)	10.0 to 38.0	Up to 6.0				
Spacer ball		None				
Recirculation system	Tube method					
Wiper	Lip seal					
Lubricant	Alva	ınia Grease	e S2			





Model No.	Screw sh	aft length	Maximum stroke	Lead accuracy						
(Unfinished shaft ends)	L1 Lt (I		(L1 - nut length)	±Ε。	e _c	e ₃₀₀				
GG2510DS-BALR-1020A	912 1020		847	0.040	0.027	0.018				
GG2510DS-BALR-1520A	1412	1520	1347	0.054	0.035	0.016				
GE2510DS-BALR-1020A	912	1020	847	0.05/200						
GE2510DS-BALR-1520A	1412	1520	1347	0.05/300						

- · Product with axial clearance of 0.005 or less (F) shown may be partially preloaded.
- · Preload torque is a value before applying grease.

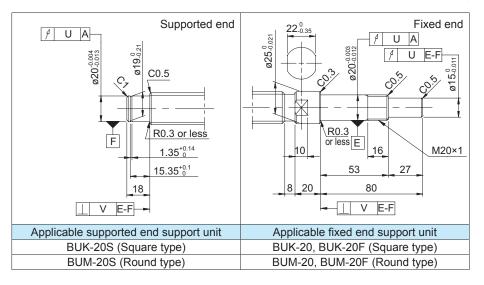
Shaft end finish type

Standard precision ball screws are available with KURODA's recommended shaft end finish types for each size.

Other than KURODA's recommended shaft end finish types described below, additional machining including keyways, tapped holes, and D-cut processing are also available if requested. Please contact KURODA with your orders. Model examples for finished shaft ends are described below. **Model example:** Unfinished shaft ends (See left figure) → Finished shaft ends

GG2510DS-BALR-1520A → GG2510DS-BALR-1520X1394-C5F

→Thread length →Overall screw shaft length



Optional specifications

· Ball screw lubricating unit LUBSEAL can be equipped.

Model example: GG2510DS-BASR-1520X1394-C5F

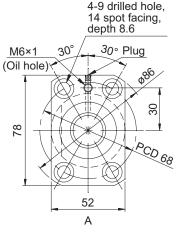
→Wiper material S: LUBSEAL

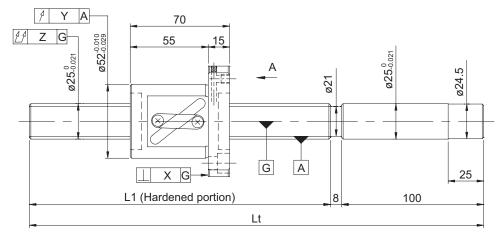
	Accur	acy of eac	h part		Preload tor	que (N·cm)	Mass		
Х	Υ	Z	U	V	Without clearance	With clearance	(kg)		
0.013	0.019	0.100	0.013	0.005	10.0 to 38.0	Up to 4.0	4.40		
0.013	0.019	0.130	0.013	0.005	10.0 to 36.0	Up to 6.0	6.08		
0.040	0.020	0.150					4.40		
0.018	0.030	0.190					6.08		

- · At the time of delivery, grease is inserted inside of the nut, with rust-preventive oil also applied. Before and during use, apply lubricant where appropriate.
- For models with lead accuracy grade of C3 or higher and unfinished shaft ends, consult KURODA.

Ball screw specifications

- Dan coron opcomound						
Shaft diameter (mm) - Lead (mm)	25 - 20					
Number of circuits /	1.5 turns 1 circuit /					
Thread direction	Right-hand					
Ball diameter (mm)	4.7625					
Root diameter (mm)	21.0					
Series	GG GE					
Basic dynamic load rating C (N)	10400					
Basic static load rating C0 (N)	20100					
Accuracy grade /	C5/S C5/F C7/M					
Axial clearance symbol	0370	0371	O7 7 IVI			
Axial clearance (mm)	0	0.005 or less	0.030 or less			
Preload torque (N·cm)	6.0 to 28.0	Up to 6.0				
Spacer ball		None				
Recirculation system	Tube method					
Wiper	Lip seal					
Lubricant	Alva	nia Grease	e S2			





Model No.	Screw sh	aft length	Maximum stroke	Le	ad accura	су
(Unfinished shaft ends)	L1 Lt (l		(L1 - nut length)	±Ε。	e _c	e ₃₀₀
GG2520AS-BALR-1020A	912 1020		842	0.040	0.027	0.018
GG2520AS-BALR-1520A	1412	1520	1342	0.054	0.035	0.016
GE2520AS-BALR-1020A	912	1020	842	0.05/200		
GE2520AS-BALR-1520A	1412	1520	1342	0.05/300		

- Product with axial clearance of 0.005 or less (F) shown may be partially preloaded.
- · Preload torque is a value before applying grease.

Screw shaft diameter ø25, Lead 20

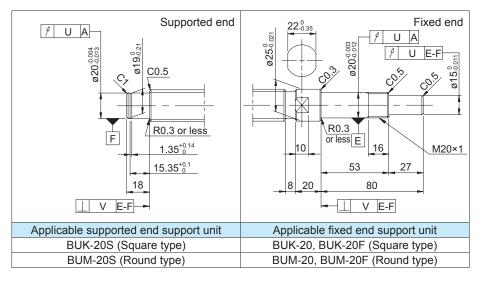
Shaft end finish type

Standard precision ball screws are available with KURODA's recommended shaft end finish types for each size.

Other than KURODA's recommended shaft end finish types described below, additional machining including keyways, tapped holes, and D-cut processing are also available if requested. Please contact KURODA with your orders. Model examples for finished shaft ends are described below. **Model example:** Unfinished shaft ends (See left figure) \rightarrow Finished shaft ends

e: Untinished shart ends (See left figure) → Finished shart ends GG2520AS-BALR-1520A → GG2520AS-BALR-1520X1394-C5F

> →Thread length →Overall screw shaft length



Optional specifications

· Ball screw lubricating unit LUBSEAL can be equipped.

Model example: GG2520AS-BASR-1520X1394-C5F

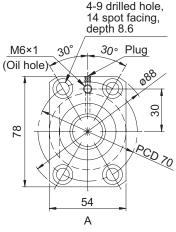
[□]Wiper material S: LUBSEAL

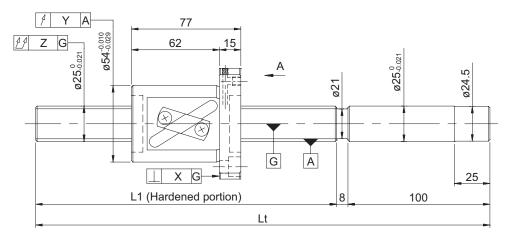
	Accur	acy of eac	h part		Preload tor	Mass	
Χ	Υ	Z U V		V	Without clearance	With clearance	(kg)
0.013	0.019	0.100	0.013	0.005	6.0 to 28.0	Up to 4.0	4.71
0.013	0.019	0.130	0.013	0.005	0.0 10 20.0	Up to 6.0	6.53
0.040	0.020	0.150					4.71
0.018	0.030	0.190					6.53

- At the time of delivery, grease is inserted inside of the nut, with rust-preventive oil also applied.
 Before and during use, apply lubricant where appropriate.
- For models with lead accuracy grade of C3 or higher and unfinished shaft ends, consult KURODA.

• Ball screw specifications

Shaft diameter (mm) - Lead (mm)	25 - 25					
Number of circuits /	1.5 turns 1 circuit /					
Thread direction	Right-hand					
Ball diameter (mm)	4.7625					
Root diameter (mm)	21.0					
Series	GG GE					
Basic dynamic load rating C (N)	10400					
Basic static load rating C0 (N)	20100					
Accuracy grade / Axial clearance symbol	C5 / S	C5 / F	C7 / M			
Axial clearance (mm)	0	0.005 or less	0.030 or less			
Preload torque (N·cm)	7.0 to 31.0	Up to 6.0				
Spacer ball		None				
Recirculation system	Tube method					
Wiper	Lip seal					
Lubricant	Alva	ınia Grease	e S2			





Model No.	Screw sh	aft length	Maximum stroke	Le	ad accura	су
(Unfinished shaft ends)	L1 Lt (L		(L1 - nut length)	±Ε。	e _c	e ₃₀₀
GG2525AS-BALR-1020A	912 1020		835	0.040	0.027	0.018
GG2525AS-BALR-1520A	1412	1520	1335	0.054	0.035	0.016
GE2525AS-BALR-1020A	E2525AS-BALR-1020A 912 1020		835	0.05/200		
GE2525AS-BALR-1520A	1412	1520	1335	0.05/300		

- Product with axial clearance of 0.005 or less (F) shown may be partially preloaded.
- · Preload torque is a value before applying grease.

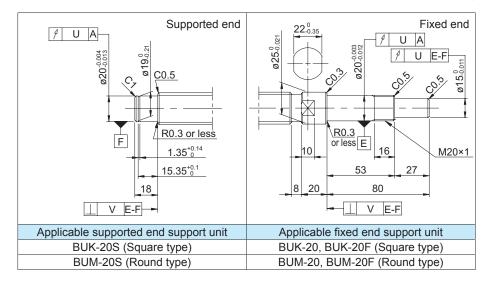
Screw shaft diameter ø25, Lead 25

Shaft end finish type

Standard precision ball screws are available with KURODA's recommended shaft end finish types for each size.

Other than KURODA's recommended shaft end finish types described below, additional machining including keyways, tapped holes, and D-cut processing are also available if requested. Please contact KURODA with your orders. Model examples for finished shaft ends are described below. **Model example:** Unfinished shaft ends (See left figure) \rightarrow Finished shaft ends

Die: Untinisned snaft ends (See iert tigure) \rightarrow Finisned snaft ends



Optional specifications

• Ball screw lubricating unit LUBSEAL can be equipped.

Model example: GG2525AS-BASR-1520X1394-C5F

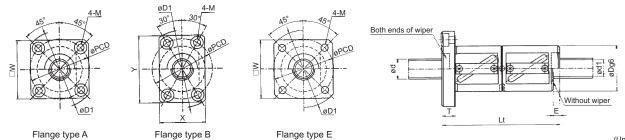
[□]Wiper material S: LUBSEAL

	Accur	acy of eac	h part		Preload tor	Mass	
Х	Υ	Z U V		V	Without clearance	With clearance	(kg)
0.013	0.019	0.100	0.013	0.005	7.0 to 31.0	Up to 4.0	4.93
0.013	0.019	0.130	0.013	0.005	7.0 10 31.0	Up to 6.0	6.77
0.040	0.020	0.150					4.93
0.018	0.030	0.190					6.77

- At the time of delivery, grease is inserted inside of the nut, with rust-preventive oil also applied.
 Before and during use, apply lubricant where appropriate.
- For models with lead accuracy grade of C3 or higher and unfinished shaft ends, consult KURODA.

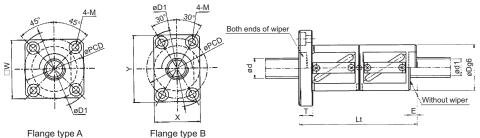
Screw shaft diameter ø8-ø12

Custom Ball Screw: TUBE METHOD DOUBLE NUT (Accuracy grade C0-C5)



(Unit: mm) Nut dimensions Number of circuits Screw Ball Root Basic Mass Mounting hole shaft Oute diamete iamete dynamic static Overal Without Flange Model No. Wipe d rating ad rating K... ngth Screw shaf Tum x Circuit W Α В G Q type Χ Υ PCD d₁ D۵ C (N) d C₀ (N) (N/µm) D Ε D. Drill Spot facing Depth (kg) (kg/100mm) GR0802DD-AAFR 6.6 1950 100 27 0.04 8 1.5875 2.5×1 2600 20 54 5 36 28 0.12 2 3 Α 3.4 6.5 3.3 GR082FDD-AAFR 8 2.5 2 0000 6.3 2.5×1 2350 3300 100 22 54 2 5 38 Α 29 29 34 6.5 3.3 0 14 0.04 GR0803DD-AAFR 8 3 2.0000 6.3 2.5×1 22 54 F 5 38 29 3.4 3.3 0.14 0.04 2350 3300 100 3 Α 29 6.5 GR0804DD-AAFR 100 22 54 38 0.04 8 2.0000 6.3 2.5×1 2350 3300 5 29 29 3.4 6.5 3.3 0.14 4 F 3 Α GR1002DD-EAFR 10 2 1.5875 8.6 2.5×1 2250 3300 120 23 54 F 3 5 40 Е 31 31 4.5 0.15 0.06 GR102FDD-AAFR 10 2.5 2.0000 8.3 2.5×1 24 60 F 8 43 32 4.5 0.19 2700 4200 120 5 Α 33 4.4 0.06 8 GR1003DD-AAPR 10 3 2.0000 8.3 2.5×1 2700 4200 120 24 60 Р 6 8 43 Α 33 32 4.5 8 4.4 0.19 0.06 GR1004DD-AAPR 10 2.3812 8.1 2.5×1 3350 5900 120 26 65 Р 3 8 45 35 34 4.5 4.4 0.24 0.06 Α 8 GR1004DD-BAPR 10 4 2.3812 8.1 2.5×1 3350 5900 120 26 65 Р 3 8 46 В 28 42 36 4.5 8 4.4 0.24 0.06 GR1005DD-AAPR 10 5 2.3812 8.1 2.5×1 3350 5900 120 26 70 Р 5 8 45 Α 35 34 4.5 8 4.4 0.26 0.06 GR1005DD-BAPR 10 2.3812 8.1 2.5×1 3350 5900 120 26 70 5 8 46 В 28 42 36 4.5 4.4 0.26 0.06 5 8 Р GR1202DD-AAPR 12 2 1.5875 10.6 2.5×1 2450 4100 140 25 59 5 8 44 Α 34 33 4.5 8 44 0.20 0.09 12 2.5 GR122FDD-AAPR 2.0000 10.3 2.5×1 2950 5100 140 26 59 Р 4 8 45 Α 35 34 4.5 8 4.4 0.21 0.09 140 59 Р 35 0.09 GR1203DD-AAPR 12 3 10.3 2950 5100 26 8 45 34 4.5 4.4 0.21 2.0000 2.5×1 5 Α 8 GR1204DD-AALR 12 4 2.3812 10.1 2.5×1 3600 6750 140 30 69 1 5 10 54 Α 41 41 5.5 9.5 5.4 0.36 0.09 GR1205DD-AALR 12 5 3.1750 9.5 2.5×1 5950 9800 150 30 79 3 10 54 Α 41 41 5.5 9.5 5.4 0.39 0.09 L 0.09 GR1205DD-BALR 12 5 3.1750 9.5 2.5×1 5950 9800 150 30 79 L 3 10 50 В 32 45 40 4.5 8 4.4 0.37 12 6 3.1750 9.5 150 30 81 Р 3 10 54 Α 41 5.5 9.5 0.39 0.09 GR1206DD-AAPR 2.5×1 5950 9800 41 5.4 Р 54 GR1206DD-BAPR | 12 | 6 3.1750 9.5 2.5×1 5950 150 30 81 3 10 В 32 48 41 5.5 9.5 5.4 0.38 0.09 9800 _

Custom Ball Screw: TUBE METHOD DOUBLE NUT (Accuracy grade C0-C5)



ange typ	e A	F	lange	e typ	е В	

			Flar	nge ty	pe A		F	lang	e typ	е В																	(Un	it: mm)
	Screw	Lead	Ball	Root	Number	Basic	Basic	*Rigidity									Nut	dimen									Ma	ass
Model No.	shaft		diameter	diameter	of circuits	dynamic	static	l ,,		Overall	Wiper		. 5.		Flange			Flan	ge din	nensio	ns	1		Mount	ing hole			
	diameter d	L	D₀	d ₁	Tum x Circuit	load rating C (N)	load rating C ₀ (N)	(N/µm)	diameter D	length L:	material	wiper E	thickness T	diameter D ₁	type	W	Х	Υ	Α	В	G	Q	PCD	Drill	M Spot facing	Depth	Nut (kg)	Screw shaft (kg/100mm)
GR1502DD-AAPR	15	2	1.5875	13.6	2.5×1	2700	5500	180	30	61	Р	5	10	54	Α	41	_	_	_	_	_	_	41	5.5	9.5	5.4	0.30	0.14
GR1502DD-BAPR	15	2	1.5875	13.6	2.5×1	2700	5500	180	30	61	Р	5	10	54	В	_	32	48	_	_	_	_	41	5.5	9.5	5.4	0.29	0.14
GR152FDD-AAPR	15	2.5	2.0000	13.3	2.5×1	3400	6500	180	30	61	Р	4	10	54	Α	41	-	-	_	_	_	-	41	5.5	9.5	5.4	0.30	0.14
GR152FDD-BAPR	15	2.5	2.0000	13.3	2.5×1	3400	6500	180	30	61	Р	4	10	54	В	_	32	48	_	_	_	-	41	5.5	9.5	5.4	0.29	0.14
GR1503DD-AAPR	15	3	2.0000	13.3	2.5×1	3400	6500	180	30	61	Р	5	10	54	Α	41	_	_	_	_	_	_	41	5.5	9.5	5.4	0.30	0.14
GR1503DD-BAPR	15	3	2.0000	13.3	2.5×1	3400	6500	180	30	61	Р	5	10	54	В	-	32	48	_	_	_	_	41	5.5	9.5	5.4	0.29	0.14
GR1504DD-AALR	15	4	2.3812	13.1	2.5×1	4100	8550	180	32	73	L	3	10	56	Α	43	_	_	_	_	_	_	43	5.5	9.5	5.4	0.39	0.14
GR1504DD-BALR	15	4	2.3812	13.1	2.5×1	4100	8550	180	32	73	L	3	10	56	В	_	32	48	-	_	_	_	43	5.5	9.5	5.4	0.37	0.14
GR1505DD-AALR	15	5	3.1750	12.5	2.5×1	6900	12500	190	34	79	L	3	10	58	Α	44	_	_	_	_	_	_	45	5.5	9.5	5.4	0.46	0.14
GR1505DD-BALR	15	5	3.1750	12.5	2.5×1	6900	12500	190	34	79	L	3	10	58	В	_	34	50	-	_	_	_	45	5.5	9.5	5.4	0.45	0.14
GR1506DD-AAPR	15	6	3.1750	12.5	2.5×1	6900	12500	190	34	81	Р	3	10	58	Α	44	-	-	-	_	_	_	45	5.5	9.5	5.4	0.47	0.14
GR1506DD-BAPR	15	6	3.1750	12.5	2.5×1	6900	12500	190	34	81	Р	3	10	58	В	-	34	50	-	_	_	_	45	5.5	9.5	5.4	0.45	0.14
GR1604DD-AAPR	16	4	2.3812	14.1	2.5×1	4200	9000	190	34	73	Р	3	10	58	Α	44	_	_	-	_	_	_	45	5.5	9.5	5.4	0.43	0.16
GR1604DD-BAPR	16	4	2.3812	14.1	2.5×1	4200	9000	190	34	73	Р	3	10	58	В	-	34	50	-	_	_	_	45	5.5	9.5	5.4	0.42	0.16
GR1605DD-AALR	16	5	3.1750	13.5	2.5×1	7400	13900	200	36	79	L	3	10	59	Α	46	_	_	_	_	_	_	47	5.5	9.5	5.4	0.52	0.16
GR1605DD-BALR	16	5	3.1750	13.5	2.5×1	7400	13900	200	36	79	L	3	10	59	В	_	36	53	_	_	_	_	47	5.5	9.5	5.4	0.50	0.16
GR1606DD-AAPR	16	6	3.1750	13.5	2.5×1	7400	13900	200	36	81	Р	3	10	59	Α	46	_	_	_	_	_	_	47	5.5	9.5	5.4	0.53	0.16
GR1606DD-BAPR	16	6	3.1750	13.5	2.5×1	7400	13900	200	36	81	Р	3	10	59	В	-	36	53	-	_	-	_	47	5.5	9.5	5.4	0.51	0.16

It is the operational value based on the result of rigidity testing including the rigidity of the nut.



C-36

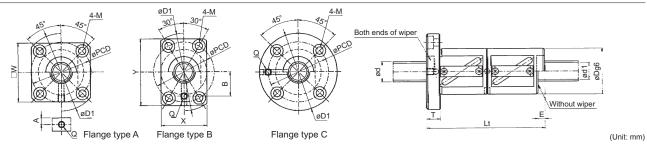
KURODA//// JENATEC

Note: • The rigidity indicated with the *mark in the above list represents the value applied to the axial load about 3 times or less of the preload, which is equivalent to 1/15 of basic dynamic load rating (C) It is the operational value based on the result of rigidity testing including the rigidity of the nut.

[·] Wiper material F: Felt wiper, P: Plastic wiper, L: Lip seal

Wiper material P: Plastic wiper, L: Lip seal

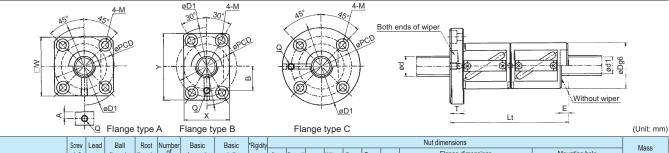
Custom Ball Screw: TUBE METHOD DOUBLE NUT (Accuracy grade C0-C5)



	Screw	Lead	Ball	Root diameter	Number	Basic	Basic	*Rigidity	Rigidity Nut dimensions														M	Mass				
Model No.	shaft				of.	dynamic	static	, agion,	Outer	Overall	145	Without	Flange	Flange	F1			Flan	ge dimer	nsions			Mounting hole				IVIč	155
	diameter				Turn x	load rating	load rating		diameter	length	Wiper material	10.0	thickness	outer diameter	Flange type	w	X	V	Α	В	G	Q	PCD		М			Screw shaft
	d	L	D₅	d ₁	Circuit	C (N)	C ₀ (N)	(N/µm)	D	Lt		E	T	D ₁	туро	**	_^	'			0	ď	1 00	Drill	Spot facing	Depth	(kg)	(kg/100mm)
GR202FDD-AAPR	20	2.5	2.0000	18.3	2.5×1	3800	8800	230	38	61	Р	4	10	62	Α	47	_	_	5	_	_	M6	49	5.5	9.5	5.4	0.43	0.25
GR202FDD-CAPR	20	2.5	2.0000	18.3	2.5×1	3800	8800	230	38	61	Р	4	10	62	С	_	_	_	_	_	_	M6	49	5.5	9.5	5.4	0.50	0.25
GR2004DD-AALR	20	4	2.3812	18.1	2.5×1	4700	11700	240	40	73	L	3	10	64	Α	49	_	_	5.5	_	_	M6	51	5.5	9.5	5.4	0.57	0.25
GR2004DD-CALR	20	4	2.3812	18.1	2.5×1	4700	11700	240	40	73	L	3	10	64	С	_	_	_	_	_	_	M6	51	5.5	9.5	5.4	0.63	0.25
GR2004ED-AALR	20	4	2.3812	18.1	2.5×2	8600	23400	440	40	89	L	3	10	64	Α	49	_	_	5.5	_	_	M6	51	5.5	9.5	5.4	0.67	0.25
GR2004ED-CALR	20	4	2.3812	18.1	2.5×2	8600	23400	440	40	89	L	3	10	64	С	_	_	_	_	_	_	M6	51	5.5	9.5	5.4	0.74	0.25
GR2005BD-AALR	20	5	3.1750	17.5	1.5×2	9800	21000	290	40	93	L	5	12	68	Α	52	_	-	7	-	_	M6	53	6.6	11	6.5	0.72	0.25
GR2005BD-CALR	20	5	3.1750	17.5	1.5×2	9800	21000	290	40	93	L	5	12	68	С	_	_	_	_	_	_	M6	53	6.6	11	6.5	0.80	0.25
GR2005DD-BALR	20	5	3.1750	17.5	2.5×1	8350	17500	240	40	83	L	5	12	68	В	_	40	60	-	21	-	M6	53	6.6	11	6.5	0.63	0.25
GR2005DD-CALR	20	5	3.1750	17.5	2.5×1	8350	17500	240	40	83	L	5	12	68	С	_	_	_	_	_	_	M6	53	6.6	11	6.5	0.74	0.25
GR2005ED-AALR	20	5	3.1750	17.5	2.5×2	15150	35000	460	40	103	L	5	12	68	Α	52	_	_	7	_	_	M6	53	6.6	11	6.5	0.78	0.25
GR2005ED-CALR	20	5	3.1750	17.5	2.5×2	15150	35000	460	40	103	L	5	12	68	С	_	_	_	-	_	1	M6	53	6.6	11	6.5	0.87	0.25
GR2006BD-AAPR	20	6	3.9688	16.6	1.5×2	12900	25600	290	44	109	Р	5	12	72	Α	55	-	-	7	_	_	M6	57	6.6	11	6.5	1.02	0.25
GR2006BD-CAPR	20	6	3.9688	16.6	1.5×2	12900	25600	290	44	109	Р	5	12	72	С	_	_	_	_	_	_	M6	57	6.6	11	6.5	1.12	0.25
GR2006DD-AAPR	20	6	3.9688	16.6	2.5×1	11000	21300	240	44	85	Р	5	12	72	Α	55	_	_	7.5	_	-	M6	57	6.6	11	6.5	0.83	0.25
GR2006DD-CAPR	20	6	3.9688	16.6	2.5×1	11000	21300	240	44	85	Р	5	12	72	С	_	_	-	_	_	_	M6	57	6.6	11	6.5	0.92	0.25
GR2008DD-AAPR	20	8	4.7625	16	2.5×1	13500	25100	240	46	111	Р	5	15	74	Α	56	—	_	10	_	_	M6	59	6.6	11	6.5	1.16	0.25
GR2008DD-CAPR	20	8	4.7625	16	2.5×1	13500	25100	240	46	111	Р	5	15	74	С	_	_	-	_	_	_	M6	59	6.6	11	6.5	1.29	0.25
GR2010AD-AALR	20	10	4.7625	16	1.5×1	9200	16200	160	46	97	L	6	15	74	Α	56	-	_	10	_	_	M6	59	6.6	11	6.5	1.03	0.25
GR2010AD-BALR	20	10	4.7625	16	1.5×1	9200	16200	160	46	97	L	6	15	74	В	_	46	66	_	24	_	M6	59	6.6	11	6.5	1.02	0.25
GR2010DD-AALR	20	10	4.7625	16	2.5×1	13500	25100	240	46	115	L	6	15	74	Α	56	-	_	10	-	_	M6	59	6.6	11	6.5	1.19	0.25
GR2010DD-BALR	20	10	4.7625	16	2.5×1	13500	25100	240	46	115	L	6	15	74	В	_	46	66	_	24	_	M6	59	6.6	11	6.5	1.18	0.25

Note: • The rigidity indicated with the *mark in the above list represents the value applied to the axial load about 3 times or less of the preload, which is equivalent to 1/15 of basic dynamic load rating (C).

Custom Ball Screw: TUBE METHOD DOUBLE NUT (Accuracy grade C0-C5)



	Screw	Lead	Ball	Root	Number	Basic dynamic	Basic	*RigidityNut dimensions														M	ass					
Model No.	shaft			diameter	of		static	,	Outer	Overall		Without	Flange	Flange				Flan	ge dime	nsions	3			Mount		IVIGOS		
Woder No.	diamete	1	D ₆	d,	Tum x Circuit	load rating C (N)	load rating C ₀ (N)	(N/µm)	diameter D	length	Wiper material	wiper	thickness	diameter	Flange type	W	Х	Υ	Α	В	G	Q	PCD		М			Screw shaft
	_ "	-	-			- ()	- ()	,	-	Lt			'	D₁										Drill	Spot facing	Depth	(kg)	(kg/100mm)
GR2504DD-AAPI		4	2.3812	23.1	2.5×1	5200	14400	280	46	75	Р	3	12	74	Α	56	_	_	7.5	_	-	M6	59	6.6	11	6.5	0.75	0.38
GR2504DD-CAPI		4	2.3812	23.1	2.5×1	5200	14400	280	46	75	Р	3	12	74	С	_	_	_	_	_	_	M6	59	6.6	11	6.5	0.86	0.38
GR2504ED-AAPI		4	2.3812	23.1	2.5×2	9400	28800	520	46	99	Р	3	12	74	Α	56	_	_	7	_	-	M6	59	6.6	11	6.5	0.94	0.38
GR2504ED-CAPI		4	2.3812	23.1	2.5×2	9400	28800	520	46	99	Р	3	12	74	С	_	_	_	-	_	_	M6	59	6.6	11	6.5	1.05	0.38
GR2505BD-AALF		5	3.1750	22.5	1.5×2	11000	26600	350	47	93	L	5	12	74	Α	57	_	_	7	_	-	M6	60	6.6	11	6.5	0.92	0.38
GR2505BD-CALF	_	5	3.1750	22.5	1.5×2	11000	26600	350	47	93	L	5	12	74	С	_	_	_	_	_	_	M6	60	6.6	11	6.5	1.02	0.38
GR2505DD-AALF		5	3.1750	22.5	2.5×1	9400	22200	300	47	83	L	5	12	74	Α	57	_	_	7.5	_	_	M6	60	6.6	11	6.5	0.84	0.38
GR2505DD-CALI		5	3.1750	22.5	2.5×1	9400	22200	300	47	83	L	5	12	74	С	_	_	_	_	_	_	M6	60	6.6	11	6.5	0.93	0.38
GR2505ED-AALF		5	3.1750	22.5	2.5×2	17000	44400	560	47	103	L	5	12	74	Α	57	_	_	7.5	_	_	M6	60	6.6	11	6.5	1.00	0.38
GR2505ED-CALF		5	3.1750	22.5	2.5×2	17000	44400	560	47	103	L	5	12	74	С	_	_	_	-	_	_	M6	60	6.6	11	6.5	1.10	0.38
GR2506BD-AALF		6	3.9688	21.6	1.5×2	14700	32400	360	50	109	L	5	12	78	Α	59	_	_	7.5	_	_	M6	63	6.6	11	6.5	1.21	0.38
GR2506BD-CALE	25	6	3.9688	21.6	1.5×2	14700	32400	360	50	109	L	5	12	78	С	_	_	_	-	_	_	M6	63	6.6	11	6.5	1.34	0.38
GR2506DD-AALF	25	6	3.9688	21.6	2.5×1	12500	27000	300	50	85	L	5	12	78	Α	59	_	_	7.5	_	_	M6	63	6.6	11	6.5	0.98	0.38
GR2506DD-CALI	25	6	3.9688	21.6	2.5×1	12500	27000	300	50	85	L	5	12	78	С	_	_	_	-	_	_	M6	63	6.6	11	6.5	1.10	0.38
GR2506ED-AALF	25	6	3.9688	21.6	2.5×2	22700	54000	560	50	121	L	5	12	78	Α	59	_	_	7.5	_	-	M6	63	6.6	11	6.5	1.33	0.38
GR2506ED-CALF	25	6	3.9688	21.6	2.5×2	22700	54000	560	50	121	L	5	12	78	С	_	_	_	-	_	-	M6	63	6.6	11	6.5	1.45	0.38
GR2508DD-AAPI	25	8	4.7625	21	2.5×1	16100	33400	310	52	111	Р	5	15	86	Α	66	_	_	10	_	-	M6	68	9	14	8.6	1.45	0.38
GR2508DD-CAPI	25	8	4.7625	21	2.5×1	16100	33400	310	52	111	Р	5	15	86	С	_	_	_	_	_	_	M6	68	9	14	8.6	1.62	0.38
GR2508GD-AAPI	25	8	4.7625	21	3.5×1	21400	46800	420	52	113	Р	6	15	86	Α	66	_	_	10	_	_	M6	68	9	14	8.6	1.47	0.38
GR2508GD-CAP	R 25	8	4.7625	21	3.5×1	21400	46800	420	52	113	Р	6	15	86	С	_	_	_	_	_	-	M6	68	9	14	8.6	1.64	0.38
GR2510DD-AALF	25	10	4.7625	21	2.5×1	16100	33400	310	52	115	L	6	15	86	Α	66	_		10	_	-	M6	68	9	14	8.6	1.50	0.38
GR2510DD-BALF	25	10	4.7625	21	2.5×1	16100	33400	310	52	115	L	6	15	86	В	_	52	78	_	30	-	M6	68	9	14	8.6	1.46	0.38
GR2510GD-AALI	25	10	4.7625	21	3.5×1	21400	46800	420	52	135	L	6	15	86	Α	66	_	_	10	_	_	M6	68	9	14	8.6	1.71	0.38
GR2510GD-BALE	25	10	4.7625	21	3.5×1	21400	46800	420	52	135	L	6	15	86	В	_	52	78	_	30	_	M6	68	9	14	8.6	1.68	0.38

Note: • The rigidity indicated with the *mark in the above list represents the value applied to the axial load about 3 times or less of the preload, which is equivalent to 1/15 of basic dynamic load rating (C). It is the operational value based on the result of rigidity testing including the rigidity of the nut.

Wiper material P: Plastic wiper, L: Lip seal

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It is the operational value based on the result of rigidity testing including the rigidity of the nut.

Wiper material P: Plastic wiper, L: Lip seal